

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System)	
Operator, Inc. Central Hudson Gas &)	Docket No. ER20-715-001
Electric Corporation)	

TRANSMITTAL LETTER, OFFER OF SETTLEMENT

On December 31, 2019, Central Hudson Gas & Electric Corporation (“Central Hudson”)¹ submitted a Rate Schedule requesting that the Commission: (1) approve the establishment of a Highway Facilities Charge for the Hurley Avenue System Deliverability Upgrade pursuant to Section 205 of the Federal Power Act and Part 35.13 of the Commission’s regulations and the NYISO’s OATT Schedule 12 Section 6.12 with a return on equity (“ROE”) of 9.6%; (2) approve a 50 basis point Regional Transmission Operator membership incentive; and (3) approve a 50 basis point incentive for the use of solid state power electronic flow control technology. The two requested incentives raised Central Hudson’s requested ROE to 10.6%.

The Settling Parties filed interventions in response to the Rate Schedule filing.² On February 25, 2020, the Commission issued a deficiency letter to Central Hudson raising two issues; abandoned plant and the ROE Advanced Technology adder. Central Hudson filed its response to the deficiency letter on March 20, 2020.

¹ Central Hudson is the Applicant.

² The Active Settlement Parties who attended all of the settlement conferences and participated in settlement negotiations are New York Transmission Owners (“Indicated Transmission Owners”) (including Consolidated Edison Company of New York, Inc., Orange and Rockland Utilities, Inc., New York Power Authority, Niagara Mohawk d/b/a National Grid, New York State Electric & Gas Corporation, Rochester Gas & Electric Corporation and Long Island Lighting Company d/b/a Power Supply Long Island, and Long Island Power Authority), New York Public Service Commission (“NYPSC”). Commission Trial Staff also has actively participated in the settlement discussions.

On May 19, 2020, the Commission issued an Order: (1) accepting in part, Central Hudson's Formula Rate suspending it to become effective May 20, 2020 subject to refund and established hearing and settlement judge procedures;³ (2) granted Central Hudson's request for a 50 basis point RTO participation incentive;⁴ and (3) denied Central Hudson's request for a 50 basis point Advanced Technology incentive associated with the use of solid state power electronic flow control technology.⁵

The participants engaged in settlement discussions with the assistance of Settlement Judge Andrew Satten, who was designated to preside over settlement procedures by order of the Chief Judge dated October 9, 2020.⁶ Settlement conferences were held before Judge Satten on November 12, 2020 and January 25, 2021. The settlement discussions resulted in a Settlement Agreement. The Settlement reflects the agreement of the Settling Parties to resolve all outstanding issues in Docket No. ER20-715-000. Parties signing and supporting the Settlement are Central Hudson, New York State Public Service Commission, Niagara Mohawk Power Corporation d/b/a National Grid and New York Power Authority. No Party opposes the Settlement.

³ Docket No. ER20-715-001-*New York Independent System Operator, Inc. and Central Hudson Gas & Electric Corporation Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT* (Order on Transmission Incentives, Proposed Tariff Sheets at 1-2) (Issued May 19, 2020).

⁴ *Id.* at 2.

⁵ *Id.*

⁶ Docket No. ER20-715-001- *New York Independent System Operator, Inc. and Central Hudson Gas & Electric Corporation Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT* (Order of Chief Judge Designating Settlement Judge) (Issued October 9, 2020).

Respectfully submitted,

/s/Paul A. Colbert

Central Hudson Gas & Electric
Corporation

284 South Avenue

Poughkeepsie, New York 12601

Email: pcolbert@cenhud.com

*Counsel to Central Hudson Gas & Electric
Corporation*

Dated: June 13, 2021

I. LIST OF APPENDICES AND EXHIBITS

In addition to this Transmittal Letter, this filing consists of the following materials:

Explanatory Statement in Support of Offer of Settlement Agreement

Offer of Settlement

Appendix A to the Offer of Settlement

Application Attachment 6(b) Formula Rate Template Settlement

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System)	
Operator, Inc. Central Hudson Gas &)	Docket No. ER20-715-001
Electric Corporation)	

**EXPLANATORY STATEMENT
IN SUPPORT OF OFFER OF SETTLEMENT AGREEMENT**

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”),¹ the Applicant in the above-captioned proceeding² submits this explanatory statement in support of the Offer of Settlement (“Settlement”) among the Applicant and the Active Settlement Parties (each a “Settling Party” and collectively the “Settling Parties”)³ to resolve all of the issues set for hearing or pending in requests for rehearing in Docket No. ER20-715-001 with respect to the Applicants’ proposed Rate Schedule for Highway System Deliverability Upgrades under Schedule 12 of the New York Independent System Operator, Inc. (“NYISO”) Open Access Transmission Tariff (“OATT”) (“Rate Schedule”).

I. INTRODUCTION

Central Hudson Gas & Electric Corporation (“Central Hudson”) is a regulated utility operating in the State of New York. It is engaged in the transmission, distribution, and retail sale of electric power and natural gas in the Hudson Valley of upstate New York.

¹ 18 C.F.R. § 385.602 (2015).

² The Applicant Central Hudson Gas and Electric Corporation (“Central Hudson”).

³ The Active Settlement Parties who attended all of the settlement conferences and participated in settlement negotiations are New York Transmission Owners (“Indicated Transmission Owners”) (including Consolidated Edison Company of New York, Inc., Orange and Rockland Utilities, Inc., New York Power Authority, Niagara Mohawk d/b/a National Grid, New York State Electric & Gas Corporation, Rochester Gas & Electric Corporation and Long Island Lighting Company d/b/a Power Supply Long Island, and Long Island Power Authority), New York Public Service Commission (“NYPSC”). Commission Trial Staff also has actively participated in the settlement discussions.

Central Hudson is a founding member of the NYISO and a signatory to the ISO-TO Agreement. It is also a participant in the NYISO electricity markets on behalf of certain of its end-use customers and serves as a load-serving entity to its retail customers.

On December 31, 2019, Central Hudson submitted a Rate Schedule requesting that the Commission: (1) approve the establishment of a Highway Facilities Charge for the Hurley Avenue System Deliverability Upgrade pursuant to Section 205 of the Federal Power Act and Part 35.13 of the Commission's regulations and the NYISO's OATT Schedule 12 Section 6.12 with a return on equity ("ROE") of 9.6%; (2) approve a 50 basis point Regional Transmission Operator membership incentive; and (3) approve a 50 basis point incentive for the use of solid state power electronic flow control technology. The two requested incentives raised Central Hudson's requested ROE to 10.6%.

The Settling Parties filed interventions in response to the Rate Schedule filing. The Settling Parties and Commission Trial Staff engaged in settlement discussions with the assistance of Settlement Judge Andrew Satten, who was designated to preside over settlement procedures by order of the Chief Judge dated October 9, 2020.⁴ Settlement conferences were held before Judge Satten on November 12, 2020 and January 25, 2021. The settlement discussions resulted in a Settlement Agreement, which reflects the agreement of the Settling Parties to resolve all outstanding issues in Docket No. ER20-715-000.

⁴ Docket No. ER20-715-001- *New York Independent System Operator, Inc. and Central Hudson Gas & Electric Corporation Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT* (Order of Chief Judge Designating Settlement Judge) (Issued October 9, 2020).

II. SUMMARY OF SETTLEMENT AGREEMENT

The Settling Parties have engaged in settlement negotiations and Central Hudson offers this Settlement Agreement, which comprehensively resolves all issues raised in Docket No. ER20-715-000, including Central Hudson's Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT. A summary of the provisions of the Settlement Agreement is included below. The Settlement Agreement binds each of the Central Hudson and the Settling Parties to the terms and conditions included therein.

Article I sets forth the procedural history of this proceeding.

Article II describes the scope of the Settlement Agreement.

Article III sets forth the terms and conditions of the Settlement Agreement. Article 3.1 establishes that the Settling Parties agree, subject to Commission approval, to be bound by the terms of the Settlement Agreement. Article 3.2(a) establishes the base ROE for the System Development Upgrades. In its December 31, 2019, filing, Central Hudson proposed a base ROE of 9.6%, which was determined using the Commission's decision in Docket No. EL11-66-001. In Article 3.2(a) the Settling Parties agree that a base ROE of 9.4% shall apply to the costs of the System Development Upgrades for the life of the project.

Article 3.2(b) establishes the total ROE adders allowed with respect to the System Development Upgrades. In its December 31, 2019 filing, Central Hudson proposed two ROE adders: (1) a 50 basis point ROE Regional Transmission Operator membership incentive; and (2) a 50 basis point incentive for the use of solid state power electronic flow control technology. Central Hudson and the Settling Parties have agreed to a single 50 basis point incentive resulting in a total ROE of 9.9%.

Article 3.2(c) states that Note (b) on the cost of capital tab will read “ROE cost rate was developed in a manner consistent with the Commission’s Order in Docket No. EL11-16-001 plus a 50 basis point incentive adder for Central Hudson’s membership in NYISO”.

Article 3.2(d) provides that Central Hudson and the Settling Parties have agreed that Central Hudson may recover operation and maintenance costs and other applicable costs associated with the System Development Upgrades as set forth in Central Hudson’s Application.

Article 3.2(e) recognizes that Central Hudson’s cost recovery will be effectuated through Schedule 12 of the NYISO OATT as reflected in Appendix A of the Settlement.

Article 3.3 applies certain terms to the settlement. Specifically, Article 3.3(a) amends the filed rate schedule as set forth in Appendix A to the Settlement.

Article 3.3(b) specifies that Central Hudson shall recover through the rate schedule shown on Appendix A of the Settlement System Development Upgrade costs not recovered from developers, plus operation and maintenance costs and other applicable costs.

Article 3.4 specifies 356.30 Transmission – Smart Wire Devices as the specific account where the smart wire devices will be booked.

Article 3.5 specifies that Central Hudson’s capital structure as of December 31, 2020, consisted of 49.8% long term debt and 50.2% of equity.

Article 3.6 states that Central Hudson and Settling Parties agree either to support or not to oppose this Settlement Agreement before the Commission and agree not to take any position adverse to the terms of this Settlement Agreement in any related proceedings before the Commission or the NYPSC.

Article 3.7 states that Central Hudson and the Settling Parties agree not to make any filings pursuant to Sections 205 or 206 of the FPA that are inconsistent with the terms agreed to in this Settlement Agreement.

Article 3.8 requires Central Hudson to make, or cause NYISO to make a compliance filing with the Commission, to the extent necessary, to implement the terms of the Settlement Agreement.

Article 3.9 provides the Settling Parties 30 days from the date the Commission issues an order to withdraw their support from the Settlement Agreement if the Commission approves the Settlement Agreement with modification.

Articles IV, V, VI, and VII address procedural aspects of the Settlement Agreement. Article 4 identifies when the Settlement Agreement will become effective. The Settlement Agreement shall be effective upon Commission approval. Article 5 provides that the Commission's approval of this Settlement Agreement shall not constitute precedent nor be used to prejudice any otherwise available rights or arguments of any Settling Party in a future proceeding, other than to enforce the terms of this Settlement Agreement, and shall not be used as evidence that a particular method is a "long-standing practice" or a "settled practice" as those terms are used in applicable precedent. Article 6 describes the standard of review to be applied for any proposed modification of the Settlement Agreement. The standard of review for any modifications proposed by a Settling Party shall be the "public interest" application of the just and reasonable standard, as set forth in applicable precedent. The standard of review for any modifications proposed by the Commission acting *sua sponte* or at the request of a third party shall be the ordinary just and reasonable standard (rather than the "public interest" standard), as set forth in

applicable precedent. Article 7 includes certain miscellaneous provisions and reservations of rights.

IV. SETTLEMENT QUESTIONS

A. Does the settlement affect other pending cases;

No, this settlement does not affect any other pending cases.

B. Does the settlement involve issues of first impression;

No, this settlement does not involve any issues of first impression.

C. Does the settlement depart from Commission precedent [if so, identify by case name(s) and docket numbers (s)];

No, this settlement does not depart from Commission precedent.

D. Does the settlement seek to impose a standard of review other than the ordinary just and reasonable standard with respect to any changes to the settlement that might be sought by either a third party or the Commission acting *sua sponte*.

No, the standard of review for any modifications proposed by the Commission acting *sua sponte* or at the request of a third party shall be the ordinary just and reasonable standard.

IV. CONCLUSION

The Settlement Agreement will fully resolve all issues regarding the System Development Upgrades and rate schedule that are the subject of the issues raised in Docket No. ER20-715-001 in a fair and reasonable manner that is in the public interest. Commission approval of the Settlement Agreement will avoid the expense and risk associated with hearing proceedings and any subsequent litigation. For these reasons, Central Hudson respectfully requests the presiding Administrative Law Judge to certify the Settlement Agreement to the Commission as soon as possible following the comment

period, and the Commission to approve the Settlement Agreement without condition or modification at the earliest possible date following certification.

Respectfully submitted,

/s/Paul A. Colbert

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*Counsel to Central Hudson Gas & Electric
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Dated: May 26, 2021

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System)	
Operator, Inc. and Central Hudson Gas)	
& Electric Corporation Rate Schedule)	Docket No. ER20-715-001
for Highway System Deliverability)	
Upgrades Under Schedule 12 of the)	
NYISO OATT)	

OFFER OF SETTLEMENT

**To: Honorable Andrew Satten
 Presiding Administrative Law Judge**

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“Commission”),¹ the Applicant in the above-captioned proceeding² submits this Offer of Settlement (“Settlement”) among the Applicant and the Active Settlement Parties (each a “Settling Party” and collectively the “Settling Parties”)³ to resolve all of the issues pending in Docket No. ER20-715-000 with respect to the Applicant’s proposed Rate Schedule for Highway System Deliverability Upgrades under Schedule 12 of the New York Independent System Operator, Inc. (“NYISO”) Open Access Transmission Tariff (“OATT”) (“Rate Schedule”). As to the Rate Schedule, this Settlement Agreement addresses all outstanding issues.

¹ 18 C.F.R. § 385.602 (2021).

² The Applicant is Central Hudson Gas and Electric Corporation (“Central Hudson”).

³ The Active Settlement Parties who attended all of the settlement conferences and participated in settlement negotiations are New York Transmission Owners (“Indicated Transmission Owners”) (including Consolidated Edison Company of New York, Inc., Orange and Rockland Utilities, Inc., New York Power Authority, Niagara Mohawk d/b/a National Grid, New York State Electric & Gas Corporation, Rochester Gas & Electric Corporation and Long Island Lighting Company d/b/a Power Supply Long Island, and Long Island Power Authority), New York Public Service Commission (“NYPSC”). Commission Trial Staff also has actively participated in the settlement discussions.

ARTICLE I PROCEDURAL BACKGROUND

Central Hudson is a regulated utility operating in the State of New York. It is engaged in the transmission, distribution, and retail sale of electric power and natural gas in the Hudson Valley of upstate New York. Central Hudson is a founding member of the NYISO and a signatory to the ISO-TO Agreement. It is also a participant in the NYISO electricity markets on behalf of certain of its end-use customers and serves as a load-serving entity to its retail customers. On December 31, 2019, Central Hudson submitted the Rate Schedule requesting that the Commission: (1) approve the establishment of a Highway Facilities Charge for the Hurley Avenue System Deliverability Upgrade pursuant to Section 205 of the Federal Power Act and Part 35.13 of the Commission's regulations and the NYISO's OATT Schedule 12 Section 6.12 with a return on equity ("ROE") of 9.6%; (2) approve a 50 basis point Regional Transmission Operator membership incentive; and (3) approve a 50 basis point incentive for the use of solid state power electronic flow control technology. The two requested incentives raised Central Hudson's requested ROE to 10.6%.

The Settling Parties filed interventions in response to the Rate Schedule filing. On February 25, 2020, the Commission issued a deficiency letter to Central Hudson raising two issues; abandoned plant and the ROE Advanced Technology adder. Central Hudson filed its response to the deficiency letter on March 20, 2020.

On May 19, 2020, the Commission issued an Order: (1) accepting in part, Central Hudson's Formula Rate suspending it to become effective May 20, 2020 subject to refund

and established hearing and settlement judge procedures;⁴ (2) granted Central Hudson's request for a 50 basis point RTO participation incentive;⁵ and (3) denied Central Hudson's request for a 50 basis point Advanced Technology incentive associated with the use of solid state power electronic flow control technology.⁶

The participants engaged in settlement discussions with the assistance of Settlement Judge Andrew Satten, who was designated to preside over settlement procedures by order of the Chief Judge dated October 9, 2020.⁷ Settlement conferences were held before Judge Satten on November 12, 2020 and January 25, 2021. The settlement discussions resulted in this Settlement Agreement. This Settlement reflects the agreement of the Settling Parties to resolve all outstanding issues in Docket No. ER20-715-000.

This Settlement Agreement includes Appendix A, which is Central Hudson's agreed-upon Rate Schedule to be included through a compliance filing in Schedule 12 of the NYISO OATT.

ARTICLE II SCOPE OF SETTLEMENT

2.1 Except as expressly set forth herein, this Settlement Agreement resolves all issues raised by Central Hudson and the Settling Parties in Docket No. ER20-715-000, including Central Hudson's Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT.

⁴ Docket No. ER20-715-001-*New York Independent System Operator, Inc. and Central Hudson Gas & Electric Corporation Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT* (Order on Transmission Incentives, Proposed Tariff Sheets at 1-2) (Issued May 19, 2020).

⁵ *Id.* at 2.

⁶ *Id.*

⁷ Docket No. ER20-715-001- *New York Independent System Operator, Inc. and Central Hudson Gas & Electric Corporation Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT* (Order of Chief Judge Designating Settlement Judge) (Issued October 9, 2020).

ARTICLE III TERMS OF SETTLEMENT

3.1 Central Hudson and the Settling Parties agree, subject to Commission approval, to be bound by the terms of this Settlement Agreement with respect to all issues raised in Docket No. ER20-715-000, including Central Hudson's Rate Schedule for Highway System Deliverability Upgrades Under Schedule 12 of the NYISO OATT.

3.2 The following financial terms are agreed upon:

a. A base ROE of 9.4% shall apply to the capital costs of System Development Upgrades included in the Rate Schedule and shall remain in effect for a period commencing on the date that FERC approves the Settlement Agreement and when Central Hudson recovers all of the System Development Upgrade costs included in the Rate Schedule.

b. 50 basis points shall be added to the base ROE so that Central Hudson's total ROE will be 9.9%.

c. Note (b) on the cost of capital tab will read "ROE cost rate was developed in a manner consistent with the Commission's Order in Docket No. EL-11-66-001 plus a 50 basis point incentive adder for Central Hudson's membership in NYISO"

d. Nothing herein shall be construed to prevent Central Hudson from recovering operation and maintenance costs and other applicable costs associated with the System Development Upgrades as set forth in its Application.

e. Cost recovery will be effectuated through Schedule 12 of the NYISO OATT as reflected in Appendix A to this Settlement.

3.3 The following terms shall apply to the Applicants' Rate Schedule:

a. The Rate Schedule will be amended as set forth in Appendix A to this Settlement Agreement.

b. Central Hudson's System Development Upgrade costs not recovered from developers, plus operation and maintenance costs and other applicable costs will be recoverable through the Rate Schedule as shown on Appendix A.

3.4 Central Hudson designates 356.30 Transmission – Smart Wire Devices as the specific account where the smart wire devices will be booked.

3.5 Central Hudson's capital structure immaterially fluctuates as it issues and redeems debt. At December 31, 2020 Central Hudson's capital structure consisted of 49.8% long term debt and 50.2% of equity.

3.6 Central Hudson and Settling Parties agree either to support or not to oppose this Settlement Agreement before the Commission and agree not to take any position adverse to the terms of this Settlement Agreement in any related proceedings before the Commission or the NYPSC.

3.7 Central Hudson and the Settling Parties agree not to make any filings pursuant to Sections 205 or 206 of the FPA that are inconsistent with the terms agreed to in this Settlement Agreement.

3.8 Within thirty (30) days of the date that the Commission approves this Settlement Agreement, Central Hudson will make, or cause NYISO to make as applicable, a compliance filing with the Commission to the extent necessary to implement the terms of this Settlement Agreement.

3.9 To the extent the Commission approves this Settlement Agreement with modifications, the Settling Parties will have 30 days from the date the Commission issues

an order approving this Settlement Agreement to withdraw their support for the Settlement Agreement.

ARTICLE IV SETTLEMENT EFFECTIVE DATE

4.1 This Settlement Agreement shall be effective on the date on which a Commission order approving this Settlement Agreement is issued (“Settlement Effective Date”). The Settlement Agreement shall bind the Settling Parties as of the Settlement Effective Date.

ARTICLE V NO PRECEDENTIAL EFFECT

5.1 Except as expressly provided for in this Settlement, this Settlement Agreement will not constitute a precedent in any future proceedings. This Settlement Agreement shall not be used as evidence that a particular method is a “long-standing practice” as that term is used in *Columbia Gas Transmission Corp. v. FERC*, 628 F.2d 578 (D.C. Cir. 1975), or a “settled practice” as that term is used in *Public Service Comm. of New York v. FERC*, 642 F.2d 1335 (D.C. Cir. 1980).

ARTICLE VI STANDARD OF REVIEW

6.1 The standard of review for any change to this Settlement Agreement proposed by Central Hudson or a Settling Party shall be the “public interest” application of the just and reasonable standard set forth in *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 348 (1956), and *Fed. Power Comm’n v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956), as clarified in *Morgan Stanley Capital Grp., Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash.*, 554 U.S. 527 (2008), and refined in *NRG Power Mktg. v. Maine Pub. Utils. Comm’n*, 558 U.S. 165 (2010). The ordinary just and reasonable standard of review (rather than the “public interest” standard), as clarified in *Morgan Stanley Capital*

Grp., Inc. v. Pub. Util. Dist. No. 1 of Snohomish Cnty., Wash., 554 U.S. 527 (2008), applies to any changes to the Settlement Agreement sought by the Commission acting *sua sponte* or at the request of a non-Settling Party or a non-party to this proceeding.

ARTICLE VII MISCELLANEOUS

7.1 Final Resolution. This Settlement Agreement shall be a final and complete resolution of all issues concerning Central Hudson Rate Schedule in this proceeding.

7.2 Binding. This Settlement Agreement is binding upon and for the benefit of the Central Hudson and the Settling Parties and their successors and assigns.

7.3 Entire Agreement. This Settlement Agreement, including the appendices hereto, constitutes the entire agreement between Central Hudson and the Settling Parties with respect to the subject matter addressed herein, and supersedes all prior or contemporaneous understandings or agreements, oral or written, between Central Hudson and the Settling Parties with respect to the subject matter of this Settlement Agreement.

7.4 Interpretation. Central Hudson and all Settling Parties participated in the drafting of this Settlement Agreement. Neither Central Hudson nor any Settling Party shall be deemed the drafter of this Settlement Agreement, and this Settlement Agreement shall not be construed against any Party as the drafter.

7.5 Conflict. In the event of a conflict between terms contained in this Settlement Agreement and those of the attached Appendix A, the terms of this Settlement Agreement shall control.

7.6 Admissibility of Settlement. This Settlement Agreement is submitted pursuant to Rule 602(e) of the Commission's Rules of Practice and Procedure, 18 C.F.R. §

385.602(e) (2015). Unless and until the Settlement Agreement becomes effective pursuant to its terms, the Settlement Agreement shall be of no effect and shall not be admissible in evidence or in any way described or discussed in any proceeding before any court or regulatory body (except in comments on the Settlement in this proceeding). In addition, the discussions that resulted in this Settlement Agreement were conducted with the explicit understanding, pursuant to Rule 602(e), that all offers of settlement and any discussions relating thereto are and shall be privileged, shall be without prejudice to the position of Central Hudson and any Settling Party, and are not to be used in any manner in connection with this or any other proceeding except as specifically noted in this Settlement Agreement or in an action to enforce this Settlement Agreement.

7.7 Titles and Headings. The titles and headings of the Settlement Agreement are for reference and convenience purposes only. They are not to be construed or taken into account in interpreting the Settlement Agreement and do not qualify, modify, or explain the effects of the Settlement Agreement.

7.8 Enforceability and Waiver. Any failure of any Settling Party (i) to enforce any of the provisions of this Settlement Agreement or (ii) to require compliance with any of its terms at any time during the term of this Settlement Agreement shall in no way affect the validity of this Settlement Agreement, or any part hereof, and shall not be deemed a waiver of the right of Central Hudson or such Settling Party thereafter to enforce any and each such provision. Commission approval of this Settlement Agreement shall constitute a grant of any waivers of the Commission's regulations that may be necessary to effectuate all of the provisions of this Settlement Agreement.

7.9 Waiver. No provisions of this Settlement Agreement may be waived as to Central Hudson or any Settling Party, except through a writing signed by an authorized representative of the waiving Party—Central Hudson or the Settling Party. Waiver of any provision of this Settlement Agreement by a Party shall not be deemed to waive any other provision or to be a waiver of Central Hudson or any other Settling Party.

7.10 Authorization. Each person executing this Settlement Agreement on behalf of Central Hudson or a Settling Party represents and warrants that he or she is duly authorized and empowered to act on behalf of, and to authorize this Settlement Agreement to be executed on behalf of Central Hudson or the Settling Party that he or she represents.

7.11 Ambiguity. This Settlement Agreement is the result of negotiations among Central Hudson and the Settling Parties and has been subject to review by Central Hudson, and each Settling Party and its respective counsel. Therefore, this Settlement Agreement shall be deemed the product of Central Hudson and each Settling Party and no ambiguity in this Settlement Agreement shall be construed in favor of, or against, Central Hudson or any Settling Party.

7.12 Counterparts. This Settlement Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

IN WITNESS WHEREOF Central Hudson and the Settling Parties, each acting on its own behalf or through an authorized representative, have caused this agreement to be executed this 23rd day of March, 2021.

[THE NEXT PAGE IS THE SIGNATURE PAGE]

SETTLEMENT AGREEMENT

SIGNATURE PAGES

CENTRAL HUDSON GAS AND ELECTRIC
CORPORATION

By: /s/Paul A. Colbert

Name: Paul A. Colbert

Title: Associate General Counsel-Regulatory

Affairs

Date: March 23, 2021

NEW YORK STATE ELECTRIC AND GAS
CORPORATION

By: _____

Name: _____

Title: _____

Date: _____

ROCHESTER GAS AND ELECTRIC
CORPORATION

By: _____

Name: _____

Title: _____

Date: _____

NEW YORK POWER AUTHORITY

By: Gary D. Levenson

Name: Gary D. Levenson

Title: Principal Attorney

Date: June 1, 2021

NEW YORK STATE PUBLIC SERVICE
COMMISSION

By: Bridget M Woebbe

Name: Bridget M. Woebbe

Title: Assistant Counsel

Date: April 27, 2021

LONG ISLAND LIGHTING COMPANY D/B/A
POWER SUPPLY LONG ISLAND,

By: _____

Name: _____

Title: _____

Date: _____

CONSOLIDATED EDISON COMPANY OF
NEW YORK, INC.

By: _____

Name: _____

Title: _____

Date: _____

ORANGE AND ROCKLAND UTILITIES, INC.

By: _____

Name: _____

Title: _____

Date: _____

NIAGARA MOHAWK D/B/A NATIONAL GRID

By: /s/ David C. Lodemore

Name: David C. Lodemore

Title: Senior Counsel, National Grid

Date: 6/11/2021

APPENDIX A

To be completed as Central Hudson's amended application and schedules to be consistent with the Settlement Agreement terms. Central Hudson will complete and circulate the Appendix A upon agreement in principle reached among the Parties.

Paul A. Colbert
Associate General Counsel
Regulatory Affairs



December __, 2019

Hon. Kimberly D. Bose, Secretary
Federal Energy Regulatory
Commission 888 First Street, N.E.
Washington, DC 20426

Re: Central Hudson Gas & Electric Corporation's Hurley Avenue System
Deliverability Upgrade Facilities Charge, Rate Schedule under the
NYISO OATT; Docket No. ER20-_____.

Dear Secretary Bose,

Pursuant to Section 205 of the Federal Power Act¹ and Part 35.13 of the Federal Energy Regulatory Commission's ("Commission") Regulations,² and Rate Schedule 12 (Section 6.12) of the New York Independent System Operator, Inc. ("NYISO") Open Access Transmission Tariff ("OATT"), Central Hudson Gas & Electric Corporation ("Central Hudson") submits to the Commission a new rate schedule pursuant to Rate Schedule 12 of the NYISO OATT.³ This rate schedule establishes the Highway Facilities Charge for the Hurley Avenue System Deliverability Upgrade ("Hurley-FC"),⁴ which will allow Central Hudson to recover costs related to common Highway System Deliverability Upgrades ("SDU") being installed on Central Hudson's transmission facilities. These upgrades are required to provide four Large Generating Facility Developers with Capacity Resource Interconnection Service, which they had requested of the NYISO as part of their interconnection to the New York State Transmission System.

In accordance with Rate Schedule 12 of the NYISO OATT and as explained below, Central Hudson is seeking to establish just and reasonable rates through the Hurley-FC, to recover costs not paid by developers for the approved SDUs it has been

¹ 16 U.S.C. § 824d.

² 18 C.F.R. Part 35.13 (2016).

³ The NYISO is submitting this filing in FERC's e-Tariff system on Central Hudson's behalf solely in its role as the Tariff Administrator. The burden of demonstrating that the proposed tariff amendments are just and reasonable rests on Central Hudson, the sponsoring party. The NYISO takes no position on any substantive aspect of the filing at this time. Capitalized terms not otherwise defined here shall have the meaning specified in the NYISO OATT.

⁴ The proposed Hurley-FC rate schedule is set forth as Application Attachment 6. Specifically, Central Hudson proposes to set forth the project-specific rate recovery mechanism in a newly proposed Attachment 1 (Section 6.12.3.5) to Rate Schedule 12 of the NYISO OATT.

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directed by the NYISO to construct as part of its tariff obligations. Specifically, the Hurley-FC will provide Central Hudson with full recovery of all reasonably incurred costs related to the development, construction, operation and maintenance of the Hurley Avenue Highway SDU undertaken pursuant to Attachment S of the NYISO OATT (including costs for a Highway SDU that is subsequently halted through no fault of the constructing Transmission Owner) that are allocated to Load Serving Entities (“LSEs”). Pursuant to § 6.12.1 of Rate Schedule 12 of the NYISO OATT, the Hurley-FC will also provide Central Hudson with a reasonable return on its investment.

The Hurley-FC will be calculated pursuant to NYISO OATT Rate Schedule 12. Total project construction costs are expected to be \$20,179,439⁵ which excludes operation and maintenance (“O&M”) and other costs such as removal costs net of salvage.⁶ Developers will pay their capped share of the costs with the remainder being allocated to LSEs using the formula at § 6.12.3.5.1 of Rate Schedule 12 of the NYISO OATT. Project costs recovered by Central Hudson and allocated to the LSEs pursuant to Rate Schedule 12 of the NYISO OATT are expected to be \$2,557,690⁷ plus O&M and other applicable costs.⁸ Central Hudson proposes to annually update the share of the costs allocated to LSEs in accordance with the procedures described in Application Attachment 6. The annual updates will incorporate an estimate of the cost of removal net of salvage at the end of the asset service life, which will permit Central Hudson to recover the difference between the actual net salvage value and the depreciation expense over the life of the Hurley-FC, and property tax expense on the total project cost.

I. Background

Central Hudson is a regulated utility operating in the State of New York. It is engaged in the transmission, distribution, and retail sale of electric power and natural gas in the Hudson Valley of upstate New York. Central Hudson is a founding member of the NYISO and a signatory to the ISO-TO Agreement.⁹ It is also a participant in the NYISO electricity markets on behalf of certain of its end-use customers and serves as a load-serving entity to its retail customers.

Through the NYISO Class year processes for 2009, 2010, and 2011, four large generating facility Developers accepted their respective Project Cost Allocations and have posted Security as required.¹⁰ Interconnection to the New York State Transmission System is required by the NYISO OATT.¹¹ The SDUs were necessary for the

⁵ Application Attachment 5, Project Assumptions.

⁶ *Id.*

⁷ Application Attachment 1 at Appendix A.

⁸ See Application Attachment 1.

⁹ The ISO-TO Agreement can be found at:

http://www.nyiso.com/public/webdocs/markets_operations/documents/Legal_and_Regulatory/Agreements/NYISO/nyiso_to_agreement.pdf.

¹⁰ The four Developers are Stony Creek Energy LLC (Stoney Creek Wind Farm”), TBE Montgomery, LLC (“Taylor Biomass”), CPV Valley, LLC (“CPV Valley”) and Ball Hill Windpark, LLC.

¹¹ See NYISO OATT at § 25.1.1.

Developer's generation projects to be interconnected to the New York State Transmission System and receive Capacity Resource Interconnection Service. Two of these Large Generating Facilities in the NYISO interconnection queue have been built, CPV Valley and Stony Creek Wind Farm. The Taylor Biomass facility remains under development. One Developer, Ball Hill Windpark, LLC, ultimately terminated its project but based on the NYISO tariffs is still obligated to fund the SDU. Each of the three remaining Developers asked NYISO to provide it with Capacity Resource Interconnection Service.

Through the NYISO Tariff, affected Transmission Owners are identified through the Class Year process and are required to build the SDU. The affected Transmission Owners required to build this SDU identified in the 2009, 2010, and 2011 class years were Central Hudson and Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid"). Because Central Hudson is required to build the vast majority of the required SDUs, National Grid has contracted with, and agreed to have, Central Hudson build the entire SDU including equipment and labor associated with the equipment on the National Grid transmission system.

NYISO initiated discussions with Central Hudson, National Grid, CPV Valley, Stony Creek Energy, Taylor Biomass and Ball Hill Windpark, LLC regarding the Rest-of-State Highway SDU identified for those projects in NYISO's respective 2009, 2010, or 2011 Class Year Studies. The discussions were focused on the development of an Engineering, Procurement, and Construction ("EPC") agreement, to cover the engineering, design, and construction of the SDU. Central Hudson will be the entity performing the engineering, procurement, and construction under the EPC agreement set forth as Application Attachment 2. Having entered into the EPC Agreement with NYISO and the Developers, Central Hudson files this Application to establish the Hurley-FC to recover costs not recovered from Developers and to earn a reasonable return on that portion of SDU constructed facilities.

Specifically, Central Hudson seeks cost recovery and a reasonable return on investment pursuant to Rate Schedule 12 of the NYISO OATT.¹² Rate Schedule 12 of the NYISO OATT permits a Transmission Owner, such as Central Hudson to recover SDU costs that are allocated to it and not recovered from Developers.¹³

II. Description of the Filing and Statement of Reasons

Central Hudson is filing for a new rate mechanism under the NYISO OATT to establish the Hurley-FC, which will enable Central Hudson to recover the costs related to the required SDU and earn a reasonable return on investment on that portion of the Hurley-FC not recovered from Developers. The Hurley-FC rate mechanism will be established in, and assessed through, Rate Schedule 12 of the NYISO OATT.

¹² NYISO OATT § 6.12.1.

¹³ *Id.*

A. The Hurley-FC Will Result in Just and Reasonable Rates

As noted above, the Hurley-FC will allow Central Hudson to recover the SDU costs that are needed to achieve interconnection for the Developer's Large Generating Facilities and permit Central Hudson a reasonable return on its investment in the SDU. Central Hudson will install an innovative solid state electronic device instead of a capacitor bank, to bring the New York State Transmission System into compliance with applicable reliability requirements.¹⁴

The total project construction cost of the Hurley-FC is expected to be \$20,179,439.¹⁵ Of the \$20,179,439 total cost Central Hudson will recover approximately \$17,621,749¹⁶ from Developers¹⁷ and the remaining \$2,557,690¹⁸ from LSEs. Cost recovery will be adjusted to actual costs and if actual costs are \$17,621,749¹⁹ or less all costs will be recovered from Developers. If costs exceed expectations incremental costs will be recovered from LSEs pursuant to Rate Schedule 12 of the NYISO OATT and subject to the limitations set forth in Section 25.8.6.4 of Attachment S and Section 6.12.3.3 of Rate Schedule 12 of the NYISO OATT.

Pursuant to Section 6.12.1.2 of Rate Schedule 12 of the NYISO OATT, Central Hudson is entitled to recover its costs and earn a reasonable return on its investment. Central Hudson has proposed a base return on equity ("ROE") of 9.6% calculated in a manner consistent with the Commission's calculation of ROE presented in its October 16, 2018 Order in Docket EL11-66. In addition to the calculated base ROE, Central Hudson seeks a 50 basis point Regional Transmission Operator ("RTO") membership incentive because these facilities will be under the operational authority of the NYISO and but for its membership in NYISO Central Hudson would not have built the SDU, and a 50 basis point ROE incentive adder for its use of solid state power electronic flow control technology in lieu of traditional series compensation originally proposed by the NYISO.²⁰ Thus Central Hudson seeks a total ROE of 10.6%.

Central Hudson's request to recover SDU costs of \$20,179,439,²¹ less the costs paid for by Developers (\$17,621,749),²² plus ongoing O&M and other costs and receive a 10.6% ROE on a \$2,844,832²³ investment results in a just and reasonable Hurley-FC

¹⁴ The ordinary solution for this SDU would be to install a capacitor bank. The solid state electronic device offers flexibility to meet future needs that the capacitor bank does not and therefore, may contribute to future cost avoidance.

¹⁵ Application Attachment 5.

¹⁶ Application Attachment 2 at Appendix A at 160 of 181.

¹⁷ Each Developer will pay their share of the SDU costs as follows: CPV Valley LLC \$15,605,297, Stony Creek Energy LLC \$1,144,490, Taylor Biomass Energy LLC \$181,830 and Ball Hill Windpark, LLC \$1,164,437.

¹⁸ See Application Attachment 1 at Appendix A.

¹⁹ Application Attachment 2 at Appendix A at 160 of 181.

²⁰ See Application Attachment 4 describing the new technology.

²¹ Application Attachment 5 (Project Assumptions).

²² Application Attachment 2 at Appendix A at 160 of 181.

²³ See Application Attachment 1 at Tab 4 Incentives (Rate Base).

annual revenue requirement of \$1,764,119²⁴ for the first year the asset is placed in service. Central Hudson will also recover from Developers through the CIAC, pre-in-service date Development costs and CWIP segregated by capital and expense. The just and reasonable Hurley-FC rate will be allocated to LSEs pursuant to § 6.12.3.5.1 of Rate Schedule 12 of the NYISO OATT.

The NYISO will calculate and bill the Hurley-FC separately from other charges under the NYISO OATT. The NYISO will collect the Hurley-FC from LSEs to which the costs of the SDU have been allocated.²⁵ The manner in which these LSEs will be identified is discussed in Section II(B) of this filing letter and is set forth in Rate Schedule 12 of the NYISO OATT.

Central Hudson will utilize the Commission's Uniform System of Accounts amended pursuant to Orders of the New York State Public Service Commission ("PSC") to maintain consistent accounting for federal and state jurisdictional assets. Similarly, Central Hudson will use the cost allocation methodology set forth on Hurley-FC Application Attachment 1 to assign costs of the SDU facilities to LSEs.²⁶ The annual Hurley-FC revenue requirement will be calculated based on the methodology set forth in the Testimony of Mr. Joshua C. Nowak, Assistant Vice President with Concentric Energy Advisors, Inc., and set forth as Application Attachment 3, pursuant the procedures set forth in Central Hudson's proposed rate schedule for the Hurley-FC. In accordance with Rate Schedule 12 of the NYISO OATT, the NYISO will utilize this annual revenue requirement to determine the applicable charges to each LSE for the Hurley-FC.

Central Hudson will track the gross plant costs of the Hurley-FC SDU. The Hurley-FC revenue requirement will equal Central Hudson's true up rate base, at the Commission approved ROE, and ongoing O&M and other costs based on the entire project cost. Based on those actual costs the Hurley-FC revenue requirements will be adjusted annually. Central Hudson will determine its annual adjusted revenue requirement as described in Application Attachment 6. Such a system average approach is widely used in formula rates approved by the Commission.²⁷ Under these circumstances it would be infeasible to track the operating and overhead costs of these facilities separately.

As described in the procedures set forth in its proposed rate schedule for the Hurley-FC, Central Hudson will recalculate the Hurley-FC revenue requirement, prospectively for the rate to be charged over the next year and retrospectively as a true up to actual rate base and expense, annually with the new rates to be effective each June 1, to permit the Hurley-FC to be adjusted to actual costs. The annual update will reflect the FERC Form 1 Report data from the most recent calendar year for all

²⁴ *Id.* at Appendix A.

²⁵ LSEs include energy supply companies, National Grid and the other New York Transmission Owners with respect to their full-service customers, and public power and municipal/cooperative entities.

²⁶ See Section 6.12.3.5.1 of Rate Schedule 12 of the NYISO OATT.

²⁷ See, e.g., Attachments N-1, GG, MM, and XX to the OATT of the Midcontinent Independent System Operator, Inc.; Attachments H-1, H-3, H-8, H-9, H-10, H-13, H-14, H-16, and H-17 to the OATT of PJM Interconnection L.L.C.; and Attachment H to the OATT of the Southwest Power Pool.

components of the allocation rate template methodology.²⁸ Central Hudson will coordinate with the NYISO to post the results of its annual updates to the NYISO's website.²⁹ The annual update will include supporting documentation and be subject to review and challenge as described in the procedures set forth in Central Hudson's proposed rate schedule for the Hurley-FC.³⁰

The NYISO will determine the applicable Hurley-FC rate and collect the appropriate Hurley-FC charges from the LSEs in each billing period and remit those revenues to Central Hudson in accordance with the requirements of Section 6.12.3.5 of Rate Schedule 12 of the NYISO OATT.

To the extent that the revenues received by Central Hudson for the Hurley-FC SDU in the prior year were greater or less than the annual Hurley-FC revenue requirement for the year as updated for actual costs and any variations in sales forecast, the current year's Hurley-FC revenue requirement will be decreased or increased by that difference.

Central Hudson has discussed the proposed design of the Hurley-FC rate recovery mechanism with the PSC, and the PSC raised no concerns, other than the RTO Adder to which it objects, about this proposal during a meeting with Central Hudson. Central Hudson has also discussed with the NYISO its proposal for developing the applicable annual revenue requirement for the Hurley-FC to be used in determining and assessing charges pursuant to Rate Schedule 12 of the NYISO OATT. The NYISO has not indicated any objections to the general structure of Central Hudson's proposed rate schedule.

B. The Proposal Results in the Proper Cost Allocation and Recovery

The Hurley-FC will result in the appropriate allocation of cost responsibility and cost recovery for Central Hudson's SDU. Without the Hurley-FC, the costs of the SDU not recovered from Developers would be allocated entirely to Central Hudson's retail customers through retail rates.³¹ This would be inconsistent with cost causation principles because the SDU would not be needed without a transmission project to address the NYISO interconnection needs associated with the Large Generating Facilities built by the Developers at the requested level of Capacity Resource Interconnection Service. The Developers whose projects resulted in the need for the SDU and the LSEs that benefit from the SDU will pay the costs of the SDU through the Hurley-FC. The revenue requirement will be allocated between the Developers and LSEs in accordance with the requirements of Attachment S and Rate Schedule 12 of the NYISO OATT.

²⁸ Application Attachment 6.

²⁹ *Id.*

³⁰ *Id.*

³¹ Prior to the Hurley SDU going into service Niagara Mohawk Power Corporation d/b/a/ National Grid will make comparable adjustments so none of the costs associated with the Hurley SDU are recovered through its state retail transmission and distribution service charge.

All SDU costs will be recovered from Developers and LSEs. LSEs will also be allocated their share of SDU costs pursuant to § 6.12.3 of Rate Schedule 12 of the NYISO OATT and billed in a manner consistent with the NYISO's billing and settlement processes as set forth in Rate Schedule 12 of the NYISO OATT.³²

It should be noted that Central Hudson's retail customers will bear a share of the SDU costs under this approach through allocation to the LSEs, but not all of the SDU costs. This is appropriate because SDUs are designed to benefit all customers in NYISO based on each LSE's proportionate share of the applicable NYCA ICAP requirement. Moreover, Central Hudson will recover no more and no less costs through the NYISO's collection of costs from LSEs than it would receive if it were to obtain all reimbursement from the Developers. In sum, the Commission should approve the cost recovery mechanism proposed in this rate schedule as just and reasonable.

C. Effect on Rates and Revenues

The Hurley-FC is a new charge to be paid by LSEs to allow Central Hudson to recover SDU costs not recovered from Developers and earn a reasonable return on its investment. Neither existing delivery rates, nor future delivery rates for Central Hudson's retail customers will be directly affected by this new charge because accounting will properly segregate them from state regulatory proceedings. The identification of the charged Developers and LSEs has and will occur through the process set forth in Rate Schedule 12 and Attachment S to the NYISO OATT. As noted above, the costs of the SDU are estimated to be less than \$20,200,000, with an estimated remaining balance to be recovered from LSEs of \$2,557,690³³ after accounting for the costs paid for by Developers (\$17,621,749).³⁴

III. Proposed Effective Date

Central Hudson requests an effective date immediately following the end of the sixty (60) day notice period. The EPC agreement is effective, costs are accruing and construction is necessary to maintain transmission reliability pursuant to the NYISO OATT. Central Hudson believes it is important to establish the Hurley-FC rate through this filing.

Under the terms of the proposed Hurley-FC, Central Hudson will charge accrued costs, including development and CWIP to Developers, but NYISO will not actually begin charging the Hurley-FC to LSEs until after the SDU is placed into service, unless otherwise determined by the Commission.³⁵

³² See NYISO OATT Rate Schedule 12, § 6.12.3 (charging the Highway Facilities Charge to LSEs).

³³ Application Attachment 1 at Appendix A.

³⁴ Application Attachment 2 at Appendix A at 160 of 181.

³⁵ See Section 6.12.2.3 of Rate Schedule 12 of the NYISO OATT.

IV. Additional Information

A. Communications

Please place the names of the following persons on the official service list established by the Secretary in this proceeding:

Paul A. Colbert*
Associate General Counsel
Regulatory Affairs
Central Hudson Gas & Electric
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phaering@cenhud.com

*Designated to receive service. Pursuant to 18 C.F.R. § 385.2010, Central Hudson respectfully requests waiver to permit more than two individuals to receive service in this proceeding.

B. List of Documents Submitted With Filing

Together with this filing letter, Central Hudson submits the following:

Application Attachment 1	Illustrated Populated Version of the Hurley FC Rate Template
Application Attachment 2	Executed EPC Agreement
Application Attachment 3	Testimony of Mr. Joshua C. Nowak, Assistant Vice President with Concentric Energy Advisors, Inc.

Application Attachment 4	Description of new technology
Application Attachment 5	Project Assumptions
Application Attachment 6	Proposed Revisions to Rate Schedule 12 of the NYISO OATT to incorporate the Hurley- FC rate template and annual update process as a new Attachment 1 (Section 6.12.5) to Rate Schedule 12

C. Requests for Waiver

To the extent that waivers of any applicable requirements in 18 C.F.R. § 35.13 are necessary, Central Hudson respectfully requests such waivers. Good cause exists for waiver. The annual Hurley-FC revenue requirement to be recovered pursuant to Rate Schedule 12 of the NYISO OATT is estimated to be less than \$1,800,000 so that an abbreviated filing is appropriate and no customer consent is required.³⁶ The information, documents and attachments accompanying this filing, together with the Central Hudson's publicly available FERC Form 1 information, substantially comply with the Commission's cost support regulations and provide ample support for the reasonableness of the proposed Hurley-FC rate. Further, cost of service statements typically are not needed where the proposed rates are based on actual costs as reflected in the applicant's audited books and records.³⁷ Although Central Hudson is proposing a new charge, that charge is calculated based on NYISO OATT provisions approved by the Commission. As a result, waiver, if necessary, would be consistent with Commission precedent for a rate filing of this nature.

Finally, the information submitted with this filing substantially complies with the requirements of Part 35 of the Commission's rules and regulations applicable to filings of this type. Central Hudson requests a waiver of any applicable requirement of Part 35 for which a waiver is not specifically requested, if necessary, in order to permit this filing to become effective as proposed.

D. Service

Central Hudson has served a copy of this filing electronically on the PSC and on the NYISO. The NYISO has agreed to send an electronic link to this filing on behalf of Central Hudson to designated representatives of all NYISO customers. This will ensure

³⁶ Central Hudson is seeking cost recovery and a reasonable return on an investment of \$2,103,946 with an equity layer of 49% and a return on equity of 10.8%.

³⁷ Public Service Company of Colorado, 149 FERC ¶ 61,208 (2014); PJM Interconnection, L.L.C., Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., 139 FERC ¶ 61,068 (2012); Southern California Edison Co., 136 FERC ¶ 61,074 (2011); Pub. Serv. Elec. & Gas Co., 124 FERC ¶ 61,303 (2008); Oklahoma Gas & Elec. Co., 122 FERC ¶ 61,071 (2008); Am. Elec. Power Serv. Corp., 120 FERC ¶ 61,205 (2007); Commonwealth Edison Co., 119 FERC ¶ 61,238 (2007); Trans-Allegheny Interstate Line Co., 119 FERC 61,219 (2007); Duquesne Light Co., 118 FERC ¶ 61,087 (2007); Idaho Power Co., 115 FERC ¶ 61,281 (2006); Allegheny Power Sys. Operating Cos., 111 FERC ¶ 61,308 (2005).

that LSEs receive notice of this filing.

Please contact the undersigned at (845)486-5831 or pcolbert@cenhud.com with any questions regarding this matter.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "P. A. Colbert".

Paul A. Colbert
Associate General Counsel
Regulatory Affairs

*On behalf of Central Hudson Gas & Electric
Corporation*

Index

Rate Formula Template
Utilizing FERC Form 1 Data

Projected Annual Transmission Revenue Requirement
For the 12 months ended 5/31/21

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Appendix A	Main body of the Formula Rate
Attachment 1	Detail of the Revenue Credits
Attachment 2	Monthly Plant and Accumulated Depreciation balances
Attachment 3	Cost Support Detail
Attachment 4	Calculations showing the revenue requirement by Investment, including any Incentives,
Attachment 5	Cost of Debt should Construction Financing be Obtained
Attachment 6a and 6b	Detail of the Accumulated Deferred Income Tax Balances
Attachment 7	True-Up calculations
Attachment 8	Depreciation Rates
Attachment 9	Workpapers

Formula Rate - Non-Levelized			Rate Formula Template Utilizing FERC Form 1 Data			Projected Annual Transmission Revenue Requirement For the 12 months ended 5/31/21
			HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE			
			(1)	(2)		(3)
Line No.				12 months		Allocated Amount #REF!
1	GROSS REVENUE REQUIREMENT	(line 74)				
REVENUE CREDITS			Total	Allocator		
2	Total Revenue Credits	Attachment 1, line 6	-	TP	0.0069	-
3	Net Revenue Requirement	(line 1 minus line 2)				#REF!
4	True-up Adjustment	Attachment 7	-	DA	1.00000	-
5	NET ADJUSTED REVENUE REQUIREMENT	(line 3 plus line 4)				#REF!

Formula Rate - Non-Levelized			Rate Formula Template Utilizing FERC Form 1 Data			For the 12 months ended 5/31/21	
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE							
Line No.	(1)	(2) Form No. 1 Page, Line, Col.	(3) Company Total	(4) Allocator	(5) Transmission (Col 3 times Col 4)		
RATE BASE:							
GROSS PLANT IN SERVICE (Note M)							
6	Production	(Attach 2, line 75)	39,638,360	NA	-	-	
7	Transmission	(Attach 2, line 15)	370,972,093	TP	0.0069	2,557,690	
8	Distribution	(Attach 2, line 30)	996,156,014	NA	-	-	
9	General & Intangible	(Attach 2, lines 45 & 60)	5,467,141	W/S	-	-	
10	TOTAL GROSS PLANT (sum lines 6-9)	(GP=1 if plant =0)	1,412,233,607	GP=	0.0018	2,557,690	
ACCUMULATED DEPRECIATION & AMORTIZATION (Note M)							
12	Production	(Attach 2, line 151)	18,733,524	NA	-	-	
13	Transmission	(Attach 2, line 91)	88,510,743	NA	-	-	
14	Distribution	(Attach 2, line 106)	249,433,296	NA	-	-	
15	General & Intangible	(Attach 2, lines 121 & 136)	961,978	NA	-	-	
16	TOTAL ACCUM. DEPRECIATION (sum lines 12-15)		357,639,541			-	
NET PLANT IN SERVICE							
18	Production	(line 6- line 12)	20,904,836			-	
19	Transmission	(line 7- line 13)	282,461,350			2,557,690	
20	Distribution	(line 8- line 14)	746,722,718			-	
21	General & Intangible	(line 9- line 15)	4,505,162			-	
22	TOTAL NET PLANT (sum lines 18-21)	(NP=1 if plant =0)	1,054,594,066	NP=	0.0024	2,557,690	
ADJUSTMENTS TO RATE BASE (Note A)							
24	ADIT	(Attach 6a, line 9)	50,804	DA	1.0000	50,804	
24b	Tax Reform	(Attach 11a, line 8)	#REF!			#REF!	
25	Account No. 255 (enter negative) (Note F)	(Attach 3, line 153)	-	NP	0.0024	-	
26	CWIP	(Attach 10)	-	DA		-	
27	Unfunded Reserves (enter negative)	(Attach 3, line 170a)	-	DA	1.0000	-	
28	Unamortized Regulatory Assets	(Attach 10) (Note L)	-	DA	1.0000	-	
29	Unamortized Abandoned Plant	(Attach 10) (Note K)	-	DA	1.0000	-	
30	TOTAL ADJUSTMENTS (sum lines 24-29)		#REF!			#REF!	
31	LAND HELD FOR FUTURE USE	Attachment 10	-	NA	0.0069	-	
WORKING CAPITAL (Note C)							
33	CWC	calculated (1/8 * Line 45)	9,045,405			87,044	
34	Materials & Supplies (Note B)	(Attach 3, line 189)	15,840,076	NA	0.0069	109,210	
35	Prepayments (Account 165 - Note C)	(Attach 3, line 170)	22,131,983	GP	0.0018	40,083	
36	TOTAL WORKING CAPITAL (sum lines 33-35)		47,017,463			236,338	

37	RATE BASE (sum lines 22, 30, 31, & 36)	#REF!	#REF!
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Formula Rate - Non-Levelized		Rate Formula Template Utilizing FERC Form 1 Data		For the 12 months ended 5/31/21	
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE					
(1)	(2)	(3)	(4)	(5)	
	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)	
38	O&M				
39	Transmission	321.116.b11,753,917	AGP	0.0544	639,367
40	Less Accounts 565, 561 and 561.1 to 561.8	321.99.b & 87.b to 94.b2,321,480	AGP	0.0544	126,279
41	A&G	323.205.b62,930,800	W/S	0.0029	183,268
42	Less EPRI & Reg. Comm. Exp. & Other Ad.	(Note D & Attach 3, line 171)-	W/S	0.0029	-
43	Plus Transmission Related Reg. Comm. Exp.	(Note D & Attach 3, line 172)-	AGP	0.0544	-
44	PBOP expense adjustment	(Attach 3, line 243)-	AGP	0.0544	-
44a	Less Account 566	321.100.b1,103,807	W/S	0.0029	3,215
44b	Amortization of Regulatory Assets	(Attach 10, line 2)-	W/S	0.0029	-
44c	Account 566 excluding amort. of Reg Assets	(line 44a less line 44b)1,103,807	W/S	0.0029	3,215
45	TOTAL O&M (sum lines 39, 41, 43, 44, 44b, 44c less lines 40 & 42, 44a) (Note D)	72,363,237			696,356
46	DEPRECIATION EXPENSE				
47	Transmission	336.7.f101,608	DA	1.0000	101,608
48	General and Intangible	336.1.f + 336.10.f-	W/S	1.0000	-
49	Amortization of Abandoned Plant	(Attach 3, line 155) (Note K)-	DA	1.0000	-
50	TOTAL DEPRECIATION (Sum lines 47-49)	101,608			101,608
51	TAXES OTHER THAN INCOME TAXES (Note E)				
52	LABOR RELATED				
53	Payroll	263.3.i +263.4.i + 263.12.i42,567,300	W/S	0.0029	123,965
54	Highway and vehicle	263...i (enter FN1 line #)-	W/S	0.0029	-
55	PLANT RELATED				
56	Property	263.24.i +263.25.i39,087,352	AEP	0.0143	558,520
57	Gross Receipts	263.14.i +263.26.i(7,259)	NA	-	-
58	Other	263.15.i720	AEP	0.0143	10
59	TOTAL OTHER TAXES (sum lines 53-58)	81,648,113			682,495
60	INCOME TAXES (Note F)				
61	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p))}*(1-n) =	0.2614			0.2614
62	CIT=(T/1-T) * (1-(WCLTD/R)) =	0.2482			0.2482
63	where WCLTD=(line 95) and R= (line 98)				
64	and FIT, SIT, p, & n are as given in footnote F.				
65	1 / (1 - T) = (T from line 61)	1.3538			1.354
66	Amortized Investment Tax Credit (Attachment 4, line 14)	-			
67	Income Tax Calculation = line 62 * line 71 * (1-n)	#REF!			#REF!
68	ITC adjustment (line 65 * line 66 * (1- n))	-	NP	0.0024	-
69	Total Income Taxes (line 67 plus line 68)	#REF!			#REF!
70	RETURN				
71	[Rate Base (line 37) * Rate of Return (line 98)]	#REF!	NA		#REF!
72	Rev Requirement before Incentive Projects (sum lines 45, 50, 59, 69, 71)	#REF!			#REF!
73	Incentive Return and Income Tax on Authorized Projects (Attach 4, line 58, col h)	#REF!	DA	100%	#REF!
74	Total Revenue Requirement (sum lines 72 & 73)	#REF!			#REF!

Formula Rate - Non-Levelized		Rate Formula Template Utilizing FERC Form 1 Data		For the 12 months ended 5/31/21	
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE SUPPORTING CALCULATIONS AND NOTES					
75	TRANSMISSION PLANT INCLUDED IN RTO RATES				
76	Total transmission plant (line 7, column 3)				370,972,092.85
77	Less transmission plant excluded from RTO rates (Note H)	(Attachment 3, line 175)			(368,414,402.85)
78	Less transmission plant included in OATT Ancillary Services (Note H)	(Attachment 3, line 175)			-
79	Transmission plant included in RTO rates (line 76 less lines 77 & 78)				2,557,690.00
80	Percentage of transmission plant included in RTO Rates (line 79 divided by line 76) [If line 76 equal zero, enter 1)			TP=	0.0069
81	ADJUSTED TRANSMISSION PLANT INCLUDED IN RTO RATES				
82	Total transmission plant (line 15, column 3)				2,557,690.00
	Plus CIAC Reveived (O&M, A&G and Taxes other than income would be on full amount)				17,621,749.00
83	Total Adjusted Transmission Plant				20,179,439.00
	Transmission plant included in RTO rates (line 82 less lines & 83)				370,972,093
84				AGP=	0.0544

81 ADJUSTED PLANT INCLUDED IN RTO RATES

82	Total transmission plant (line 22, column 3)			2,557,690.00
	Plus CIAC Reveived (O&M, A&G and Taxes other than income would be on full amount)			17,621,749.00
83	Total Adjusted Transmission Plant			20,179,439.00
	Total Gross Plant			1,412,233,607
84			AEP=	0.0143

= WS

85 WAGES & SALARY ALLOCATOR (W&S) (Note I)

86		Form 1 Reference	\$	AGP	Allocation			
87	Production	354.20.b	2,692,974.00	0.00	-			
88	Transmission	354.21.b	3,389,676.00	0.0544	184,385.19		Weighted	
89	Distribution	354.23.b	25,895,435.00	0.00	-		0.02322	=WCLTD
90	Other	354.24,25,26.b	31,336,359.00	0.00	-		(\$ / Allocation)	-
91	Total (sum lines 87-90) [TP equals 1 if there are no wages & salaries]		63,314,444.00		184,385.19	=	0.0029	0.055
								0.07781 =R

92 RETURN (R) (Note J)

93				\$	%	Cost	(c)
94							
95	Long Term Debt	(Attach 3, lines 249 & 270 or Attach 5) (Note G)		643,565,384.62	48.5%	4.79%	Total
96	Preferred Stock	(Attachment 3, lines 251 & 273)		100.00	0.00	-	2,108,969
97	Common Stock	(Attachment 3, line 257)		683,453,063.39	51.50%	10.60%	-
98	Total (sum lines 95-97)			1,327,018,548.00			-

Development of Base Carrying charge and Summary of Incentive and Non-Incentive Investments

			(a)	(b)	
			Non-incentive	Incentive	
			Investments from	Investments from	
			Attachment 4	Attachment 4	
			(Note N)	(Note N)	
99	Net Transmission Plant in Service	Source of Total Column	-	2,108,969	-
100	CWIP in Rate Base	(Line 19 and Transmission CIACs)	-	-	#REF!
101	Unamortized Abandoned Plant	(Line 26)	-	-	
102	Regulatory Assets	(Line 29)	-	-	
103	Development of Base Carrying charge and Summary of Incentive and Non-Incentive Investments	(Line 28)	-	-	
104	Return and Taxes	(Lines 69 & 71)	-	-	
105	Total Revenue Credits				
106	Base Carrying Charge (used in Attach 4, Line 65)	(Line 100 - Line 101)/ Line 99			

Appendix A
Page 5 of 5

For the 12 months ended 5/31/21

SUPPORTING CALCULATIONS AND NOTES

Formula Rate - Non-Levelized
Rate Formula Template
Utilizing FERC Form 1 Data

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

General Note: References to pages in this formulary rate are indicated as: (page#, line#, col.)
References to data from FERC Form 1 are indicated as: #.y.x (page, line, column)

Note
Letter

A	The balances in Accounts 190, 281, 282 and 283, as adjusted by any amounts in contra accounts identified as regulatory assets or liabilities related to FASB 106 or 109. The formula uses the stated average of the beginning and end of year balances to prorate ADIT to comply with IRS normalization rules. Balance of Account 255 is reduced by prior flow throughs and excluded if the utility chose to utilize amortization of tax credits against taxable income as discussed in Note F. Account 281 is not allocated.		
B	Identified in Form 1 as being only transmission related.		
C	Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission Prepayments are the electric related prepayments booked to Account No. 165 and reported on Pages 110-111 line 57 in the Form 1.		
D	Line 42 removes EPRI Annual Membership Dues listed in Form 1 at 353...f (enter FN1 line #), any EPRI Lobbying expenses included in line 42 of the template and all Regulatory Commission Expenses itemized at 351.h Line 42 removes all advertising included in Account 930.1, except safety, education or out-reach related advertising Line 42 removes all EEI and EPRI research, development and demonstration expenses and NY Transco will not participate in EEI or EPRI. Line 43 reflects all Regulatory Commission Expenses directly related to transmission service, RTO filings, or transmission siting itemized at 351.h Line 38 or Line 41 and thus Line 45 shall include any NYISO charges other than penalties, including but not limited to administrative costs.		
E	Includes only FICA, unemployment, highway, property, gross receipts, and other assessments charged in the current year. Taxes related to income are excluded. Gross receipts taxes are not included in transmission revenue requirement in the Rate Formula Template, since they are recovered elsewhere.		
F	The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = "the percentage of federal income tax deductible for state income taxes". If the utility is taxed in more than one state it must attach a work paper showing the name of each state and how the blended or composite SIT was developed. Furthermore, a utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base. multiplied by (1/1-T) .		0.7250
	Inputs Required:	FIT = 0.21 SIT= 0.0650 (State Income Tax Rate or Composite SIT from Attach 3) p = - (percent of federal income tax deductible for state purposes) n= - (not for profit entity ownership percentage)	0.2750

For each Rate Year (including both Annual Projections and True-Up Adjustments) the statutory income tax rates utilized in the Formula Rate shall reflect the weighted average rates actually in effect during the Rate Year. For example, if the statutory tax rate is 10% from January 1 through June 30, and 5% from July 1 through December 31, such rates would be weighted 181/365 and 184/365, respectively, for a non-leap year.

G The cost of debt is determined using the internal rate of return methodology shown on Attachment 5 once project financing is obtained. Prior to obtaining project financing, an interest rate of 3.85% from Table 4 of Attachment 5 will be used and will not be trued up. Attachment 5 contains an estimate of the internal rate of return methodology; the methodology will be applied to actual amounts for use in Appendix A.

After the completion of construction, the cost of debt will be calculated pursuant to Attachment 3

step-up facilities, which are deemed to included in OATT ancillary services. For these purposes, generation step-up facilities are those facilities at a generator substation on which there is no through-flow when the generator is shut down.

I Enter dollar amounts
J ROE will be supported in the original filing and no change in ROE may be made absent a filing with FERC under FPA Section 205 or 206.
The capital structure will be the actual capital

Attachment 1 - Revenue Credit Workpaper*
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Account 454 - Rent from Electric Property (300.19.b)	Notes 1 & 3	
1 Rent from FERC Form No. 1		-
Account 456 (including 456.1) (300.21.b and 300.22.b)	Notes 1 & 3	
2 Other Electric Revenues (Note 2)		-
3 Professional Services		-
4 Revenues from Directly Assigned Transmission Facility Charges (Note 2)		-
5 Rent or Attachment Fees associated with Transmission Facilities		-
6 Total Revenue Credits	Sum lines 2-5 + line 1	-

Note 1 All revenues booked to Account 454 that are derived from cost items classified as transmission-related will be included as a revenue credit. All revenues booked to Account 456 (includes 456.1) that are derived from cost items classified as transmission-related, and are not derived from rates under this transmission formula rate will be included as a revenue credit. Work papers will be included to properly classify revenues booked to these accounts to the transmission function. A breakdown of all Account 454 revenues by subaccount will be provided below, and will be used to derive the proper calculation of revenue credits. A breakdown of all Account 456 revenues by subaccount and customer will be provided and tabulated below, and will be used to develop the proper calculation of revenue credits.

Note 2 If the facilities associated with the revenues are not included in the formula, the revenue is shown below, but not included in the total above and explained in the Attachment 3.

Note 3 All Account 454 and 456 Revenues must be itemized below

Line No.			TOTAL	NY-ISO	Other 1	Other 2
1	Account 456					
1a	Transmission Service	#REF!	-	#REF!	-	-
...			-	-	-	-
1x	Trans. Fac. Charge		-	-	-	-
2	Trans Studies		-	-	-	-
3	Total	#REF!		#REF!	-	-
4	Less:					
5	Revenue for Demands in Divisor		-	-	-	-
6	Sub Total Revenue Credit	#REF!		#REF!	-	-
7	Prior Period Adjustments		-	-	-	-
8	Total	#REF!		#REF!	-	-
9	Account 454		\$			
9a	Joint pole attachments - telephone		-			
9b	Joint pole attachments - cable		-			
9c	Underground rentals		-			
9d	Transmission tower wireless rentals		-			
9e	Misc non-transmission rentals		-			
9f			-			
9g			-			
...						
9x			-			
10	Total		-			

Attachment 2 - Cost Support
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Plant in Service Worksheet

1	<u>Calculation of Transmission Plant In Service</u>	Source	Year	Balance
2	March	company records	2018	352,358,101
3	April	company records	2018	352,368,610
4	May	company records	2018	358,545,456
5	June	company records	2018	358,371,608
6	July	company records	2018	361,800,054
7	August	company records	2018	363,720,339
8	September	company records	2018	363,459,714
9	October	company records	2018	371,817,960
10	November	company records	2018	377,842,945
11	December	p207.58.g	2018	388,887,111
12	January	company records	2019	391,395,380
13	February	company records	2019	390,810,866
14	March	company records	2019	391,259,063
15	Transmission Plant In Service	(sum lines 2-14) /13		370,972,093
16	<u>Calculation of Distribution Plant In Service</u>	Source		
17	March	company records	2018	974,869,322
18	April	company records	2018	978,324,322
19	May	company records	2018	982,417,484
20	June	company records	2018	985,150,670
21	July	company records	2018	986,433,069
22	August	company records	2018	991,277,848
23	September	company records	2018	994,618,547
24	October	company records	2018	999,108,109
25	November	company records	2018	1,004,967,641
26	December	p207.75.g	2018	1,008,807,986
27	January	company records	2019	1,011,552,043
28	February	company records	2019	1,015,234,834

29	March	company records	2019	1,017,266,305
30	Distribution Plant In Service	(sum lines 17-29) /13		996,156,014
31	<u>Calculation of Intangible Plant In Service</u>	Source		
32	March	company records	2018	2,461,628
33	April	company records	2018	2,461,628
34	May	company records	2018	2,461,628
35	June	company records	2018	2,461,628
36	July	company records	2018	2,461,628
37	August	company records	2018	2,461,628
38	September	company records	2018	2,461,628
39	October	company records	2018	2,461,628
40	November	company records	2018	2,461,628
41	December	p205.5.g	2018	2,461,628
42	January	company records	2019	2,461,628
43	February	company records	2019	2,461,628
44	March	company records	2019	2,461,628
45	Intangible Plant In Service	(sum lines 32-44) /13		2,461,628
46	<u>Calculation of General Plant In Service</u>	Source		
47	March	company records	2018	2,977,967
48	April	company records	2018	2,964,789
49	May	company records	2018	2,964,789
50	June	company records	2018	2,965,319
51	July	company records	2018	2,965,319
52	August	company records	2018	2,965,319
53	September	company records	2018	2,965,319
54	October	company records	2018	2,965,319
55	November	company records	2018	2,966,404
56	December	p207.99.g	2018	3,095,840
57	January	company records	2019	3,086,729
58	February	company records	2019	3,101,822
59	March	company records	2019	3,086,729
60	General Plant In Service	(sum lines 47-59) /13		3,005,513

61	<u>Calculation of Production Plant In Service</u>	Source		
62	March	company records	2018	39,596,949
63	April	company records	2018	39,617,735
64	May	company records	2018	39,617,735
65	June	company records	2018	39,617,835
66	July	company records	2018	39,615,196
67	August	company records	2018	39,615,196
68	September	company records	2018	39,615,196
69	October	company records	2018	39,640,599
70	November	company records	2018	39,652,778
71	December	p205.46.g	2018	39,690,509
72	January	company records	2019	39,667,073
73	February	company records	2019	39,675,939
74	March	company records	2019	39,675,939
75	Production Plant In Service	(sum lines 62-74) /13		39,638,360
76	<u>Total Plant In Service</u>	(sum lines 15, 30, 45, 60, & 75)		1,412,233,607

Accumulated Depreciation Worksheet**Appendix A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions**

77	<u>Calculation of Transmission Accumulated Depreciation</u>	Source	Year	Balance
78	March	company records	2018	87,311,568
79	April	company records	2018	87,638,794
80	May	company records	2018	87,997,926
81	June	company records	2018	88,030,752
82	July	company records	2018	88,495,801
83	August	company records	2018	87,713,302
84	September	company records	2018	88,151,136
85	October	company records	2018	88,369,448
86	November	company records	2018	88,621,934
87	December	p219.25.b	2018	88,877,483
88	January	company records	2019	89,300,966
89	February	company records	2019	89,810,733

90	March	company records	2019	90,319,811
91	Transmission Accumulated Depreciation	(sum lines 78-90) /13		88,510,743
92	<u>Calculation of Distribution Accumulated Depreciation</u>	Source		
93	March	company records	2018	245,691,109
94	April	company records	2018	246,392,124
95	May	company records	2018	247,054,377
96	June	company records	2018	248,089,166
97	July	company records	2018	247,900,124
98	August	company records	2018	248,710,095
99	September	company records	2018	249,294,055
100	October	company records	2018	249,711,997
101	November	company records	2018	250,958,261
102	December	p219.25.b	2018	251,257,316
103	January	company records	2019	251,963,473
104	February	company records	2019	252,726,477
105	March	company records	2019	252,884,276
106	Distribution Accumulated Depreciation	(sum lines 93-105) /13		249,433,296
107	<u>Calculation of Intangible Accumulated Amortization</u>	Source		
108	March	company records	2018	414,205
109	April	company records	2018	419,958
110	May	company records	2018	425,710
111	June	company records	2018	431,463
112	July	company records	2018	437,215
113	August	company records	2018	442,968
114	September	company records	2018	448,721
115	October	company records	2018	454,473
116	November	company records	2018	460,226
117	December	p200.21.c	2018	465,979
118	January	company records	2019	471,731
119	February	company records	2019	477,484
120	March	company records	2019	483,236
121	Accumulated Intangible Amortization	(sum lines 108-120) /13		448,721

122	<u>Calculation of General Accumulated Depreciation</u>	Source		
123	March	company records	2018	466,416
124	April	company records	2018	475,062
125	May	company records	2018	483,964
126	June	company records	2018	487,066
127	July	company records	2018	495,968
128	August	company records	2018	504,870
129	September	company records	2018	513,772
130	October	company records	2018	522,674
131	November	company records	2018	531,618
132	December	p219.28.b	2018	541,056
133	January	company records	2019	540,966
134	February	company records	2019	549,961
135	March	company records	2019	558,955
136	Accumulated General Depreciation	(sum lines 123-135) /13		513,258
137	<u>Calculation of Production Accumulated Depreciation</u>	Source		
138	March	company records	2018	18,388,381
139	April	company records	2018	18,434,742
140	May	company records	2018	18,501,417
141	June	company records	2018	18,568,092
142	July	company records	2018	18,631,545
143	August	company records	2018	18,694,770
144	September	company records	2018	18,757,995
145	October	company records	2018	18,823,753
146	November	company records	2018	18,860,451
147	December	p219.20 thru 219.24.b	2018	18,898,407
148	January	company records	2019	18,930,892
149	February	company records	2019	18,990,630
150	March	company records	2019	19,054,736
151	Production Accumulated Depreciation	(sum lines 138-150) /13		18,733,524
152	<u>Total Accumulated Depreciation and Amortization</u>	(sum lines 91, 106, 121, 136, & 151)		357,639,541

Attachment 3 - Cost Support
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

				Details
Numbering continues from Attachment 2		Beginning of Year	End of Year	Average Balance
153	Account No. 255 (enter negative)	267.8.h	-	-
154	Unamortized Abandoned Plant (recovery of abandoned plant requires a FERC order approving the amount and recovery period)	Attachment 10, line 2, col. (v)		-
155	Amortization of Abandoned Plant	Attachment 10, line 2, col. (h)		Amortization Expense
156	Prepayments (Account 165) (Prepayments exclude Prepaid Pension Assets)			-
		Year	Balance	
157	March	111.57.c	2018	24,508,057
158	April	company records	2018	20,005,806
159	May	company records	2018	15,701,977
160	June	111.57.c	2018	12,478,762
161	July	company records	2018	10,412,839
162	August	company records	2018	5,657,859
163	September	111.57.c	2018	20,494,298
164	October	company records	2018	34,361,560
165	November	company records	2018	30,036,278
166	December	111.57.c	2018	24,648,386
167	January	company records	2019	29,543,398
168	February	company records	2019	32,063,329
169	March	111.57.c	2019	27,803,224
170	Prepayments	(sum lines 157-169) /13		22,131,983

Reserves

170a	(b)	(c)	(d)	(e)	(f)	(g)	(h)
			Enter 1 if NOT in a trust or reserved account, enter zero (0) if included in a trust or reserved account	Enter 1 if the accrual account is included in the formula rate, enter (0) if the accrual account is NOT included in the formula rate	Enter the percentage paid for by customers, 1 less the percent associated with an offsetting liability on the balance sheet	Allocation (Plant or Labor Allocator)	Amount Allocated, col. c x col. d x col. e x col. f x col. g
		Amount					
	Injuries & Damages Reserve 112.27.d	5,170,520	1	-	-	-	-
	Reserve 2	-	-	-	-	-	-
	Reserve 3	-	-	-	-	-	-
	Reserve 4	-	-	-	-	-	-
	...	-	-	-	-	-	-
	...	-	-	-	-	-	-
	Total						-

All unfunded reserves will be listed above, specifically including (but not limited to) all subaccounts for FERC Account Nos. 228.1 through 228.4. "Unfunded reserve" is defined as an accrued balance (1) created and increased by debiting an expense which is included in this formula rate (column (e), using the same allocator in column (g) as used in the formula to allocate the amounts in the corresponding expense account) (2) in advance of an anticipated expenditure related to that expense (3) that is not deposited in a restricted account (e.g., set aside in an escrow account, see column (d)) with the earnings thereon retained within that account. Where a given reserve is only partially funded through accruals collected from customers, only the balance funded by customer collections shall serve as a rate base credit, see column (f). The source of monthly balance data is company records.

EPRI Dues Cost Support			
Allocated General & Common Expenses		EPRI & EEI Costs to be Excluded	Details
171	EPRI and EEI Dues to be excluded from the formula rate	EPRI Dues p353._f (enter FN1 line #)	-

Regulatory Expense Related to Transmission Cost Support						
Directly Assigned A&G			Form 1 Amount	Transmission Related	Other	Details*
172	Regulatory Commission Exp Account 928	p323.189.b	1,638,182	-	1,638,182	
* insert case specific detail and associated assignments here						

Multi-state Workpaper					
Income Tax Rates		New York	MTA	NYC	Weighed Average
173	Weighting SIT=State Income Tax Rate or Composite Multiple state rates are weighted based on the state apportionment factors on the state income tax returns and the number of days in the year that the rates are effective (see Note F)	1	0	0	
		6.50%	0.00%	0.00%	6.50%

Safety Related and Education and Out Reach Cost Support					
			Safety Related, Education, Siting & Outreach Related	Other	Details
Directly Assigned A&G			Form 1 Amount		
174	General Advertising Exp Account 930.1	company records		-	
Safety advertising consists of any advertising whose primary purpose is to educate the recipient as to what is safe or is not safe. Education advertising consists of any advertising whose primary purpose is to educate the recipient as about transmission related facts or issues Outreach advertising consists of advertising whose primary purpose is to attract the attention of the recipient about a transmission related issue Siting advertising consists of advertising whose primary purpose is to inform the recipient about locating transmission facilities Lobbying expenses are not allowed to be included in account 930.1					

Excluded Plant Cost Support				
		Excluded Transmission Facilities	Transmission plant included in OATT Ancillary Services and not otherwise excluded	Description of the Facilities
Adjustment to Remove Revenue Requirements Associated with Excluded Transmission Facilities				
175	Excluded Transmission Facilities	(368,414,403)	-	All other Transmission Assets besides the Hurley Ave Smart Wires
Add more lines if necessary				

Materials & Supplies					
Note: for the projection, the prior year's actual balances will be used		Stores Expense Undistributed	Transmission Materials & Supplies	Construction Materials & Supplies	Total
Form No.1 page		p227.16	p227.8	p227.5	
176	March	Company Records	336,880	-	14,957,080
177	April	Company Records	79,131	-	16,228,586
178	May	Company Records	256,985	-	17,338,511
179	June	Company Records	211,898	-	17,089,070

180	July	Company Records	39,454	-	16,354,242	16,393,696
181	August	Company Records	(222,028)	-	15,716,297	15,494,269
182	September	Company Records	(380,098)	-	15,052,776	14,672,678
183	October	Company Records	(423,640)	-	14,188,129	13,764,489
184	November	Company Records	(317,583)	-	14,241,670	13,924,087
185	December	Column c	86,608	-	16,220,392	16,307,000
186	January	Company Records	136,496	-	16,185,733	16,322,229
187	February	Company Records	6,989	-	16,006,871	16,013,860
188	March	Company Records	(66,696)	-	16,597,232	16,530,536
189	Average					15,840,076

PBOPs

						Details
189	<u>Calculation of PBOP Expenses</u>					
190	<u>ConEd</u>					
191	Total PBOP expenses		\$	(8,800,000)		
192	Labor dollars		\$	1,444,841,000		
193	Cost per labor dollar		\$	(0.0061)		
194	labor (labor not capitalized) current year	Company Records		-		
195	PBOP Expense for current year			-		
196	PBOP Expense in Account 926 for current year	Company Records		-		
197	PBOP Adjustment for Appendix A, Line 44			-		
198	Lines 191-193 cannot change absent approval or acceptance by FERC in a separate proceeding.					
198	<u>NiMo</u>					
199	Total PBOP expenses		\$	70,883,643		
200	Labor dollars		\$	313,713,746		
201	Cost per labor dollar		\$	0.2260		
202	labor (labor not capitalized) current year	Company Records		-		
203	PBOP Expense for current year			-		
204	PBOP Expense in Account 926 for current year	Company Records		-		
205	PBOP Adjustment for Appendix A, Line 44			-		
206	Lines 199-201 cannot change absent approval or acceptance by FERC in a separate proceeding.					
207	<u>NYSEG</u>					
208	Total PBOP expenses		\$	2,057,829		
209	Labor dollars		\$	187,586,000		
210	Cost per labor dollar		\$	0.0110		
211	labor (labor not capitalized) current year	Company Records		-		
212	PBOP Expense for current year			-		
213	PBOP Expense in Account 926 for current year	Company Records		-		
214	PBOP Adjustment for Appendix A, Line 44			-		
215	Lines 208-210 cannot change absent approval or acceptance by FERC in a separate proceeding.					
216	<u>RGE</u>					
217	Total PBOP expenses		\$	3,561,081		
218	Labor dollars		\$	79,625,000		
219	Cost per labor dollar		\$	0.0447		
220	labor (labor not capitalized) current year	Company Records		-		

221	PBOP Expense for current year		-
222	PBOP Expense in Account 926 for current year	Company Records	-
223	PBOP Adjustment for Appendix A, Line 44		-
224	Lines 217-219 cannot change absent approval or acceptance by FERC in a separate proceeding.		
225	<u>CHG&E</u>		
226	Total PBOP expenses	\$	(3,863,900)
227	Labor dollars		108,206,368
228	Cost per labor dollar	\$	(0.0357)
229	labor (labor not capitalized) current year	Company Records	-
230	PBOP Expense for current year		-
231	PBOP Expense in Account 926 for current year	Company Records	-
232	PBOP Adjustment for Appendix A, Line 44		-
233	Lines 226-228 cannot change absent approval or acceptance by FERC in a separate proceeding.		
234	<u>HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE</u>		
235	Total PBOP expenses	\$	-
236	Labor dollars	\$	-
237	Cost per labor dollar		\$0.000
238	labor (labor not capitalized) current year	Company Records	-
239	PBOP Expense for current year		-
240	PBOP Expense in Account 926 for current year	Company Records	-
241	PBOP Adjustment for Appendix A, Line 44		-
242	Lines 235-237 cannot change absent approval or acceptance by FERC in a separate proceeding.		
243	PBOP expense adjustment	(sum lines 197, 214, 205, 223, 232, & 241)	-

Incentive ROE and 60/40 Project Worksheet
Attachment 4

Rate Formula Template
Utilizing Appendix A Data

For the 12 months ended 12/31/2019

The calculations below calculate that additional revenue requirement for 100 basis points of ROE and 1 percent change in the equity component of the capital structure. These amounts are then used to calculate the actual increase in revenue in the table below (starting on line 66) associated with the actual incentive authorized by the Commission. The use of the 100 basis point calculations do not presume any particular incentive (i.e., 100 basis points) being granted by the Commission.

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Base ROE and Income Taxes Carrying Charge

		Allocator		Result	
1	Rate Base			#REF!	
2	BASE RETURN CALCULATION:				
		\$	%	Cost	Weighted
3	Long Term Debt (Appendix A, Line 91)	643,565,385	48%	4.79%	2.32%
4	Preferred Stock (Appendix A, Line 92)	100	0%	0.00%	0.00%
5	Common Stock (Appendix A, Line 93)	683,453,063	52%	10.60%	5.46%
6	Total (sum lines 3-5)	#####			7.78%
7	Return multiplied by Rate Base (line 1 * line 6)				#REF!
8	INCOME TAXES				
9	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614			
10	CIT=(T/1-T) * (1-(WCLTD/R)) =	0.2482			
11	where WCLTD=(line 3) and R= (line 6)				
12	and FIT, SIT & p are as given in footnote F on Appendix A.				
13	1 / (1 - T) = (T from line 9)	1.3538			
14	Amortized Investment Tax Credit (266.8f) (enter negative)	-			
15	Income Tax Calculation = line 10 * line 7 * (1-n)	#REF!			#REF!
16	ITC adjustment (line 13 * line 14) * (1-n)	-	NP	0.00	-
17	Total Income Taxes (line 15 plus line 16)	#REF!			#REF!
18	Base Return and Income Taxes		Sum lines 7 and 17		#REF!
19	Rate Base		Line 1		#REF!
20	Return and Income Taxes at Base ROE		Line 18 / line 19		#REF!

100 Basis Point Incentive ROE and Income Taxes Carrying Charge

Attachment 4

21	Rate Base				Result
					#REF!
22	100 Basis Point Incentive Return impact on				
		\$	%	Cost	Weighted
23	Long Term Debt (line 3)	643,565,384.62	48%	4.79%	0.023
24	Preferred Stock (line 4)	100.00	0%	0.00%	-
25	Common Stock (line 5 plus 100 basis points)	683,453,063.39	52%	11.60%	0.060
26	Total (sum lines 24-26)	#####			0.083
27	100 Basis Point Incentive Return multiplied by Rate Base (line 21 * line 26)				#REF!
28	INCOME TAXES				
29	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614			
30	CIT=(T/1-T) * (1-(WCLTD/R)) =	0.2548			
31	where WCLTD=(line 23) and R= (line 26)				
32	and FIT, SIT & p are as given in footnote F on Appendix A.				
33	1 / (1 - T) = (T from line 29)	1.3538			
34	Amortized Investment Tax Credit (line 14)	-			
35	Income Tax Calculation = line 30 * line 27 * (1-n)	#REF!			#REF!
36	ITC adjustment (line 33 * line 34) * (1-n)	-	NP	0.00	-
37	Total Income Taxes (line 35 plus line 36)	#REF!			#REF!
38	Return and Income Taxes with 100 basis point increase in ROE		Sum lines 27 and 37		#REF!
39	Rate Base		Line 21		#REF!
40	Return and Income Taxes with 100 basis point increase in ROE		Line 38 / line 39		#REF!
41	Difference in Return and Income Taxes between Base ROE and 100 Basis Point Incentive		Line 41- Line 20		#REF!

Effect of 1% Increase in the Equity Ratio

Results

42	Rate Base				#REF!
43	100 Basis Point Incentive Return				
		\$	%	Cost	Weighted
44	Long Term Debt (line 3 minus 1% in equity ratio)	-	47%	4.79%	2.27%
45	Preferred Stock (line 4)	-	0%	0.00%	0.00%
46	Common Stock (line 5 plus 1% in equity ratio))	-	53%	10.60%	5.57%
47	Total (sum lines 44-46)	-			7.84%
48	Line 47 x line 42				#REF!
49	INCOME TAXES				
50	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614			
51	CIT=(T/1-T) * (1-(WCLTD/R)) =	0.2512			

52	where WCLTD=(line 44) and R= (line 47)																
53	and FIT, SIT & p are as given in footnote F on Appendix A.																
54	1 / (1 - T) = (T from line 50)	1.3538															
55	Amortized Investment Tax Credit (line 14)	-															
56	Income Tax Calculation = line 51 * line 48 * (1-n)	#REF!															#REF!
57	ITC adjustment (line 54 * line 55) * (1-n)	-		NP		0.00											-
58	Total Income Taxes (line 56 plus line 57)	#REF!															#REF!
59	Return and Income Taxes with 1% Increase in the Equity Ratio			Sum lines 48 and 58													#REF!
60	Rate Base			Line 42													#REF!
61	Return and Income Taxes with 1% Increase in the Equity Ratio			Line 59 / line 60													#REF!
62	Difference between Base ROE and 1% Increase in the Equity Ratio			Line 61 - Line 20													#REF!
																	Attachment 4
63	Revenue Requirement per project including incentives																
64	Expense Allocator [Appendix A, lines 45 and 59, less Appendix A, line 44b / Gross Transmission Plant In Service Column (l)] (Note B)																0.5391
65	Base Carrying Charge (used in , Line 102 Appendix A																#REF!

The table below breaks out the total revenue requirement on Appendix A separately for each investment. The total of Column (p) must equal the amount shown on Appendix A, Line 3.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
Line	Description	Net Investment (Note A)	ROE Authorized by FERC (Note C)	ROE Base (From Appendix A, line 93)	Incentive % Authorized by FERC	Line 41	Col (e) / .01 x Col (f)	Incentive \$ (Col (b) x Col (g)	Equity % in Capital Structure (% above base %, -% below base %)(1 equals 1%)	Impact of Equity Component of Capital Structure(Col (b) x (i) x Line 62	Base Return and Tax (Line 65 x Col (b)	Gross Plant In Service (Note B)	Expense Allocator (line 64)	O&M, Taxes Other than Income (Col. (l) x Col. (n)	Depreciation/Am ortization Expense	Total Revenues (Col. (h) + (j) + (k) +(n) +(o))
66	Up to 228 million	2,108,969	9.5%	10.60%	0.005	#REF!	#REF!	#REF!	-	#REF!	#REF!	2,557,690	0.5391	1,378,851	101,608	#REF!
66a	Over 228 million	-	9.5%	10.60%	-	#REF!	#REF!	#REF!	-	#REF!	#REF!	-	0.5391	-	-	#REF!
66b	Regulatory Asset	-	9.5%	10.60%	-	#REF!	#REF!	#REF!	-	#REF!	#REF!	-	0.5391	-	-	#REF!
66c	-	-	0.0%	10.60%	-				-				1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
...				10.60%									1	-	-	
67	Total	\$2,108,969.38		10.60%				#REF!		#REF!	#REF!	\$2,557,690	1	1,378,851	101,608	#REF!
	Check Sum Appendix A Line 3 Difference (must be zero)															#REF! #REF!

- Note:
- A Column (b), Net Investment includes the Net Plant In Service, unamortized regulatory assets, unamortized abandoned plant and CWIP
- B Column (l), Gross Plant in Service excludes Regulatory Assets, CWIP, and Abandoned Plant.
- C Column (e), for each project with an incentive in column (e), note the docket No. in which FERC granted the incentive>

Project	Docket No.	Note
TOTs 1 - Ramapo to Rock Tavern	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate
TOTs 2 - Staten Island Unbottling Feeder Split	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate
TOTs 3 - NYSEG's Marcy South Series Comp Fraser to Coopers Corner	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate

Attachment 5 - Financing Costs for Long Term Debt using the Internal Rate of Return Methodology (Note 13)
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
HYPOTHETICAL EXAMPLE

Assumes financing will be a 5 year loan with Origination Fees of \$2.1 million and a Commitments Fee of 0.3% on the undrawn principal.
Consistent with GAAP, the Origination Fees and Commitments Fees will be amortized using the standard Internal Rate of Return formula below.
Each year, the amounts withdrawn, the interest paid in the year, Origination Fees, Commitments Fees, and total loan amount will be updated on this attachment.

Table 1

Total Loan Amount	\$ -
-------------------	------

Table 2

Internal Rate of Return ¹	#NUM!
Based on following Financial Formula ² :	
$NPV = 0 = \sum_{t=1}^N \frac{C_t}{(1+IRR)^{pwr(t)}}$	

Table 3

Origination Fees	
Underwriting Discount	-
Arrangement Fee	-
Upfront Fee	-
Rating Agency Fee	-
Legal Fees	-
Total Issuance Expense	-
Annual Rating Agency Fee	
Annual Bank Agency Fee	-
Revolving Credit Commitment Fee	0.000%

Table 4

	2014	2015	2016	2017	2018	2019	2020
LIBOR Rate	0.64%	1.03%	1.60%	2.13%	2.13%	2.13%	2.13%
Spread	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Interest Rate	2.89%	3.28%	3.85%	4.38%	4.38%	4.38%	4.38%

Table 5

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Year		Capital Expenditures (\$000's)	Principal Drawn In Quarter (\$000's)	Principal Drawn To Date (\$000's)	Interest & Principal (\$000's)	Origination Fees (\$000's)	Commitment & Utilization Fee (\$000's)	Net Cash Flows (\$000's)
					Cumulative Col. D	1/4 * Interest Rate from Line 16 x Col. E prior quarter and Principal repayment	Input in first Qtr of Loan	(line 1/1000 less Col. E prior quarter)*line 13/4 +line 12/4000+line 11/4000	(D-F-G-H)
	3/31/2014	Q3	-	-	-				-
	6/30/2014	Q4	-	-	-	-		-	-
	9/30/2014	Q1	-	-	-	-		-	-
	12/31/2014	Q2	-	-	-	-		-	-
	3/31/2015	Q3	-	-	-	-		-	-
	6/30/2015	Q4	-	-	-	-		-	-
	9/30/2015	Q1	-	-	-	-		-	-
	12/31/2015	Q2	-	-	-	-		-	-
	3/31/2016	Q3	-	-	-	-		-	-
	6/30/2016	Q4	-	-	-	-		-	-
	9/30/2016	Q1	-	-	-	-		-	-
	12/31/2016	Q2	-	-	-	-		-	-
	3/31/2017	Q3	-	-	-	-		-	-
	6/30/2017	Q4	-	-	-	-		-	-
	9/30/2017	Q1	-	-	-	-		-	-
	12/31/2017	Q2	-	-	-	-		-	-
	3/31/2018	Q3	-	-	-	-			-

- Notes
1. The IRR is the input to Debt Cost shown on Appendix A, Page 4, Line 95 during the construction period, after obtaining project financing, in accordance with Note G of Appendix A.
2. The IRR is a discount rate that makes the net present value of a series of cash flows equal to zero. The IRR equation is shown on line 4.
- N is the last quarter the loan would be outstanding
- t is each quarter
- Ct is the cash flow (Table 5, Col. I in each quarter)
- Alternatively the equation can be written as $0 = C_0 + C_1/(1+IRR) + C_2/(1+IRR)^2 + C_3/(1+IRR)^3 + \dots + C_n/(1+IRR)^n$ and solved for IRR
- The Excel™ formula on line 2 is : (round(XIRR(first quarter of loan Col A of Table 5:last quarter of loan Col A of Table 5, first quarter of loan Col I of Table 5: last quarter of loan Col I of Table 5, 8%),4))
- The 8% in the above formula is a seed number to ensure the formula produces a positive number.
3. Line 1 reflects the loan amount, the maximum amount that can be drawn on
4. Lines 5 through 13 include the fees associated with the loan. They are estimated based on current bank condition and are updated with the actual fees once the actual fees are known.
5. The estimate of the average 3 month Libor forward rate for the year on line 14 is that published by Bloomberg Finance L.P. during August of the prior year and is trued-up to actual average 3 month Libor rate for the year under the loan.
6. Table 5, Col. C reflect the capital expenditures in each quarter
7. Table 5, Col. D reflect the amount of the loan that is drawn down in the quarter
8. Table 5, Col. E is the amount of principle drawn down
9. Table 5, Col F calculates the interest on the principle drawn down to date based on the applicable interest on line 16
10. Table 5, Col. G is the total origination fees in line 10 and is input in the first quarter that a portion of the loan in drawn
11. Table 5, Col. H is calculated as follows:
- (line 1/1000 less Col. E prior quarter)*line 13/4 +line 12/4000+line 11/4000
- Where A = Loan amount in line 1 less the amount drawn down (Table 5, Col. (E)) in the prior quarter
12. The inputs shall be estimated based on the current market conditions and is subject to true up for all inputs , e.g., fees, interest rates, spread, and Table 3 once the amounts are known
13. Prior to obtaining long term debt, the cost of debt, will be 3.28%. If NY Transco obtains project financing, the long term debt rate will be determined using the methodology in Attachment 5 and Attachment 5 contains a hypothetical example of the internal rate of return methodology; the methodology will be applied to actual amounts for use in Attachment A. After the first project is placed into service, NY Transco will use the its actual cost of long term debt determined in Attachment 3. The capital structure will be the actual capital structure up to 53% equity.

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)
Beginning of Year

Item		Transmission Related	Plant Related	Labor Related	Total	
1	ADIT-282	-	-	-		From Acct. 282 total, below
2	ADIT-283	-	-	-		From Acct. 283 total, below
3	ADIT-190	-	-	-		From Acct. 190 total, below
4	Subtotal	-	-	-		
5	Wages & Salary Allocator			0.00		
6	NP		0.00			
7	Beginning of Year	-	-	-	-	
8	End of year from Attachment 6b, line 7	101,608	-	-	101,608	
9	Average of Beginning of Year and End of Year ((7 +8)/2)	50,804	-	-	50,804	Enter as negative Appendix A, line 24.

In filling out this attachment, a full and complete description of each item and justification for the allocation to Columns B-F and each separate ADIT item will be listed, dissimilar items with amounts exceeding \$100,000 will be listed separately. For ADIT directly related to project depreciation or CWIP, the balance must shown in a separate row for each project.

	A	B	C	D	E	F	G
10	ADIT-190	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
11a		-		-			
11b		-		-			
11c		-					
11d		-					
11e		-					
12	Subtotal - p234	-	-	-	-	-	
13	Less FASB 109 Above if not separately removed	-					
14	Less FASB 106 Above if not separately removed	-		-			
15	Total	-	-	-	-	-	

- Instructions for Account 190:
- 1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
 - 2. ADIT items related only to Transmission are directly assigned to Column D
 - 3. ADIT items related to Plant and not in Columns C & D are included in Column E
 - 4. ADIT items related to labor and not in Columns C & D are included in Column F
 - 5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)
Beginning of Year

	A	B	C	D	E	F	G
21	ADIT- 282	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
22a	MACRS for plant additions	-		-			Timing difference related to depreciation for TOTS Projects placed in service

22b						
22c						
...						
...						
...						
...						
...						
...						
...						
23	Subtotal - p275	-	-	-	-	
24	Less FASB 109 Above if not separately removed	-				
25	Less FASB 106 Above if not separately removed	-		-		
26	Total	-	-	-	-	

- Instructions for Account 282:
- 27

28

29

30

31
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)

Beginning of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	
32	ADIT- 283						
33a	COR	-		-			Cost of removal
33b		-					
33c		-					
33d		-					
33e		-					
...							
...							
...							
...							
...							
34	Subtotal - p277	-	-	-	-	-	
35	Less FASB 109 Above if not separately removed	-		-			
36	Less FASB 106 Above if not separately removed						
37	Total	-	-	-	-	-	

- Instructions for Account 283:
- 38

39

40

41

42
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)
End of Year

	Line	Transmission Related	Plant Related	Labor Related	Total	
1	1 ADIT-282	63,942.00	-	-		From Acct. 282 total, below
2	2 ADIT-283	37,666.00	-	-		From Acct. 283 total, below
3	3 ADIT-190	-	-	-		From Acct. 190 total, below
4	4 Subtotal	101,608.00	-	-		
5	5 Wages & Salary Allocator			0.00		
6	6 NP		0.00			
7	7 End of Year ADIT	101,608.00	-	-	101,608.00	

In filling out this attachment, a full and complete description of each item and justification for the allocation to Columns B-F and each separate ADIT item will be listed, dissimilar items with amounts exceeding \$100,000 will be listed separately. For ADIT directly related to project depreciation or CWIP, the balance must be shown in a separate row for each project.

	A	B	C	D	E	F	G
8	ADIT-190	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
9a		-					
9b		-					
9c		-					
9d		-					
9e		-					
...							
...							
...							
...							
...							
...							
10	Subtotal - p234	-	-	-	-	-	
11	Less FASB 109 Above if not separately removed	-					
12	Less FASB 106 Above if not separately removed	-		-			
13	Total	-	-	-	-	-	

- Instructions for Account 190:
- 14

15

16

17

18
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)
End of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod Or Other	Transmission	Plant	Labor	
19	ADIT- 282						

		Related	Related	Related	Related	Justification
20a	MACRS for plant additions	63,942		63,942		Timing difference related to depreciation
20b						
20c						
...						
...						
...						
...						
...						
...						
21	Subtotal - p275	63,942	-	63,942	-	
22	Less FASB 109 Above if not separately removed	-				
23	Less FASB 106 Above if not separately removed	-		-		
24	Total	63,942	-	63,942	-	

- Instructions for Account 282:
- 25

26

27

28

29
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)

End of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod				
30	ADIT- 283		Or Other	Transmission	Plant	Labor	
			Related	Related	Related	Related	
31a	COR	37,666		37,666			Cost of removal
31b							
31c							
31d							
31e							
...							
...							
...							
...							
...							
32	Subtotal - p277	37,666	-	37,666	-	-	

33	Less FASB 109 Above if not separately removed	-		-		
34	Less FASB 106 Above if not separately removed	-		-		
35	Total	37,666	-	37,666	-	-

Instructions for Account 283:

- 36
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
- 37
2. ADIT items related only to Transmission are directly assigned to Column D
- 38
3. ADIT items related to Plant and not in Columns C & D are included in Column E
- 39
4. ADIT items related to labor and not in Columns C & D are included in Column F
- 40
5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

Attachment 7 - Example of True-Up Calculation (Note 3)
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

2017		2017			
Revenue Requirement Billed (Note 1)		Actual Revenue Requirement (Note 2)		Over (Under) Recovery	
\$2,164,047	Less	\$2,164,047	Equals	\$0	

Interest Rate on Amount of Refunds or Surcharges	Over (Under) Recovery Plus Interest	Monthly Interest Rate on Attachment 7a	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
		0.4225%				

An over or under collection will be recovered prorata over year collected, held for one year and returned prorata over next year.
If the first year is a partial year, the true-up (over or under recovery per month and interest calculation) will reflect only the number of months for which the rate was charged.

Calculation of Interest					Monthly		
January	Year 2017	-	0.4225%	12	-	-	-
February	Year 2017	-	0.4225%	11	-	-	-
March	Year 2017	-	0.4225%	10	-	-	-
April	Year 2017	-	0.4225%	9	-	-	-
May	Year 2017	-	0.4225%	8	-	-	-
June	Year 2017	-	0.4225%	7	-	-	-
July	Year 2017	-	0.4225%	6	-	-	-
August	Year 2017	-	0.4225%	5	-	-	-
September	Year 2017	-	0.4225%	4	-	-	-
October	Year 2017	-	0.4225%	3	-	-	-
November	Year 2017	-	0.4225%	2	-	-	-
December	Year 2017	-	0.4225%	1	-	-	-
					Annual		
January through December	Year 2018	-	0.4225%	12	-	-	-
Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months					Monthly		
January	Year 2019	-	0.4225%		-	-	-
February	Year 2019	-	0.4225%		-	-	-
March	Year 2019	-	0.4225%		-	-	-
April	Year 2019	-	0.4225%		-	-	-
May	Year 2019	-	0.4225%		-	-	-
June	Year 2019	-	0.4225%		-	-	-
July	Year 2019	-	0.4225%		-	-	-
August	Year 2019	-	0.4225%		-	-	-
September	Year 2019	-	0.4225%		-	-	-
October	Year 2019	-	0.4225%		-	-	-
November	Year 2019	-	0.4225%		-	-	-
December	Year 2019	-	0.4225%		-	-	-
Total Amount of True-Up Adjustment					\$	-	
Less Over (Under) Recovery					\$	-	
Total Interest					\$	-	

Note 1: Revenue requirements billed is input, source data are the invoices from NYISO. The amounts exclude any true ups or prior period adjustments.
Note 2: The actual revenue requirement is input from Attachment 4, line 66, column p. The amounts exclude any true-ups or prior period adjustments.
Note 3: This "Example" sheet will be populated with actuals and used in each year's annual true-up calculation.

True-Up Interest Calculation

Attachment 7a
Page 2

		Pursuant to 18 C.F.R. Section 18 35.19 (a)
	FERC Quarterly Interest Rate	
1	Qtr 3 (Previous Year)	4.69%
2	Qtr 4 (Previous Year)	4.96%
3	Qtr 1 (Current Year)	5.18%
4	Qtr 2 (Current Year)	5.45%
5	Average of the last 4 quarters (Lines 1-4 / 4)	5.07%
6	Interest Rate Used for True-up adjustment (Note B)	0.0507
7	Monthly Interest Rate for Attachment 7 (Line 6 / 12)	0.0042

Attachment 8 - Depreciation and Amortization Rates
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Account Number	FERC Account	Rate (Annual) Percent
TRANSMISSION PLANT		
1 350.1	Land Rights	
2 352	Structures and Improvements	0.13
3 353	Station Equipment	0.38
4 354	Towers and Fixtures	
5 355	Poles and Fixtures	0.91
6 356	Overhead Conductor and Devices	0.50
7 357	Underground Conduit	
8 358	Underground Conductor and Devices	
9 35x	Smart Wire Device	2.50
10 PRODUCTION PLANT	All Accounts	
11 DISTRIBUTION PLANT	All Accounts	
GENERAL PLANT		
12 390	Structures & Improvements	
13 391	Office Furniture & Equipment	
14 392	Transportation Equipment	
15 393	Stores Equipment	
16 394	Tools, Shop & Garage Equipment	
17 395	Laboratory Equipment	
18 396	Power Operated Equipment	
19 397	Communication Equipment	
20 398	Miscellaneous Equipment	
INTANGIBLE PLANT		

21 303	Miscellaneous Intangible Plant	
	5 Yr	
	7 Yr	
	10 Year	
	15 year	
	Transmission facility Contributions in Aid of Construction	Note 1

These depreciation and amortization rates will not change absent the appropriate filing at FERC.

Note 1: The Contribution in Aid of Construction (CIAC) made for this project is assumed to be applied to offset all transmission plant categories with the remaining balance in account 35x for the new Smart Wire Devices for the purposes of calculating rate base and depreciation to be recovered.

Attachment 9 - Workpapers

Regulatory Assets

(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)	(aa)	
									May 31	June 30	July 31	Aug. 31	Sept. 30	Oct. 31	Nov. 30	Dec. 31	Jan 31	Feb 28	Mar 31	Apr 30	May 31							
		Recovery Amnt Approved *	Recovery Period Months *	Monthly Amort Exp (b) / (c)	Amort Periods this year	Current Amort Expense x (e)	(d) % Allocated to Formula Rate *	Amort Exp in Formula Rate** (f) x (g)														Avg Unamortized Balance Sum (i) through (u) / 13	% Approved for Rate Base *	Allocated to Formula Rate (from (g))	Rate Base Balance x (w) x (x)	Project Code	Docket No	
No.	Project Name								2020	2020	2020	2020	2020	2020	2020	2020	2021	2021	2021	2021	2021							
1a			0	-	12	-	1	-	0	0	0	0	0	0	0	0	0	0	0	0	0	-	1	1	-			
1b				-		-		-														-		-	-			
1c				-		-		-														-		-	-			
...				-		-		-														-		-	-			
1x				-		-		-														-		-	-			
...				-		-		-															-		-	-		
1x				-		-		-															-		-	-		
2		Total Regulatory Asset in Rate Base (sum lines 1a-1x):								-																		

* Non-zero values in these columns may only be established per FERC order
**All amortizations of the Regulatory Asset are to be booked to Account 566

Abandoned Plant

(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	(x)	(y)	(z)	(aa)	
									March	April	May	June	July	August	September	October	November	December	January	February	March							
No.	Project Name	Recovery Amnt Approved *	Recovery Period Months *	Monthly Amort Exp (b) / (c)	Amort Periods this year	Current Amort Expense x (e)	(d) % Allocated to Formula Rate *	Amort Exp in Formula Rate (f) x (g)	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019	Avg Unamortized Balance Sum (i) through (u) / 13	% Approved for Rate Base *	Allocated to Formula Rate (from (g))	Rate Base Balance x (w) x (x)	Project Code	Docket No	
3a				-		-		-														-						
3b				-		-		-																				-
3c				-		-		-																				-
...				-		-		-																				-
				-		-		-																				-
				-		-		-																				-
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				-		-		-																				-
				-		-		-																				-
				-		-		-																				-
				-		-		-																				-
3x	-		-		-		-	-																				

* Non-zero values in these columns may only be established per FERC order

Land Held for Future Use (LHFU)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
			Land Held for Future Use and Estimated Date	March	April	May	June	July	August	September	October	November	December	January	February	March	Average of Columns (d) Through (p)
No.	Subaccount No.	Item Name		2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019	
5a																	-
5b																	-
5c																	-
...																	-
...																	-
...																	-
...																	-
...																	-
...																	-
...																	-
...																	-
5x																	-

CWIP in Rate Base

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
No.	Project Name	job ID	Construction Start Date	Estimated in-service date	Approval Doc. No.	March	April	May	June	July	August	September	October	November	December	January	February	March	Avg (i) through (r)	% approved for recovery	Rate Base Amnt (s) x (t)
7a						2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019	-	0.0%	-
7b																			-	0.0%	-
7c																			-	0.0%	-
...																			-	0.0%	-
																			-	0.0%	-
																			-	0.0%	-
																			-	0.0%	-
																			-	0.0%	-
																			-	0.0%	-
7x																			-	0.0%	-

Change to recovery percent in Column (t) requires FERC order

Actual Additions by FERC Account
The total of these additions should total the additions reported in the FERC Form No.1 on page 206, lines 48 to 56

[illegible]

Intangible Plant Detail

The total

	Item	Description	Source	Service Life	Amount
11a			Company Records		
11b			Company Records		
11c			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
11x			Company Records		
12	Total	(sum lines 11a-11x) ties to p207.5.g			

12	Total (sum lines 11a-11x) ties to p207.5.g
----	--

Detail of Affiliate Charges Included in NY Transco's Books as Requested by Certain Parties to the Filing

Transactions between NY Transco and any entity that is associated (affiliated) with NY Transco must be reported on page 429 of the Form No. 1. The chart below is to include all charges to the NY Transco by an affiliate, by Affiliate and by FERC account number

	Central Hudson G&E	Consolidated Edison	National Grid	NY State E&G	Rochester G&E	Orange & Rockland	Niagara Mohawk	Total
13a								-
13b								-
13c								-
13d								-
13e								-
13f								-
13g								-
13h								-
13i								-
13j								-
13k								-
13l								-
13m								-
13n								-
13o								-
13p								-
13q								-
13r								-
13s								-
13t								-
13u								-
13x								-
14	Total	-	-	-	-	-	-	-

(sum lines 13a-13x)



August 7, 2019

By Electronic Delivery

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Filing of an Executed Engineering, Procurement, and Construction Agreement Among the New York Independent System Operator, Inc., Central Hudson Gas & Electric Corp., Niagara Mohawk Power Corporation d/b/a National Grid, Stony Creek Energy LLC, TBE Montgomery, LLC, and CPV Valley, LLC; and Request for Waiver of the 60-Day Notice Period; Docket No. ER19-____000

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act¹ and Section 35.12 of the Commission's regulations,² the New York Independent System Operator, Inc. ("NYISO"), Central Hudson Gas & Electric Corp. ("Central Hudson"), and Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid") (together, the "Joint Filing Parties") hereby tender for filing an executed engineering, procurement, and construction agreement ("EPC Agreement"). The EPC Agreement has been entered into by the NYISO, Central Hudson and National Grid, as the Affected Transmission Owners, and by Stony Creek Energy LLC ("Stony Creek"), TBE Montgomery, LLC ("Taylor"), and CPV Valley, LLC ("CPV Valley"), as the Developers (collectively, the "Parties").³ The EPC Agreement is labeled as Service Agreement No. 2449 under the NYISO's Open Access Transmission Tariff ("OATT").

The NYISO's Class Year Deliverability Studies for Class Years 2009, 2010 and 2011 determined that certain System Deliverability Upgrades ("SDUs") are required on the Affected Transmission Owner's systems ("Affected Systems") for the Developers' facilities to interconnect reliably to the New York State Transmission System in a manner that meets the NYISO Deliverability Interconnection Standard at the Developers' requested level of Capacity Resource Interconnection Service ("CRIS").⁴ Pursuant to Section 30.12.1 of Attachment X and

¹ 16 U.S.C. § 824d (2014).

² 18 C.F.R. § 35.12 (2014).

³ Capitalized terms that are not otherwise defined in this filing letter shall have the meaning specified in Attachment S or X of the OATT, and if not defined therein, in the OATT and Market Administration and Control Area Services Tariff.

⁴ CRIS is interconnection service that allows a Developer to interconnect its facility to the New York State Transmission System or Distribution System in accordance with the NYISO Deliverability Interconnection standard,

Section 25.7.11.1.4.2.6 of Attachment S of the OATT, the Parties have developed and executed the EPC Agreement to govern the rates, terms, and conditions regarding the engineering, procurement, and construction of the SDUs on the Affected Systems. The EPC Agreement is based on the *pro forma* Large Generator Interconnection Agreement (“Pro Forma LGIA”) contained in Attachment X to the OATT and conforms to the Pro Forma LGIA except as described in Part II of this letter.

The Joint Filing Parties respectfully request that the Commission accept the EPC Agreement for filing. Further, as described in Part III of this letter, the Joint Filing Parties respectfully request a waiver of the Commission’s prior notice requirements⁵ to make the EPC Agreement effective as of June 28, 2019, which is the date on which it was fully executed.

I. BACKGROUND

Each of the Developers participated in the NYISO’s Class Year Process and requested that the NYISO provide it with CRIS as part of the interconnection of its facility to the New York State Transmission System. For Class Year Projects that elect CRIS, Attachment S of the OATT establishes the NYISO’s requirements for evaluating a project’s Deliverability and the identification and cost allocation of SDUs required for a project’s proposed capacity to be fully deliverable. If the portion of the SDU that is required to make one or more projects in a Class Year deliverable is less than 90% of the total size (measured in megawatts) of the SDU, the Developer(s) will be required to pay or commit to pay for a percentage share of the total cost of the SDU equal to the estimated percentage megawatt usage by the project of the total megawatts provided by the SDUs.⁶ Once a threshold of 60% of the most current cost estimate of the SDU has been paid or posted as Security by Developers, the SDU must be constructed by the Transmission Owner that owns the facility to be upgraded.⁷ The NYISO, Affected Transmission Owner(s), and applicable Developers are required to enter into an engineering, procurement, and construction agreement regarding the construction of the SDU.⁸

The Class Year Deliverability Studies for Class Years 2009, 2010 and 2011 determined that certain SDUs are required on the Affected Systems (“Common System Deliverability Upgrades”) for the Developers’ facilities to interconnect reliably to the New York State Transmission System in a manner that meets the NYISO Deliverability Interconnection Standard at the Developers’ requested level of CRIS. Each Developer accepted and provided Security to the Affected Transmission Owners to cover its share of the estimated cost of the Common

which allows participation in the NYISO’s Installed Capacity market to the extent of the facility’s deliverable capacity.

⁵ See *Prior Notice and Filing Requirements Under Part II of the Federal Power Act*, 64 FERC ¶ 61,139, clarified, 65 FERC ¶ 61,081 (1993).

⁶ See NYISO OATT § 25.7.12.2.

⁷ See NYISO OATT § 25.7.12.3.1.

⁸ See NYISO OATT §§ 30.12.1; 25.7.11.1.4.2.6.

System Deliverability Upgrades.⁹ The Class Year Deliverability Study for Class Year 2011 determined that a threshold of 60% or more of the estimated cost for the Common System Deliverability Upgrades had been paid or posted as Security by the Developers. This triggered the requirement that the Affected Transmission Owners construct the Common System Deliverability Upgrades. Accordingly, the NYISO, Affected Transmission Owners, and Developers have entered into an agreement for the engineering, procurement, and construction of the Common System Deliverability Upgrades. Consistent with Commission precedent and NYISO practice, the EPC Agreement was developed using the Pro Forma LGIA as a template.¹⁰ Each of the Developers has separately entered into a Large Generator Interconnection Agreement with the NYISO and the appropriate Connecting Transmission Owner concerning the interconnection of its facility (the “Interconnection Agreements”).¹¹

II. DESCRIPTION OF THE EPC AGREEMENT

Central Hudson and National Grid, as the Affected Transmission Owners, will engineer, procure, and construct the Common System Deliverability Upgrades in accordance with the terms of the EPC Agreement (“EPC Services”). Each Developer has posted Security to the Affected Transmission Owners to cover the costs of constructing these facilities in accordance with the requirements in Attachment S of the OATT. Any differences in cost between the posted Security and the final cost of constructing the facilities will be allocated in accordance with the tariff requirements for addressing such differences in Section 25.8.6 of Attachment S of the OATT.¹² The NYISO’s role in the EPC Agreement will be limited to certain oversight rights and responsibilities.

The EPC Agreement is based on the Pro Forma LGIA, as modified: (i) to reflect the different purpose of the agreement, (ii) to allocate the parties’ responsibilities for the performance of the EPC Services and the payment for such performance, and (iii) to set forth the

⁹ Ball Hill Wind Park, LLC (“Ball Hill”) also posted Security to the Affected Transmission Owners in connection with its project (NYISO Queue No. 222) when it accepted its Project Cost Allocation for the Common System Deliverability Upgrades in Class Year 2009. Ball Hill subsequently terminated its project. Pursuant to Sections 25.8.5 and 25.8.6 of Attachment S of the NYISO OATT, Ball Hill forfeited its Security, which may be drawn upon by the Affected Transmission Owners to the extent necessary to cover the actual costs for the Common System Deliverability Upgrades in excess of the amount for which the Developers are responsible.

¹⁰ There is no *pro forma* EPC Agreement in the NYISO OATT. The EPC Agreement is based on the Pro Forma LGIA, consistent with Commission precedent. See *New York Independent System Operator, Inc., Letter Order*, Docket No. ER15-2083-000 (August 19, 2015); see also *New York Independent System Operator, Inc., and Niagara Mohawk Power Corporation, Letter Order*, Docket No. ER08-230-000 (December 18, 2007); see also *Midwest Independent Transmission System Operator, Inc.*, 113 FERC ¶ 61,048 (2005); *Duke Electric Transmission, a Division of Duke Energy Corp.*, 113 FERC ¶ 61,139 (2005).

¹¹ The Interconnection Agreement for CPV Valley did not fully conform with the Pro Forma LGIA and was filed with, and accepted by, the Commission. See *New York Independent System Operator, Inc., Letter Order*, Docket No. ER15-1895 (July 16, 2015). The Interconnection Agreements for the Taylor and Stony Creek projects conformed to the Pro Forma LGIA and were not filed with the Commission.

¹² The Developers’ total cost responsibility for the Common System Deliverability Upgrades is determined in accordance with the cost allocation requirements in Sections 25.7.12.2 and 25.8.6 of Attachment S of the OATT and reflected in their Invoice Share and their Developer Common SDU Cost Cap in the EPC Agreement.

scope of work, cost estimate, cost responsibility, and milestone schedule for the construction of the Common System Deliverability Upgrades.

The EPC Agreement varies from the Pro Forma LGIA primarily as follows, consistent with the approach the Commission accepted with regard to similar EPC agreements:¹³

- The EPC Agreement governs only the performance of the EPC Services and terminates upon the completion of the Common System Deliverability Upgrades and the payment of related invoices and refund or release of Security. For this reason, the EPC Agreement does not include the provisions of the Pro Forma LGIA that govern the ongoing operation or maintenance of the constructed facilities.¹⁴
- The EPC Agreement is limited to the activities required to construct and place in service the Common System Deliverability Upgrades. For this reason, the EPC Agreement does not include the provisions of the Pro Forma LGIA that govern the activities required to construct and place in-service the Large Generating Facility, the Attachment Facilities, or System Upgrade Facilities. These requirements are addressed under the Developers' respective Interconnection Agreements.
- The EPC Agreement does not include the provisions of the Pro Forma LGIA that govern the NYISO's provision of interconnection service to each Developer, which is addressed under the Developers' respective Interconnection Agreements.
- As Central Hudson and National Grid will perform the EPC Services, the EPC Agreement does not include the provisions of the Pro Forma LGIA that address the Developers' options and responsibilities for performing such work.
- As the parties have already completed the interconnection and deliverability studies necessary to determine the impact of the interconnection, the EPC Agreement does not include the provisions of the Pro Forma LGIA that address such studies.
- The EPC Agreement replaces the use of the term "Connecting Transmission Owner" with "Affected Transmission Owners" (*i.e.*, Central Hudson and National Grid) and includes revisions to account for the participation of two Affected Transmission Owners and multiple Developers in the agreement.
- The EPC Agreement also includes minor clean-ups and revisions agreed upon among all of the Parties that are consistent with the terms of the EPC Agreement.

¹³ See *New York Independent System Operator, Inc., and Niagara Mohawk Power Corporation, Letter Order*, Docket No. ER08-230-000 (December 18, 2007); see also *New York Independent System Operator, Inc., Letter Order*, Docket No. ER15-2083-000 (August 19, 2015).

¹⁴ Once completed, Central Hudson and National Grid will own the Common System Deliverability Upgrades and be responsible for their operation and maintenance. The requirements for the ongoing operation and maintenance of the Developers' facilities are set forth in their respective Interconnection Agreements.

The Joint Filing Parties provide in Attachment I of this filing letter a matrix that describes in greater detail the differences between the EPC Agreement and the Pro Forma LGIA.¹⁵

III. EFFECTIVE DATE AND REQUEST FOR WAIVER

The Joint Filing Parties request an effective date of June 28, 2019 for the EPC Agreement, which is the date that it was fully executed. The Joint Filing Parties respectfully request that the Commission waive its prior notice requirement to permit the requested effective date. The Commission has previously permitted similar agreements to become effective upon the date of execution.¹⁶

IV. COMMUNICATIONS AND CORRESPONDENCE¹⁷

Communications regarding this filing should be directed to:

NYISO

Robert E. Fernandez, General Counsel Karen Georgenson Gach, Deputy General Counsel *Sara B. Keegan, Senior Attorney New York Independent System Operator, Inc. 10 Krey Boulevard Rensselaer, NY 12144 Tel: (518) 356-6000 Fax: (518) 356-4702 skeegan@nyiso.com	*Ted J. Murphy Hunton Andrews Kurth LLP 2200 Pennsylvania Avenue, NW Washington, D.C. 20037 Tel: (202) 955-1500 Fax: (202) 778-2201 tmurphy@hunton.com *Michael J. Messonnier Jr. Hunton Andrews Kurth LLP 951 East Byrd Street Richmond, VA 23219 Tel: (804) 788-8200 Fax: (804) 344-7999 mmessonnier@hunton.com
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¹⁵ As described in this filing letter, “Connecting Transmission Owner” has been replaced with “Affected Transmission Owner” and Developer and Affected Transmission Owner have been made plural throughout the EPC Agreement with limited exceptions. The NYISO has not highlighted these changes, which apply in most provisions of the EPC Agreement, in the matrix in Attachment I.

¹⁶ See, e.g., *New York Independent System Operator, Inc., Letter Order*, Docket No. ER15-2083-000 (August 19, 2015) (accepting EPC Agreement effective as of date of execution); see also *New York Independent System Operator, Inc. and New York State Electric & Gas Corporation*, Docket No. ER11-2953-000 (April 7, 2011) (accepting interconnection agreement effective as of date of execution); see also *New York Independent System Operator, Inc. and Niagara Mohawk Power Corp., Letter Order*, Docket No. ER08-985-000 (June 26, 2008) (same); *New York Independent System Operator, Inc. and New York Power Authority, Letter Order*, Docket No. ER08-861-000 (May 27, 2008) (same); *New York Independent System Operator, Inc. and New York Power Authority, Letter Order*, Docket No. ER08-699-000 (May 16, 2008) (same).

¹⁷ The NYISO respectfully requests waiver of 18 C.F.R. § 385.203(b)(3) (2014) to permit service on counsel in both Washington, D.C. and Richmond, VA.

Central Hudson

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National Grid

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*Designated to receive service.

V. DOCUMENTS SUBMITTED

The NYISO submits the following documents with this filing letter:

- the matrix describing the differences between the EPC Agreement and the Pro Forma LGIA (Attachment I);
- a clean version of the EPC Agreement (Attachment II);

- a blacklined version of the EPC Agreement showing the changes from the Pro Forma LGIA (Attachment III); and
- the signature pages for the EPC Agreement (Attachment IV).

VI. SERVICE

The NYISO will send an electronic link to this filing to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities. In addition, a complete copy of the documents included with this filing will be posted on the NYISO's website at www.nyiso.com.

VII. CONCLUSION

Wherefore, the Joint Filing Parties respectfully request that the Commission accept the EPC Agreement for filing with an effective date of June 28, 2019.

Respectfully submitted,

/s/ Sara B. Keegan

Sara B. Keegan
Counsel for the
New York Independent System Operator, Inc.

/s/ Paul. A. Colbert

Paul A. Colbert
Counsel for Central Hudson Gas & Electric Corp.

/s/ Christopher J. Novak

Christopher J. Novak
Counsel for Niagara Mohawk Power Corporation
d/b/a National Grid

cc:	Anna Cochrane	Jette Gebhart	David Morenoff	Douglas Roe
	James Danly	Kurt Longo	Daniel Nowak	Frank Swigonski
	Jignasa Gadani	John C. Miller	Larry Parkinson	Gary Will

Attachment I

Matrix Describing Differences Between EPC Agreement (Service Agreement No. 2449) and Pro Forma LGIA

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Recitals	Recitals	Modified to describe the purpose of the EPC Agreement, including that: (i) the Developers' facilities will have certain impacts on the Affected Systems; (ii) Affected Transmission Owners will perform the EPC Services for the construction of the Common System Deliverability Upgrades, and (iii) Developers have posted Security to cover the costs of constructing the Common System Deliverability Upgrades.
Article 1	Article	Definitions
		Modified to: (i) remove defined terms and definitions included in the Pro Forma LGIA that are unnecessary in the EPC Agreement and that could create confusion if retained, ¹² (ii) revise definitions of certain defined terms for consistency with the modified purpose and scope of the EPC Agreement, ³ and (iii) insert certain new defined terms required for the EPC Agreement. ⁴
Article 2	Article 2	Effective Date, Term, and Termination

¹ This approach was accepted by the Commission with respect to EPC agreements previously filed by the NYISO. *See New York Independent System Operator, Inc., Letter Order*, Docket No. ER15-2083-000 (August 19, 2015); *see also New York Independent System Operator, Inc., and Niagara Mohawk Power Corporation, Letter Order*, Docket No. ER08-320-000 (December 18, 2007).

² The removed defined terms are: Affected System Operator, Ancillary Services, Attachment Facilities, Base Case, Byway, Capacity Region, Connecting Transmission Owner, Connecting Transmission Owner's Attachment Facilities, Control Area, Developer's Attachment Facilities, Distribution Upgrades, Emergency State, Energy Resource Interconnection Service, Generating Facility Capacity, Highway, Initial Synchronization Date, Interconnection Facilities Study, Interconnection Facilities Study Agreement, Interconnection Study, Interconnection System Reliability Impact Study, Material Modification, Metering Equipment, NYISO Minimum Interconnection Standard, Other Interfaces, Point of Change of Ownership, Point of Interconnection, Retired, Stand Alone System Upgrade Facility, Standard Large Generator Interconnection Agreement, System Protection Facilities, and System Upgrade Facilities.

³ The revised defined terms are: Affected System, Affected Transmission Owner, Applicable Reliability Standards, Commercial Operation Date (now Completion Date), Developer, Distribution System, Effective Date, Governmental Authority, In-Service Date, and Party.

⁴ The Joint Filing Parties inserted the following terms that describe the facilities to be constructed ("Common System Deliverability Upgrades"), the cap on Developers' payment responsibilities ("Developer Common SDU Cost Cap"), the services to be performed under the EPC Agreement ("EPC Services"), the Security deposits subject to forfeiture should a Developer terminate or abandon the development of a project ("Forfeited Security"), the individual Developer's percentage share of the total cost responsibility ("Invoice Share"), and the milestones for the performance of the EPC Services ("Milestones").

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Article 2.1	Article 2.1	Modified to incorporate requirement from Article 3.1 of Pro Forma LGIA that Developers cooperate with filing EPC Agreement with Commission.
Article 2.2	Article 2.2	Modified to provide that agreement will terminate upon the later of: (i) the completion of EPC Services or (ii) the final payment of all invoices and release or refund of Security.
Article 2.3	Article 2.3	Modified (i) to provide that the agreement may be terminated by (a) all Parties agreeing in writing to terminate the agreement or (b) by any Party following a NYISO determination that the triggering threshold is no longer met, and (ii) to include internal cross references to the default and dispute provisions in the agreement.
Article 2.4	Article 2.4	Modified to reflect the respective rights and cost responsibilities of the Affected Transmission Owners and Developers in the event of an early termination and to remove references to facility types not being constructed under the agreement.
	Article 2.5	Not included in EPC Agreement as the provision concerns the disconnection of the generating facilities, which is covered in the Interconnection Agreements.
Article 2.5	Article 2.6	Modified to reflect that Affected Transmission Owners will be performing work.
	Article 3	Modified to focus on the applicable roles with regard to regulatory filings, and relocated to Article 2.1 of the EPC Agreement.
	Article 4	Not included in EPC Agreement, as the “Scope of Interconnection Service” provisions concern the scope of interconnection service provided by the NYISO to the Developers, which is covered in the Interconnection Agreements.
Article 3	Article 5	EPC Services (Replacing “Interconnection Facilities, Engineering, Procurement, and Construction”)
Article 3.1	Article 5.1	Modified to provide that the Affected Transmission Owners will perform the EPC Services and to clarify that NYISO does not have responsibility or liability for performance of this work.
	Articles 5.1.1 - 5.3	Not included in EPC Agreement, as the provisions concern options for performance of the construction work, which the Affected Transmission Owners have agreed to perform.
	Article 5.4	Not included in EPC Agreement, as the provision concerns power system stabilizers for the generating facilities, which is covered in the Interconnection Agreements.
Articles 3.2-3.6	Articles 5.5-5.8	Modified to reflect that Affected Transmission Owners will be performing the EPC Services.

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
	Articles 5.9 - 5.11	Not included in EPC Agreement, as the provisions concern the construction, ownership, and operation of Developer's Attachment Facilities, Connecting Transmission Owner's Attachment Facilities, and System Upgrade Facilities, which requirements are covered in the Interconnection Agreements.
Article 3.7		Inserted in EPC Agreement to provide that each Affected Transmission Owner will own its respective Common System Deliverability Upgrades.
Articles 3.8 – 3.9	Articles 5.12-5.14, 5.16	Removed Access Rights and Suspension provision and modified Lands of Other Property Owners and Permit provisions to reflect that the Affected Transmission Owners will be performing the EPC Services and that operation and maintenance requirements are not included in EPC Agreement, as all of the EPC work is being performed by Affected Transmission Owners and is not on any of the Developer's facilities nor is access to Developers' facilities required to performed the EPC work.
	Article 5.15	Not included in EPC Agreement, as the provision concerns the early construction of base case facilities, which is covered in the Interconnection Agreements.
Article 3.10	Article 5.17	Modified to reflect the facilities being constructed under EPC Agreement.
Article 3.11	Article 5.18	Modified to remove references to the tax exempt status of certain New York Transmission Owners not a party to the agreement.
Article 3.12	Article 5.19	Modified to reflect the facilities being constructed under EPC Agreement.
Article 4	Article 6	Testing and Inspection
Articles 4.1-4.2	Articles 6.1 and 6.3	Modified to reflect the facilities being constructed under EPC Agreement and to reflect that the Affected Transmission Owners will be performing EPC Services and will notify other parties regarding testing.
	Articles 6.2 and 6.4	Not included in EPC Agreement, as all of the EPC work is being performed by Affected Transmission Owners and is not on any of the Developer's facilities.
	Article 7	Not included in the EPC Agreement, as the "Metering" requirements are covered in the Interconnection Agreements and are not applicable.
Article 5	Article 8	Communications
Articles 5.1	Articles 8.1-8.3	Modified to remove references to communication requirements that are not applicable and to clarify that during the term of the Agreement, property placed on the premises of a Party remains the property of the Party providing such equipment.
Article 6	Article 9	Cost and Security Obligations

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Article 6.1	Articles 9.1 and 11.3	Modified to reflect that Affected Transmission Owner will be performing EPC Services, that Developers will be responsible for their share of the monthly costs, the Developers' cost responsibility for the cost above their cost cap as set forth in Attachment S of the NYISO OATT, and the Affected Transmission Owners' responsibility for costs that are not recoverable from Developers.
	Articles 9.2-9.10	Not included in EPC Agreement, as the "Operations" requirements are beyond the scope of this agreement, which terminates upon completion of the Common System Deliverability Upgrades and payment of final invoice and refund/release of Security.
	Article 10	Not included in EPC Agreement, as the "Maintenance" requirements are beyond the scope of this agreement, which terminates upon completion of the Common System Deliverability Upgrades and payment of final invoice and refund/release of Security.
	Articles 11.1-11.2	Not included in EPC Agreement, as the provisions concern the construction and ownership of Developer's Attachment Facilities and Connecting Transmission Owner's Attachment Facilities, which is covered in the Interconnection Agreements.
	Article 11.4	Not included in EPC Agreement, as the provision is not applicable under this agreement.
Article 6.2	Article 11.5	Modified (i) to provide that Developers have already provided Security in the amount of its cost cap for their shares of the Common System Deliverability Upgrades as determined by Attachment S to the ISO OATT, and (ii) to clarify how the Security may be used by the Affected Transmission Owners.
	Article 11.6	Not included in the EPC Agreement, as the provision concerns compensation for the operation of the constructed facilities.
Article 6.3	Article 11.7	Modified to reflect the facilities being constructed under EPC Agreement.
Article 7	Article 12	Invoice

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Article 7.1	Articles 12.1-12.2	Modified to reflect that Developers have already posted Security to cover costs of EPC Services and to reflect the facilities being constructed under the EPC Agreement.
Article 7.2	Articles 12.1-12.2	Modified to reflect the facilities being constructed under the EPC Agreement and the use of, and any refund of, the posted Security under the agreement.
Article 7.3	Article 12.3	Conforming.
Article 7.4	Article 12.4	Modified to reflect that any Party could owe money to another Party.
	Article 13	Not included in EPC Agreement, as the “Emergencies” provisions are beyond the scope of this agreement, which terminates upon completion of the Common System Deliverability Upgrades and payment of final invoices and refund/release of Security.
Article 8	Article 14	Regulatory Requirements and Governing Law
Articles 8.1-8.2.3	Articles 14.1-14.2.3	Conforming.
Article 9	Article 15	Notices
Articles 9.1-9.3	Articles 15.1-15.3	Conforming.
	Article 15.4	Not included in the EPC Agreement, as notices for operation and maintenance are beyond the scope of this agreement, which terminates upon completion of the Common System Deliverability Upgrades and payment of final invoices and refund/release of Security.
Article 10	Article 16	Force Majeure
Article 10.1	Article 16.1	Conforming.
Article 10.2	Article 16.2	Modified to remove cross-reference to Article 4 of the Pro Forma LGIA, which is not included in the EPC Agreement.
Article 11	Article 17	Default
Articles 11.1-11.2	Articles 17.1-17.2	Conforming.
Article 12	Article 18	Indemnity, Consequential Damages, and Insurance

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Articles 12.1-12.2	Articles 18.1-18.2	Conforming, except (i) the EPC Agreement deletes the reference in Article 18.2 of the Pro Forma LGIA to liquidated damages, as Article 5.3 of the Pro Forma LGIA regarding liquidated damages was not included in the EPC Agreement because the Affected Transmission Owners will not be constructing the Common System Deliverability Upgrades under the Alternative Option or Negotiated Option in the Pro Forma LGIA, and (ii) to correct a reference in Section 12.1.2 to Indemnified Party, which was inadvertently changed to Indemnifying Party in the Pro Forma LGIA as part of recent modifications that the NYISO submitted, and were accepted, in Docket No. ER18-80-000. ⁵
Articles 12.3-12.3.13	Articles 18.3-18.3.14	Revised to provide that only Affected Transmission Owners will maintain applicable insurance as they will be performing all work.
Article 13	Article 19	Assignment
Article 13.1	Article 19.1	Modified to remove reference to Attachment Facilities.
Article 14	Article 20	Severability
Article 14.1	Article 20.1	Modified to remove reference to construction options, which have been eliminated from the EPC Agreement as the Affected Transmission Owners have agreed to construct Common System Deliverability Upgrades.
Article 15	Article 21	Comparability
Article 15.1	Article 21.1	Conforming.
Article 16	Article 22	Confidentiality
Articles 16.1-16.13	Articles 22.1-22.1.12	Conforming.
Article 17	Article 23	Environmental Releases
Article 17.1	Article 23.1	Modified to provide that an Affected Transmission Owner, as the party constructing the Common System Deliverability Upgrades, is the party responsible for notifying the Developer of environmental releases.
Article 18	Article 24	Information Requirement
Article 18.1	Article 24.1	Modified to provide that an Affected Transmission Owner, as the party constructing the Common System Deliverability Upgrades, is the party responsible for submitting information about these facilities.
Article 18.2	Article 24.2	Modified to reflect facilities being constructed under EPC Agreement and the time frame specified in the milestones.

⁵ The Commission has previously accepted this change to the Pro Forma LGIA. *See, e.g., New York Independent System Operator, Inc. and Consolidated Edison Co. of New York, Inc., Letter Order*, Docket No. ER18-1161-000 (May 17, 2018).

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Article 18.3	Article 24.3	Not included in the EPC Agreement, as updated information submissions are beyond the scope of this agreement, which terminates upon completion of the Common System Deliverability Upgrades and payment of final invoices and refund/release of Security.
Article 18.4	Article 24.4	Modified to remove testing requirements for the Large Generating Facility, which are covered in the Interconnection Agreements.
Article 19	Article 25	Information Access and Audit Rights
Articles 19.1-19.2, 19.6	Articles 25.1-25.2, 25.5	Conforming.
Article 19.3	Article 25.3	Modified to remove reference to party's action in Emergency State, which is beyond the scope of the EPC Agreement.
Article 19.4-19.5	Article 25.4	Modified to reflect facilities being constructed under EPC Agreement and to reflect that any Parties may issue an invoice.
Article 20	Article 26	Subcontractors
Articles 20.1-20.3	Articles 26.1-26.3	Conforming.
Article 21	Article 27	Disputes
Articles 21.1-21.5	Articles 27.1-27.5	Conforming, except (i) Article 21.2 modified to invoke the assistance of the FERC's Dispute Resolution Service to select a single arbitrator, (ii) Article 21.3 modified to reflect the use of a single arbitrator and facilities being constructed under EPC Agreement, and (iii) Article 21.4 modified to provide that each party would be responsible for a per capita share of the costs of the arbitrator.
Article 22	Article 28	Representations, Warranties and Covenants
Articles 22.1, 22.1.3-22.1.4	Articles 28.1, 28.1.3-28.1.4	Conforming.
Article 22.1.2	Article 28.1.1	Modified to reflect that Common System Deliverability Upgrades will be located in the State of New York.
Article 23	Article 29	Miscellaneous

EPC Agreement	Pro Forma LGIA	Modifications Reflected in the EPC Agreement
Articles 23.1-23.7, 23.9-23.14	Articles 29.1-29.7, 29.9-29.14	Conforming, except Article 23.3 modified to remove reference to NYISO Standard Large Facility Interconnection Procedures, as all tariff references in the Agreement specify the applicable attachment to the OATT and not all such references are to sections of the NYISO Standard Large Facility Interconnection Procedures.
Article 23.8	Article 29.8	Modified to remove reference to interconnection service provided by the NYISO, which is covered in the Interconnection Agreements.
Article 23.15	Article 29.15	Modified to reflect facilities being constructed under EPC Agreement.
Appendices	Appendices	
Appendix A	Appendices A and B	Modified to describe EPC Services to be performed under EPC Agreement and provide milestones for performance of services.
Appendix B	Appendix F	Conforming.
	Appendices C, D, and E	Not included in EPC Agreement, as requirements for Interconnection Details (Appendix C), Security Arrangement Details (Appendix D), and Commercial Operation Date (Appendix E) are either inapplicable to the EPC Agreement or are addressed in the Interconnection Agreements.

Attachment II

SERVICE AGREEMENT NO. 2449

ENGINEERING, PROCUREMENT, AND CONSTRUCTION AGREEMENT

AMONG THE

NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

AND

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

AND

NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID

AND

STONY CREEK ENERGY LLC

AND

TBE MONTGOMERY, LLC

AND

CPV VALLEY, LLC

Dated as of June 28, 2019

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Appendices

ENGINEERING, PROCUREMENT, AND CONSTRUCTION AGREEMENT

THIS ENGINEERING, PROCUREMENT, AND CONSTRUCTION AGREEMENT

(“Agreement”) is made and entered into this 28th day of June 2019, by and among: (i) Stony Creek Energy LLC, a limited liability company organized and existing under the laws of the State of Delaware (“Stony Creek”), TBE Montgomery, LLC, a limited liability company organized and existing under the laws of the State of New York (“Taylor”), and CPV Valley, LLC, a limited liability company organized and existing under the laws of the State of Delaware (“CPV Valley”) (each individually a “Developer” and collectively the “Developers”); (ii) Central Hudson Gas & Electric Corporation, a corporation organized and existing under the laws of the State of New York (“Central Hudson”), and Niagara Mohawk Power Corporation d/b/a National Grid, a corporation organized and existing under the laws of the State of New York (“National Grid”) (each individually an “Affected Transmission Owner” and collectively the “Affected Transmission Owners”); and (iii) the New York Independent System Operator, Inc., a not-for-profit corporation organized and existing under the laws of the State of New York (“NYISO”). The Developers, the Affected Transmission Owners, or the NYISO each may be referred to individually as a “Party” or collectively referred to as the “Parties.”

RECITALS

WHEREAS, Stony Creek, a project previously in the NYISO interconnection queue (Queue No. 263) and CPV Valley, a project in the NYISO interconnection queue (Queue No. 251) have developed and constructed Large Generating Facilities that are interconnected to transmission facilities that are part of the New York State Transmission System operated by the NYISO;

WHEREAS, Taylor, a project in the NYISO interconnection queue (Queue No. 349) is developing a Large Generating Facility that will interconnect to transmission facilities that are part of the New York State Transmission System operated by the NYISO;

WHEREAS, Ball Hill, a project previously in the NYISO interconnection queue (Queue No. 222) was developing a Large Generating Facility to interconnect to transmission facilities that are part of the New York State Transmission System operated by the NYISO, and subsequently terminated its project;

WHEREAS, each Developer requested that the NYISO provide it with Capacity Resource Interconnection Service as part of the interconnection of its Large Generating Facility to the New York State Transmission System or Distribution System;

WHEREAS, the NYISO Class Year Deliverability Studies for 2010 and 2011 determined that certain System Deliverability Upgrades must be constructed on the Affected Systems owned by Affected Transmission Owners to enable the Developers to interconnect reliably their Large Generating Facilities to the New York State Transmission System in a manner that meets the NYISO Deliverability Interconnection Standard at the requested level of Capacity Resource Interconnection Service (“Common System Deliverability Upgrades”);

WHEREAS, each Developer accepted, and provided Security in the form of cash, letters of credit, or parental guarantees to the Affected Transmission Owners pursuant to Sections 25.7.12.2 and 25.8 of Attachment S to the ISO OATT to cover, its portion of the estimated cost of the Common System Deliverability Upgrades designated in the NYISO Class Year Deliverability Studies for 2010 or 2011, as applicable (“Developer Common SDU Cost Cap”);

WHEREAS, the NYISO Class Year Deliverability Study for 2011 determined that a threshold of 60% or more of the estimated cost for the Common System Deliverability Upgrades had been paid or posted as Security by the Developers, which triggers the requirement that the Affected Transmission Owners construct the Common System Deliverability Upgrades pursuant to Section 25.7.12.3.1 of Attachment S of the ISO OATT;

WHEREAS, Central Hudson subsequently requested a non-materiality determination concerning certain changes to the Common System Deliverability Upgrades, which changes were presented to the NYISO’s stakeholder Transmission Planning Advisory Subcommittee on May 1, 2018, and were approved by the NYISO as a non-material change;

WHEREAS, Developers and Affected Transmission Owners desire to have the Affected Transmission Owners perform, and Affected Transmission Owners are willing to perform, the engineering, procurement, and construction services required to construct the Common System Deliverability Upgrades (“EPC Services”) in accordance with the terms and conditions hereinafter set forth; and

WHEREAS, Developers, Affected Transmission Owners, and the NYISO have agreed to enter into this Agreement for the purpose of allocating the responsibilities for the performance and oversight of the EPC Services required to construct the Common System Deliverability Upgrades.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

ARTICLE 1. DEFINITIONS

Whenever used in this Agreement with initial capitalization, the following terms shall have the meanings specified in this Article 1. Terms used in this Agreement with initial capitalization that are not defined in this Article 1 shall have the meanings specified in Section 1 of the ISO OATT, Section 30.1 of Attachment X of the ISO OATT, Section 25.1.2 of Attachment S of the ISO OATT, the body of the LFIP or the body of this Agreement.

Affected System shall mean the electric system of an Affected Transmission Owner, which is part of the New York State Transmission System that is affected by the proposed interconnection of the Large Generating Facilities.

Affected Transmission Owner shall have the meaning set forth in the introductory paragraph.

Affiliate shall mean, with respect to a person or entity, any individual, corporation, partnership, firm, joint venture, association, joint-stock company, trust or unincorporated organization,

directly or indirectly controlling, controlled by, or under common control with, such person or entity. The term “control” shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority, including but not limited to Environmental Law.

Applicable Reliability Councils shall mean the NERC, the NPCC and the NYSRC.

Applicable Reliability Standards shall mean the requirements and guidelines of the Applicable Reliability Councils, and the Transmission District in which the Common System Deliverability Upgrades will be constructed, as those requirements and guidelines are amended and modified and in effect from time to time; provided that no Party shall waive its right to challenge the applicability or validity of any requirement or guideline as applied to it in the context of this Agreement.

Breach shall mean the failure of a Party to perform or observe any material term or condition of this Agreement.

Breaching Party shall mean a Party that is in Breach of this Agreement.

Business Day shall mean Monday through Friday, excluding federal holidays.

Calendar Day shall mean any day including Saturday, Sunday or a federal holiday.

Capacity Resource Interconnection Service (“CRIS”) shall mean the service provided by NYISO to Developers that satisfy the NYISO Deliverability Interconnection Standard or that are otherwise eligible to receive CRIS in accordance with Attachment S to the ISO OATT; such service being one of the eligibility requirements for participation as a NYISO Installed Capacity Supplier.

Class Year Deliverability Study shall mean an assessment, conducted by the NYISO staff in cooperation with Market Participants, to determine whether System Deliverability Upgrades are required for Class Year CRIS Projects under the NYISO Deliverability Interconnection Standard.

Common System Deliverability Upgrades shall have the meaning set forth in the recitals and shall consist of the materials, equipment, and work described in Appendix A.

Commercial Operation shall mean the status of a Large Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Completion Date shall mean the date on which the Affected Transmission Owners have completed the EPC Services, as set forth in Appendix A.

Confidential Information shall mean any information that is defined as confidential by Article 16 of this Agreement.

Default shall mean the failure of a Party in Breach of this Agreement to cure such Breach in accordance with Article 11 of this Agreement.

Developer shall have the meaning set forth in the introductory paragraph.

Developer Common SDU Cost Cap shall mean a Developer's portion of the estimated cost of the Common System Deliverability Upgrades as designated in the Class Year Deliverability Study for 2010 and 2011 and described in Appendix A.

Distribution System shall mean the facilities and equipment used to distribute electricity that are subject to FERC jurisdiction, and are subject to the NYISO's Large Facility Interconnection Procedures in Attachment X to the ISO OATT or Small Generator Interconnection Procedures in Attachment Z to the ISO OATT under FERC Order Nos. 2003 and/or 2006. The term Distribution System shall not include LIPA's distribution facilities.

Effective Date shall mean the date determined under Article 2.1.

Environmental Law shall mean Applicable Laws and Regulations relating to pollution or protection of the environment or natural resources.

EPC Services shall have the meaning set forth in the recitals and shall consist of the services described in Appendix A.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.* ("FPA").

FERC shall mean the Federal Energy Regulatory Commission ("Commission") or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Forfeited Security shall mean any Security posted to an Affected Transmission Owner in connection with the Common System Deliverability Upgrades by a Developer that has accepted its Project Cost Allocation for the upgrades in a NYISO Class Year Deliverability Study and subsequently terminates or abandons development of its project. This includes the Security posted to the Affected Transmission Owners by Ball Hill Wind Park, LLC (NYISO Queue No. 222) when it accepted its Project Cost Allocation for the Common System Deliverability Upgrades in Class Year 2009 and subsequently terminated its project, which Security amount is set forth in Appendix A.

Generating Facility shall mean a Developer's device for the production of electricity identified in the Interconnection Request, but shall not include the Developer's Attachment Facilities or Distribution Upgrades.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over any of the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Developers, NYISO, Affected Transmission Owners, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

In-Service Date shall mean the date upon which the Affected Transmission Owner reasonably expects it will be ready to energize the Common System Deliverability Upgrades.

Interconnection Request shall mean a Developer's request, in the form of Appendix 1 to the Standard Large Facility Interconnection Procedures, in accordance with the Tariff, to interconnect a new Large Generating Facility to the New York State Transmission System or to the Distribution System, or to materially increase the capacity of, or make a material modification to the operating characteristics of, an existing Large Generating Facility that is interconnected with the New York State Transmission System or with the Distribution System.

Invoice Share shall mean an individual Developer's percentage share of the Developers' total cost responsibility (*i.e.*, the Developers' consolidated cost responsibility, excluding any cost responsibility of Load Serving Entities, Affected Transmission Owners, and Forfeited Security) for an Affected Transmission Owner's performance of the EPC Services subject to the Developer Common SDU Cost Cap in the Class Year Deliverability Study, as set forth in Appendix A.

IRS shall mean the Internal Revenue Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Indemnified Party's performance or non-performance of its obligations under this Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

Milestones shall mean the milestones for the performance of the EPC Services, as set forth in Appendix A.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

New York State Transmission System shall mean the entire New York State electric transmission system, which includes (i) the Transmission Facilities Under ISO Operational Control; (ii) the Transmission Facilities Requiring ISO Notification; and (iii) all remaining transmission facilities within the New York Control Area.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with this Agreement or its performance.

NPCC shall mean the Northeast Power Coordinating Council or its successor organization.

NYISO Deliverability Interconnection Standard – The standard that must be met, unless otherwise provided for by Attachment S to the ISO OATT, by (i) any generation facility larger than 2MW in order for that facility to obtain CRIS; (ii) any Class Year Transmission Project; (iii) any entity requesting External CRIS Rights, and (iv) any entity requesting a CRIS transfer pursuant to Section 25.9.5 of Attachment S to the ISO OATT. To meet the NYISO Deliverability Interconnection Standard, the Interconnection Customer must, in accordance with the rules in Attachment S to the ISO OATT, fund or commit to fund any System Deliverability Upgrades identified for its project in the Class Year Deliverability Study.

NYSRC shall mean the New York State Reliability Council or its successor organization.

Party or Parties shall mean NYISO, each individual Affected Transmission Owner, each individual Developer, Developer, or any combination of the above.

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Services Tariff shall mean the NYISO Market Administration and Control Area Tariff, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff thereto.

Standard Large Facility Interconnection Procedures (“**Large Facility Interconnection Procedures**” or “**LFIP**”) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in Attachment X of the ISO OATT.

System Deliverability Upgrades shall mean the least costly configuration of commercially available components of electrical equipment that can be used, consistent with Good Utility Practice and Applicable Reliability Requirements, to make the modifications or additions to Byways and Highways and Other Interfaces on the existing New York State Transmission System and Distribution System that are required for the proposed project to connect reliably to the system in a manner that meets the NYISO Deliverability Interconnection Standard at the requested level of Capacity Resource Interconnection Service.

Tariff shall mean the NYISO Open Access Transmission Tariff (“OATT”), as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

Trial Operation shall mean the period during which Developer is engaged in on-site test operations and commissioning of the Large Generating Facility prior to Commercial Operation.

ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION

2.1 Effective Date.

This Agreement shall become effective upon the date of execution by the Parties, subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC. The NYISO and Affected Transmission Owners shall promptly file this Agreement with FERC upon execution. Each Developer shall reasonably cooperate with the NYISO and Affected Transmission Owners with respect to the filing of this Agreement with FERC and provide any information reasonably requested by the NYISO and Affected Transmission Owners needed for such filing.

2.2 Term of Agreement.

Subject to the provisions of Article 2.3, this Agreement shall remain in effect until the later of: (i) the Completion Date, and (ii) the date on which the final payment of all invoices issued under this Agreement has been made and the security has been released or refunded.

2.3 Termination.

2.3.1 Written Notice.

This Agreement may be terminated either: (i) by all Parties agreeing in writing to terminate this Agreement, or (ii) by any Party after giving the other Parties thirty (30) Calendar Days advance written notice following a NYISO determination that the threshold for triggering the construction of the Common System Deliverability Upgrades set forth in Section 25.7.12.3.1 of Attachment S of the ISO OATT is no longer met.

2.3.3 Default.

A Party or Parties may terminate this Agreement as and to the extent permitted under Article 11 and Article 21.

2.3.4 Compliance.

Notwithstanding Articles 2.3.1 and 2.3.2, no termination of this Agreement shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement, which notice has been accepted for filing by FERC.

2.4 Termination Costs.

If this Agreement is terminated pursuant to Article 2.3.1 above, the Developers shall be responsible for all costs that are the responsibility of the Developers under this Agreement that are incurred by the Developers or other Parties through the date the Parties agree in writing to terminate this Agreement or the date of the other Parties' receipt of a Party's notice of termination, as applicable. Such costs shall be allocated among the Developers using the same methodology as set forth in Article 6 regarding each Developer's responsibility for the costs of the EPC Services, subject to the Developer Common SDU Cost Cap. Such costs include any cancellation costs related to orders or contracts. In the event of termination, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this Agreement, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of the EPC Services that have not yet been performed, an Affected Transmission Owner shall, to the extent possible and with each Developer's authorization, cancel any pending orders of, or return, any materials or equipment for, or cancel any contracts associated with the performance of the EPC Services; *provided, however*, that in the event a Developer elects not to authorize such cancellation, that Developer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the relevant Affected Transmission Owner shall deliver such material and equipment, and, if necessary, assign such contracts, to the Developer as soon as practicable, at the Developer's expense.

2.4.2 The relevant Affected Transmission Owner may, at its option, retain any portion of such materials or equipment that the Developer chooses not to accept delivery of, in which case that Affected Transmission Owner shall be responsible for all costs associated with procuring such materials or equipment.

2.4.3 With respect to any portion of the EPC Services already performed pursuant to the terms of this Agreement, Developers shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such related materials, equipment, or facilities subject to each Developer's share identified in Appendix A. Such costs shall be allocated among the Developers using the same methodology as set forth in Article 6 regarding each Developer's responsibility for the costs of the EPC Services.

2.5 Survival.

This Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder; including billings and payments pursuant to this Agreement; and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect.

ARTICLE 3. EPC SERVICES

3.1 Provision of EPC Services.

Each Affected Transmission Owner shall perform its respective EPC Services, as set forth in Appendix A hereto, using Reasonable Efforts to complete the EPC Services by the Milestone dates set forth in Appendix A hereto. Neither Affected Transmission Owner shall be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event an Affected Transmission Owner reasonably expects that it will not be able to complete the EPC Services by the specified dates, that Affected Transmission Owner shall promptly provide written notice to the other Parties, and shall undertake Reasonable Efforts to meet the earliest dates thereafter. The NYISO has no responsibility, and shall have no liability, for the performance of any of the EPC Service under this Agreement.

3.2 Equipment Procurement.

Each Affected Transmission Owner shall commence design of the Common System Deliverability Upgrades and procure necessary equipment in accordance with the Milestones set forth in Appendix A.

3.3 Construction Commencement.

Each Affected Transmission Owner shall commence construction of the Common System Deliverability Upgrades for which it is responsible in accordance with the Milestones set forth in Appendix A, which shall provide for the commencement of construction as soon as practicable after the following additional conditions are satisfied:

3.3.1 Approval of the appropriate Governmental Authority has been obtained, to the extent required, for the construction of a discrete aspect of the Common System Deliverability Upgrades; and

3.3.2 Necessary real property rights and rights-of-way have been obtained, to the extent required, for the construction of a discrete aspect of the Common System Deliverability Upgrades.

3.5 Work Progress.

Each Affected Transmission Owner will keep the other Parties advised periodically as to the progress of its respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from an Affected Transmission Owner.

3.6 Information Exchange.

As soon as reasonably practicable after the Effective Date, each Affected Transmission Owner shall provide the NYISO with information regarding the design of the Common System Deliverability Upgrades and the compatibility of the System Deliverability Upgrades with the New York State Transmission System and shall work diligently and in good faith to make any necessary design changes.

3.7 Ownership of Common System Deliverability Upgrades.

Each Affected Transmission Owner shall own its respective Common System Deliverability Upgrades as described in Appendix A hereto

3.8 Lands of Other Property Owners.

If any part of the Common System Deliverability Upgrades is to be installed on property owned by persons other than the Developers or the Affected Transmission Owners, the relevant Affected Transmission Owner shall at Developers' expense, subject to the Developer Common SDU Cost Cap, use efforts, similar in nature and extent to those that it typically undertakes for its own or affiliated generation, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to perform the EPC Services upon such property, including to construct, repair, test (or witness testing), inspect, replace or remove the Common System Deliverability Upgrades.

3.9 Permits.

NYISO, the Affected Transmission Owners and the Developers shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the EPC Services in compliance with Applicable Laws and Regulations.

3.10 Taxes.

3.10.1 Developer Payments Not Taxable.

Each Affected Transmission Owner intend that all payments or property transfers made by a Developer to an Affected Transmission Owner for the installation of the Common System Deliverability Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

3.10.2 Representations and Covenants.

In accordance with IRS Notice 2001-82 and IRS Notice 88-129, each Developer represents and covenants that (i) ownership of the electricity generated at its Large Generating Facility will pass to another party prior to the transmission of the electricity on the New York State Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to an Affected Transmission Owner for the Common System Deliverability Upgrades will be capitalized by the Developer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Common System Deliverability Upgrades that is a “dual-use intertie,” within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of Developer’s Large Generating Facility. For this purpose, “de minimis amount” means no more than 5 percent of the total power flows in both directions, calculated in accordance with the “5 percent test” set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At an Affected Transmission Owner’s request, a Developer shall provide the requesting Affected Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Each Affected Transmission Owner represents and covenants that the cost of the Common System Deliverability Upgrades paid for by Developers will have no net effect on the base upon which its rates are determined.

3.10.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Affected Transmission Owners.

Notwithstanding Article 3.9.1, each Developer shall protect, indemnify and hold harmless an Affected Transmission Owner from the cost consequences of any current tax liability imposed against the Affected Transmission Owner as the result of payments or property transfers made by the Developer to the Affected Transmission Owner under this Agreement, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by the Affected Transmission Owner.

An Affected Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges a Developer under this Agreement unless (i) the Affected Transmission Owner has determined, in good faith, that the payments or property transfers made by the Developer to the Affected Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs the Affected Transmission Owner to report payments or property as income subject to taxation; provided, however, that the Affected Transmission Owner may require the Developer to provide security, in a form reasonably acceptable to the Affected Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 3.9. The Developer shall reimburse the Affected Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 3.9.4, within thirty (30) Calendar Days of receiving written notification from the Affected Transmission Owner of the amount due, including detail about how the amount was calculated.

This indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by the Affected Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 3.9.

3.10.4 Tax Gross-Up Amount.

A Developer's liability for the cost consequences of any current tax liability under this Article 3.9 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that a Developer will pay an Affected Transmission Owner, in addition to the amount paid for the Common System Deliverability Upgrades, an amount equal to (1) the current taxes imposed on the Affected Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by the Affected Transmission Owner as a result of payments or property transfers made by the Developer to the Affected Transmission Owner under this Agreement (without regard to any payments under this Article 3.9) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the Affected Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on the Affected Transmission Owner's composite federal and state tax rates at the time the payments or property transfers are received and the Affected Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Affected Transmission Owner's anticipated tax depreciation deductions as a result of such payments or property transfers by the Affected Transmission Owner's current weighted average cost of capital. Thus, the formula for calculating a Developer's liability to an Affected Transmission Owner pursuant to this Article 3.9.4 can be expressed as follows: $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value Depreciation Amount})) / (1 - \text{Current Tax Rate})$. A Developer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, EPC Services.

3.10.5 Private Letter Ruling or Change or Clarification of Law.

At any Developer's request and expense, an Affected Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by the Developer to the Affected Transmission Owner under this Agreement are subject to federal income taxation. The Developer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of the Developer's knowledge. The Affected Transmission Owner and the Developer shall cooperate in good faith with respect to the submission of such request.

The Affected Transmission Owner shall keep the Developer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes the Developer to participate in all discussions with the IRS regarding such request for a private letter ruling. The Affected Transmission Owner shall allow the Developer to attend all meetings with IRS officials about the request and shall permit the Developer to prepare the initial drafts of any follow-up letters in connection with the request.

3.10.6 Subsequent Taxable Events.

If, within 10 years from the date on which the relevant Common System Deliverability Upgrades are placed in service, (i) a Developer Breaches the covenants contained in Article 3.9.2, (ii) a “disqualification event” occurs within the meaning of IRS Notice 88-129, or (iii) this Agreement terminates and an Affected Transmission Owner retains ownership of the Common System Deliverability Upgrades, the relevant Developer(s) shall pay a tax gross-up for the cost consequences of any current tax liability imposed on the Affected Transmission Owner, calculated using the methodology described in Article 3.9.4 and in accordance with IRS Notice 90-60.

3.10.7 Contests.

In the event any Governmental Authority determines that an Affected Transmission Owner’s receipt of payments or property constitutes income that is subject to taxation, the Affected Transmission Owner shall notify the relevant Developer(s), in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by a Developer and at Developer’s sole expense, the Affected Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon a Developer’s written request and sole expense, the Affected Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 3.9, whether or not it has received such a determination. The Affected Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but the Affected Transmission Owner shall keep the relevant Developer informed, shall consider in good faith suggestions from Developer about the conduct of the contest, and shall reasonably permit Developer or a Developer representative to attend contest proceedings.

Developer shall pay to Affected Transmission Owner on a periodic basis, as invoiced by Affected Transmission Owner, Affected Transmission Owner’s documented reasonable costs of prosecuting such appeal, protest, abatement or other contest, including any costs associated with obtaining the opinion of independent tax counsel described in this Article 3.9.7. The Affected Transmission Owner may abandon any contest if the Developer fails to provide payment to the Affected Transmission Owner within thirty (30) Calendar Days of receiving such invoice. At any time during the contest, Affected Transmission Owner may agree to a settlement either with Developer’s consent or after obtaining written advice from nationally-recognized tax counsel, selected by Affected Transmission Owner, but reasonably acceptable to Developer, that the proposed settlement represents a reasonable settlement given the hazards of litigation.

Developer's obligation shall be based on the amount of the settlement agreed to by Developer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. The Affected Transmission Owner may also settle any tax controversy without receiving the Developer's consent or any such written advice; however, any such settlement will relieve the Developer from any obligation to indemnify Affected Transmission Owner for the tax at issue in the contest (unless the failure to obtain written advice is attributable to the Developer's unreasonable refusal to the appointment of independent tax counsel).

3.10.8 Refund.

In the event that (a) a private letter ruling is issued to an Affected Transmission Owner which holds that any amount paid or the value of any property transferred by a Developer to the Affected Transmission Owner under the terms of this Agreement is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to the Affected Transmission Owner in good faith that any amount paid or the value of any property transferred by a Developer to the Affected Transmission Owner under the terms of this Agreement is not taxable to the Affected Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by a Developer to the Affected Transmission Owner are not subject to federal income tax, or (d) if the Affected Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by a Developer to the Affected Transmission Owner pursuant to this Agreement, the Affected Transmission Owner shall promptly refund to the Developer the following:

- (i) Any payment made by the Developer under this Article 3.9 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) Interest on any amounts paid by the Developer to the Affected Transmission Owner for such taxes which the Affected Transmission Owner did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by the Developer to the date the Affected Transmission Owner refunds such payment to the Developer, and
- (iii) With respect to any such taxes paid by the Affected Transmission Owner, any refund or credit the Affected Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Affected Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by the Affected Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that the Affected Transmission Owner will remit such amount promptly to the Developer only after and to the extent that Affected Transmission Owner has received a tax refund, credit or

offset from any Governmental Authority for any applicable overpayment of income tax related to the Common System Deliverability Upgrades.

The intent of this provision is to leave both the Developer and the Affected Transmission Owner, to the extent practicable, in the event that no taxes are due with respect to any payment for Common System Deliverability Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

3.10.9 Taxes Other Than Income Taxes.

Upon the timely request by a Developer, and at the Developer's sole expense, an Affected Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the Affected Transmission Owner for which the Developer may be required to reimburse the Affected Transmission Owner under the terms of this Agreement. The Developer shall pay to the Affected Transmission Owner on a periodic basis, as invoiced by the Affected Transmission Owner, the Affected Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The Developer and the Affected Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the Developer to the Affected Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the Developer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Affected Transmission Owner.

3.11 Tax Status; Non-Jurisdictional Entities.

3.11.1 Tax Status.

Each Party shall cooperate with the other Parties to maintain the other Parties' tax status. Nothing in this Agreement is intended to adversely affect the tax status of any Party including the status of NYISO, or the status of any Affected Transmission Owners with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

3.12 Modification.

3.12.1 Standards.

Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this Agreement, NYISO requirements and Good Utility Practice.

3.12.2 Modification Costs.

Developers shall not be assigned the costs of any additions, modifications, or replacements that an Affected Transmission Owner makes to the Common System Deliverability

Upgrades or the New York State Transmission System to facilitate the interconnection of a facility not subject to this Agreement to the Common System Deliverability Upgrades or the New York State Transmission System, or to provide Transmission Service to a third party under the ISO OATT, except in accordance with the cost allocation procedures in Attachment S of the ISO OATT.

ARTICLE 4. TESTING AND INSPECTION

4.1 Initial Testing and Modifications.

In accordance with the Milestones set forth in Appendix A, each Affected Transmission Owner shall test its respective Common System Deliverability Upgrades to ensure their safe and reliable operation. Similar testing may be required after initial operation. Each Affected Transmission Owner shall make any modifications to its respective facilities that are found to be necessary as a result of such testing. Developers shall bear the cost of all such testing and modifications.

4.2 Notice of Testing.

An Affected Transmission Owner shall notify the NYISO in advance of its performance of tests of the Common System Deliverability Upgrades.

ARTICLE 5. COMMUNICATIONS

5.1 No Annexation.

Any and all equipment placed on the premises of a Party during the term of this Agreement shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Party providing such equipment and the Party receiving such equipment.

ARTICLE 6. COST AND SECURITY OBLIGATIONS

6.1 Cost Responsibilities.

6.1.1 The Developers will be responsible for their respective Invoice Share of the monthly costs incurred by each Affected Transmission Owner in performing the EPC Services; *provided, however*, that the Developers will not be responsible for any cost above the Developer Common SDU Cost Cap except as set forth in Article 6.1.3.

6.1.2 On a periodic basis as set forth in the Milestones in Appendix A, each Affected Transmission Owner shall provide to the other Parties in writing an updated estimate of its cost for performing the EPC Services. The updated cost estimate shall fully specify any additional services and equipment required for the Affected Transmission Owner to perform the EPC Services and explain why these additional services and equipment are required.

6.1.3 If an Affected Transmission Owner's updated cost estimate as provided under Article 6.1.2 is greater than the estimated cost for such services as determined by the Class Year

Deliverability Study, each Developer's responsibility for any costs above its Developer Common SDU Cost Cap shall be determined in accordance with Section 25.8.6 of Attachment S of the ISO OATT. The Parties shall amend this Agreement if there are any changes to the Developer Common SDU Cost Cap required by Section 25.8.6.

6.1.4 If the final cost incurred by an Affected Transmission Owner in performing the EPC Services is less than the estimated cost for such services as determined by the Class Year Deliverability Study and set forth in Appendix A, then the Affected Transmission Owner shall make a true-up payment to each Developer pursuant to Article 7.2 to refund to the Developer any costs that the Developer has paid to the Affected Transmission Owner under Article 6.1.1 that are greater than its Invoice Share of the actual costs.

6.1.5 Each Affected Transmission Owner shall be solely responsible for its costs in performing the EPC Services that are not recoverable from Developers under this Article 6.1; *provided, however*, that the Affected Transmission Owner may recover these costs: (i) by drawing on any Forfeited Security held by the Affected Transmission Owner to the extent permitted under Section 25.8.5 of Attachment S of the ISO OATT, and (ii) from Load Serving Entities through the ISO OATT to the extent permitted under Sections 25.7.12.3.2 and 25.8.6 of Attachment S of the ISO OATT and Schedule 12 of the ISO OATT.

6.2 Provision and Application of Security

Section 6.2 applies to each Developer that has provided an Affected Transmission Owner with cash or Security in the amount of its Developer Common SDU Cost Cap for its share of the Common System Deliverability Upgrades as determined in accordance with Attachment S to the ISO OATT and set forth in Appendix A. If a Developer: (i) does not pay an invoice issued by an Affected Transmission Owner pursuant to Article 7.1 within the timeframe set forth in Article 7.3 or (ii) does not pay any disputed amount into an independent escrow account pursuant to Article 7.4, the owed Affected Transmission Owner may draw upon the cash or Security posted by the Developer for that Affected Transmission Owner to recover such payment.

6.3 Line Outage Costs.

Notwithstanding anything in the ISO OATT to the contrary, the Affected Transmission Owners may propose to recover line outage costs associated with the installation of the Common System Deliverability Upgrades on a case-by-case basis, subject to the SDU Cost Cap.

ARTICLE 7. INVOICE

7.1 General.

To the extent that any amounts are due to a Developer or an Affected Transmission Owner under this Agreement, the owed Party shall submit to the owing Party, on a periodic basis an invoice of the amounts due for the preceding period. Each invoice shall state the time period to which the invoice applies and fully describe the services and equipment provided.

Within six months after completion of the EPC Services, a Party owed any remaining amounts associated with the EPC Services shall provide a final invoice to the owing Party or Parties.

7.2 Refund of Remaining Security/Cash and Overpayment Amount

An Affected Transmission Owner shall release or refund to a Developer any remaining portions of its Security or cash payments provided by the Developer to satisfy its Project Cost Allocation in accordance with Attachment S of the ISO OATT and any amount that the Developer has overpaid as described in Article 6.1.4 following the later of: (i) the Developer's payment of any final invoice to the Affected Transmission Owner under Article 7.1, and (ii) the Affected Transmission Owners' completion of the EPC Services. The Affected Transmission Owner shall provide Developer with the refunded amount within thirty (30) Calendar Days of the Parties' satisfaction of the requirements in this Article 7.2.

7.3 Payment.

Invoices shall be rendered to the paying Party at the address specified in Appendix B hereto. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices will not constitute a waiver of any rights or claims the paying Party may have under this Agreement.

7.4 Disputes.

In the event of a billing dispute between Parties, the Party owed money shall continue to perform under this Agreement as long as the other Party: (i) continues to make all payments not in dispute up to the Common SDU Cost Cap; and (ii) pays to the Party owed money or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If the Party that owes money fails to meet these two requirements for continuation of service, then the Party owed money may provide notice to the other Party of a Default pursuant to Article 11. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii).

ARTICLE 8. REGULATORY REQUIREMENTS AND GOVERNING LAW

8.1 Regulatory Requirements.

Each Party's obligations under this Agreement shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this Agreement shall require Developers to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power

Act or the Public Utility Holding Company Act of 2005 or the Public Utility Regulatory Policies Act of 1978, as amended.

8.2 Governing Law.

8.2.1 The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the state of New York, without regard to its conflicts of law principles.

8.2.2 This Agreement is subject to all Applicable Laws and Regulations.

8.2.3 Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

ARTICLE 9. NOTICES

9.1 General.

Unless otherwise provided in this Agreement, any notice, demand or request required or permitted to be given by a Party to any of the other Parties and any instrument required or permitted to be tendered or delivered by a Party in writing to any of the other Parties shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix B hereto.

A Party may change the notice information in this Agreement by giving five (5) Business Days written notice prior to the effective date of the change.

9.2 Billings and Payments.

Billings and payments shall be sent to the addresses set out in Appendix B hereto.

9.3 Alternative Forms of Notice.

Any notice or request required or permitted to be given by a Party to any of the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix B hereto.

ARTICLE 10. FORCE MAJEURE

10.1 Economic hardship is not considered a Force Majeure event.

10.2 A Party shall not be responsible or liable, or deemed, in Default with respect to any obligation hereunder, other than the obligation to pay money when due, to the extent the Party is prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Parties in

writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

ARTICLE 11. DEFAULT

11.1 General.

No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Parties. Upon a Breach, the non-Breaching Parties acting together shall give written notice of such to the Breaching Party. The Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

11.2 Right to Terminate.

If a Breach is not cured as provided in this Article 11, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Parties acting together shall thereafter have the right to declare a Default and terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

ARTICLE 12. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE

12.1 Indemnity.

Each Party (the "Indemnifying Party") shall at all times indemnify, defend, and save harmless, as applicable, the other Parties (each an "Indemnified Party") from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, the alleged violation of any Environmental Law, or the release or threatened release of any Hazardous Substance, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from (i) the Indemnified Party's performance of its obligations under this Agreement on behalf of the Indemnifying Party, except in cases where the Indemnifying Party can demonstrate that the Loss of the Indemnified Party was caused by the gross negligence or intentional wrongdoing of the Indemnified Party or (ii) the violation by the Indemnifying Party of any Environmental Law or the release by the Indemnifying Party of any Hazardous Substance.

12.1.1 Indemnified Party.

If a Party is entitled to indemnification under this Article 12 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 12.1.3, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

12.1.2 Indemnifying Party.

If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 12, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.

12.1.3 Indemnity Procedures.

Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 12.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

Except as stated below, the Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

12.2 No Consequential Damages.

Other than the indemnity obligations set forth in Article 12.1, in no event shall any Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under separate agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

12.3 Insurance.

Each Affected Transmission Owner shall each, at its own expense, procure and maintain in force throughout the period of this Agreement and until released by the other Parties, the following minimum insurance coverages, with insurance companies licensed to write insurance or approved eligible surplus lines carriers in the state of New York with a minimum A.M. Best rating of A or better for financial strength, and an A.M. Best financial size category of VIII or better:

12.3.1 Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of New York State.

12.3.2 Commercial General Liability ("CGL") Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available using Insurance Services Office, Inc. Commercial General Liability Coverage ("ISO CG") Form CG 00 01 04 13 or a form equivalent to or better than CG 00 01 04 13, with minimum limits of Two Million Dollars (\$2,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

12.3.3 Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

12.3.4 If applicable, the Commercial General Liability and Comprehensive Automobile Liability Insurance policies should include contractual liability for work in connection with constructions or demolition work on or within 50 feet of a railroad, or a separate Railroad Protective Liability Policy should be provided.

12.3.5 Excess Liability Insurance over and above the Employers' Liability, Commercial General Liability and Comprehensive Automobile Liability Insurance coverages, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence and

Twenty Million Dollars (\$20,000,000) aggregate. The Excess policies should contain the same extensions listed under the Primary policies.

12.3.6 The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Liability Insurance policies of each Affected Transmission Owner shall name the other Parties, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees (“Other Party Group”) as additional insureds using ISO CG Endorsements: CG 20 33 04 13, and CG 20 37 04 13 or CG 20 10 04 13 and CG 20 37 04 13 or equivalent to or better forms. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this Agreement against the Other Party Group and provide thirty (30) Calendar days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

12.3.7 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Liability Insurance policies shall contain provisions that specify that the policies are primary and non-contributory. Each Affected Transmission Owner shall be responsible for its respective deductibles or retentions.

12.3.8 The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for at least three (3) years after termination of this Agreement, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by each Developer and Affected Transmission Owner.

12.3.9 If applicable, Pollution Liability Insurance in an amount no less than \$7,500,000 per occurrence and \$7,500,000 in the aggregate. The policy will provide coverage for claims resulting from pollution or other environmental impairment arising out of or in connection with work performed on the premises by the other party, its contractors and and/or subcontractors. Such insurance is to include coverage for, but not be limited to, cleanup, third party bodily injury and property damage and remediation and will be written on an occurrence basis. The policy shall name the Other Party Group as additional insureds, be primary and contain a waiver of subrogation.

12.3.10 The requirements contained herein as to the types and limits of all insurance to be maintained by each Affected Transmission Owner are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by those Parties under this Agreement. Upon request, Affected Transmission Owner shall provide to the requesting Party certificate of insurance for all insurance required in this Agreement, executed by each insurer or by an authorized representative of each insurer.

12.3.11 Notwithstanding the foregoing, each Affected Transmission Owner may self-insure to meet the minimum insurance requirements of Articles 12.3.1 through 12.3.9 to the extent it maintains a self-insurance program; provided that, such Party’s senior debt is rated at investment grade, or better, by Standard & Poor’s and that its self-insurance program meets the minimum insurance requirements of Articles 12.3.1 through 12.3.9. In the event that a Party is

permitted to self-insure pursuant to this Article 12.3.11, it shall notify the other Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Articles 12.3.1 through 12.3.9 and provide evidence of such coverages. For any period of time that a Party's senior debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 12.3.1 through 12.3.9.

12.3.12 Each Developer and Affected Transmission Owner agree to report to each of the other Developers and Affected Transmission Owners in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.

12.3.13 Subcontractors of each party must maintain the same insurance requirements stated under Articles 12.3.1 through 12.3.9 and comply with the Additional Insured requirements herein. In addition, their policies must state that they are primary and non-contributory and contain a waiver of subrogation.

ARTICLE 13. ASSIGNMENT

This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; provided further that a Party may assign this Agreement without the consent of the other Parties in connection with the sale, merger, restructuring, or transfer of a substantial portion or all of its assets, so long as the assignee in such a transaction directly assumes in writing all rights, duties and obligations arising under this Agreement; and provided further that a Developer shall have the right to assign this Agreement, without the consent of the NYISO or Affected Transmission Owners, for collateral security purposes to aid in providing financing for its Large Generating Facility, provided that the Developer will promptly notify the NYISO and Affected Transmission Owners of any such assignment. Any financing arrangement entered into by a Developer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the NYISO and Affected Transmission Owners of the date and particulars of any such exercise of assignment right(s) and will provide the NYISO and Affected Transmission Owners with proof that it meets the requirements of Articles 6.2 and 12.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

ARTICLE 14. SEVERABILITY

If any provision in this Agreement is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such

determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this Agreement.

ARTICLE 15. COMPARABILITY

The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

ARTICLE 16. CONFIDENTIALITY

16.1 Confidentiality.

Certain information exchanged by the Parties during the term of this Agreement shall constitute confidential information ("Confidential Information") and shall be subject to this Article 16.

If requested by a Party receiving information, the Party supplying the information shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

16.2 Term.

During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article 16, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

16.3 Confidential Information.

The following shall constitute Confidential Information: (1) any non-public information that is treated as confidential by the disclosing Party and which the disclosing Party identifies as Confidential Information in writing at the time, or promptly after the time, of disclosure; or (2) information designated as Confidential Information by the NYISO Code of Conduct contained in Attachment F to the ISO OATT.

16.4 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Article 16.9 of this Agreement, Order of Disclosure, to be disclosed by any Governmental

Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

16.5 Release of Confidential Information.

No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by FERC Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be considering providing financing to or equity participation with Developers, or to potential purchasers or assignees of a Party, on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article 16 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 16.

16.6 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

16.7 No Warranties.

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.

16.8 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this Agreement or its regulatory requirements, including the ISO OATT and NYISO Services Tariff. The NYISO shall, in all cases, treat the information it receives in accordance with the requirements of Attachment F to the ISO OATT.

16.9 Order of Disclosure.

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive

compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

16.10 Termination of Agreement.

Upon termination of this Agreement for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Parties, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Parties) or return to the other Parties, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Parties pursuant to this Agreement.

16.11 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 16. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 16, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 16, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 16.

16.12 Disclosure to FERC, its Staff, or a State.

Notwithstanding anything in this Article 16 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement or the ISO OATT, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Parties to the Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations. A Party shall not be liable for any losses, consequential or otherwise,

resulting from that Party divulging Confidential Information pursuant to a FERC or state regulatory body request under this paragraph.

16.13 Required Notices Upon Requests or Demands for Confidential Information

Except as otherwise expressly provided herein, no Party shall disclose Confidential Information to any person not employed or retained by the Party possessing the Confidential Information, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Agreement, the ISO OATT or the NYISO Services Tariff. Prior to any disclosures of a Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

ARTICLE 17. AFFECTED TRANSMISSION OWNER NOTICES OF ENVIRONMENTAL RELEASES

An Affected Transmission Owner shall notify the other Parties, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Common System Deliverability Upgrades, each of which may reasonably be expected to affect the other Parties. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

ARTICLE 18. INFORMATION REQUIREMENT

18.1 Information Acquisition.

Each Affected Transmission Owner shall submit specific information regarding the electrical characteristics of its respective facilities to the other Parties as described below and in accordance with Applicable Reliability Standards.

18.2 Information Submission by Affected Transmission Owners.

The initial information submission by an Affected Transmission Owner shall occur no later than the date(s) specified in the Milestones set forth in Appendix A to this Agreement. On a monthly basis an Affected Transmission Owner shall provide Developers and NYISO a status report on the construction and installation of Common System Deliverability Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

18.3 Information Supplementation.

Each Affected Transmission Owner shall supplement its information submissions described above in this Article 18 with any and all “as-built” information or “as-tested” performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist.

ARTICLE 19. INFORMATION ACCESS AND AUDIT RIGHTS

19.1 Information Access.

Each Party (“Disclosing Party”) shall make available to another Party (“Requesting Party”) information that is in the possession of the Disclosing Party and is necessary in order for the Requesting Party to: (i) verify the costs incurred by the Disclosing Party for which the Requesting Party is responsible under this Agreement; and (ii) carry out its obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than those set forth in this Article 19.1 of this Agreement and to enforce their rights under this Agreement.

19.2 Reporting of Non-Force Majeure Events.

Each Party (the “Notifying Party”) shall notify the other Parties when the Notifying Party becomes aware of its inability to comply with the provisions of this Agreement for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this Agreement.

19.3 Audit Rights.

Subject to the requirements of confidentiality under Article 16 of this Agreement, each Party shall have the right, during normal business hours, and upon prior reasonable notice to another Party, to audit at its own expense the other Party’s accounts and records pertaining to the other Party’s performance or satisfaction of its obligations under this Agreement. Such audit rights shall include audits of the other Party’s costs, and calculation of invoiced amounts. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to the Party’s performance and satisfaction of obligations under this Agreement. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 19.4 of this Agreement.

19.5 Audit Rights Periods.

19.5.1 Audit Rights Period for Construction-Related Accounts and Records.

Accounts and records related to the design, engineering, procurement, and construction of the Common System Deliverability Upgrades shall be subject to audit for a period of twenty-four months following the issuance by a Developer or an Affected Transmission Owner, as applicable, of a final invoice in accordance with Article 7.1 of this Agreement.

19.5.2 Audit Rights Period for All Other Accounts and Records.

Accounts and records related to a Party's performance or satisfaction of its obligations under this Agreement other than those described in Article 19.4.1 of this Agreement shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

19.6 Audit Results.

If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

ARTICLE 20. SUBCONTRACTORS

20.1 General.

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

20.2 Responsibility of Principal.

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the NYISO or Affected Transmission Owners be liable for the actions or inactions of a Developer or its subcontractors with respect to obligations of the Developer under Article 3 of this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

20.4 No Limitation by Insurance.

The obligations under this Article 20 will not be limited in any way by any limitation of subcontractor's insurance.

ARTICLE 21. DISPUTES**21.1 Submission.**

In the event any Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance (a "Dispute"), such Party shall provide the other Parties with written notice of the Dispute ("Notice of Dispute"). Such Dispute shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Parties. In the event the designated representatives are unable to resolve the Dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Parties' receipt of the Notice of Dispute, such Dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such Dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

21.2 External Arbitration Procedures.

Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the Dispute to arbitration, the Parties shall invoke the assistance of the FERC's Dispute Resolution Service to select an arbitrator. In each case, the arbitrator shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 21, the terms of this Article 21 shall prevail.

21.3 Arbitration Decisions.

Unless otherwise agreed by the Parties, the arbitrator shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator may be appealed solely on the grounds that the conduct of the arbitrator, or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed

with FERC if it affects jurisdictional rates, terms and conditions of service, or Common System Deliverability Upgrades.

21.4 Costs.

Each Party shall be responsible for its own costs incurred during the arbitration process and for its per capita share of the costs of the single arbitrator.

21.5 Termination.

Notwithstanding the provisions of this Article 21, any Party may terminate this Agreement in accordance with its provisions or pursuant to an action at law or equity. The issue of whether such a termination is proper shall not be considered a Dispute hereunder.

ARTICLE 22. REPRESENTATIONS, WARRANTIES AND COVENANTS

22.1 General.

Each Party makes the following representations, warranties and covenants:

22.1.1 Good Standing.

Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the State of New York; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this Agreement and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.

22.1.2 Authority.

Such Party has the right, power and authority to enter into this Agreement, to become a Party hereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

22.1.3 No Conflict.

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

22.1.4 Consent and Approval.

Such Party has sought or obtained, or, in accordance with this Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this Agreement, and it will provide to any Governmental Authority notice of any actions under this Agreement that are required by Applicable Laws and Regulations.

ARTICLE 23. MISCELLANEOUS

23.1 Binding Effect.

This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and permitted assigns of the Parties hereto.

23.2 Conflicts.

If there is a discrepancy or conflict between or among the terms and conditions of this cover agreement and the Appendices hereto, the terms and conditions of this cover agreement shall be given precedence over the Appendices, except as otherwise expressly agreed to in writing by the Parties.

23.3 Rules of Interpretation.

This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this Agreement or such Appendix to this Agreement, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

23.4 Compliance.

Each Party shall perform its obligations under this Agreement in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, the ISO OATT and Good

Utility Practice. To the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this Agreement for its compliance therewith. When any Party becomes aware of such a situation, it shall notify the other Parties promptly so that the Parties can discuss the amendment to this Agreement that is appropriate under the circumstances.

23.5 Joint and Several Obligations.

Except as otherwise stated herein, the obligations of NYISO, each Developer and each Affected Transmission Owner are several, and are neither joint nor joint and several.

23.6 Entire Agreement.

This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

23.7 No Third Party Beneficiaries.

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and permitted their assigns.

23.8 Waiver.

The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Any waiver of this Agreement shall, if requested, be provided in writing.

23.9 Headings.

The descriptive headings of the various Articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

23.10 Multiple Counterparts.

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

23.11 Amendment.

The Parties may by mutual agreement amend this Agreement, by a written instrument duly executed by all of the Parties.

23.12 Modification by the Parties.

The Parties may by mutual agreement amend the Appendices to this Agreement, by a written instrument duly executed by all three of the Parties. Such an amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.

23.13 Reservation of Rights.

NYISO and each of the Affected Transmission Owners shall have the right to make unilateral filings with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and each of the Developers shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

23.14 No Partnership.

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

23.15 Other Transmission Rights.

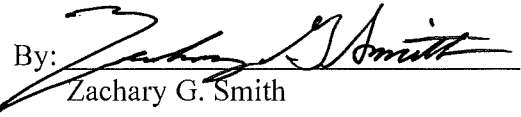
Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, or transmission congestion rights that the Developers shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the incremental transmission capacity, if any, created by these Common System Deliverability Upgrades, in the configuration described in and as operated in accordance with Appendix A of this Agreement.

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator,
Inc..

Stony Creek Energy LLC

By: 
Zachary G. Smith

By: _____

Title: Vice President, System & Resource
Planning

Title: _____

Date: _____

Date: 6/28/2019

Central Hudson Gas & Electric Corporation

TBE Montgomery, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a
National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc.

Stony Creek Energy LLC

By: _____

By: _____

Title: _____

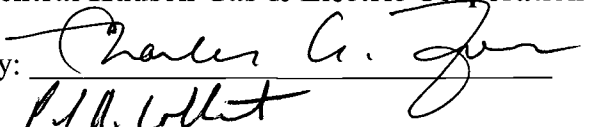
Title: _____

Date: _____

Date: _____

Central Hudson Gas & Electric Corporation

TBE Montgomery, LLC

By:  _____

By: _____

Title: President & Chief Executive Officer
Associate General Counsel-Regulatory
Affairs

Title: _____

Date: May 29, 2019 _____

Date: _____

**Niagara Mohawk Power Corporation d/b/a
National Grid**

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: _____

Title: _____

Date: _____

Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

By: 
Kathryn Cox-Arslan

Title: Director, Commercial Services

Date: June 6, 2019

CPV Valley, LLC

By: _____

Title: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: Alex C George

Title: Alex C George
Vice President

Date: 6/12/19



Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

Stony Creek Energy LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

By:  _____

Title: _____

Title: President & CEO

Date: _____

Date: May 31, 2019

Niagara Mohawk Power Corporation d/b/a National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

Stony Creek Energy LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Central Hudson Gas & Electric Corporation

TBE Montgomery, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

CPV Valley, LLC

By: _____

By: _____

Donald G. Atwood

Title: _____

Authorized Signatory

Title: _____

Date: June 27, 2019

Date: _____

APPENDICES

Appendix A

EPC Services

Appendix B

Addresses for Delivery of Notices and Billings

APPENDIX A

EPC SERVICES

1. Common System Deliverability Upgrades

A. Central Hudson's System

The Common System Deliverability Upgrades consist of the installation of Smart Wires SmartValve technology utilizing a bank design instead of a traditional series capacitor installation. The SmartValve installation will be located at the Hurley Avenue Substation. The SmartValve technology is a modular Static Synchronous Series Compensator (SSSC) which uses variable voltage injection to synthesize a capacitive or inductive reactance.

Operating Characteristics

- The SmartValve control initially will be utilized to provide 3.5 Ω capacitive compensation.
- Voltage injection is enabled when 200 A (~120 MVA) is present in all 3 phases and disabled if the current in any phase drops below 150 A (~90 MVA).
- For changing line current, the SmartValve bank can ramp voltage injection up or down within 30 seconds (i.e., capable of going from 0 V to 12 kV injection per phase in 30 seconds) to initially get the devices from 0 to the 3.5 Ω operating level, and then the inner control loops take over to maintain the 3.5 Ω with faster response to react to line current variations during operation.
- Should fault currents exceed a pre-set value, the SmartValve on the faulted phases will bypass in 1 ms. The unfaulted phases would ramp down their injection and bypass in 10 seconds, however, any fault should be cleared by that time.
- Each SmartValve can withstand 63 kA RMS for 0.5 seconds with a first-peak asymmetrical value up to 164 kA.
- Each SmartValve has a continuous rating of 3400 A and can withstand overloads up to 3700 A for 4 hours and 4000 A for 15 minutes.
- The SmartValve bank has been specified to provide 12 kV quadrature injection per phase at the 301 line's summer STE rating. This value of injection will provide for 3.5 Ω capacitive compensation at summer STE rating to achieve the required 21% compensation.
- Central Hudson will turn over operational control to the NYISO

The Common System Deliverability Upgrades on Central Hudson's system include the following major electrical and physical equipment:

	Equipment	Labor
Planning & Engineering		\$1,775,000
Major Equipment		
▪ Smart Wires	\$10,875,000	\$375,000
▪ Package Sub.	\$925,000	\$650,000
▪ Breaker	\$300,000	\$125,000
▪ GIC Monitoring	\$75,000	
▪ Other		\$100,000
Site Work	\$3,250,000	
Transmission Line Work	\$1,750,000	
Total	\$20,200,000	

Central Hudson shall engineer, procure the required equipment, and construct the Common System Deliverability Upgrades in accordance with Central Hudson's Specifications and Requirements for Electric Installations dated July 2007 to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

B. National Grid's System

The Common System Deliverability Upgrades on National Grid's system do not include electrical or physical equipment; but involve relay setting adjustments at National Grid's Leeds substation.

Central Hudson shall engineer, procure the required equipment, and construct the Common System Deliverability Upgrades on behalf of National Grid in accordance with National Grid's ESB 750 series bulletins to the extent not inconsistent with the terms of this Agreement or the NYISO OATT. Please note that effective April 27th, 2009 all references to P.S.C. No. 207 in any of National Grid's ESB 750 series bulletins shall be construed as references to P.S.C. No. 220.

2. Developer Cost Responsibility

A. Developer Common SDU Cost Cap

Each Developer has accepted, and has provided Security to the Affected Transmission Owners in the form of cash, letters of credit, or parental guarantees to cover, pursuant to Section

25.7.12.2 of Attachment S of the ISO OATT, the cost amount identified in the NYISO Class Year Deliverability Studies for 2010 and 2011 for the Common System Deliverability Upgrades. The non-cash security instruments have been updated for inflation, which updated amount is shown below. The security held in cash reflect the actual escrow amounts currently held with the interest included. The amounts in the below table constitute the Developer Common SDU Cost Cap for each Developer.

Developer	Total SDU Cost Allocation	SDU Cost Allocation to Central Hudson	SDU Cost Allocation to National Grid
CPV Valley	\$15,573,056	\$15,197,060	\$375,996
Taylor	\$181,454	\$177,073	\$4,381
Stony Creek	\$1,144,490	\$1,114,092	\$30,398
Total	\$16,899,000	\$16,488,225	\$410,775

B. Developer's Invoice Share

Developer	Invoice Share (%)
CPV Valley	86.39%
Taylor	1.02%
Stony Creek	6.24%

C. Forfeited Security

Duke Energy Corporation provided Central Hudson and National Grid parental guaranties for the Ball Hill project in the amount of \$1,025,545 and \$27,968, respectively. These non-cash guaranties are now valued at \$1,133,525 and \$27,968, respectively. Central Hudson and National Grid will recover these costs by calling for the Forfeited Security to be converted into cash and drawing down on the Forfeited Security to the extent necessary to cover actual costs in excess of Common SDU Cost Cap.

3. Milestones

Item	Milestone	Date	Responsible Party
1	Provide initial status report on the construction and installation of Common System Deliverability Upgrades in accordance with Article 18.2	July 1, 2019	CHGE
2	Expand Hurley Station, Permitting and Site Prep Existing Station	December 2019	CHGE
3	Provide updated estimate of its cost for performing the EPC Services as required by Article 6.1.2	December 2019	CHGE, GRID

4	Smart Wires Design	Completed	CHGE
5	Procure Smart Wires Equipment	July 2019	CHGE
6	Complete Smart Wires Installation	March 2020	CHGE
7	Complete Hurley Station Breaker Installation	December 2019	CHGE
8	Complete 115 kV Line Relocation	December 2019	CHGE
9	Complete Hurley Line 301 Relay Upgrades	March 2020	CHGE
10	Complete Leeds Line 301 Relay Upgrades	March 2020	GRID
11	Completion Date	March 2020	CHGE
12	In-Service Date	March 2020	CHGE

APPENDIX B

ADDRESSES FOR DELIVERY OF NOTICES AND BILLINGS

Notices:

NYISO:

Before In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

After In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, Operations
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Email:

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission Commercial Services
40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

Billings and Payments:

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Email:

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission Commercial Services
40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

Alternative Forms of Delivery of Notices (telephone or email):

NYISO:

Before In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

After In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, Operations
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Fax: (518) 356-6118

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Fax: (845)486-5697
jborchert@cenhud.com

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission Commercial Services
40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

Attachment III

~~Appendix 3—STANDARD LARGE GENERATOR INTERCONNECTION~~SERVICE
AGREEMENT NO. 2449

~~(Applicable to Generating Facilities that exceed 20 MW)~~

ENGINEERING, PROCUREMENT, AND CONSTRUCTION AGREEMENT

AMONG THE

NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

AND

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

AND

NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID

AND

STONY CREEK ENERGY LLC

AND

TBE MONTGOMERY, LLC

AND

CPV VALLEY, LLC

Dated as of June 28, 2019

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Appendices

RECITALS

WHEREAS, Stony Creek, a project previously in the NYISO ~~operates~~ interconnection queue (Queue No. 263) and CPV Valley, a project in the NYISO interconnection queue (Queue No. 251) have developed and constructed Large Generating Facilities that are interconnected to transmission facilities that are part of the New York State Transmission System ~~and Connecting Transmission Owner owns certain facilities included in the~~ operated by the NYISO;

WHEREAS, Taylor, a project in the NYISO interconnection queue (Queue No. 349) is developing a Large Generating Facility that will interconnect to transmission facilities that are part of the New York State Transmission System operated by the NYISO;

WHEREAS, Ball Hill, a project previously in the NYISO interconnection queue (Queue No. 222) was developing a Large Generating Facility to interconnect to transmission facilities that are part of the New York State Transmission System operated by the NYISO, and subsequently terminated its project;

WHEREAS, each Developer ~~intends to own, lease and/or control and operate~~requested that the ~~Generating Facility identified~~NYISO provide it with Capacity Resource Interconnection Service as ~~a part of the interconnection of its~~ Large Generating Facility ~~in Appendix C to this Agreement;~~as a part of the interconnection of its ~~and to the New York State Transmission System or Distribution System;~~

~~WHEREAS,~~ WHEREAS, the NYISO Class Year Deliverability Studies for 2010 and 2011 determined that certain System Deliverability Upgrades must be constructed on the Affected Systems owned by Affected Transmission Owners to enable the Developers to interconnect reliably their Large Generating Facilities to the New York State Transmission System in a manner that meets the NYISO Deliverability Interconnection Standard at the requested level of Capacity Resource Interconnection Service (“Common System Deliverability Upgrades”);

WHEREAS, each Developer, ~~NYISO~~ accepted, and ~~Connecting Transmission Owner~~ provided Security in the form of cash, letters of credit, or parental guarantees to the Affected Transmission Owners pursuant to Sections 25.7.12.2 and 25.8 of Attachment S to the ISO OATT to cover, its portion of the estimated cost of the Common System Deliverability Upgrades designated in the NYISO Class Year Deliverability Studies for 2010 or 2011, as applicable (“Developer Common SDU Cost Cap”);

WHEREAS, the NYISO Class Year Deliverability Study for 2011 determined that a threshold of 60% or more of the estimated cost for the Common System Deliverability Upgrades had been paid or posted as Security by the Developers, which triggers the requirement that the Affected Transmission Owners construct the Common System Deliverability Upgrades pursuant to Section 25.7.12.3.1 of Attachment S of the ISO OATT;

WHEREAS, Central Hudson subsequently requested a non-materiality determination concerning certain changes to the Common System Deliverability Upgrades, which changes were presented to the NYISO’s stakeholder Transmission Planning Advisory Subcommittee on May 1, 2018, and were approved by the NYISO as a non-material change;

WHEREAS, Developers and Affected Transmission Owners desire to have the Affected Transmission Owners perform, and Affected Transmission Owners are willing to perform, the engineering, procurement, and construction services required to construct the Common System Deliverability Upgrades (“EPC Services”) in accordance with the terms and conditions hereinafter set forth; and

WHEREAS, Developers, Affected Transmission Owners, and the NYISO have agreed to enter into this Agreement for the purpose of ~~interconnecting the Large Generating Facility with the New York State Transmission System;~~ allocating the responsibilities for the performance and oversight of the EPC Services required to construct the Common System Deliverability Upgrades.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

ARTICLE 1. DEFINITIONS

Whenever used in this Agreement with initial capitalization, the following terms shall have the meanings specified in this Article ~~4.1.~~ 1. Terms used in this Agreement with initial capitalization that are not defined in this Article ~~4.1~~ shall have the meanings specified in Section- 1 of the ISO OATT, Section 30.1 of Attachment- X of the ISO OATT, Section- 25.1.2 of Attachment- S of the ISO OATT, the body of the LFIP or the body of this Agreement.

Affected System shall mean ~~an~~the electric system ~~other than the transmission system owned, controlled or operated by the Connecting~~ of an Affected Transmission Owner, ~~which is part of the New York State Transmission System~~ that ~~may be~~is affected by the proposed interconnection.

~~**Affected System Operator** shall mean~~ of the entity that ~~operates an Affected System.~~Large Generating Facilities.

~~**Affected Transmission Owner** shall mean the New York public utility or authority (or its designated agent) other than the Connecting Transmission Owner that (i) owns facilities used for the transmission of Energy in interstate commerce and provides Transmission Service under the Tariff, and (ii) owns, leases or otherwise possesses an interest in a portion of the New York State Transmission System where System Deliverability Upgrades, System Upgrade Facilities, or Network Upgrade Facilities are or will be installed pursuant to Attachment P, Attachment X, Attachment Z, or Attachment S to the ISO OATT.~~

Affected Transmission Owner shall have the meaning set forth in the introductory paragraph.

Affiliate shall mean, with respect to a person or entity, any individual, corporation, partnership, firm, joint venture, association, joint-stock company, trust or unincorporated organization, directly or indirectly controlling, controlled by, or under common control with, such person or entity. The term “control” shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

~~**Ancillary Services** shall mean those services that are necessary to support the transmission of Capacity and Energy from resources to Loads while maintaining reliable operation of the New York State Transmission System in accordance with Good Utility Practice.~~

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority, including but not limited to Environmental Law.

Applicable Reliability Councils shall mean the NERC, the NPCC and the NYSRC.

Applicable Reliability Standards shall mean the requirements and guidelines of the Applicable Reliability Councils, and the Transmission District ~~to~~in which the ~~Developer's Large Generating Facility is directly interconnected~~Common System Deliverability Upgrades will be constructed, as those requirements and guidelines are amended and modified and in effect from time to time; provided that no Party shall waive its right to challenge the applicability or validity of any requirement or guideline as applied to it in the context of this Agreement.

~~**Attachment Facilities** shall mean the Connecting Transmission Owner's Attachment Facilities and the Developer's Attachment Facilities. Collectively, Attachment Facilities include all facilities and equipment between the Large Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Large Generating Facility to the New York State Transmission~~

~~System. Attachment Facilities are sole use facilities and shall not include Stand Alone System Upgrade Facilities, Distribution Upgrades, System Upgrade Facilities or System Deliverability Upgrades.~~

~~Base Case shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by NYISO, Connecting Transmission Owner or Developer; described in Section 30.2.3 of the Standard Large Facility Interconnection Procedures.~~

Breach shall mean the failure of a Party to perform or observe any material term or condition of this Agreement.

Breaching Party shall mean a Party that is in Breach of this Agreement.

Business Day shall mean Monday through Friday, excluding federal holidays.

~~Byway shall mean all transmission facilities comprising the New York State Transmission System that are neither Highways nor Other Interfaces. All transmission facilities in Zone J and Zone K are Byways.~~

Calendar Day shall mean any day including Saturday, Sunday or a federal holiday.

~~Capacity Region shall mean one of four subsets of the Installed Capacity statewide markets comprised of (1) Rest of State (i.e., Load Zones A through F); (2) Lower Hudson Valley (i.e., Load Zones G, H and I); (3) New York City (i.e., Load Zone J); and (4) Long Island (i.e., Load Zone K), except for Class Year Interconnection Facility Studies conducted prior to Class Year 2012, for which "Capacity Region" shall be defined as set forth in Section 25.7.3 of Attachment S to the ISO OATT.~~

Capacity Resource Interconnection Service ("CRIS") shall mean the service provided by NYISO to Developers that satisfy the NYISO Deliverability Interconnection Standard or that are otherwise eligible to receive CRIS in accordance with Attachment S to the ISO OATT; such service being one of the eligibility requirements for participation as a NYISO Installed Capacity Supplier.

Class Year Deliverability Study shall mean an assessment, conducted by the NYISO staff in cooperation with Market Participants, to determine whether System Deliverability Upgrades are required for Class Year CRIS Projects under the NYISO Deliverability Interconnection Standard.

Common System Deliverability Upgrades shall have the meaning set forth in the recitals and shall consist of the materials, equipment, and work described in Appendix A.

Commercial Operation shall mean the status of a Large Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

~~Commercial Operation~~Completion Date of a unit shall mean the date on which the ~~Large Generating Facility commences Commercial Operation as agreed to by~~Affected Transmission

Owners have completed the Parties pursuant to EPC Services, as set forth in Appendix E to this Agreement A.

Confidential Information shall mean any information that is defined as confidential by Article ~~22~~16 of this Agreement.

~~**Connecting Transmission Owner** shall mean the New York public utility or authority (or its designated agent) that (i) owns facilities used for the transmission of Energy in interstate commerce and provides Transmission Service under the Tariff, (ii) owns, leases or otherwise possesses an interest in the portion of the New York State Transmission System or Distribution System at the Point of Interconnection, and (iii) is a Party to this Agreement.~~

~~**Connecting Transmission Owner's Attachment Facilities** shall mean all facilities and equipment owned, controlled or operated by the Connecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Connecting Transmission Owner's Attachment Facilities are sole use facilities and shall not include Stand Alone System Upgrade Facilities, System Upgrade Facilities, or System Deliverability Upgrades.~~

~~**Control Area** shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to: (1) match, at all times, the power output of the Generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the Load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and (4) provide sufficient generating capacity to maintain Operating Reserves in accordance with Good Utility Practice. A Control Area must be certified by the NPCC.~~

Default shall mean the failure of a Party in Breach of this Agreement to cure such Breach in accordance with Article ~~17~~11 of this Agreement.

~~**Developer** shall mean an Eligible Customer developing a Large Generating Facility, proposing to connect to the New York State Transmission System, in compliance with the NYISO Minimum Interconnection Standard.~~

~~**Developer's Attachment Facilities** shall mean all facilities and equipment, as identified in Appendix A of this Agreement, that are located between the Large Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Large Generating Facility to the New York State Transmission System. Developer's Attachment Facilities are sole use facilities.~~

Developer shall have the meaning set forth in the introductory paragraph.

Developer Common SDU Cost Cap shall mean a Developer's portion of the estimated cost of the Common System Deliverability Upgrades as designated in the Class Year Deliverability Study for 2010 and 2011 and described in Appendix A.

Distribution System shall mean the ~~Connecting Transmission Owner's~~ facilities and equipment used to distribute electricity that are subject to FERC jurisdiction, and are subject to the NYISO's Large Facility Interconnection Procedures in Attachment X to the ISO OATT or Small Generator Interconnection Procedures in Attachment Z to the ISO OATT under FERC Order Nos. 2003 and/or 2006. The term Distribution System shall not include LIPA's distribution facilities.

~~**Distribution Upgrades** shall mean the additions, modifications, and upgrades to the Connecting Transmission Owner's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of a Large Facility or Small Generating Facility and render the transmission service necessary to affect the Developer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Attachment Facilities, System Upgrade Facilities, or System Deliverability Upgrades. Distribution Upgrades are sole use facilities and shall not include Stand Alone System Upgrade Facilities, System Upgrade Facilities, or System Deliverability Upgrades.~~

Effective Date shall mean the date ~~on which this Agreement becomes effective upon execution by the Parties, subject to acceptance by the Commission, or if filed unexecuted, upon the date specified by the Commission.~~ determined under Article 2.1.

~~**Emergency State** shall mean the condition or state that the New York State Power System is in when an abnormal condition occurs that requires automatic or immediate manual action to prevent or limit loss of the New York State Transmission System or Generators that could adversely affect the reliability of the New York State Power System.~~

~~**Energy Resource Interconnection Service ("ERIS")** shall mean the service provided by NYISO to interconnect the Developer's Large Generating Facility to the New York State Transmission System or to the Distribution System in accordance with the NYISO Minimum Interconnection Standard, to enable the New York State Transmission System to receive Energy and Ancillary Services from the Large Generating Facility, pursuant to the terms of the ISO OATT.~~

Environmental Law shall mean Applicable Laws and Regulations relating to pollution or protection of the environment or natural resources.

EPC Services shall have the meaning set forth in the recitals and shall consist of the services described in Appendix A.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.* ("FPA").

FERC shall mean the Federal Energy Regulatory Commission ("Commission") or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Forfeited Security shall mean any Security posted to an Affected Transmission Owner in connection with the Common System Deliverability Upgrades by a Developer that has accepted its Project Cost Allocation for the upgrades in a NYISO Class Year Deliverability Study and subsequently terminates or abandons development of its project. This includes the Security posted to the Affected Transmission Owners by Ball Hill Wind Park, LLC (NYISO Queue No. 222) when it accepted its Project Cost Allocation for the Common System Deliverability Upgrades in Class Year 2009 and subsequently terminated its project, which Security amount is set forth in Appendix A.

Generating Facility shall mean a Developer's device for the production of electricity identified in the Interconnection Request, but shall not include the Developer's Attachment Facilities or Distribution Upgrades.

~~**Generating Facility Capacity** shall mean the net seasonal capacity of the Generating Facility and the aggregate net seasonal capacity of the Generating Facility where it includes multiple energy production devices.~~

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over any of the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include ~~Developer~~Developers, NYISO, Affected Transmission ~~Owner, Connecting Transmission Owner~~Owners, or any Affiliate thereof.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any

other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

Highway shall mean 115 kV and higher transmission facilities that comprise the following NYCA interfaces: ~~Dysinger East, West Central, Volney East, Moses South, Central East/Total East, and UPNY ConEd, and their immediately connected, in series, bulk power system facilities in New York State. Each interface shall be evaluated to determine additional “in series” facilities, defined as any transmission facility higher than 115 kV that (a) is located in an upstream or downstream zone adjacent to the interface and (b) has a power transfer distribution factor (DFAX) equal to or greater than five percent when the aggregate of generation in zones or systems adjacent to the upstream zone or zones that define the interface is shifted to the aggregate of generation in zones or systems adjacent to the downstream zone or zones that define the interface. In determining “in series” facilities for Dysinger East and West Central interfaces, the 115 kV and 230 kV tie lines between NYCA and PJM located in LBMP Zones A and B shall not participate in the transfer. Highway transmission facilities are listed in ISO Procedures.~~

Initial Synchronization Date shall mean the date upon which the Large Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date shall mean the date upon which the ~~Developer~~[Affected Transmission Owner](#) reasonably expects it will be ready to ~~begin use of the Connecting Transmission Owner’s Attachment Facilities to obtain back feed power.~~

Interconnection Facilities Study shall mean a study conducted by NYISO or a third party consultant for the Developer to determine a list of facilities (including Connecting Transmission Owner’s Attachment Facilities, Distribution Upgrades, System Upgrade Facilities and [energize the Common](#) System Deliverability Upgrades as identified in the Interconnection System Reliability Impact Study), the cost of those facilities, and the time required to interconnect the Large Generating Facility with the New York State Transmission System or with the Distribution System. The scope of the study is defined in Section 30.8 of the Standard Large Facility Interconnection Procedures.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 2 of the Standard Large Facility Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Request shall mean a Developer’s request, in the form of Appendix 1 to the Standard Large Facility Interconnection Procedures, in accordance with the Tariff, to interconnect a new Large Generating Facility to the New York State Transmission System or to the Distribution System, or to materially increase the capacity of, or make a material modification to the operating characteristics of, an existing Large Generating Facility that is interconnected with the New York State Transmission System or with the Distribution System.

Interconnection Study shall mean any of the following studies: the ~~Optional Interconnection Feasibility Study, the Interconnection System Reliability Impact Study, and the Interconnection Facilities Study described in the Standard Large Facility Interconnection Procedures.~~

~~**Interconnection System Reliability Impact Study (“SRIS”)** shall mean an engineering study, conducted in accordance with Section 30.7 of the Standard Large Facility Interconnection Procedures, that evaluates the impact of the proposed Large Generating Facility on the safety and reliability of the New York State Transmission System and, if applicable, an Affected System, to determine what Attachment Facilities, Distribution Upgrades and System Upgrade Facilities are needed for the proposed Large Generating Facility of the Developer to connect reliably to the New York State Transmission System or to the Distribution System in a manner that meets the NYISO Minimum Interconnection Standard in Attachment X to the ISO OATT.~~

Invoice Share shall mean an individual Developer’s percentage share of the Developers’ total cost responsibility (i.e., the Developers’ consolidated cost responsibility, excluding any cost responsibility of Load Serving Entities, Affected Transmission Owners, and Forfeited Security) for an Affected Transmission Owner’s performance of the EPC Services subject to the Developer Common SDU Cost Cap in the Class Year Deliverability Study, as set forth in Appendix A.

IRS shall mean the Internal Revenue Service.

Large Generating Facility shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

Loss shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Indemnified Party’s performance or non-performance of its obligations under this Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

~~**Material Modification**~~**Milestones** shall mean ~~those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.~~

~~**Metering Equipment** shall mean all metering equipment installed or to be installed at~~**milestones** ~~for the Large Generating Facility pursuant to this Agreement at performance of the metering points, including but not limited to instrument transformers, MWh meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics~~EPC Services, as set forth in Appendix A.

NERC shall mean the North American Electric Reliability ~~Council~~Corporation or its successor organization.

New York State Transmission System shall mean the entire New York State electric transmission system, which includes (i) the Transmission Facilities Under ISO Operational Control; (ii) the Transmission Facilities Requiring ISO Notification; and (iii) all remaining transmission facilities within the New York Control Area.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with this Agreement or its performance.

NPCC shall mean the Northeast Power Coordinating Council or its successor organization.

NYISO Deliverability Interconnection Standard – The standard that must be met, unless otherwise provided for by Attachment S to the ISO OATT, by (i) any generation facility larger than 2MW in order for that facility to obtain CRIS; (ii) any Class Year Transmission Project; (iii) any entity requesting External CRIS Rights, and (iv) any entity requesting a CRIS transfer pursuant to Section 25.9.5 of Attachment S to the ISO OATT. To meet the NYISO Deliverability Interconnection Standard, the Interconnection Customer must, in accordance with the rules in Attachment S to the ISO OATT, fund or commit to fund any System Deliverability Upgrades identified for its project in the Class Year Deliverability Study.

~~**NYISO Minimum Interconnection Standard**—The reliability standard that must be met by any generation facility or Class Year Transmission Project that is subject to NYISO’s Large Facility Interconnection Procedures in Attachment X to the ISO OATT or the NYISO’s Small Generator Interconnection Procedures in Attachment Z, that is proposing to connect to the New York State Transmission System or Distribution System, to obtain ERIS. The Minimum Interconnection Standard is designed to ensure reliable access by the proposed project to the New York State Transmission System or to the Distribution System. The Minimum Interconnection Standard does not impose any deliverability test or deliverability requirement on the proposed interconnection.~~

NYSRC shall mean the New York State Reliability Council or its successor organization.

~~**Other Interfaces** shall mean the following interfaces into Capacity Regions: Lower Hudson Valley [*i.e.*, Rest of State (Load Zones A-F) to Lower Hudson Valley (Load Zones G, H and I)]; New York City [*i.e.*, Lower Hudson Valley (Load Zones G, H and I) to New York City (Load Zone J)]; and Long Island [*i.e.*, Lower Hudson Valley (Load Zones G, H and I) to Long Island (Load Zone K)], and the following Interfaces between the NYCA and adjacent Control Areas: PJM to NYISO, ISO-NE to NYISO, Hydro-Quebec to NYISO, and Norwalk Harbor (Connecticut) to Northport (Long Island) Cable.~~

Party or Parties shall mean NYISO, ~~Connecting each individual Affected~~ Transmission Owner, ~~or each individual~~ Developer, ~~Developer~~, or any combination of the above.

~~**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to this Agreement, where the Developer’s Attachment Facilities connect to the Connecting Transmission Owner’s Attachment Facilities.~~

~~**Point of Interconnection** shall mean the point, as set forth in Appendix A to this Agreement, where the Attachment Facilities connect to the New York State Transmission System or to the Distribution System.~~

Reasonable Efforts shall mean, with respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

~~**Retired:** A Generator that has permanently ceased operating on or after May 1, 2015 either: i) pursuant to applicable notice; or ii) as a result of the expiration of its Mothball Outage or its ICAP Ineligible Forced Outage.~~

Services Tariff shall mean the NYISO Market Administration and Control Area Tariff, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff thereto.

~~**Stand Alone System Upgrade Facilities** shall mean System Upgrade Facilities that a Developer may construct without affecting day-to-day operations of the New York State Transmission System during their construction. NYISO, the Connecting Transmission Owner and the Developer must agree as to what constitutes Stand Alone System Upgrade Facilities and identify them in Appendix A to this Agreement.~~

Standard Large Facility Interconnection Procedures (“Large Facility Interconnection Procedures” or “LFIP”) shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Large Generating Facility that are included in Attachment X of the ISO OATT.

~~**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean this Agreement, which is the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in Appendix 6 to Attachment X of the ISO OATT.~~

System Deliverability Upgrades shall mean the least costly configuration of commercially available components of electrical equipment that can be used, consistent with Good Utility Practice and Applicable Reliability Requirements, to make the modifications or additions to Byways and Highways and Other Interfaces on the existing New York State Transmission System and Distribution System that are required for the proposed project to connect reliably to the system in a manner that meets the NYISO Deliverability Interconnection Standard at the requested level of Capacity Resource Interconnection Service.

~~**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to (1) protect the New York State Transmission System from faults or other electrical disturbances occurring at the Large Generating Facility and (2) protect the Large Generating Facility from faults or other electrical system disturbances occurring on the New York State Transmission System or on other delivery systems or other generating systems to which the New York State Transmission System is directly connected.~~

~~**System Upgrade Facilities** shall mean the least costly configuration of commercially available components of electrical equipment that can be used, consistent with Good Utility Practice and Applicable Reliability Requirements, to make the modifications to the existing transmission system that are required to maintain system reliability due to: (i) changes in the system, including such changes as load growth and changes in load pattern, to be addressed in the form of generic generation or transmission projects; and (ii) proposed interconnections. In the case of proposed interconnection projects, System Upgrade Facilities are the modifications or additions to the existing New York State Transmission System that are required for the proposed project to~~

~~connect reliably to the system in a manner that meets the NYISO Minimum Interconnection Standard.~~

Tariff shall mean the NYISO Open Access Transmission Tariff (“OATT”), as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

Trial Operation shall mean the period during which Developer is engaged in on-site test operations and commissioning of the Large Generating Facility prior to Commercial Operation.

ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION

2.1 Effective Date.

This Agreement shall become effective upon the date of execution by the Parties, subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC. The NYISO and ~~Connecting~~Affected Transmission ~~Owner~~Owners shall promptly file this Agreement with FERC upon execution ~~in accordance~~. Each Developer shall reasonably cooperate with Article 3.1, the NYISO and Affected Transmission Owners with respect to the filing of this Agreement with FERC and provide any information reasonably requested by the NYISO and Affected Transmission Owners needed for such filing.

2.2 Term of Agreement.

Subject to the provisions of Article ~~2.3~~2.3, this Agreement shall remain in effect ~~for a period of ten (10) years from~~until the ~~Effective~~later of: (i) the Completion Date or such other longer period as the Developer may request (Term to be Specified in Individual Agreements), and shall be automatically renewed for each successive one-year period thereafter(ii) the date on which the final payment of all invoices issued under this Agreement has been made and the security has been released or refunded.

2.3 Termination.

2.3.1 ~~Written Notice.~~

This Agreement may be terminated either: (i) by the Developer all Parties agreeing in writing to terminate this Agreement, or (ii) by any Party after giving the NYISO and Connecting Transmission Owner ninety (90) other Parties thirty (30) Calendar Days advance written notice, or by following a NYISO determination that the threshold for triggering the NYISO and Connecting Transmission Owner notifying FERC after construction of the Large Generating Facility Common System Deliverability Upgrades set forth in Section 25.7.12.3.1 of Attachment S of the ISO OATT is Retired no longer met.

2.3.2

~~2.3.2~~ 2.3.3 Default.

~~Any~~ A Party ~~or Parties~~ may terminate this Agreement ~~in accordance with~~ as and to the extent permitted under Article ~~17~~ 11 and Article 21.

~~2.3.3~~ 2.3.4 Compliance.

Notwithstanding Articles ~~2.3.1~~ 2.3.1 and ~~2.3.2~~ 2.3.2, no termination of this Agreement shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement, which notice has been accepted for filing by FERC.

2.4 Termination Costs.

If ~~a Party elects to terminate~~ this Agreement is terminated pursuant to Article ~~2.3.1~~ 2.3.1 above, the ~~terminating Party~~ Developers shall ~~pay be responsible for~~ all costs ~~incurred (including any cancellation costs relating to orders or contracts for Attachment Facilities and equipment) or charges assessed by the other Parties, as of the date of the other Parties' receipt of such notice of termination,~~ that are the responsibility of the ~~terminating Party~~ Developers under this Agreement ~~that are incurred by the Developers or other Parties through the date the Parties agree in writing to terminate this Agreement or the date of the other Parties' receipt of a Party's notice of termination, as applicable. Such costs shall be allocated among the Developers using the same methodology as set forth in Article 6 regarding each Developer's responsibility for the costs of the EPC Services, subject to the Developer Common SDU Cost Cap. Such costs include any cancellation costs related to orders or contracts.~~ In the event of termination ~~by a Party~~, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this Agreement, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of the ~~Connecting Transmission Owner's Attachment Facilities~~ EPC Services that have not yet been ~~constructed or installed, the Connecting~~ performed, an Affected Transmission Owner shall, to the extent possible and with each Developer's authorization, cancel any pending orders of, or return, any materials or equipment for, or cancel any contracts ~~for construction~~ associated with the performance of, ~~such facilities the EPC Services; provided, however,~~ that in the event a Developer elects not to authorize such cancellation, that Developer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the ~~Connecting~~ relevant Affected Transmission Owner shall deliver such material and equipment, and, if necessary, assign such contracts, to ~~Developer as soon as practicable, at Developer's expense. To the extent that Developer has already paid Connecting Transmission Owner for any or all such costs of materials or equipment not taken by Developer, Connecting Transmission Owner shall promptly refund such amounts to Developer, less any costs, including penalties incurred by the Connecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.~~ the Developer as soon as practicable, at the Developer's expense.

~~If Developer terminates this Agreement, it shall be responsible for all costs incurred in association with Developer's interconnection, including any cancellation costs relating to orders~~

~~or contracts for Attachment Facilities and equipment, and other expenses including any System Upgrade Facilities and System Deliverability Upgrades for which the Connecting Transmission Owner has incurred expenses and has not been reimbursed by the Developer.~~

2.4.2 ~~Connecting~~The relevant Affected Transmission Owner may, at its option, retain any portion of such materials; or equipment; ~~or facilities~~ that the Developer chooses not to accept delivery of, in which case ~~Connecting that Affected~~ Transmission Owner shall be responsible for all costs associated with procuring such materials; or equipment; ~~or facilities~~.

2.4.3 With respect to any portion of the ~~Attachment Facilities, and any other facilities~~EPC Services already ~~installed or constructed~~performed pursuant to the terms of this Agreement, ~~Developer~~Developers shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such ~~materials, equipment, or facilities~~related materials, equipment, or facilities subject to each Developer's share identified in Appendix A. Such costs shall be allocated among the Developers using the same methodology as set forth in Article 6 regarding each Developer's responsibility for the costs of the EPC Services.

~~2.5~~ — Disconnection.

~~Upon termination of this Agreement, Developer and Connecting Transmission Owner will take all appropriate steps to disconnect the Developer's Large Generating Facility from the New York State Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.~~

~~2.6~~2.5 Survival.

This Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder; including billings and payments pursuant to this Agreement; and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; ~~and to permit Developer and Connecting Transmission Owner each to have access to the lands of the other pursuant to this Agreement or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.~~

Article 3. — REGULATORY FILINGS

ARTICLE 3. ~~NYISO AND CONNECTING~~EPC SERVICES

3.1 Provision of EPC Services.

Each Affected Transmission Owner shall ~~file this Agreement (and any amendment hereto) with the appropriate Governmental Authority, if required. Any information related to studies for interconnection asserted by Developer to contain Confidential Information shall be treated in accordance with Article 22 of this Agreement and Attachment F to the ISO OATT. If the Developer has executed this Agreement, or any amendment thereto, the Developer shall reasonably cooperate with NYISO and Connecting Transmission Owner with respect to such~~

~~filing and to provide any information reasonably requested by NYISO and Connecting Transmission Owner needed to comply with Applicable Laws and Regulations.~~

~~Article 4.—SCOPE OF INTERCONNECTION SERVICE~~

~~4.1 — Provision of Service.~~

~~NYISO will provide Developer with interconnection service of the following type for the term of this Agreement.~~

~~4.1.1 — Product.~~

~~NYISO will provide [] Interconnection Service to Developer at the Point of Interconnection.~~

~~4.1.2 — Developer is responsible for ensuring that **perform** its actual Large Generating Facility output matches the scheduled delivery from the Large Generating Facility to the New York State Transmission System, consistent with the scheduling requirements of the NYISO's FERC approved market structure, including ramping into and out of such scheduled delivery, as measured at the Point of Interconnection, consistent with the scheduling requirements of the ISO OATT and any applicable FERC approved market structure.~~

~~4.2 — No Transmission Delivery Service.~~

~~The execution of this Agreement does not constitute a request for, nor agreement to provide, any Transmission Service under the ISO OATT, and does not convey any right to deliver electricity to any specific customer or Point of Delivery. If Developer wishes to obtain Transmission Service on the New York State Transmission System, then Developer must request such Transmission Service in accordance with the provisions of the ISO OATT.~~

~~4.3 — No Other Services.~~

~~The execution of this Agreement does not constitute a request for, nor agreement to provide Energy, any Ancillary **respective EPC** Services or Installed Capacity under the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"). If Developer wishes to supply Energy, Installed Capacity or Ancillary Services, then Developer will make application to do so in accordance with the NYISO Services Tariff.~~

~~Article 5.—INTERCONNECTION FACILITIES ENGINEERING,— —PROCUREMENT, AND CONSTRUCTION~~

~~5.1 — Options.~~

~~Unless otherwise mutually agreed to by Developer and Connecting Transmission Owner, Developer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option or Alternate Option set forth below for completion of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities~~

~~and System Deliverability Upgrades as, as set forth in Appendix A hereto, and such dates and selected option shall be set forth in Appendix B hereto.~~

5.1.1 — Standard Option.

~~The Connecting Transmission Owner shall design, procure, and construct the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, using Reasonable Efforts to complete the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades~~EPC Services by the Milestone dates set forth in Appendix BA hereto. ~~The Connecting~~Neither Affected Transmission Owner shall ~~not~~ be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and Regulations. In the event ~~the Connecting~~an Affected Transmission Owner reasonably expects that it will not be able to complete the ~~Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades~~EPC Services by the specified dates, ~~the Connecting~~that Affected Transmission Owner shall promptly provide written notice to the ~~Developer and NYISO~~other Parties, and shall undertake Reasonable Efforts to meet the earliest dates thereafter. The NYISO has no responsibility, and shall have no liability, for the performance of any of the EPC Service under this Agreement.

5.1.2 — Alternate Option.

~~If the dates designated by Developer are acceptable to Connecting Transmission Owner, the Connecting Transmission Owner shall so notify Developer and NYISO within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities by the designated dates. If Connecting Transmission Owner subsequently fails to complete Connecting Transmission Owner's Attachment Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete System Upgrade Facilities or System Deliverability Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Developer and Connecting Transmission Owner for such Trial Operation; or fails to complete the System Upgrade Facilities and System Deliverability Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B hereto; Connecting Transmission Owner shall pay Developer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Developer shall be extended day for day for each day that NYISO refuses to grant clearances to install equipment.~~

5.1.3 — Option to Build.

~~If the dates designated by Developer are not acceptable to Connecting Transmission Owner, the Connecting Transmission Owner shall so notify the Developer and NYISO within thirty (30) Calendar Days, and unless the Developer and Connecting Transmission Owner agree otherwise, Developer shall have the option to assume responsibility for the design, procurement and construction of Connecting Transmission Owner's Attachment Facilities and Stand Alone~~

~~System Upgrade Facilities on the dates specified in Article 5.1.2; provided that if an Attachment Facility or Stand Alone System Upgrade Facility is needed for more than one Developer's project, Developer's option to build such facility shall be contingent on the agreement of all other affected Developers. NYISO, Connecting Transmission Owner and Developer must agree as to what constitutes Stand Alone System Upgrade Facilities and identify such Stand Alone System Upgrade Facilities in Appendix A hereto. Except for Stand Alone System Upgrade Facilities, Developer shall have no right to construct System Upgrade Facilities under this option.~~

~~5.1.4 — Negotiated Option.~~

~~If the Developer elects not to exercise its option under Article 5.1.3, Option to Build, Developer shall so notify Connecting Transmission Owner and NYISO within thirty (30) Calendar Days, and the Developer and Connecting Transmission Owner shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities by Developer) pursuant to which Connecting Transmission Owner is responsible for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades. If the two Parties are unable to reach agreement on such terms and conditions, Connecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades pursuant to 5.1.1, Standard Option.~~

~~5.2 — General Conditions Applicable to Option to Build.~~

~~If Developer assumes responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities, the following conditions apply:~~

~~**5.2.1** — Developer shall engineer, procure equipment, and construct the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Connecting Transmission Owner;~~

~~**5.2.2** — Developer's engineering, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities shall comply with all requirements of law to which Connecting Transmission Owner would be subject in the engineering, procurement or construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;~~

~~**5.2.3** — Connecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;~~

~~5.2.4~~ Prior to commencement of construction, Developer shall provide to Connecting Transmission Owner and NYISO a schedule for construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities, and shall promptly respond to requests for information from Connecting Transmission Owner or NYISO;

~~5.2.5~~ At any time during construction, Connecting Transmission Owner shall have the right to gain unrestricted access to the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities and to conduct inspections of the same;

~~5.2.6~~ At any time during construction, should any phase of the engineering, equipment procurement, or construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities not meet the standards and specifications provided by Connecting Transmission Owner, the Developer shall be obligated to remedy deficiencies in that portion of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;

~~5.2.7~~ Developer shall indemnify Connecting Transmission Owner and NYISO for claims arising from the Developer's construction of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities under procedures applicable to Article 18.1 Indemnity;

~~5.2.8~~ Developer shall transfer control of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to the Connecting Transmission Owner;

~~5.2.9~~ Unless the Developer and Connecting Transmission Owner otherwise agree, Developer shall transfer ownership of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to Connecting Transmission Owner;

~~5.2.10~~ Connecting Transmission Owner shall approve and accept for operation and maintenance the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

~~5.2.11~~ Developer shall deliver to NYISO and Connecting Transmission Owner "as built" drawings, information, and any other documents that are reasonably required by NYISO or Connecting Transmission Owner to assure that the Attachment Facilities and Stand Alone System Upgrade Facilities are built to the standards and specifications required by Connecting Transmission Owner.

~~5.3~~ **Liquidated Damages.**

The actual damages to the Developer, in the event the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades are not completed by the dates designated by the Developer and accepted by the Connecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Developer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated

~~damages paid by the Connecting Transmission Owner to the Developer in the event that Connecting Transmission Owner does not complete any portion of the Connecting Transmission Owner's Attachment Facilities, System Upgrade Facilities or System Deliverability Upgrades by the applicable dates, shall be an amount equal to 1/2 of 1 percent per day of the actual cost of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, in the aggregate, for which Connecting Transmission Owner has assumed responsibility to design, procure and construct.~~

~~However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Connecting Transmission Owner Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades for which the Connecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Connecting Transmission Owner to the Developer as just compensation for the damages caused to the Developer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this Agreement. Liquidated damages, when the Developer and Connecting Transmission Owner agree to them, are the exclusive remedy for the Connecting Transmission Owner's failure to meet its schedule.~~

~~Further, Connecting Transmission Owner shall not pay liquidated damages to Developer if: (1) Developer is not ready to commence use of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades to take the delivery of power for the Developer's Large Generating Facility's Trial Operation or to export power from the Developer's Large Generating Facility on the specified dates, unless the Developer would have been able to commence use of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades to take the delivery of power for Developer's Large Generating Facility's Trial Operation or to export power from the Developer's Large Generating Facility, but for Connecting Transmission Owner's delay; (2) the Connecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Developer or any other Developer who has entered into a Standard Large Generator Interconnection Agreement with the Connecting Transmission Owner and NYISO, or action or inaction by any other Party, or any other cause beyond Connecting Transmission Owner's reasonable control or reasonable ability to cure; (3) the Developer has assumed responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities; or (4) the Connecting Transmission Owner and Developer have otherwise agreed. In no event shall NYISO have any liability whatever to Developer for liquidated damages associated with the engineering, procurement or construction of Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades.~~

5.4 ——— Power System Stabilizers.

~~The Developer shall procure, install, maintain and operate Power System Stabilizers in accordance with the requirements identified in the Interconnection Studies conducted for Developer's Large Generating Facility. NYISO and Connecting Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed Power System Stabilizers, subject to the design and operating limitations of the Large Generating Facility. If~~

~~the Large Generating Facility's Power System Stabilizers are removed from service or not capable of automatic operation, the Developer shall immediately notify the Connecting Transmission Owner and NYISO. The requirements of this paragraph shall not apply to wind generators.~~

~~5.5~~ Equipment Procurement.

~~If responsibility for construction of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades is to be borne by the Connecting Transmission Owner, then the Connecting Transmission Owner shall commence design of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Developer and Connecting Transmission Owner otherwise agree in writing:~~

~~5.5.1~~ ~~NYISO and Connecting Transmission Owner have completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;~~

~~5.5.2~~ ~~The NYISO has completed the required cost allocation analyses, and Developer has accepted his share of the costs for necessary System Upgrade Facilities and System Deliverability Upgrades in accordance with the provisions of Attachment S of the ISO OATT;~~

~~5.5.3~~ ~~The Connecting Transmission Owner has received written authorization to proceed with design and procurement from the Developer by the date specified in Appendix B hereto; and~~

~~5.5.4~~ ~~The Developer has provided security to the Connecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B hereto.~~

3.2 Equipment Procurement.

Each Affected Transmission Owner shall commence design of the Common System Deliverability Upgrades and procure necessary equipment in accordance with the Milestones set forth in Appendix A.

~~5.6~~3.3 Construction Commencement.

~~The Connecting~~Each Affected Transmission Owner shall commence construction of the ~~Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities~~ and Common System Deliverability Upgrades for which it is responsible in accordance with the Milestones set forth in Appendix A, which shall provide for the commencement of construction as soon as practicable after the following additional conditions are satisfied:

~~5.6.13.3.1~~ Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval; to the extent required, for the construction of a discrete aspect of the Common System Deliverability Upgrades; and

5.6.23.3.2 Necessary real property rights and rights-of-way have been obtained, to the extent required, for the construction of a discrete aspect of the ~~Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and~~ Common System Deliverability Upgrades.

~~5.6.3 The Connecting Transmission Owner has received written authorization to proceed with construction from the Developer by the date specified in Appendix B hereto; and~~

~~5.6.4 The Developer has provided security to the Connecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B hereto.~~

5.73.5 Work Progress.

~~The Developer and Connecting~~Each Affected Transmission Owner will keep ~~each~~the other, ~~and NYISO, Parties~~ advised periodically as to the progress of ~~their~~its respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from ~~the Developer or Connecting Transmission Owner. If, at any time, the Developer determines that the completion of the Connecting Transmission Owner's Attachment Facilities will not be required until after the specified In-Service Date, the Developer will provide written notice to the Connecting Transmission Owner and NYISO of such later date upon which the completion of the Connecting Transmission Owner's Attachment Facilities will be required.~~an Affected Transmission Owner.

5.83.6 Information Exchange.

As soon as reasonably practicable after the Effective Date, ~~the Developer and Connecting~~each Affected Transmission Owner shall ~~exchange~~provide the NYISO with information, ~~and provide NYISO the same information, regarding the design and compatibility of their respective Attachment Facilities and of the Common System Deliverability Upgrades and the~~ compatibility of the ~~Attachment Facilities~~System Deliverability Upgrades with the New York State Transmission System, and shall work diligently and in good faith to make any necessary design changes.

5.9 Limited Operation.

~~If any of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Developer's Large Generating Facility, NYISO shall, upon the request and at the expense of Developer, in conjunction with the Connecting Transmission Owner, perform operating studies on a timely basis to determine the extent to which the Developer's Large Generating Facility and the Developer's Attachment Facilities may operate prior to the completion of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this Agreement. Connecting Transmission Owner and NYISO shall permit Developer to operate the Developer's Large Generating Facility and the Developer's Attachment Facilities in accordance with the results of such studies.~~

5.10 Developer's Attachment Facilities ("DAF").

3.7 ~~Developer shall, at its expense, design, procure, construct, own and install the DAF,~~ Ownership of Common System Deliverability Upgrades.

Each Affected Transmission Owner shall own its respective Common System Deliverability Upgrades as ~~set forth~~described in Appendix A hereto.

5.10.1 — DAF Specifications.

Developer shall submit initial specifications for the DAF, including System Protection Facilities, to Connecting Transmission Owner and NYISO at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Connecting Transmission Owner and NYISO shall review such specifications to ensure that the DAF are compatible with the technical specifications, operational control, and safety requirements of the Connecting Transmission Owner and NYISO and comment on such specifications within thirty (30) Calendar Days of Developer's submission. All specifications provided hereunder shall be deemed to be Confidential Information.

5.10.2 — No Warranty.

The review of Developer's final specifications by Connecting Transmission Owner and NYISO shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Large Generating Facility, or the DAF. Developer shall make such changes to the DAF as may reasonably be required by Connecting Transmission Owner or NYISO, in accordance with Good Utility Practice, to ensure that the DAF are compatible with the technical specifications, operational control, and safety requirements of the Connecting Transmission Owner and NYISO.

5.10.3 — DAF Construction.

The DAF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Developer and Connecting Transmission Owner agree on another mutually acceptable deadline, the Developer shall deliver to the Connecting Transmission Owner and NYISO "as-built" drawings, information and documents for the DAF, such as: a one-line diagram, a site plan showing the Large Generating Facility and the DAF, plan and elevation drawings showing the layout of the DAF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Developer's step-up transformers, the facilities connecting the Large Generating Facility to the step-up transformers and the DAF, and the impedances (determined by factory tests) for the associated step-up transformers and the Large Generating Facility. The Developer shall provide to, and coordinate with, Connecting Transmission Owner and NYISO with respect to proposed specifications for the excitation system, automatic voltage regulator, Large Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 — Connecting Transmission Owner's Attachment Facilities Construction.

The Connecting Transmission Owner's Attachment Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Connecting Transmission Owner and Developer agree on another mutually acceptable deadline, the Connecting Transmission Owner shall deliver to the Developer "as-built" drawings, relay diagrams, information and documents for the Connecting Transmission Owner's Attachment Facilities set forth in Appendix A.

~~The Connecting Transmission Owner [shall/shall not] transfer operational control of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to the NYISO upon completion of such facilities.~~

5.12 Access Rights.

~~Upon reasonable notice and supervision by the Granting Party, and subject to any required or necessary regulatory approvals, either the Connecting Transmission Owner or Developer ("Granting Party") shall furnish to the other of those two Parties ("Access Party") at no cost any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress at the Point of Interconnection to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Large Generating Facility with the New York State Transmission System; (ii) operate and maintain the Large Generating Facility, the Attachment Facilities and the New York State Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this Agreement. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party. The Access Party shall indemnify the Granting Party against all claims of injury or damage from third parties resulting from the exercise of the access rights provided for herein.~~

5.13.8 Lands of Other Property Owners.

If any part of the ~~Connecting Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or~~ Common System Deliverability Upgrades is to be installed on property owned by persons other than ~~Developer~~ the Developers or ~~Connecting the Affected~~ Transmission Owner Owners, the ~~Connecting relevant Affected~~ Transmission Owner shall at ~~Developer's~~ Developers' expense, subject to the Developer Common SDU Cost Cap, use efforts, similar in nature and extent to those that it typically undertakes for its own or affiliated generation, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to perform the EPC Services upon such property, including to construct, ~~operate, maintain~~ repair, test, ~~(or witness testing)~~, inspect, replace or remove the ~~Connecting Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or~~ Common System Deliverability Upgrades ~~upon such property~~.

5.14.9 Permits.

NYISO, ~~Connecting the Affected~~ Transmission Owner Owners and the ~~Developer~~ Developers shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the ~~interconnection~~ EPC Services in compliance with Applicable Laws and Regulations. ~~With respect to this paragraph, Connecting~~

~~Transmission Owner shall provide permitting assistance to the Developer comparable to that provided to the Connecting Transmission Owner's own, or an Affiliate's generation, if any.~~

~~5.15~~ ——— Early Construction of Base Case Facilities.

~~Developer may request Connecting Transmission Owner to construct, and Connecting Transmission Owner shall construct, subject to a binding cost allocation agreement reached in accordance with Attachment S to the ISO OATT, including Section 25.8.7 thereof, using Reasonable Efforts to accommodate Developer's In-Service Date, all or any portion of any System Upgrade Facilities or System Deliverability Upgrades required for Developer to be interconnected to the New York State Transmission System which are included in the Base Case of the Class Year Interconnection Facilities Study for the Developer, and which also are required to be constructed for another Developer, but where such construction is not scheduled to be completed in time to achieve Developer's In-Service Date.~~

~~5.16~~ ——— Suspension.

~~Developer reserves the right, upon written notice to Connecting Transmission Owner and NYISO, to suspend at any time all work by Connecting Transmission Owner associated with the construction and installation of Connecting Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or System Deliverability Upgrades required for only that Developer under this Agreement with the condition that the New York State Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the safety and reliability criteria of Connecting Transmission Owner and NYISO. In such event, Developer shall be responsible for all reasonable and necessary costs and/or obligations in accordance with Attachment S to the ISO OATT including those which Connecting Transmission Owner (i) has incurred pursuant to this Agreement prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New York State Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Connecting Transmission Owner cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Connecting Transmission Owner shall obtain Developer's authorization to do so.~~

~~Connecting Transmission Owner shall invoice Developer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Developer suspends work by Connecting Transmission Owner required under this Agreement pursuant to this Article 5.16, and has not requested Connecting Transmission Owner to recommence the work required under this Agreement on or before the expiration of three (3) years following commencement of such suspension, this Agreement shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Connecting Transmission Owner and NYISO, if no effective date is specified.~~

~~5.17~~3.10 Taxes.

~~5.17~~3.10.1 ——— Developer Payments Not Taxable.

~~The Developer and Connecting~~Each Affected Transmission Owner intend that all payments or property transfers made by a Developer to ~~Connectingan Affected~~ Transmission Owner for the installation of the ~~Connecting Transmission Owner's Attachment Facilities and the System Upgrade Facilities and the~~Common System Deliverability Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

5.17.23.10.2 ——— **Representations and Covenants.**

In accordance with IRS Notice 2001-82 and IRS Notice 88-129, each Developer represents and covenants that (i) ownership of the electricity generated at ~~the~~its Large Generating Facility will pass to another party prior to the transmission of the electricity on the New York State Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to ~~the Connectingan Affected~~ Transmission Owner for the ~~Connecting Transmission Owner's Attachment Facilities~~Common System Deliverability Upgrades will be capitalized by the Developer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the ~~Connecting Transmission Owner's Attachment Facilities~~Common System Deliverability Upgrades that is a “dual-use intertie,” within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of ~~the~~Developer's Large Generating Facility. For this purpose, “de minimis amount” means no more than 5 percent of the total power flows in both directions, calculated in accordance with the “5 percent test” set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At ~~Connectingan Affected~~ Transmission Owner's request, a Developer shall provide ~~Connectingthe requesting Affected~~ Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. ~~ConnectingEach Affected~~ Transmission Owner represents and covenants that the cost of the ~~Connecting Transmission Owner's Attachment Facilities~~Common System Deliverability Upgrades paid for by ~~Developer~~Developers will have no net effect on the base upon which its rates are determined.

5.17.33.10.3 ——— **Indemnification for the Cost Consequences of Current Tax Liability Imposed _____ Upon the ~~Connecting~~Affected Transmission OwnerOwners.**

Notwithstanding Article ~~5.17.1,3.9.1,~~each Developer shall protect, indemnify and hold harmless ~~Connectingan Affected~~ Transmission Owner from the cost consequences of any current tax liability imposed against ~~Connectingthe Affected~~ Transmission Owner as the result of payments or property transfers made by the Developer to ~~Connectingthe Affected~~ Transmission Owner under this Agreement, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by ~~Connectingthe Affected~~ Transmission Owner.

~~ConnectingAn Affected~~ Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges a Developer under this

Agreement unless (i) ~~Connectingthe Affected~~ Transmission Owner has determined, in good faith, that the payments or property transfers made by ~~the~~ Developer to ~~Connectingthe Affected~~ Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs ~~Connectingthe Affected~~ Transmission Owner to report payments or property as income subject to taxation; provided, however, that ~~Connectingthe Affected~~ Transmission Owner may require ~~the~~ Developer to provide security, in a form reasonably acceptable to ~~Connectingthe Affected~~ Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article ~~5.17.3.9~~. ~~The~~ Developer shall reimburse ~~Connectingthe Affected~~ Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article ~~5.17.43.9.4~~, within thirty (30) Calendar Days of receiving written notification from ~~Connectingthe Affected~~ Transmission Owner of the amount due, including detail about how the amount was calculated.

This indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by the ~~ConnectingAffected~~ Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article ~~5.173.9~~.

~~5.17.43.10.4~~ — Tax Gross-Up Amount.

~~A~~ Developer's liability for the cost consequences of any current tax liability under this Article ~~5.173.9~~ shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that ~~a~~ Developer will pay ~~Connectingan Affected~~ Transmission Owner, in addition to the amount paid for the ~~Attachment Facilities and System Upgrade Facilities and Common~~ System Deliverability Upgrades, an amount equal to (1) the current taxes imposed on ~~Connectingthe Affected~~ Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by ~~Connectingthe Affected~~ Transmission Owner as a result of payments or property transfers made by ~~the~~ Developer to ~~Connectingthe Affected~~ Transmission Owner under this Agreement (without regard to any payments under this Article ~~5.173.9~~) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the ~~ConnectingAffected~~ Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on ~~Connectingthe Affected~~ Transmission Owner's composite federal and state tax rates at the time the payments or property transfers are received and ~~Connectingthe Affected~~ Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting ~~Connectingthe Affected~~ Transmission Owner's anticipated tax depreciation deductions as a result of such payments or property transfers by ~~Connectingthe Affected~~ Transmission Owner's current weighted average cost of capital. Thus, the formula for calculating ~~a~~ Developer's liability to ~~Connectingan Affected~~ Transmission Owner pursuant to this Article ~~5.17.43.9.4~~ can be expressed as follows: (Current Tax Rate x (Gross Income Amount - Present Value Depreciation

Amount))/(1 - Current Tax Rate). A Developer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, ~~Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades~~ EPC Services.

5.17.53.10.5 ——— Private Letter Ruling or Change or Clarification of Law.

At any Developer's request and expense, ~~Connectingan Affected~~ Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by the Developer to ~~Connectingthe Affected~~ Transmission Owner under this Agreement are subject to federal income taxation. The Developer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of the Developer's knowledge. ~~ConnectingThe Affected~~ Transmission Owner and the Developer shall cooperate in good faith with respect to the submission of such request.

~~ConnectingThe Affected~~ Transmission Owner shall keep the Developer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes the Developer to participate in all discussions with the IRS regarding such request for a private letter ruling. ~~ConnectingThe Affected~~ Transmission Owner shall allow the Developer to attend all meetings with IRS officials about the request and shall permit the Developer to prepare the initial drafts of any follow-up letters in connection with the request.

5.17.63.10.6 ——— Subsequent Taxable Events.

If, within 10 years from the date on which the relevant ~~Connecting Transmission Owner Attachment Facilities~~ Common System Deliverability Upgrades are placed in service, (i) a Developer Breaches the covenants contained in Article ~~5.17.23.9.2~~, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this Agreement terminates and ~~Connectingan Affected~~ Transmission Owner retains ownership of the ~~Attachment Facilities and System Upgrade Facilities and~~ Common System Deliverability Upgrades, the relevant Developer(s) shall pay a tax gross-up for the cost consequences of any current tax liability imposed on ~~Connectingthe Affected~~ Transmission Owner, calculated using the methodology described in Article ~~5.17.43.9.4~~ and in accordance with IRS Notice 90-60.

5.17.73.10.7 ——— Contests.

In the event any Governmental Authority determines that ~~Connectingan Affected~~ Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, ~~Connectingthe Affected~~ Transmission Owner shall notify the relevant Developer(s), in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by a Developer and at Developer's sole expense, ~~Connectingthe Affected~~ Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon a Developer's written request and sole expense, ~~Connectingthe Affected~~ Transmission Owner may file a claim for refund with respect to any taxes paid under this Article ~~5.173.9~~, whether or not it has received such a determination.

~~Connecting~~The Affected Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but ~~Connecting~~the Affected Transmission Owner shall keep the relevant Developer informed, shall consider in good faith suggestions from Developer about the conduct of the contest, and shall reasonably permit Developer or ~~ana~~ Developer representative to attend contest proceedings.

Developer shall pay to ~~Connecting~~Affected Transmission Owner on a periodic basis, as invoiced by ~~Connecting~~Affected Transmission Owner, ~~Connecting~~Affected Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest, including any costs associated with obtaining the opinion of independent tax counsel described in this Article ~~5.17.7~~3.9.7. ~~The~~ ~~Connecting~~Affected Transmission Owner may abandon any contest if the Developer fails to provide payment to the ~~Connecting~~Affected Transmission Owner within thirty (30) Calendar Days of receiving such invoice. At any time during the contest, ~~Connecting~~Affected Transmission Owner may agree to a settlement either with Developer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by ~~Connecting~~Affected Transmission Owner, but reasonably acceptable to Developer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Developer's obligation shall be based on the amount of the settlement agreed to by Developer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. The ~~Connecting~~Affected Transmission Owner may also settle any tax controversy without receiving the Developer's consent or any such written advice; however, any such settlement will relieve the Developer from any obligation to indemnify ~~Connecting~~Affected Transmission Owner for the tax at issue in the contest (unless the failure to obtain written advice is attributable to the Developer's unreasonable refusal to the appointment of independent tax counsel).

~~5.17.8~~3.10.8 Refund.

In the event that (a) a private letter ruling is issued to ~~Connecting~~an Affected Transmission Owner which holds that any amount paid or the value of any property transferred by a Developer to ~~Connecting~~the Affected Transmission Owner under the terms of this Agreement is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to ~~Connecting~~the Affected Transmission Owner in good faith that any amount paid or the value of any property transferred by a Developer to ~~Connecting~~the Affected Transmission Owner under the terms of this Agreement is not taxable to ~~Connecting~~the Affected Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by a Developer to ~~Connecting~~the Affected Transmission Owner are not subject to federal income tax, or (d) if ~~Connecting~~the Affected Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by a Developer to ~~Connecting~~the Affected Transmission Owner pursuant to this

Agreement, ~~Connecting~~the Affected Transmission Owner shall promptly refund to the Developer the following:

- (i) Any payment made by the Developer under this Article ~~5.17~~3.9 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) Interest on any amounts paid by the Developer to ~~Connecting~~the Affected Transmission Owner for such taxes which ~~Connecting~~the Affected Transmission Owner did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by the Developer to the date ~~Connecting~~the Affected Transmission Owner refunds such payment to the Developer, and
- (iii) With respect to any such taxes paid by ~~Connecting~~the Affected Transmission Owner, any refund or credit ~~Connecting~~the Affected Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the ~~Connecting~~Affected Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by ~~Connecting~~the Affected Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that ~~Connecting~~the Affected Transmission Owner will remit such amount promptly to the Developer only after and to the extent that ~~Connecting~~Affected Transmission Owner has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the ~~Connecting-Transmission Owner's Attachment Facilities~~Common System Deliverability Upgrades.

The intent of this provision is to leave both the Developer and ~~Connecting~~the Affected Transmission Owner, to the extent practicable, in the event that no taxes are due with respect to any payment for ~~Attachment Facilities and System Upgrade Facilities and~~Common System Deliverability Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

~~5.17.93.10.9~~ ——— **Taxes Other Than Income Taxes.**

Upon the timely request by a Developer, and at the Developer's sole expense, ~~Connecting~~an Affected Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against ~~Connecting~~the Affected Transmission Owner for which the Developer may be required to reimburse ~~Connecting~~the Affected Transmission Owner under the terms of this Agreement. The Developer shall pay to ~~Connecting~~the Affected Transmission Owner on a periodic basis, as invoiced by ~~Connecting~~the Affected Transmission Owner, ~~Connecting~~the Affected Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The Developer and ~~Connecting~~the Affected Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the Developer to ~~Connecting~~the Affected Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax

payment is withheld and ultimately due and payable after appeal, the Developer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by ~~Connecting~~the Affected Transmission Owner.

5.183.11 Tax Status; Non-Jurisdictional Entities.

5.18.13.11.1 ~~_____~~ Tax Status.

Each Party shall cooperate with the other Parties to maintain the other Parties' tax status. Nothing in this Agreement is intended to adversely affect the tax status of any Party including the status of NYISO, or the status of any ~~Connecting~~Affected Transmission ~~Owner~~Owners with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

~~Notwithstanding any other provisions of this Agreement, LIPA, NYPA and Consolidated Edison Company of New York, Inc. shall not be required to comply with any provisions of this Agreement that would result in the loss of tax-exempt status of any of their Tax-Exempt Bonds or impair their ability to issue future tax-exempt obligations. For purposes of this provision, Tax-Exempt Bonds shall include the obligations of the Long Island Power Authority, NYPA and Consolidated Edison Company of New York, Inc., the interest on which is not included in gross income under the Internal Revenue Code.~~

~~5.18.2 _____~~ Non-Jurisdictional Entities.

~~LIPA and NYPA do not waive their exemptions, pursuant to Section 201(f) of the FPA, from Commission jurisdiction with respect to the Commission's exercise of the FPA's general ratemaking authority.~~

5.193.12 Modification.

~~5.19.1 _____~~ General.

~~Either the Developer or Connecting Transmission Owner may undertake modifications to its facilities covered by this Agreement. If either the Developer or Connecting Transmission Owner plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party, and to NYISO, sufficient information regarding such modification so that the other Party and NYISO may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be Confidential Information hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Large Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party and NYISO at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.~~

~~In the case of Large Generating Facility modifications that do not require Developer to submit an Interconnection Request, the NYISO shall provide, within sixty (60) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the~~

~~New York State Transmission System, Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades necessitated by such Developer modification and a good faith estimate of the costs thereof. The Developer shall be responsible for the cost of any such additional modifications, including the cost of studying the impact of the Developer modification.~~

5.19.23.12.1 — Standards.

Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this Agreement, NYISO requirements and Good Utility Practice.

5.19.33.12.2 — Modification Costs.

~~Developer~~ Developers shall not be assigned the costs of any additions, modifications, or replacements that ~~Connecting an Affected~~ Transmission Owner makes to the ~~Connecting Transmission Owner's Attachment Facilities~~ Common System Deliverability Upgrades or the New York State Transmission System to facilitate the interconnection of a ~~third party facility not subject to this Agreement~~ to the ~~Connecting Transmission Owner's Attachment Facilities~~ Common System Deliverability Upgrades or the New York State Transmission System, or to provide Transmission Service to a third party under the ISO OATT, except in accordance with the cost allocation procedures in Attachment S of the ISO OATT. ~~Developer shall be responsible for the costs of any additions, modifications, or replacements to the Developer's Attachment Facilities that may be necessary to maintain or upgrade such Developer's Attachment Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.~~

~~Article 6.~~ ARTICLE 4. TESTING AND INSPECTION

~~6.14.1~~ Pre-Commercial Operation Date ~~Initial~~ Testing and Modifications.

~~Prior to~~ In accordance with the ~~Commercial Operation Date, the Connecting Milestones set forth in Appendix A, each Affected~~ Transmission Owner shall test ~~the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and its respective Common~~ System Deliverability Upgrades ~~and Developer shall test the Large Generating Facility and the Developer's Attachment Facilities~~ to ensure their safe and reliable operation. Similar testing may be required after initial operation. ~~Developer and Connecting~~ Each Affected Transmission Owner shall ~~each~~ make any modifications to its respective facilities that are found to be necessary as a result of such testing. ~~Developer~~ Developers shall bear the cost of all such testing and modifications. ~~Developer shall generate test energy at the Large Generating Facility only if it has arranged for the injection~~

4.2 Notice of ~~such test energy in accordance with NYISO procedures~~ Testing.

~~6.2 — Post-Commercial Operation Date Testing and Modifications.~~

~~Developer and Connecting Transmission Owner shall each at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice and Applicable Reliability Standards as may be necessary to ensure the continued interconnection of the Large Generating Facility with the New York State Transmission System in a safe and reliable manner. Developer and Connecting Transmission Owner shall each have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.~~

~~6.3 — Right to Observe Testing.~~

~~Developer and Connecting Transmission Owner shall each notify the other Party, and the NYISO, in advance of its performance of tests of its Attachment Facilities. The other Party, and the NYISO, shall each have the right, at its own expense, to observe such testing.~~

~~6.4 — Right to Inspect.~~

~~Developer and Connecting Transmission Owner shall each have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment, including Power System Stabilizers; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Attachment Facilities, the System Protection Facilities and other protective equipment. NYISO shall have these same rights of inspection as to the facilities and equipment of Developer and Connecting Transmission Owner. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Attachment Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be treated in accordance with Article 22 of this Agreement and Attachment F to the ISO OATT.~~

~~Article 7. — METERING~~

~~7.1 — General.~~

~~Developer and Connecting Transmission Owner shall each comply with applicable requirements of NYISO and the New York Public Service Commission when exercising its rights and fulfilling its responsibilities under this Article 7. Unless otherwise agreed by the Connecting Transmission Owner and NYISO approved meter service provider and Developer, the Connecting Transmission Owner shall install Metering Equipment at the Point of Interconnection prior to any operation of the Large Generating Facility and shall own, operate, test and maintain such Metering Equipment. Net power flows including MW and MVAR, MWHR and loss profile data to and from the Large Generating Facility shall be measured at the Point of Interconnection. Connecting Transmission Owner shall provide metering quantities, in~~

~~analog and/or digital form, as required, to Developer or NYISO upon request. Where the Point of Interconnection for the Large Generating Facility is other than the generator terminal, the Developer shall also provide gross MW and MVAR quantities at the generator terminal. Developer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.~~

~~7.2 — Check Meters.~~

~~Developer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Connecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this Agreement, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Connecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Developer in accordance with Good Utility Practice.~~

~~7.3 — Standards.~~

~~Connecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment including potential transformers and current transformers in accordance with applicable ANSI and PSC standards as detailed in the NYISO Control Center Communications Manual and in the NYISO Revenue Metering Requirements Manual.~~

~~7.4 — Testing of Metering Equipment.~~

~~Connecting Transmission Owner shall inspect and test all of its Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by NYISO or Developer, Connecting Transmission Owner shall, at Developer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Connecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and Developer and NYISO may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Developer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Connecting Transmission Owner's failure to maintain, then Connecting Transmission Owner shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Connecting Transmission Owner shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Developer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one half the time from the date of the last previous test of the Metering Equipment. The NYISO shall reserve the right to review all associated metering equipment installation on the Developer's or Connecting Transmission Owner's property at any time.~~

~~7.5 Metering Data.~~

~~At Developer's expense, the metered data shall be telemetered to one or more locations designated by Connecting Transmission Owner, Developer and NYISO. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Large Generating Facility to the Point of Interconnection.~~

~~Article 8. COMMUNICATIONS~~

~~8.1 Developer Obligations.~~

~~In accordance with applicable NYISO requirements, Developer shall maintain satisfactory operating communications with Connecting Transmission Owner and NYISO. Developer shall provide standard voice line, dedicated voice line and facsimile communications at its Large Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Developer shall also provide the dedicated data circuit(s) necessary to provide Developer data to Connecting Transmission Owner and NYISO as set forth in Appendix D hereto. The data circuit(s) shall extend from the Large Generating Facility to the location(s) specified by Connecting Transmission Owner and NYISO. Any required maintenance of such communications equipment shall be performed by Developer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.~~

~~8.2 Remote Terminal Unit.~~

~~Prior to the Initial Synchronization Date of the Large Generating Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Developer, or by Connecting Transmission Owner at Developer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Connecting Transmission Owner and NYISO through use of a dedicated point to point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Connecting Transmission Owner and NYISO. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Connecting Transmission Owner and NYISO.~~

~~Each Party will promptly advise the appropriate other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by that other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.~~

An Affected Transmission Owner shall notify the NYISO in advance of its performance of tests of the Common System Deliverability Upgrades.

ARTICLE 5. COMMUNICATIONS

8.35.1 No Annexation.

Any and all equipment placed on the premises of a Party during the term of this Agreement shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Party providing such equipment and the Party receiving such equipment.

ARTICLE 6. COST AND SECURITY OBLIGATIONS

6.1 Cost Responsibilities.

6.1.1 The Developers will be responsible for their respective Invoice Share of the monthly costs incurred by each Affected Transmission Owner in performing the EPC Services; provided, however, that the Developers will not be responsible for any cost above the Developer Common SDU Cost Cap except as set forth in Article 6.1.3.

~~Article 9. ON OPERATIONS~~

~~9.1 General.~~

~~Each Party shall comply with Applicable Laws and Regulations and Applicable Reliability Standards. Each Party shall provide to the other Parties all information that may reasonably be required by the other Parties to comply with Applicable Laws and Regulations and Applicable Reliability Standards.~~

~~9.2 NYISO and Connecting Transmission Owner Obligations.~~

~~Connecting Transmission Owner and NYISO shall cause the New York State Transmission System and the Connecting Transmission Owner's Attachment Facilities to be operated, maintained and controlled in a safe and reliable manner in accordance with this Agreement and the NYISO Tariffs. Connecting Transmission Owner and NYISO may provide operating instructions to Developer consistent with this Agreement, NYISO procedures and Connecting Transmission Owner's operating protocols and procedures as they may change from time to time. Connecting Transmission Owner and NYISO will consider changes to their respective operating protocols and procedures proposed by Developer.~~

~~9.3 Developer Obligations.~~

~~Developer shall at its own expense operate, maintain and control the Large Generating Facility and the Developer's Attachment Facilities in a safe and reliable manner and in accordance with this Agreement. Developer shall operate the Large Generating Facility and the Developer's Attachment Facilities in accordance with NYISO and Connecting Transmission Owner requirements, as such requirements are set forth or referenced in Appendix C hereto. Appendix C will be modified to reflect changes to the requirements as they may change from~~

~~time to time. Any Party may request that the appropriate other Party or Parties provide copies of the requirements set forth or referenced in Appendix C hereto.~~

~~9.4 ——— Start-Up and Synchronization.~~

~~Consistent with the mutually acceptable procedures of the Developer and Connecting Transmission Owner, the Developer is responsible for the proper synchronization of the Large Generating Facility to the New York State Transmission System in accordance with NYISO and Connecting Transmission Owner procedures and requirements.~~

~~9.5 ——— Real and Reactive Power Control and Primary Frequency Response.~~

~~9.5.1 ——— Power Factor Design Criteria.~~

~~**9.5.1.1 Synchronous Generation.** Developer shall design the Large Generating Facility to maintain effective composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging unless the NYISO or the Transmission Owner in whose Transmission District the Large Generating Facility interconnects has established different requirements that apply to all generators in the New York Control Area or Transmission District (as applicable) on a comparable basis, in accordance with Good Utility Practice.~~

~~The Developer shall design and maintain the plant auxiliary systems to operate safely throughout the entire real and reactive power design range.~~

~~**9.5.1.2 Non-Synchronous Generation.** Developer shall design the Large Generating Facility to maintain composite power delivery at continuous rated power output at the high side of the generator substation at a power factor within the range of 0.95 leading to 0.95 lagging, unless the NYISO or the Transmission Owner in whose Transmission District the Large Generating Facility interconnects has established a different power factor range that applies to all non-synchronous generators in the Control Area or Transmission District (as applicable) on a comparable basis, in accordance with Good Utility Practice. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnection non-synchronous generators that have not yet executed a Facilities Study Agreement as of September 21, 2016.~~

~~The Developer shall design and maintain the plant auxiliary systems to operate safely throughout the entire real and reactive power design range.~~

~~9.5.2 ——— Voltage Schedules.~~

~~Once the Developer has synchronized the Large Generating Facility with the New York State Transmission System, NYISO shall require Developer to operate the Large Generating Facility to produce or absorb reactive power within the design capability of the Large Generating Facility set forth in Article 9.5.1 (Power Factor Design Criteria). NYISO's voltage schedules~~

~~shall treat all sources of reactive power in the New York Control Area in an equitable and not unduly discriminatory manner. NYISO shall exercise Reasonable Efforts to provide Developer with such schedules in accordance with NYISO procedures, and may make changes to such schedules as necessary to maintain the reliability of the New York State Transmission System. Developer shall operate the Large Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design capability of the Large Generating Facility set forth in Article 9.5.1 (Power Factor Design Criteria) as directed by the Connecting Transmission Owner's system operator or the NYISO. If Developer is unable to maintain the specified voltage or power factor, it shall promptly notify NYISO.~~

~~9.5.3 ——— Payment for Reactive Power.~~

~~NYISO shall pay Developer for reactive power or voltage support service that Developer provides from the Large Generating Facility in accordance with the provisions of Rate Schedule 2 of the NYISO Services Tariff.~~

~~9.5.4 ——— Voltage Regulators.~~

~~Whenever the Large Generating Facility is operated in parallel with the New York State Transmission System, the automatic voltage regulators shall be in automatic operation at all times. If the Large Generating Facility's automatic voltage regulators are not capable of such automatic operation, the Developer shall immediately notify NYISO, or its designated representative, and ensure that such Large Generating Facility's real and reactive power are within the design capability of the Large Generating Facility's generating unit(s) and steady state stability limits and NYISO system operating (thermal, voltage and transient stability) limits. Developer shall not cause its Large Generating Facility to disconnect automatically or instantaneously from the New York State Transmission System or trip any generating unit comprising the Large Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the New York Control Area on a comparable basis.~~

~~9.5.5 ——— Primary Frequency Response.~~

~~Developer shall ensure the primary frequency response capability of its Large Generating Facility by installing, maintaining, and operating a functioning governor or equivalent controls. The term "functioning governor or equivalent controls" as used herein shall mean the required hardware and/or software that provides frequency responsive real power control with the ability to sense changes in system frequency and autonomously adjust the Large Generating Facility's real power output in accordance with the droop and deadband parameters and in the direction needed to correct frequency deviations. Developer is required to install a governor or equivalent controls with the capability of operating: (1) with a maximum 5 percent droop \pm 0.036 Hz deadband; or (2) in accordance with the relevant droop, deadband, and timely and sustained response settings from an approved Applicable Reliability Standard providing for equivalent or more stringent parameters. The droop characteristic shall be: (1) based on the nameplate capacity of the Large Generating Facility, and shall be linear in the range of frequencies between~~

~~59 and 61 Hz that are outside of the deadband parameter; or (2) based on an approved Applicable Reliability Standard providing for an equivalent or more stringent parameter. The deadband parameter shall be: the range of frequencies above and below nominal (60 Hz) in which the governor or equivalent controls is not expected to adjust the Large Generating Facility's real power output in response to frequency deviations. The deadband shall be implemented: (1) without a step to the droop curve, that is, once the frequency deviation exceeds the deadband parameter, the expected change in the Large Generating Facility's real power output in response to frequency deviations shall start from zero and then increase (for under frequency deviations) or decrease (for over frequency deviations) linearly in proportion to the magnitude of the frequency deviation; or (2) in accordance with an approved Applicable Reliability Standard providing for an equivalent or more stringent parameter. Developer shall notify NYISO that the primary frequency response capability of the Large Generating Facility has been tested and confirmed during commissioning. Once Developer has synchronized the Large Generating Facility with the New York State Transmission System, Developer shall operate the Large Generating Facility consistent with the provisions specified in Articles 9.5.5.1 and 9.5.5.2 of this Agreement. The primary frequency response requirements contained herein shall apply to both synchronous and non-synchronous Large Generating Facilities.~~

~~9.5.5.1 Governor or Equivalent Controls.~~

~~Whenever the Large Generating Facility is operated in parallel with the New York State Transmission System, Developer shall operate the Large Generating Facility with its governor or equivalent controls in service and responsive to frequency. Developer shall: (1) in coordination with NYISO, set the deadband parameter to: (1) a maximum of ± 0.036 Hz and set the droop parameter to a maximum of 5 percent; or (2) implement the relevant droop and deadband settings from an approved Applicable Reliability Standard that provides for equivalent or more stringent parameters. Developer shall be required to provide the status and settings of the governor and equivalent controls to NYISO and/or the Connecting Transmission Owner upon request. If Developer needs to operate the Large Generating Facility with its governor or equivalent controls not in service, Developer shall immediately notify NYISO and the Connecting Transmission Owner, and provide both with the following information: (1) the operating status of the governor or equivalent controls (i.e., whether it is currently out of service or when it will be taken out of service); (2) the reasons for removing the governor or equivalent controls from service; and (3) a reasonable estimate of when the governor or equivalent controls will be returned to service. Developer shall make Reasonable Efforts to return its governor or equivalent controls into service as soon as practicable. Developer shall make Reasonable Efforts to keep outages of the Large Generating Facility's governor or equivalent controls to a minimum whenever the Large Generating Facility is operated in parallel with the New York State Transmission System.~~

~~9.5.5.2 Timely and Sustained Response.~~

~~Developer shall ensure that the Large Generating Facility's real power response to sustained frequency deviations outside of the deadband setting is automatically provided and shall begin immediately after frequency deviates outside of the deadband, and to the extent the Large Generating Facility has operating capability in the direction needed to correct the frequency deviation. Developer shall not block or otherwise inhibit the ability of the governor or~~

~~equivalent controls to respond and shall ensure that the response is not inhibited, except under certain operational constraints including, but not limited to, ambient temperature limitations, physical energy limitations, outages of mechanical equipment, or regulatory requirements. The Large Generating Facility shall sustain the real power response at least until system frequency returns to a value within the deadband setting of the governor or equivalent controls. An Applicable Reliability Standard with equivalent or more stringent requirements shall supersede the above requirements.~~

9.5.5.3 Exemptions.

~~Large Generating Facilities that are regulated by the United States Nuclear Regulatory Commission shall be exempt from Articles 9.5.5, 9.5.5.1, and 9.5.5.2 of this Agreement. Large Generating Facilities that are behind the meter generation that is sized to load (i.e., the thermal load and the generation are near balanced in real-time operation and the generation is primarily controlled to maintain the unique thermal, chemical, or mechanical output necessary for the operating requirements of its host facility) shall be required to install primary frequency response capability requirements in accordance with the droop and deadband capability requirements specified in Article 9.5.5, but shall be otherwise exempt from the operating requirements in Articles 9.5.5, 9.5.5.1, 9.5.5.2, and 9.5.5.4 of this Agreement.~~

9.5.5.4 Electric Storage Resources.

~~Developer interconnecting an electric storage resource shall establish an operating range in Appendix C of its LGIA that specifies a minimum state of charge and a maximum state of charge between which the electric storage resource will be required to provide primary frequency response consistent with the conditions set forth in Articles 9.5.5, 9.5.5.1, 9.5.5.2, and 9.5.5.3 of this Agreement. Appendix C shall specify whether the operating range is static or dynamic, and shall consider (1) the expected magnitude of frequency deviations in the interconnection; (2) the expected duration that system frequency will remain outside of the deadband parameter in the interconnection; (3) the expected incidence of frequency deviations outside of the deadband parameter in the interconnection; (4) the physical capabilities of the electric storage resource; (5) operational limitations of the electric storage resources due to manufacturer specification; and (6) any other relevant factors agreed to by the NYISO, Connecting Transmission Owner, and Developer. If the operating range is dynamic, then Appendix C must establish how frequently the operating range will be reevaluated and the factors that may be considered during its reevaluation.~~

~~Developer's electric storage resource is required to provide timely and sustained primary frequency response consistent with Article 9.5.5.2 of this Agreement when it is online and dispatched to inject electricity to the New York State Transmission System and/or receive electricity from the New York State Transmission System. This excludes circumstances when the electric storage resource is not dispatched to inject electricity to the New York State Transmission System and/or dispatched to receive electricity from the New York State Transmission System. If Developer's electric storage resource is charging at the time of a frequency deviation outside of its deadband parameter, it is to increase (for over frequency deviations) or decrease (for under frequency deviations) the rate at which it is charging in accordance with its droop parameter. Developer's electric storage resource is not required to~~

~~change from charging to discharging, or vice versa, unless the response necessitated by the droop and deadband settings requires it to do so and it is technically capable of making such a transition.~~

~~9.6 Outages and Interruptions.~~

~~9.6.1 Outages.~~

~~9.6.1.1 Outage Authority and Coordination.~~

~~Developer and Connecting Transmission Owner may each, in accordance with NYISO procedures and Good Utility Practice and in coordination with the other Party, remove from service any of its respective Attachment Facilities or System Upgrade Facilities and System Deliverability Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency State, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to both the Developer and the Connecting Transmission Owner. In all circumstances either Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.~~

~~9.6.1.2 Outage Schedules.~~

~~The Connecting Transmission Owner shall post scheduled outages of its transmission facilities on the NYISO OASIS. Developer shall submit its planned maintenance schedules for the Large Generating Facility to Connecting Transmission Owner and NYISO for a minimum of a rolling thirty six month period. Developer shall update its planned maintenance schedules as necessary. NYISO may direct, or the Connecting Transmission Owner may request, Developer to reschedule its maintenance as necessary to maintain the reliability of the New York State~~

~~Transmission System. Compensation to Developer for any additional direct costs that the Developer incurs as a result of rescheduling maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost the Developer would have incurred absent the request to reschedule maintenance, shall be in accordance with the ISO OATT. Developer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, the Developer had modified its schedule of maintenance activities other than at the direction of the NYISO or request of the Connecting Transmission Owner.~~

~~9.6.1.3 Outage Restoration.~~

~~If an outage on the Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades of the Connecting Transmission Owner or Developer adversely affects the other Party's operations or facilities, the Party that owns the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns the facility that is out of service shall provide the other Party and NYISO, to the extent such information is known, information on the nature of the Emergency State, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.~~

~~9.6.2—Interruption of Service.~~ ~~If required by Good Utility Practice or Applicable Reliability Standards to do so, the NYISO or Connecting Transmission Owner may require Developer to interrupt or reduce production of electricity if such production of electricity could adversely affect the ability of NYISO and Connecting Transmission Owner to perform such activities as are necessary to safely and reliably operate and maintain the New York State Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.6.2:~~

~~9.6.2.1—The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;~~

~~9.6.2.2—Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the New York State Transmission System;~~

~~9.6.2.3—When the interruption or reduction must be made under circumstances which do not allow for advance notice, NYISO or Connecting Transmission Owner shall notify Developer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;~~

~~9.6.2.4—Except during the existence of an Emergency State, when the interruption or reduction can be scheduled without advance notice, NYISO or Connecting Transmission Owner shall notify Developer in advance regarding the timing of such scheduling and further notify Developer of the expected duration. NYISO or Connecting Transmission Owner shall coordinate with each other and the Developer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to the Developer, the Connecting Transmission Owner and the New York State Transmission System;~~

~~9.6.2.5—The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Large Generating Facility, Attachment Facilities, and the New York State Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.~~

~~9.6.3—Under-Frequency and Over-Frequency Conditions.~~

~~The New York State Transmission System is designed to automatically activate a load-shed program as required by the NPCC in the event of an under-frequency system disturbance. Developer shall implement under-frequency and over-frequency relay set points for the Large Generating Facility as required by the NPCC to ensure “ride through” capability of the New York State Transmission System. Large Generating Facility response to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with the NYISO and Connecting Transmission Owner in accordance with Good Utility Practice. The term “ride through” as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the New York State Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and with NPCC Regional Reliability Reference Directory # 12, or its successor.~~

~~9.6.4—System Protection and Other Control Requirements.~~

~~9.6.4.1—System Protection Facilities. Developer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Large Generating Facility or Developer’s Attachment Facilities. Connecting Transmission Owner shall install at Developer’s~~

~~expense any System Protection Facilities that may be required on the Connecting Transmission Owner's Attachment Facilities or the New York State Transmission System as a result of the interconnection of the Large Generating Facility and Developer's Attachment Facilities.~~

~~**9.6.4.2**—The protection facilities of both the Developer and Connecting Transmission Owner shall be designed and coordinated with other systems in accordance with Good Utility Practice and Applicable Reliability Standards.~~

~~**9.6.4.3**—The Developer and Connecting Transmission Owner shall each be responsible for protection of its respective facilities consistent with Good Utility Practice and Applicable Reliability Standards.~~

~~**9.6.4.4**—The protective relay design of the Developer and Connecting Transmission Owner shall each incorporate the necessary test switches to perform the tests required in Article 6 of this Agreement. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of the Developer's Large Generating Facility.~~

~~**9.6.4.5**—The Developer and Connecting Transmission Owner will each test, operate and maintain System Protection Facilities in accordance with Good Utility Practice, NERC and NPCC criteria.~~

~~**9.6.4.6**—Prior to the In-Service Date, and again prior to the Commercial Operation Date, the Developer and Connecting Transmission Owner shall each perform, or their agents shall perform, a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, the Developer and Connecting Transmission Owner shall each perform both calibration and functional trip tests of its System Protection Facilities. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.~~

9.6.5 — Requirements for Protection.

~~In compliance with NPCC requirements and Good Utility Practice, Developer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Large Generating Facility to any short circuit occurring on the New York State Transmission System not otherwise isolated by Connecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New York State Transmission System. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Large Generating Facility and the New York State Transmission System at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Developer and Connecting Transmission Owner. Developer shall be responsible for protection of the Large Generating Facility and Developer's other equipment from such conditions as negative sequence currents, over or under frequency, sudden load rejection, over or under voltage, and generator loss of field. Developer shall be solely~~

~~responsible to disconnect the Large Generating Facility and Developer's other equipment if conditions on the New York State Transmission System could adversely affect the Large Generating Facility.~~

~~9.6.6 — Power Quality.~~

~~Neither the facilities of Developer nor the facilities of Connecting Transmission Owner shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.~~

~~9.7 — Switching and Tagging Rules.~~

~~The Developer and Connecting Transmission Owner shall each provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a nondiscriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.~~

~~9.8 — Use of Attachment Facilities by Third Parties.~~

~~9.8.1 — Purpose of Attachment Facilities.~~

~~Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Attachment Facilities shall be constructed for the sole purpose of interconnecting the Large Generating Facility to the New York State Transmission System and shall be used for no other purpose.~~

~~9.8.2 — Third Party Users.~~

~~If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Connecting Transmission Owner's Attachment Facilities, or any part thereof, Developer will be entitled to compensation for the capital expenses it incurred in connection with the Attachment Facilities based upon the pro rata use of the Attachment Facilities by Connecting Transmission Owner, all third party users, and Developer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Attachment Facilities, will be allocated between Developer and any third party users based upon the pro rata use of the Attachment Facilities by Connecting Transmission Owner, all third party users, and Developer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.~~

~~9.9 Disturbance Analysis Data Exchange.~~

~~The Parties will cooperate with one another and the NYISO in the analysis of disturbances to either the Large Generating Facility or the New York State Transmission System by gathering and providing access to any information relating to any disturbance, including information from disturbance recording equipment, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.~~

~~9.10 Phasor Measurement Units~~

~~A Developer shall install and maintain, at its expense, phasor measurement units (“PMUs”) if it meets the following criteria: (1) completed a Class Year after Class Year 2017; and (2) proposes a new Large Facility that either (a) has a maximum net output equal to or greater than 100 MW or (b) requires, as Attachment Facilities or System Upgrade Facilities, a new substation of 230kV or above.~~

~~PMUs shall be installed on the Large Facility on the low side of the generator step-up transformer, unless it is a non-synchronous generation facility, in which case the PMUs shall be installed on the Developer side of the Point of Interconnection. The PMUs must be capable of performing phasor measurements at a minimum of 60 samples per second which are synchronized via a high-accuracy satellite clock. To the extent Developer installs similar quality equipment, such as relays or digital fault recorders, that can collect data at least at the same rate as PMUs and which data is synchronized via a high-accuracy satellite clock, such equipment would satisfy this requirement.~~

~~Developer shall be required to install and maintain, at its expense, PMU equipment which includes the communication circuit capable of carrying the PMU data to a local data concentrator, and then transporting the information continuously to the Connecting Transmission Owner and the NYISO; as well as store the PMU data locally for thirty days. Developer shall provide to Connecting Transmission Owner and the NYISO all necessary and requested information through the Connecting Transmission Owner’s and the NYISO’s synchrophasor system, including the following: (a) gross MW and MVAR measured at the Developer side of the generator step-up transformer (or, for a non-synchronous generation facility, to be measured at the Developer side of the Point of Interconnection); (b) generator terminal voltage and current magnitudes and angles; (c) generator terminal frequency and frequency rate of change; and (d) generator field voltage and current, where available; and (e) breaker status, if available. The Connecting Transmission Owner will provide for the ongoing support and maintenance of the network communications linking the data concentrator to the Connecting Transmission Owner and the NYISO, consistent with ISO Procedures detailing the obligations related to SCADA data.~~

Article 10. — MAINTENANCE

10.1 — Connecting Transmission Owner Obligations.

Connecting Transmission Owner shall maintain its transmission facilities and Attachment Facilities in a safe and reliable manner and in accordance with this Agreement.

10.2 — Developer Obligations.

Developer shall maintain its Large Generating Facility and Attachment Facilities in a safe and reliable manner and in accordance with this Agreement.

10.3 — Coordination.

The Developer and Connecting Transmission Owner shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Large Generating Facility and the Attachment Facilities. The Developer and Connecting Transmission Owner shall keep NYISO fully informed of the preventive and corrective maintenance that is planned, and shall schedule all such maintenance in accordance with NYISO procedures.

10.4 — Secondary Systems.

The Developer and Connecting Transmission Owner shall each cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of Developer or Connecting Transmission Owner's facilities and equipment which may reasonably be expected to impact the other Party. The Developer and Connecting Transmission Owner shall each provide advance notice to the other Party, and to NYISO, before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

10.5 — Operating and Maintenance Expenses.

Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Developer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Developer's Attachment Facilities; and (2) operation, maintenance, repair and replacement of Connecting Transmission Owner's Attachment Facilities. The Connecting Transmission Owner shall be entitled to the recovery of incremental operating and maintenance expenses that it incurs associated with System Upgrade Facilities and System Deliverability Upgrades if and to the extent provided for under Attachment S to the ISO OATT.

~~Article 11. PERFORMANCE OBLIGATION~~

~~11.1 Developer's Attachment Facilities.~~

~~Developer shall design, procure, construct, install, own and/or control the Developer's Attachment Facilities described in Appendix A hereto, at its sole expense.~~

~~11.2 Connecting Transmission Owner's Attachment Facilities.~~

~~Connecting Transmission Owner shall design, procure, construct, install, own and/or control the Connecting Transmission Owner's Attachment Facilities described in Appendix A hereto, at the sole expense of the Developer.~~

~~11.3 System Upgrade Facilities and System Deliverability Upgrades.~~

~~Connecting Transmission Owner shall design, procure, construct, install, and own the System Upgrade Facilities and System Deliverability Upgrades described in Appendix A hereto. The responsibility of the Developer for costs related to System Upgrade Facilities and System Deliverability Upgrades shall be determined in accordance with the provisions of Attachment S to the ISO OATT.~~

~~11.4 Special Provisions for Affected Systems.~~

~~For the re-payment of amounts advanced to Affected System Operator for System Upgrade Facilities or System Deliverability Upgrades, the Developer and Affected System Operator shall enter into an agreement that provides for such re-payment, but only if responsibility for the cost of such System Upgrade Facilities or System Deliverability Upgrades is not to be allocated in accordance with Attachment S to the ISO OATT. The agreement shall specify the terms governing payments to be made by the Developer to the Affected System Operator as well as the re-payment by the Affected System Operator.~~

~~11.5 Provision of Security.~~

~~At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Connecting Transmission Owner's Attachment Facilities, Developer shall provide Connecting Transmission Owner, at Developer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Connecting Transmission Owner and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1 of this Agreement. Such security for payment shall be in an amount sufficient to cover the cost for the Developer's share of constructing, procuring and installing the applicable portion of Connecting Transmission Owner's Attachment Facilities, and shall be reduced on a dollar-for-dollar basis for payments made to Connecting Transmission Owner for these purposes.~~

~~In addition:~~

~~11.5.1~~ ~~The guarantee must be made by an entity that meets the commercially reasonable creditworthiness requirements of Connecting Transmission Owner, and contains~~

~~terms and conditions that guarantee payment of any amount that may be due from Developer, up to an agreed-to maximum amount.~~

~~11.5.2—The letter of credit must be issued by a financial institution reasonably acceptable to Connecting Transmission Owner and must specify a reasonable expiration date.~~

~~11.5.3—The surety bond must be issued by an insurer reasonably acceptable to Connecting Transmission Owner and must specify a reasonable expiration date.~~

~~11.5.4—Attachment S to the ISO OATT shall govern the Security that Developer provides for System Upgrade Facilities and System Deliverability Upgrades.~~

~~11.6—Developer Compensation for Emergency Services.~~

~~If, during an Emergency State, the Developer provides services at the request or direction of the NYISO or Connecting Transmission Owner, the Developer will be compensated for such services in accordance with the NYISO Services Tariff.~~

6.1.2 a periodic basis as set forth in the Milestones in Appendix A, each Affected Transmission Owner shall provide to the other Parties in writing an updated estimate of its cost for performing the EPC Services. The updated cost estimate shall fully specify any additional services and equipment required for the Affected Transmission Owner to perform the EPC Services and explain why these additional services and equipment are required.

6.1.3 If an Affected Transmission Owner's updated cost estimate as provided under Article 6.1.2 is greater than the estimated cost for such services as determined by the Class Year Deliverability Study, each Developer's responsibility for any costs above its Developer Common SDU Cost Cap shall be determined in accordance with Section 25.8.6 of Attachment S of the ISO OATT. The Parties shall amend this Agreement if there are any changes to the Developer Common SDU Cost Cap required by Section 25.8.6.

6.1.4 If the final cost incurred by an Affected Transmission Owner in performing the EPC Services is less than the estimated cost for such services as determined by the Class Year Deliverability Study and set forth in Appendix A, then the Affected Transmission Owner shall make a true-up payment to each Developer pursuant to Article 7.2 to refund to the Developer any costs that the Developer has paid to the Affected Transmission Owner under Article 6.1.1 that are greater than its Invoice Share of the actual costs.

6.1.5 Each Affected Transmission Owner shall be solely responsible for its costs in performing the EPC Services that are not recoverable from Developers under this Article 6.1; provided, however, that the Affected Transmission Owner may recover these costs: (i) by drawing on any Forfeited Security held by the Affected Transmission Owner to the extent permitted under Section 25.8.5 of Attachment S of the ISO OATT, and (ii) from Load Serving Entities through the ISO OATT to the extent permitted under Sections 25.7.12.3.2 and 25.8.6 of Attachment S of the ISO OATT and Schedule 12 of the ISO OATT.

6.2 Provision and Application of Security

Section 6.2 applies to each Developer that has provided an Affected Transmission Owner with cash or Security in the amount of its Developer Common SDU Cost Cap for its share of the Common System Deliverability Upgrades as determined in accordance with Attachment S to the ISO OATT and set forth in Appendix A. If a Developer: (i) does not pay an invoice issued by an Affected Transmission Owner pursuant to Article 7.1 within the timeframe set forth in Article 7.3 or (ii) does not pay any disputed amount into an independent escrow account pursuant to Article 7.4, the owed Affected Transmission Owner may draw upon the cash or Security posted by the Developer for that Affected Transmission Owner to recover such payment.

11.76.3 Line Outage Costs.

Notwithstanding anything in the ISO OATT to the contrary, the ~~Connecting~~ Affected Transmission ~~Owner~~ Owners may propose to recover line outage costs associated with the installation of ~~Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or~~ the Common System Deliverability Upgrades on a case-by-case basis, subject to the SDU Cost Cap.

Article 12.ARTICLE 7. INVOICE

12.17.1 General.

~~The~~ To the extent that any amounts are due to a Developer ~~and Connecting~~ or an Affected Transmission Owner under this Agreement, the owed Party shall ~~each~~ submit to the ~~other~~ owing Party, on a ~~monthly~~ periodic basis, ~~invoices~~ an invoice of the amounts due for the preceding ~~month~~ period. Each invoice shall state the ~~month~~ time period to which the invoice applies and fully describe the services and equipment provided. ~~The Developer and Connecting Transmission Owner may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts one Party owes to the other Party under this Agreement, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.~~

12.2 Final Invoice.

Within six months after completion of the ~~construction of~~ EPC Services, a Party owed any remaining amounts associated with the ~~Connecting Transmission Owner's Attachment Facilities~~ EPC Services shall provide a final invoice to the owing Party or Parties.

7.2 Refund of Remaining Security/Cash and ~~the System Upgrade Facilities and System Deliverability Upgrades, Connecting~~ Overpayment Amount

An Affected Transmission Owner shall ~~provide an invoice~~ release or refund to a Developer any remaining portions of its Security or cash payments provided by the ~~final cost of the construction of the Connecting Transmission Owner's Attachment Facilities and the System Upgrade Facilities and System Deliverability Upgrades, determined~~ Developer to satisfy its Project Cost Allocation in accordance with Attachment S ~~to the ISO OATT, and shall set forth such costs in sufficient detail to enable Developer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Connecting~~ of the ISO OATT and

any amount that the Developer has overpaid as described in Article 6.1.4 following the later of: (i) the Developer's payment of any final invoice to the Affected Transmission Owner under Article 7.1, and (ii) the Affected Transmission Owners' completion of the EPC Services. The Affected Transmission Owner shall ~~refund to~~ provide Developer ~~any amount by which~~ with the actual payment by Developer for estimated costs exceeds the actual costs of construction ~~refunded amount~~ within thirty (30) Calendar Days of the ~~issuance of such final construction invoice.~~ Parties' satisfaction of the requirements in this Article 7.2.

12.37.3 Payment.

Invoices shall be rendered to the paying Party at the address specified in Appendix ~~FB~~ hereto. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices will not constitute a waiver of any rights or claims the paying Party may have under this Agreement.

12.47.4 Disputes.

In the event of a billing dispute between ~~Connecting Transmission Owner and Developer,~~ ~~Connecting Transmission Owner~~ Parties, the Party owed money shall continue to perform under this Agreement as long as ~~Developer~~ the other Party: (i) continues to make all payments not in dispute ~~up to the Common SDU Cost Cap~~; and (ii) pays to ~~Connecting Transmission Owner~~ the Party owed money or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If ~~Developer~~ the Party that owes money fails to meet these two requirements for continuation of service, then ~~Connecting Transmission Owner~~ the Party owed money may provide notice to ~~Developer~~ the other Party of a Default pursuant to Article ~~17.11~~. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii).

~~Article 13. EMERGENCIES~~

~~13.1 Obligations.~~

~~Each Party shall comply with the Emergency State procedures of NYISO, the applicable Reliability Councils, Applicable Laws and Regulations, and any emergency procedures agreed to by the NYISO Operating Committee.~~

~~13.2 Notice.~~

~~NYISO or, as applicable, Connecting Transmission Owner shall notify Developer promptly when it becomes aware of an Emergency State that affects the Connecting Transmission Owner's Attachment Facilities or the New York State Transmission System that may reasonably be expected to affect Developer's operation of the Large Generating Facility or the Developer's Attachment Facilities. Developer shall notify NYISO and Connecting Transmission Owner promptly when it becomes aware of an Emergency State that affects the Large Generating Facility or the Developer's Attachment Facilities that may reasonably be~~

~~expected to affect the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities. To the extent information is known, the notification shall describe the Emergency State, the extent of the damage or deficiency, the expected effect on the operation of Developer's or Connecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.~~

~~13.3 — Immediate Action.~~

~~Unless, in Developer's reasonable judgment, immediate action is required, Developer shall obtain the consent of Connecting Transmission Owner, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Large Generating Facility or the Developer's Attachment Facilities in response to an Emergency State either declared by NYISO, Connecting Transmission Owner or otherwise regarding New York State Transmission System.~~

~~13.4 — NYISO and Connecting Transmission Owner Authority.~~

~~13.4.1 — General.~~

~~NYISO or Connecting Transmission Owner may take whatever actions with regard to the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities it deems necessary during an Emergency State in order to (i) preserve public health and safety, (ii) preserve the reliability of the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.~~

~~NYISO and Connecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Large Generating Facility or the Developer's Attachment Facilities. NYISO or Connecting Transmission Owner may, on the basis of technical considerations, require the Large Generating Facility to mitigate an Emergency State by taking actions necessary and limited in scope to remedy the Emergency State, including, but not limited to, directing Developer to shut down, start-up, increase or decrease the real or reactive power output of the Large Generating Facility; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Developer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Large Generating Facility and the Developer's Attachment Facilities. Developer shall comply with all of the NYISO and Connecting Transmission Owner's operating instructions concerning Large Generating Facility real power and reactive power output within the manufacturer's design limitations of the Large Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.~~

~~13.4.2 — Reduction and Disconnection.~~

~~NYISO or Connecting Transmission Owner may reduce [] Interconnection Service or disconnect the Large Generating Facility or the Developer's Attachment Facilities, when such reduction or disconnection is necessary under Good Utility~~

~~Practice due to an Emergency State. These rights are separate and distinct from any right of Curtailment of NYISO pursuant to the ISO OATT. When NYISO or Connecting Transmission Owner can schedule the reduction or disconnection in advance, NYISO or Connecting Transmission Owner shall notify Developer of the reasons, timing and expected duration of the reduction or disconnection. NYISO or Connecting Transmission Owner shall coordinate with the Developer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to the Developer and the New York State Transmission System. Any reduction or disconnection shall continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Large Generating Facility, the Attachment Facilities, and the New York State Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.~~

~~13.5~~ — ~~Developer Authority.~~

~~Consistent with Good Utility Practice and this Agreement, the Developer may take whatever actions or inactions with regard to the Large Generating Facility or the Developer's Attachment Facilities during an Emergency State in order to (i) preserve public health and safety, (ii) preserve the reliability of the Large Generating Facility or the Developer's Attachment Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Developer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New York State Transmission System and the Connecting Transmission Owner's Attachment Facilities. NYISO and Connecting Transmission Owner shall use Reasonable Efforts to assist Developer in such actions.~~

~~13.6~~ — ~~Limited Liability.~~

~~Except as otherwise provided in Article 11.6 of this Agreement, no Party shall be liable to another Party for any action it takes in responding to an Emergency State so long as such action is made in good faith and is consistent with Good Utility Practice and the NYISO Tariffs.~~

Article 14. ARTICLE 8. REGULATORY REQUIREMENTS AND GOVERNING LAW

14.18.1 Regulatory Requirements.

Each Party's obligations under this Agreement shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this Agreement shall require ~~Developer~~ Developers to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 2005 or the Public Utility Regulatory Policies Act of 1978, as amended.

14.28.2 Governing Law.

~~14.2.18.2.1~~ The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the state of New York, without regard to its conflicts of law principles.

~~14.2.28.2.2~~ This Agreement is subject to all Applicable Laws and Regulations.

~~14.2.38.2.3~~ Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

~~Article 15.~~ ARTICLE 9. NOTICES

~~15.19.1~~ General.

Unless otherwise provided in this Agreement, any notice, demand or request required or permitted to be given by a Party to any of the other Parties and any instrument required or permitted to be tendered or delivered by a Party in writing to any of the other Parties shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix ~~FB~~ hereto.

A Party may change the notice information in this Agreement by giving five (5) Business Days written notice prior to the effective date of the change.

~~15.29.2~~ Billings and Payments.

Billings and payments shall be sent to the addresses set out in Appendix ~~FB~~ hereto.

~~15.39.3~~ Alternative Forms of Notice.

Any notice or request required or permitted to be given by a Party to any of the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix ~~FB~~ hereto.

~~15.4 — Operations and Maintenance Notice.~~

~~Developer and Connecting Transmission Owner shall each notify the other Party, and NYISO, in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10 of this Agreement.~~

~~Article 16.~~ ARTICLE 10. FORCE MAJEURE

~~16~~10.1 Economic hardship is not considered a Force Majeure event.

~~16~~10.2 A Party shall not be responsible or liable, or deemed, in Default with respect to any obligation hereunder, ~~(including obligations under Article 4 of this Agreement)~~, other than the obligation to pay money when due, to the extent the Party is prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than

an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Parties in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

~~Article 17.~~ARTICLE 11. **DEFAULT**

~~17.11.1~~ 11.1 **General.**

No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Parties. Upon a Breach, the non-Breaching Parties acting together shall give written notice of such to the Breaching Party. The Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

~~17.211.2~~ 11.2 **Right to Terminate.**

If a Breach is not cured as provided in this Article ~~17.11~~, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Parties acting together shall thereafter have the right to declare a Default and terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

~~Article 18.~~ARTICLE 12. **INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

~~18.112.1~~ 12.1 **Indemnity.**

Each Party (the "Indemnifying Party") shall at all times indemnify, defend, and save harmless, as applicable, the other Parties (each an "Indemnified Party") from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, the alleged violation of any Environmental Law, or the release or threatened release of any Hazardous Substance, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from (i) the Indemnified Party's performance of its obligations under this Agreement on behalf of the Indemnifying Party, except in cases where the Indemnifying Party can

demonstrate that the Loss of the Indemnified Party was caused by the gross negligence or intentional wrongdoing of the Indemnified Party or (ii) the violation by the Indemnifying Party of any Environmental Law or the release by the Indemnifying Party of any Hazardous Substance.

18.1.12.1.1 Indemnified Party.

If a Party is entitled to indemnification under this Article ~~18.1~~12 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under Article ~~18.1.3~~12.1.3, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.1.12.1.2 Indemnifying Party.

If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article ~~18.1~~12, the amount owing to the ~~Indemnifying~~Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.

18.1.12.1.3 Indemnity Procedures.

Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article ~~18.1~~12.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

Except as stated below, the Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not

settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

18.212.2 No Consequential Damages.

Other than the ~~liquidated damages heretofore described and the~~ indemnity obligations set forth in Article ~~18.112.1~~, in no event shall any Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under separate agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.312.3 Insurance.

~~Developer and Connecting~~Each Affected Transmission Owner shall each, at its own expense, procure and maintain in force throughout the period of this Agreement and until released by the other Parties, the following minimum insurance coverages, with insurance companies licensed to write insurance or approved eligible surplus lines carriers in the state of New York with a minimum A.M. Best rating of A or better for financial strength, and an A.M. Best financial size category of VIII or better:

~~18.3.112.3.1~~ ———Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of New York State.

~~18.3.212.3.2~~ ———Commercial General Liability ("CGL") Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available using Insurance Services Office, Inc. Commercial General Liability Coverage ("ISO CG") Form CG 00 01 04 13 or a form equivalent to or better than CG 00 01 04 13, with minimum limits of Two Million Dollars (\$2,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

~~18.3.312.3.3~~ ———Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

~~18.3.412.3.4~~ ———If applicable, the Commercial General Liability and Comprehensive Automobile Liability Insurance policies should include contractual liability for

work in connection with constructions or demolition work on or within 50 feet of a railroad, or a separate Railroad Protective Liability Policy should be provided.

~~18.3.5~~12.3.5 ——— Excess Liability Insurance over and above the Employers' Liability, Commercial General Liability and Comprehensive Automobile Liability Insurance coverages, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence and Twenty Million Dollars (\$20,000,000) aggregate. The Excess policies should contain the same extensions listed under the Primary policies.

~~18.3.6~~12.3.6 ——— The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Liability Insurance policies of ~~Developer and Connecting~~each Affected Transmission Owner shall name the other ~~Party, its parent~~Parties, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insureds using ISO CG Endorsements: CG 20 33 04 13, and CG 20 37 04 13 or CG 20 10 04 13 and CG 20 37 04 13 or equivalent to or better forms. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this Agreement against the Other Party Group and provide thirty (30) Calendar days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.

~~18.3.7~~12.3.7 ——— The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Liability Insurance policies shall contain provisions that specify that the policies are primary and non-contributory. ~~Developer and Connecting~~Each Affected Transmission Owner shall ~~each~~ be responsible for its respective deductibles or retentions.

~~18.3.8~~12.3.8 ——— The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for at least three (3) years after termination of this Agreement, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by ~~the~~each Developer and ~~Connecting~~Affected Transmission Owner.

~~18.3.9~~12.3.9 ——— If applicable, Pollution Liability Insurance in an amount no less than \$7,500,000 per occurrence and \$7,500,000 in the aggregate. The policy will provide coverage for claims resulting from pollution or other environmental impairment arising out of or in connection with work performed on the premises by the other party, its contractors and and/or subcontractors. Such insurance is to include coverage for, but not be limited to, cleanup, third party bodily injury and property damage and remediation and will be written on an occurrence basis. The policy shall name the Other Party Group as additional insureds, be primary and contain a waiver of subrogation.

~~18.3.10~~ ——— The requirements contained herein as to the types and limits of all insurance to be maintained by ~~the Developer and Connecting~~each Affected Transmission Owner

are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by those Parties under this Agreement.

~~18.3.11~~12.3.10 ——— Within ~~[insert term stipulated by the Parties]~~ days following execution of this Agreement, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, Developer and Connecting Transmission Owner shall provide Upon request, Affected Transmission Owner shall provide to the requesting Party certificate of insurance for all insurance required in this Agreement, executed by each insurer or by an authorized representative of each insurer.

~~18.3.12~~12.3.11 ——— Notwithstanding the foregoing, ~~Developer and Connecting~~each Affected Transmission Owner may ~~each~~ self-insure to meet the minimum insurance requirements of Articles ~~18.3.1~~12.3.1 through ~~18.3.9~~12.3.9 to the extent it maintains a self-insurance program; provided that, such Party's senior debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles ~~18.3.1~~12.3.1 through ~~18.3.9~~12.3.9. In the event that a Party is permitted to self-insure pursuant to this Article ~~18.3.10~~12.3.11, it shall notify the other ~~Party~~Parties that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Articles ~~18.3.1 through 18.3.9~~12.3.1 through 12.3.9 and provide evidence of such coverages. For any period of time that a Party's senior debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles ~~18.3.21~~12.3.1 through ~~18.3.9~~12.3.9.

~~18.3.13~~12.3.12 ——— Each Developer and ~~Connecting~~Affected Transmission Owner agree to report to each of the other Developers and Affected Transmission Owners in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.

~~18.3.14~~12.3.13 ——— Subcontractors of each party must maintain the same insurance requirements stated under Articles ~~18.3.1~~12.3.1 through ~~18.3.9~~12.3.9 and comply with the Additional Insured requirements herein-. In addition, their policies must state that they are primary and non-contributory and contain a waiver of subrogation.

~~Article 19~~ARTICLE 13. ASSIGNMENT

This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; provided further that a Party may assign this Agreement without the consent of the other Parties in connection with the sale, merger, restructuring, or transfer of a substantial portion or all of its assets, ~~including the Attachment Facilities it owns~~, so long as the assignee in such a transaction directly assumes in writing all rights, duties and obligations arising under this Agreement; and provided further that ~~the~~a Developer shall have the right to assign this Agreement, without the consent of the NYISO or ~~Connecting~~Affected Transmission

~~Owner~~Owners, for collateral security purposes to aid in providing financing for ~~the~~its Large Generating Facility, provided that the Developer will promptly notify the NYISO and ~~Connecting~~Affected Transmission ~~Owner~~Owners of any such assignment. Any financing arrangement entered into by ~~the~~a Developer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the NYISO and ~~Connecting~~Affected Transmission ~~Owner~~Owners of the date and particulars of any such exercise of assignment right(s) and will provide the NYISO and ~~Connecting~~Affected Transmission ~~Owner~~Owners with proof that it meets the requirements of Articles ~~11-5~~6.2 and ~~18-3~~12.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

~~Article 20-~~ARTICLE 14. **SEVERABILITY**

If any provision in this Agreement is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this Agreement; ~~provided that if the Developer (or any third party, but only if such third party is not acting at the direction of the Connecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the rights and obligations of Developer and Connecting Transmission Owner shall be governed solely by the Standard Option (Article 5.1.1).~~

~~Article 21-~~ARTICLE 15. **COMPARABILITY**

The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

~~Article 22-~~ARTICLE 16. **CONFIDENTIALITY**

~~22.1~~16.1 **Confidentiality.**

Certain information exchanged by the Parties during the term of this Agreement shall constitute confidential information ("Confidential Information") and shall be subject to this Article ~~22~~16.

If requested by a Party receiving information, the Party supplying the information shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

~~22.2~~16.2 **Term.**

During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article ~~22.16~~, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

~~22.3~~16.3 Confidential Information.

The following shall constitute Confidential Information: (1) any non-public information that is treated as confidential by the disclosing Party and which the disclosing Party identifies as Confidential Information in writing at the time, or promptly after the time, of disclosure; or (2) information designated as Confidential Information by the NYISO Code of Conduct contained in Attachment F to the ISO OATT.

~~22.4~~16.4 Scope.

Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Article ~~22.1.8~~16.9 of this Agreement, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

~~22.5~~16.5 Release of Confidential Information.

No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by FERC Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be considering providing financing to or equity participation with ~~Developer~~Developers, or to potential purchasers or assignees of a Party, on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article ~~22.16~~ and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article ~~22.16~~.

~~22.6~~16.6 Rights.

Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

22.716.7 No Warranties.

By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.

22.816.8 Standard of Care.

Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this Agreement or its regulatory requirements, including the ISO OATT and NYISO Services Tariff. The NYISO shall, in all cases, treat the information it receives in accordance with the requirements of Attachment F to the ISO OATT.

22.916.9 Order of Disclosure.

If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

22.1016.10 Termination of Agreement.

Upon termination of this Agreement for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Parties, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Parties) or return to the other Parties, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Parties pursuant to this Agreement.

22.1116.11 Remedies.

The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22.16. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22.16, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall

not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article ~~22.12~~16, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article ~~22.12~~16.

22.1216.12 Disclosure to FERC, its Staff, or a State.

Notwithstanding anything in this Article ~~22.12~~16 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement or the ISO OATT, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Parties to the Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations. A Party shall not be liable for any losses, consequential or otherwise, resulting from that Party divulging Confidential Information pursuant to a FERC or state regulatory body request under this paragraph.

22.1316.13 Required Notices Upon Requests or Demands for Confidential Information

Except as otherwise expressly provided herein, no Party shall disclose Confidential Information to any person not employed or retained by the Party possessing the Confidential Information, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Agreement, the ISO OATT or the NYISO Services Tariff. Prior to any disclosures of a Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

~~Article 23.~~ **ARTICLE 17. ~~DEVELOPER~~ ~~AND~~ ~~CONNECTING~~ ~~AFFECTED~~**
TRANSMISSION OWNER NOTICES OF ENVIRONMENTAL
RELEASES

~~Developer and Connecting~~ An Affected Transmission Owner shall ~~each~~ notify the other ~~Party~~ Parties, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the ~~Large Generating Facility or the Attachment Facilities~~ Common System Deliverability Upgrades, each of which may reasonably be expected to affect the other ~~Party~~ Parties. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other ~~Party~~ Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

~~Article 24.~~ **ARTICLE 18. INFORMATION REQUIREMENT**

~~24.1~~ **18.1 Information Acquisition.**

~~Connecting~~ Each Affected Transmission Owner ~~and Developer~~ shall ~~each~~ submit specific information regarding the electrical characteristics of ~~their~~ its respective facilities to the other; ~~and to NYISO,~~ Parties as described below and in accordance with Applicable Reliability Standards.

~~24.2~~ **18.2 Information Submission by ~~Connecting~~ Affected Transmission ~~Owner~~ Owners.**

The initial information submission by ~~Connecting~~ An Affected Transmission Owner shall occur no later than ~~one hundred eighty (180) Calendar Days prior to Trial Operation and shall include New York State Transmission System information necessary to allow the Developer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by~~ date(s) specified in the Developer and Connecting Transmission Owner. Milestones set forth in Appendix A to this Agreement. On a monthly basis ~~Connecting~~ An Affected Transmission Owner shall provide ~~Developer~~ Developers and NYISO a status report on the construction and installation of ~~Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and~~ Common System Deliverability Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

~~24.3~~ **~~Updated Information Submission by Developer.~~**

~~The updated information submission by the Developer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Developer shall submit a completed copy of the Large Generating Facility data requirements contained in Appendix 1 to the Standard Large Facility Interconnection Procedures. It shall also include any additional information provided to Connecting Transmission Owner for the Interconnection Facilities Study. Information in this submission shall be the most current Large Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with NYISO standard models. If there is no compatible~~

~~model, the Developer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.~~

~~If the Developer's data is different from what was originally provided to Connecting Transmission Owner and NYISO pursuant to an Interconnection Study Agreement among Connecting Transmission Owner, NYISO and Developer and this difference may be reasonably expected to affect the other Parties' facilities or the New York State Transmission System, but does not require the submission of a new Interconnection Request, then NYISO will conduct appropriate studies to determine the impact on the New York State Transmission System based on the actual data submitted pursuant to this Article 24.3. Such studies will provide an estimate of any additional modifications to the New York State Transmission System, Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades based on the actual data and a good faith estimate of the costs thereof. The Developer shall not begin Trial Operation until such studies are completed. The Developer shall be responsible for the cost of any modifications required by the actual data, including the cost of any required studies.~~

24.418.3 Information Supplementation.

~~Prior to the Commercial Operation Date, the Developer and Connecting~~[Each Affected](#) ~~Transmission Owner shall supplement their~~[its](#) ~~information submissions described above in this Article 24.18 with any and all "as-built" Large Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Developer shall conduct tests on the Large Generating Facility as required by Good Utility Practice such as an open circuit "step voltage" test on the Large Generating Facility to verify proper operation of the Large Generating Facility's automatic voltage regulator.~~

~~Unless otherwise agreed, the test conditions shall include: (1) Large Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent change in Large Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Developer shall provide validated test recordings showing the responses of Large Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Large Generating Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual Large Generating Facility terminal or field voltages is provided. Large Generating Facility testing shall be conducted and results provided to the Connecting Transmission Owner and NYISO for each individual generating unit in a station.~~

~~Subsequent to the Commercial Operation Date, the Developer shall provide Connecting Transmission Owner and NYISO any information changes due to equipment replacement, repair, or adjustment. Connecting Transmission Owner shall provide the Developer and NYISO any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Connecting Transmission Owner substation that may affect the Developer Attachment Facilities equipment ratings, protection or operating requirements.~~

~~The Developer and Connecting Transmission Owner shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.~~

~~Article 25.~~ARTICLE 19. INFORMATION ACCESS AND AUDIT RIGHTS

~~25.1~~19.1 Information Access.

Each Party (“Disclosing Party”) shall make available to another Party (“Requesting Party”) information that is in the possession of the Disclosing Party and is necessary in order for the Requesting Party to: (i) verify the costs incurred by the Disclosing Party for which the Requesting Party is responsible under this Agreement; and (ii) carry out its obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than those set forth in this Article ~~25.1~~19.1 of this Agreement and to enforce their rights under this Agreement.

~~25.2~~19.2 Reporting of Non-Force Majeure Events.

Each Party (the “Notifying Party”) shall notify the other Parties when the Notifying Party becomes aware of its inability to comply with the provisions of this Agreement for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this Agreement.

~~25.3~~19.3 Audit Rights.

Subject to the requirements of confidentiality under Article ~~22~~16 of this Agreement, each Party shall have the right, during normal business hours, and upon prior reasonable notice to another Party, to audit at its own expense the other Party’s accounts and records pertaining to the other Party’s performance or satisfaction of its obligations under this Agreement. Such audit rights shall include audits of the other Party’s costs, and calculation of invoiced amounts, ~~and each Party’s actions in an Emergency State.~~ Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to the Party’s performance and satisfaction of obligations under this Agreement. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article ~~25.4~~19.4 of this Agreement.

25.419.5 Audit Rights Periods.

25.419.5.1 Audit Rights Period for Construction-Related Accounts and Records.

Accounts and records related to the design, engineering, procurement, and construction of ~~Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and the~~ Common System Deliverability Upgrades shall be subject to audit for a period of twenty-four months following ~~Connecting the issuance by a Developer or an Affected~~ Transmission ~~Owner's~~ issuance Owner, as applicable, of a final invoice in accordance with Article ~~12.2~~ 7.1 of this Agreement.

25.4219.5.2 Audit Rights Period for All Other Accounts and Records.

Accounts and records related to a Party's performance or satisfaction of its obligations under this Agreement other than those described in Article ~~25~~ 19.4.1 of this Agreement shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

25.519.6 Audit Results.

If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

Article 26 ARTICLE 20. SUBCONTRACTORS

26.120.1 General.

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

26.220.2 Responsibility of Principal.

The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the NYISO or ~~Connecting~~ Affected Transmission ~~Owner~~ Owners be liable for the actions or inactions of ~~the~~ a Developer or its subcontractors with respect to obligations of the Developer under Article ~~5~~ 3 of this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

26.320.4 No Limitation by Insurance.

The obligations under this Article ~~26~~20 will not be limited in any way by any limitation of subcontractor's insurance.

Article 27.ARTICLE 21. DISPUTES

27.121.1 Submission.

In the event any Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance (a "Dispute"), such Party shall provide the other Parties with written notice of the Dispute ("Notice of Dispute"). Such Dispute shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Parties. In the event the designated representatives are unable to resolve the Dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Parties' receipt of the Notice of Dispute, such Dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such Dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

27.221.2 External Arbitration Procedures.

Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the Dispute to arbitration, ~~each Party~~the Parties shall ~~choose one~~invoke the assistance of the FERC's Dispute Resolution Service to select an arbitrator ~~who shall sit on a three-member arbitration panel.~~ In each case, the arbitrator(s) shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article ~~27~~21, the terms of this Article ~~27~~21 shall prevail.

27.321.3 Arbitration Decisions.

Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be

filed with FERC if it affects jurisdictional rates, terms and conditions of service, ~~Attachment Facilities, System Upgrade Facilities, or~~ Common System Deliverability Upgrades.

27.421.4 Costs.

Each Party shall be responsible for its own costs incurred during the arbitration process and for ~~the following costs, if applicable: (1) the cost~~ its per capita share of the ~~arbitrator chosen by the Party to sit on the three member panel; or (2) one third the cost~~ costs of the single arbitrator ~~jointly chosen by the Parties.~~

27.521.5 Termination.

Notwithstanding the provisions of this Article ~~27~~ 21, any Party may terminate this Agreement in accordance with its provisions or pursuant to an action at law or equity. The issue of whether such a termination is proper shall not be considered a ~~Dispute~~ hereunder.

~~Article 28.~~ ARTICLE 22. REPRESENTATIONS, WARRANTIES AND COVENANTS

28.122.1 General.

Each Party makes the following representations, warranties and covenants:

28.1.122.1.1 Good Standing.

Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the ~~state or states in which the Large Generating Facility, Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades owned by such Party, as applicable, are located~~ State of New York; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this Agreement and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.

28.1.222.1.2 Authority.

Such Party has the right, power and authority to enter into this Agreement, to become a Party hereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

28.1.322.1.3 No Conflict.

The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such

Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

~~28.1.422.1.4~~ Consent and Approval.

Such Party has sought or obtained, or, in accordance with this Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this Agreement, and it will provide to any Governmental Authority notice of any actions under this Agreement that are required by Applicable Laws and Regulations.

~~Article 29-~~ARTICLE 23. MISCELLANEOUS

~~29.123.1~~ Binding Effect.

This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and permitted assigns of the Parties hereto.

~~29.223.2~~ Conflicts.

If there is a discrepancy or conflict between or among the terms and conditions of this cover agreement and the Appendices hereto, the terms and conditions of this cover agreement shall be given precedence over the Appendices, except as otherwise expressly agreed to in writing by the Parties.

~~29.323.3~~ Rules of Interpretation.

This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this Agreement or such Appendix to this Agreement, ~~or such Section to the Standard Large Facility Interconnection Procedures or such Appendix to the Standard Large Facility Interconnection Procedures~~, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including".

~~29.423.4~~ Compliance.

Each Party shall perform its obligations under this Agreement in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, the ISO OATT and Good Utility Practice. To the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this Agreement for its compliance therewith. When any Party becomes aware of such a situation, it shall notify the other Parties promptly so that the Parties can discuss the amendment to this Agreement that is appropriate under the circumstances.

29.523.5 Joint and Several Obligations.

Except as otherwise stated herein, the obligations of NYISO, each Developer and ~~Connecting~~each Affected Transmission Owner are several, and are neither joint nor joint and several.

29.623.6 Entire Agreement.

This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

29.723.7 No Third Party Beneficiaries.

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and permitted their assigns.

29.823.8 Waiver.

The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. ~~Termination or Default of this Agreement for any reason by the Developer shall not constitute a waiver of the Developer's legal rights to obtain Capacity Resource Interconnection Service and Energy Resource Interconnection Service from the NYISO and Connecting Transmission Owner in accordance with the provisions of the ISO OATT.~~ Any waiver of this Agreement shall, if requested, be provided in writing.

29.923.9 Headings.

The descriptive headings of the various Articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

29.10~~23.10~~ Multiple Counterparts.

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

29.11~~23.11~~ Amendment.

The Parties may by mutual agreement amend this Agreement, by a written instrument duly executed by all ~~three~~ of the Parties.

29.12~~23.12~~ Modification by the Parties.

The Parties may by mutual agreement amend the Appendices to this Agreement, by a written instrument duly executed by all three of the Parties. Such an amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.

29.13~~23.13~~ Reservation of Rights.

NYISO and ~~Connecting~~each of the Affected Transmission ~~Owner~~Owners shall have the right to make unilateral filings with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and ~~Developer~~each of the Developers shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

29.14~~23.14~~ No Partnership.

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

29.15~~23.15~~ Other Transmission Rights.

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, or transmission congestion rights that the ~~Developer~~Developers shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the incremental transmission capacity, if any, created by ~~the System Upgrade Facilities and these Common~~ System Deliverability Upgrades.

, in the configuration described in and as operated in accordance with Appendix A of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this ~~LGIA~~Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc.

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: _____

Title: _____

Date: _____

Central Hudson Gas & Electric Corporation

By: _____

Title: _____

Date: _____

TBE Montgomery, LLC

By: _____

Title: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

By: _____

Title: _____

Date: _____

CPV Valley, LLC

By: _____

Title: _____

Date: _____

~~New York Independent System Operator, Inc.~~

By: _____

Title: _____

Date: _____

~~[Insert Name of Connecting Transmission Owner]~~

By: _____

Title: _____

Date: _____

~~[Insert Name of Developer]~~

By: _____

Title: _____

Date: _____

APPENDICES

Appendix A

~~Attachment Facilities and System Upgrade Facilities~~

~~EPC Services~~

Appendix B

~~Milestones~~

~~Appendix C~~

~~Interconnection Details~~

~~Appendix D~~

~~Security Arrangements Details~~

~~Appendix E~~

~~Commercial Operation Date~~

~~Appendix F~~

Addresses for Delivery of Notices and Billings

APPENDIX A

~~ATTACHMENT FACILITIES AND SYSTEM UPGRADE FACILITIES~~

~~1. Attachment Facilities:~~

~~(a) [insert Developer's Attachment Facilities];~~

~~(b) [insert Connecting Transmission Owner's Attachment Facilities];~~

EPC SERVICES

~~2. 1. Common System Upgrade Facilities:~~ Deliverability Upgrades ~~[insert Stand Alone~~

~~a. A. Central Hudson's System Upgrade Facilities];~~

The Common System Deliverability Upgrades consist of the installation of Smart Wires SmartValve technology utilizing a bank design instead of a traditional series capacitor installation. The SmartValve installation will be located at the Hurley Avenue Substation. The SmartValve technology is a modular Static Synchronous Series Compensator (SSSC) which uses variable voltage injection to synthesize a capacitive or inductive reactance.

Operating Characteristics

- The SmartValve control initially will be utilized to provide 3.5 Ω capacitive compensation.
- Voltage injection is enabled when 200 A (~120 MVA) is present in all 3 phases and disabled if the current in any phase drops below 150 A (~90 MVA).
- For changing line current, the SmartValve bank can ramp voltage injection up or down within 30 seconds (i.e., capable of going from 0 V to 12 kV injection per phase in 30 seconds) to initially get the devices from 0 to the 3.5 Ω operating level, and then the inner control loops take over to maintain the 3.5 Ω with faster response to react to line current variations during operation.
- Should fault currents exceed a pre-set value, the SmartValve on the faulted phases will bypass in 1 ms. The unfaulted phases would ramp down their injection and bypass in 10 seconds, however, any fault should be cleared by that time.
- Each SmartValve can withstand 63 kA RMS for 0.5 seconds with a first-peak asymmetrical value up to 164 kA.

- Each SmartValve has a continuous rating of 3400 A and can withstand overloads up to 3700 A for 4 hours and 4000 A for 15 minutes.

b. ~~_____The [insert Other System Upgrade Facilities]:~~

- SmartValve bank has been specified to provide 12 kV quadrature injection per phase at the 301 line's summer STE rating. This value of injection will provide for 3.5 Ω capacitive compensation at summer STE rating to achieve the required 21% compensation.
- Central Hudson will turn over operational control to the NYISO

3. The Common System Deliverability Upgrades on Central Hudson's system include the following major electrical and physical equipment:

	<u>Equipment</u>	<u>Labor</u>
<u>Planning & Engineering</u>		<u>\$1,775,000</u>
<u>Major Equipment</u>		
▪ Smart Wires	<u>\$10,875,000</u>	<u>\$375,000</u>
▪ Package Sub.	<u>\$925,000</u>	<u>\$650,000</u>
▪ Breaker	<u>\$300,000</u>	<u>\$125,000</u>
▪ GIC Monitoring	<u>\$75,000</u>	
▪ Other		<u>\$100,000</u>
<u>Site Work</u>	<u>\$3,250,000</u>	
<u>Transmission Line Work</u>	<u>\$1,750,000</u>	
<u>Total</u>	<u>\$20,200,000</u>	

Central Hudson shall engineer, procure the required equipment, and construct the Common System Deliverability Upgrades in accordance with Central Hudson's Specifications and Requirements for Electric Installations dated July 2007 to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

B. National Grid's System

The Common System Deliverability Upgrades on National Grid's system do not include electrical or physical equipment; but involve relay setting adjustments at National Grid's Leeds substation.

Central Hudson shall engineer, procure the required equipment, and construct the Common System Deliverability Upgrades on behalf of National Grid in accordance with National Grid's ESB 750 series bulletins to the extent not inconsistent with the terms of this Agreement or the NYISO OATT. Please note that effective April 27th, 2009 all references to P.S.C. No. 207 in any of National Grid's ESB 750 series bulletins shall be construed as references to P.S.C. No. 220.

2. Developer Cost Responsibility

A. Developer Common SDU Cost Cap

Each Developer has accepted, and has provided Security to the Affected Transmission Owners in the form of cash, letters of credit, or parental guarantees to cover, pursuant to Section 25.7.12.2 of Attachment S of the ISO OATT, the cost amount identified in the NYISO Class Year Deliverability Studies for 2010 and 2011 for the Common System Deliverability Upgrades. The non-cash security instruments have been updated for inflation, which updated amount is shown below. The security held in cash reflect the actual escrow amounts currently held with the interest included. The amounts in the below table constitute the Developer Common SDU Cost Cap for each Developer.

<u>Developer</u>	<u>Total SDU Cost Allocation</u>	<u>SDU Cost Allocation to Central Hudson</u>	<u>SDU Cost Allocation to National Grid</u>
<u>CPV Valley</u>	<u>\$15,573,056</u>	<u>\$15,197,060</u>	<u>\$375,996</u>
<u>Taylor</u>	<u>\$181,454</u>	<u>\$177,073</u>	<u>\$4,381</u>
<u>Stony Creek</u>	<u>\$1,144,490</u>	<u>\$1,114,092</u>	<u>\$30,398</u>
<u>Total</u>	<u>\$16,899,000</u>	<u>\$16,488,225</u>	<u>\$410,775</u>

B. Developer's Invoice Share

<u>Developer</u>	<u>Invoice Share (%)</u>
<u>CPV Valley</u>	<u>86.39%</u>
<u>Taylor</u>	<u>1.02%</u>
<u>Stony Creek</u>	<u>6.24%</u>

C. Forfeited Security

Duke Energy Corporation provided Central Hudson and National Grid parental guaranties for the Ball Hill project in the amount of \$1,025,545 and \$27,968, respectively. These non-cash guaranties are now valued at \$1,133,525 and \$27,968, respectively. Central Hudson and National Grid will recover these costs by calling for the Forfeited Security to be converted into cash and drawing down on the Forfeited Security to the extent necessary to cover actual costs in excess of Common SDU Cost Cap.

3. Milestones

<u>Item</u>	<u>Milestone</u>	<u>Date</u>	<u>Responsible Party</u>
<u>1</u>	<u>Provide initial status report on the construction and installation of Common System Deliverability Upgrades in accordance with Article 18.2</u>	<u>July 1, 2019</u>	<u>CHGE</u>
<u>2</u>	<u>Expand Hurley Station, Permitting and Site Prep Existing Station</u>	<u>December 2019</u>	<u>CHGE</u>
<u>3</u>	<u>Provide updated estimate of its cost for performing the EPC Services as required by Article 6.1.2</u>	<u>December 2019</u>	<u>CHGE, GRID</u>
<u>4</u>	<u>Smart Wires Design</u>	<u>Completed</u>	<u>CHGE</u>
<u>5</u>	<u>Procure Smart Wires Equipment</u>	<u>July 2019</u>	<u>CHGE</u>
<u>6</u>	<u>Complete Smart Wires Installation</u>	<u>March 2020</u>	<u>CHGE</u>
<u>7</u>	<u>Complete Hurley Station Breaker Installation</u>	<u>December 2019</u>	<u>CHGE</u>
<u>8</u>	<u>Complete 115 kV Line Relocation</u>	<u>December 2019</u>	<u>CHGE</u>
<u>9</u>	<u>Complete Hurley Line 301 Relay Upgrades</u>	<u>March 2020</u>	<u>CHGE</u>
<u>10</u>	<u>Complete Leeds Line 301 Relay Upgrades</u>	<u>March 2020</u>	<u>GRID</u>
<u>11</u>	<u>Completion Date</u>	<u>March 2020</u>	<u>CHGE</u>
<u>12</u>	<u>In-Service Date</u>	<u>March 2020</u>	<u>CHGE</u>

|

APPENDIX B

|

MILESTONES

~~APPENDIX C~~
~~INTERCONNECTION DETAILS~~

~~APPENDIX D~~

~~SECURITY ARRANGEMENTS DETAILS~~

~~Infrastructure security of New York State Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New York State Transmission System reliability and operational security. The Commission will expect the NYISO, all Transmission Owners, all Developers and all other Market Participants to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber security practices.~~

~~APPENDIX E~~

~~COMMERCIAL OPERATION DATE~~

~~{Date}~~

~~{NYISO Address} _____~~

~~{Connecting Transmission Owner Address}~~

~~Re: _____ Large Generating Facility~~

~~Dear _____:~~

~~On {Date} {Developer} has completed Trial Operation of Unit No. _____. This letter confirms that {Developer} commenced Commercial Operation of Unit No. ____ at the Large Generating Facility, effective as of {Date plus one day}.~~

~~Thank you.~~

~~{Signature}~~

~~{Developer Representative}~~

~~APPENDIX F~~

ADDRESSES FOR DELIVERY OF NOTICES AND BILLINGS

Notices:

NYISO:

Before In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

After In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc. ~~[To be supplied.]~~

Connecting

Attn: Vice President, Operations
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Email:

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission ~~Owner:~~ Commercial Services
~~[To be supplied.]~~

Developer:

~~[To be supplied.]~~

40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

Billings and Payments:

Connecting

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Email:

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission ~~Owner:~~ Commercial Services
~~{To be supplied.}~~

~~Developer:~~

~~{To be supplied.}~~

40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

|

|

|

Alternative Forms of Delivery of Notices (telephone, ~~faesimile~~ or email):

NYISO:

~~{To be supplied.}~~

~~Connecting~~ Before In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Email:

After In-Service Date of the Common System Deliverability Upgrades:

New York Independent System Operator, Inc.
Attn: Vice President, Operations
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Fax: (518) 356-6118

Central Hudson:

Central Hudson Gas and Electric Corporation
Attn: John Borchert, Sr. Director Energy Policy and Trans. Dev.
284 South Avenue
Poughkeepsie, NY 12601
Phone: (845) 486-5327
Fax: (845) 486-5697
jborchert@cenhud.com

National Grid:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Director, Transmission ~~Owner:~~ Commercial Services
~~{To be supplied.}~~

~~Developer:~~

~~{To be supplied.}~~ 40 Sylvan Road
Waltham, MA 02541-1120
Phone: (781) 907-2422
Fax: (315) 428-5114

|

|

|

CPV Valley:

Don Atwood
Competitive Power Ventures, Inc.
50 Braintree Hill Office Park
Suite 300
Braintree, MA 02184
Office: (781) 848-2202
Cell: (617) 271-7382
datwood@cpv.com

Taylor:

James W. Taylor Jr.
President & CEO
Taylor-Montgomery, LLC
350 Neelytown Road
Montgomery, New York 12549
Telephone: 845.457.4021
Fax: 845.457.4003
Email: jim.taylor@taylor-montgomery.com

Stony Creek:

Stony Creek Energy LLC
Attn: Asset Manager
1 S Wacker Drive, Suite 1800
Chicago, IL 60606
Phone: (312) 582-1728
Email: OrangevilleAssetManagers@InvenergyLLC.com

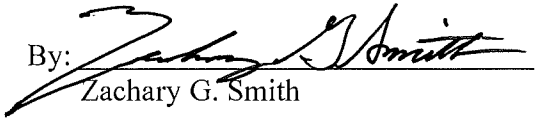
Attachment IV

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator,
Inc..

Stony Creek Energy LLC

By: 
Zachary G. Smith

By: _____

Title: Vice President, System & Resource
Planning

Title: _____

Date: _____

Date: 6/28/2019

Central Hudson Gas & Electric Corporation

TBE Montgomery, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a
National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc.

Stony Creek Energy LLC

By: _____

By: _____

Title: _____

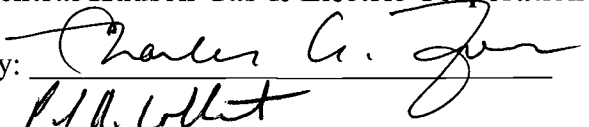
Title: _____

Date: _____

Date: _____

Central Hudson Gas & Electric Corporation

TBE Montgomery, LLC

By:  _____

By: _____

Title: President & Chief Executive Officer
Associate General Counsel-Regulatory
Affairs

Title: _____

Date: May 29, 2019 _____

Date: _____

**Niagara Mohawk Power Corporation d/b/a
National Grid**

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: _____

Title: _____

Date: _____

Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

By: 
Kathryn Cox-Arslan

Title: Director, Commercial Services

Date: June 6, 2019

CPV Valley, LLC

By: _____

Title: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: Alex C George

Title: Alex C George
Vice President

Date: 6/12/19



Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

Stony Creek Energy LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

Central Hudson Gas & Electric Corporation TBE Montgomery, LLC

By: _____

By:  _____

Title: _____

Title: President & CEO

Date: _____

Date: May 31, 2019

Niagara Mohawk Power Corporation d/b/a National Grid

CPV Valley, LLC

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

SERVICE AGREEMENT NO. 2449

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

New York Independent System Operator, Inc..

By: _____

Title: _____

Date: _____

Stony Creek Energy LLC

By: _____

Title: _____

Date: _____

Central Hudson Gas & Electric Corporation

By: _____

Title: _____

Date: _____

TBE Montgomery, LLC

By: _____

Title: _____

Date: _____

Niagara Mohawk Power Corporation d/b/a National Grid

By: _____

Title: _____

Date: _____

CPV Valley, LLC

By: _____

Title: _____

Date: June 27, 2019

Donald G. Atwood

Authorized Signatory

APPENDICES

Appendix A

EPC Services

Appendix B

Addresses for Delivery of Notices and Billings

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Central Hudson Gas & Electric Corporation

)
)
)

Docket No. RP19-____-000

**PREPARED DIRECT TESTIMONY
OF JOSHUA C. NOWAK ON BEHALF OF
CENTRAL HUDSON GAS & ELECTRIC CORPORATION**

November 18, 2019

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**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Central Hudson Gas & Electric Corporation)

Docket No. RP19-____-000

**PREPARED DIRECT TESTIMONY
OF
Joshua C. Nowak**

I. INTRODUCTION

Q. Please state your name, affiliation, and business address.

A. My name is Joshua C. Nowak. I am employed by Concentric Energy Advisors, Inc.
("Concentric") as an Assistant Vice President. My business address is 293 Boston Post
Road West, Suite 500, Marlborough, Massachusetts 01752.

A. Qualifications

Q. Please describe your background and professional experience in the energy and utility industries.

A. I hold a Bachelor's degree in Economics from Boston College, with more than 10 years of
experience consulting to the energy industry. As a consultant, I provide economic,
financial, and strategic advisory services to clients in regulated utility industries and I have
provided testimony regarding financial matters, before multiple regulatory agencies. I have
advised numerous energy and utility clients on a wide range of financial and economic
issues with primary concentrations in valuation and utility rate matters. Many of these
assignments have included the determination of the cost of capital for valuation and

1 ratemaking purposes. Prior to joining Concentric in 2018, I was employed by National
2 Grid USA where I was responsible for regulatory efforts related to the cost of capital across
3 the company's multiple U.S. operating companies and service territories. A summary of
4 my professional and educational background is presented in Appendix A to Hurley-FC
5 Application Attachment 3.

6 **Q. Please describe Concentric's activities in energy and utility engagements.**

7 A. Concentric provides financial and economic advisory services to many energy and utility
8 clients across North America. Our regulatory, economic, and market analysis services
9 include utility ratemaking and regulatory advisory services; energy market assessments;
10 market entry and exit analysis; corporate and business unit strategy development; demand
11 forecasting; resource planning; and energy contract negotiations. Our financial advisory
12 activities include buy and sell-side merger, acquisition and divestiture assignments; due
13 diligence and valuation assignments; project and corporate finance services; and
14 transaction support services. In addition, we provide litigation support services on a wide
15 range of financial and economic issues on behalf of clients throughout North America.

16 **Q. On whose behalf are you submitting this Testimony?**

17 A. I am submitting this Direct Testimony on behalf of Central Hudson Gas & Electric
18 Corporation ("Central Hudson" or the "Company"), which is indirectly, a wholly-owned
19 subsidiary of Fortis, Inc. ("Fortis").

20

B. Summary of Testimony

Q. What is the purpose of your Prepared Direct Testimony?

A. The purpose of my Prepared Direct Testimony is to present evidence and provide a recommendation regarding a range of reasonable returns on equity to help set the Return on Equity (“ROE”)¹ for Central Hudson, to be used for ratemaking purposes for its remaining portion of the Common System Deliverability Upgrade Facilities Charge, Rate Schedule under Attachment S of the New York Independent System Operator, Inc. (“NYISO”) Open Access Transmission Tariff (“OATT”).

Q. Have you provided any Attachments, Appendices and Schedules with your testimony?

A. Yes. I have included the following:

<u>Attachment No.</u>	<u>Attachment Description</u>
Application Attachment 3	Prepared Direct Testimony of Joshua C. Nowak
<u>Appendix No.</u>	<u>Appendix Description</u>
Appendix A	Joshua Nowak Professional and Educational Background
<u>Schedule No.</u>	<u>Schedule Description</u>
Schedule 1	Summary of ROE Model Results
Schedule 2	Comparison of Proxy Group Operations and Size
Schedule 3	Discounted Cash Flow (“DCF”) Results
Schedule 4	Capital Asset Pricing Model
Schedule 5	Expected Earnings Analysis

¹ Throughout my testimony, I interchangeably use the terms “ROE” and “Cost of Equity.”

Schedule 6 Risk Premium Analysis

Q. Were these Appendices and Schedules prepared by you or under your direction?

A. Yes, they were.

Q. Please summarize your analysis and conclusions.

A. As discussed in greater detail in Section III of my testimony, to estimate the range of reasonable equity returns for Central Hudson in a manner consistent with the Federal Energy Regulatory Commission's ("FERC" or "Commission") recent decision in Docket No. EL11-66-001, I developed my cost of equity recommendation based on four ROE estimation models: the Commission's Two-Stage DCF methodology, the Capital Asset Pricing Model ("CAPM"), a Risk Premium methodology, and an Expected Earnings methodology. The results of these analyses are summarized in Figure 1 below.

Figure 1: Summary of Results

	Median
DCF Result	8.1%
CAPM Result	9.7%
Expected Earnings Result	10.8%
Risk Premium Result	9.9%
Average	9.6%

1 **Q. What overall rate of return should be assumed in determining Central Hudson's**
2 **current cost of capital?**

3 A. As shown in Application Attachment 3, Schedule 1, and based on the analysis presented in
4 the remainder of my direct testimony, and the discussions of Central Hudson's risk relative
5 to the proxy companies, the Company is requesting a base equity return of 9.6 percent.
6 Considering the risk profile of Central Hudson relative to the proxy companies, I believe
7 the requested return is reasonable, if not conservative. In addition to the base ROE, Central
8 Hudson seeks a 50 basis point Regional Transmission Operator ("RTO") membership
9 incentive because these facilities will be under the operational authority of the NYISO, and
10 a 50 basis point ROE incentive adder for its use of solid state power electronic flow control
11 technology in lieu of traditional series compensation originally proposed by the NYISO.
12 The solid state power electronic flow control technology is being used rather than the
13 ordinary solution of a capacitor bank, and offers flexibility to meet future needs through
14 more efficient balancing of variable energy resources and may contribute to future cost
15 avoidance. This is consistent with the Commission's Transmission Policy Statement that
16 identifies "projects that apply new technologies to facilitate more efficient and reliable
17 usage and operation of existing or new facilities" as an example of a category of
18 transmission projects eligible for an ROE adder for the risks and challenges associated with
19 a specific project.²

² Transmission Policy Statement "Promoting Transmission Investment Through Pricing Reform", issued November 15, 2012, P 21-22.

As shown in Application Attachment 3, Schedule 1, the upper end of the range of reasonableness is 12.4 percent, as determined in manner consistent with the October 2018 Commission Order in response to the remand from the D.C. Circuit indicating plans to establish ROEs.³ Therefore, Central Hudson's requested ROE of 10.6 percent, inclusive of incentives, is within the range of reasonableness.

II. PRINCIPLES FOR DETERMINING THE ROE

A. Criteria for a Fair Rate of Return

Q. Please describe the guiding principles to be considered in establishing the fair rate of return for a regulated company.

A. The United States Supreme Court's (the "Supreme Court") precedent-setting *Hope* and *Bluefield* cases established the standards for determining the fairness or reasonableness of a regulated company's allowed ROE. In *Bluefield Water Works & Improvement Company v. Public Service Commission of West Virginia*, 262 U.S. 679, 693 (1923), the Supreme Court found that for a regulated enterprise:

The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

³ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at para. 49.

1 The Supreme Court has further elaborated on this requirement in its decision in
2 Federal Power Commission v. *Hope Natural Gas Company*, 320 U.S. 591, 603 (1944).

3 There the Supreme Court described the relevant criteria as follows:

4 From the investor or company point of view it is important that there be
5 enough revenue not only for operating expenses but also for the capital costs
6 of the business. These include service on the debt and dividends on the stock.
7 By that standard the return to the equity owner should be commensurate with
8 returns on investments in other enterprises having corresponding risks. That
9 return, moreover, should be sufficient to assure confidence in the financial
10 integrity of the enterprise, so as to maintain its credit and to attract capital.

11 **Q. Why is it important for a regulated company to be allowed the opportunity to earn a**
12 **return that is adequate to attract equity capital at reasonable terms?**

13 A. A regulated company's costs of capital must reflect the costs of capital of other enterprises
14 having comparable risks and acting independently in the financial markets. As noted
15 elsewhere in my Prepared Direct Testimony, a return that is adequate to attract capital at
16 reasonable terms enables Central Hudson to provide safe, reliable utility service while
17 maintaining its financial integrity. That return should be commensurate with the returns
18 expected elsewhere in the market for investments of equivalent risk. If it is not, debt and
19 equity investors will seek alternative investment opportunities for which the expected
20 return reflects the perceived risks, thereby impeding Central Hudson's ability to attract
21 capital at reasonable cost.

22 The consequence of the Commission's order in this case, therefore, should be
23 rates that provide Central Hudson with the opportunity to earn an ROE that is:

24 (1) adequate to attract capital at reasonable terms, thereby enabling it to
25 continue to provide safe and reliable utility service;

1 (2) sufficient to ensure its financial integrity; and

2 (3) commensurate with returns on investments in enterprises having
3 corresponding risks.

4 **Q. What are your conclusions regarding regulatory guidelines and capital market**
5 **expectations?**

6 A. The ratemaking process is premised on the principle that, in order for investors and
7 companies to commit the capital needed to provide safe and reliable utility services, the
8 regulated company must have the opportunity to recover the return of, and the market-
9 required return on, invested capital. Regulators recognize that because utility operations
10 are capital intensive, regulatory decisions should enable the regulated company to continue
11 to attract capital at reasonable terms; doing so balances the long-term interests of the
12 regulated company and its ratepayers. The financial community carefully monitors the
13 current and expected financial condition of regulated companies, as well as the regulatory
14 framework in which they operate. In that respect, the regulatory framework is one of the
15 most important factors considered in both debt and equity investors' assessments of risk.
16 Therefore, it is important for the ROE authorized in this proceeding to take into
17 consideration current and projected capital market conditions, as well as investors'
18 expectations and requirements for both risks and returns.

19 **B. Capital Market Conditions**

20 **Q. Why is it important to analyze capital market conditions?**

21 A. The ROE estimation models rely on market data that are either specific to the proxy group,
22 in the case of the DCF model, or to the expectations of market risk, in the case of the

1 CAPM. The results of the ROE estimation models can be affected by prevailing market
2 conditions at the time the analysis is performed. While the ROE that is established in a rate
3 proceeding is intended to be forward-looking, the analyst uses current and projected market
4 data, specifically stock prices, dividends, growth rates and interest rates in the ROE
5 estimation models to estimate the required return for the subject company.

6 As discussed in the remainder of this section, analysts and many regulatory
7 commissions have concluded that current market conditions have affected the results of the
8 ROE estimation models. As a result, it is important to consider the effect of these
9 conditions on the ROE estimation models when determining the appropriate range and
10 recommended ROE for a future period. If investors do not expect current market
11 conditions to be sustained in the future, it is possible that the ROE estimation models will
12 not provide an accurate estimate of investors' required return during that rate period.
13 Therefore, it is important to consider projected market data to estimate the return for that
14 forward-looking period.

15 **Q. What factors are affecting the cost of equity for regulated utilities in the current and**
16 **prospective capital markets?**

17 A. The cost of equity for regulated electric transmission companies is being affected by
18 several factors in the current and prospective capital markets, including the current low
19 interest rate environment and the corresponding effect on valuations and dividend yields of
20 utility stocks relative to historical levels. In this section, I discuss how the current capital
21 market conditions affect the models used to estimate the cost of equity for regulated
22 utilities.

1 **Q. How has the Federal Reserve’s monetary policy affected capital markets in recent**
2 **years?**

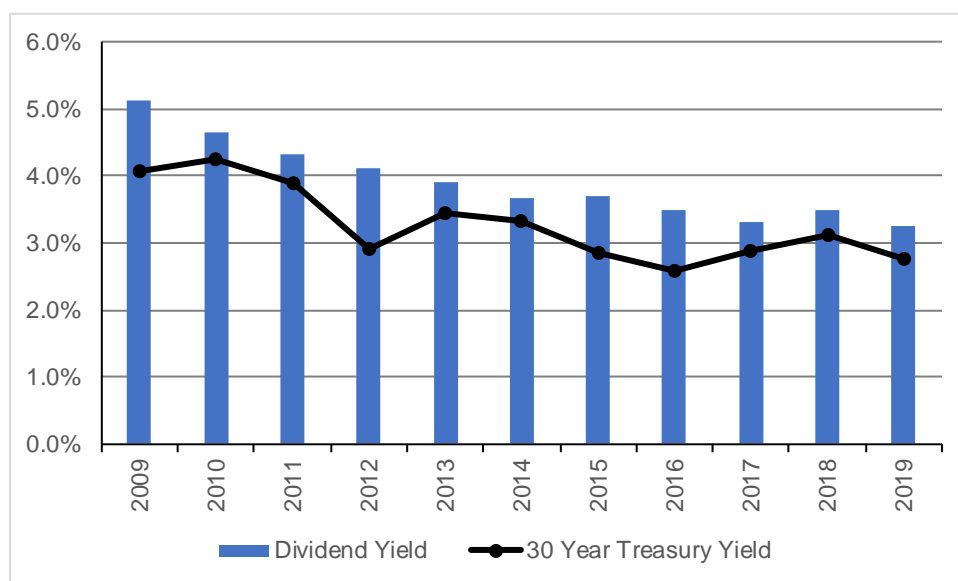
3 A. Extraordinary and persistent federal intervention in capital markets lowered government
4 bond yields after the Great Recession of 2008-09, as the Federal Open Market Committee
5 (“FOMC”) used monetary policy (both reductions in short-term interest rates and purchases
6 of Treasury bonds and mortgage-backed securities) to stimulate the U.S. economy.
7 However, such policies have had the effect of creating an exogenous increased demand for
8 government securities, consequently lowering yields on Treasury bonds. As a result of low
9 returns on short-term government bonds, yield-seeking investors were forced into longer-
10 term instruments, bidding up prices and reducing yields on those investments. As investors
11 moved along the risk spectrum in search of yields that met their return requirements, there
12 was increased demand for dividend-paying equities, such as utility stocks.

13 **Q. How has the period of abnormally low interest rates affected the valuations and**
14 **dividend yields of utility shares?**

15 A. The Federal Reserve’s monetary policy has caused investors to seek alternatives to the
16 historically low interest rates available on Treasury bonds. As a result of this search for
17 higher yield, the share prices for many common stocks, especially dividend-paying stocks
18 such as utilities, have been driven higher while the dividend yields (which are computed by
19 dividing the dividend payment by the stock price) have decreased to levels well below the
20 historical average. As shown in Figure 2 over the period from 2009 through 2019, as the
21 Federal Reserve intervened to stabilize financial markets and support the economic
22 recovery after the Great Recession of 2008-09, Treasury bond yields and utility dividend

yields declined. Specifically, Treasury bond yields declined by approximately 118 basis points, and utility dividend yields decreased by about 182 basis points over this period.

Figure 2: Dividend Yields for Utility Stocks⁴



At its September 2019 meeting, the Federal Reserve acknowledged the implications of global developments on the U.S. economic outlook and lowered the federal funds rate by 25 basis points, resulting in a range of 1.75 percent to 2.00 percent.⁵ Thus, the Federal Reserve has reduced the federal funds rate twice in 2019. These actions must be viewed in context, though. Prior to these two recent reductions in the federal funds rate, the Federal Reserve raised the short-term borrowing rate in 25-basis-point increments nine times since late 2015, based on its view of the then-current market fundamentals, including the employment markets, inflation, and overall economic growth.

⁴ Source: Bloomberg Professional. Figure 2 includes 2019 data through March 29, 2019.

⁵ FOMC, Federal Reserve press release, September 18, 2019.

1 Therefore, it is important to view the recent Federal Reserve policy decisions in the
2 context of the reactions to recent global developments, the trade dispute between the U.S.
3 and China, and longer-term fundamentals. The ongoing trade dispute has affected the
4 global economy and caused a rise in volatility in the financial markets. As a result, the
5 Federal Reserve is continuing to examine and evaluate the effect the trade dispute is having
6 on economic growth and has stated that it will pursue a monetary policy agenda that
7 sustains the economic expansion and satisfies the Federal's Reserve's goals of price
8 stability and full employment. As Chairman Powell noted in his press conference
9 following the September 2019 meeting:

10 Well, what we do going forward is very much going to depend, Rich, on the
11 flow of data and information. We've seen, you know, if you look at the things
12 we're monitoring, particularly global growth and trade develops, global
13 growth has continued to weaken. I think it's weakened since our last meeting.
14 Trade developments have been up and down and then up, I guess, or back up
15 perhaps, over the course of this intervening period. In any case, they've been
16 quite volatile. So, we do see those risks as actually more heightened now.
17 We're going to be watching that carefully. We're also going to be watching
18 the U.S. data quite carefully, and we'll have to make an assessment as we go.⁶

19 **Q. How have the trade dispute with China and the recent uncertainty in the market**
20 **affected the yields on long-term government bonds?**

21 A. The current high level of uncertainty surrounding the trade dispute between the U.S. and
22 China, and in U.S. trade policy more generally, has resulted in a flight-to-quality as
23 investors have purchased safer assets such as U.S. Treasuries due to increased fears of a
24 possible recession. This has been increasingly evident over the past few months as
25 investors responded to news of increases in tariffs by both China and the U.S. investors

⁶ *Id.*, at 6

1 have responded to the recent escalation in the trade war by divesting higher-risk assets and
2 purchasing lower-risk assets such as U.S. Treasury bonds.

3 **Q. How could the current trade dispute and market volatility lead to anomalous results**
4 **in ROE models at this particular point in time?**

5 A. While the current uncertainties have influenced the recent decline in interest rates, the trade
6 dispute between the U.S. and China is not expected to continue over the long-term. In fact,
7 given the increase in price-sensitive investors purchasing U.S. Treasuries bonds, if a trade
8 deal were to be reached, it is likely the yields on long-term government bonds would
9 increase substantially. If an ROE is established in the current environment, using a DCF
10 result for proxy companies, then as interest rates increase, that cost of equity is likely to be
11 an understated estimate of investors' required returns because it will have reflected the
12 increase in stock prices that resulted from substantially lower interest rates. This again
13 emphasizes the importance of considering multiple analytical models in developing an
14 ROE estimate and, based on those other results and other appropriate factors, can support
15 the selection of a return well above the mean ROE estimate resulting from DCF analyses.

16 **Q. Have equity analysts commented on the valuations of utility stocks?**

17 A. Yes. Several equity analysts have recognized that utility stock valuations are very high. In
18 the electric utilities industry report, Value Line noted the high valuations:

19 Why are most issues in this industry faring so well? The expectation of
20 continued low interest rates has prompted many investors to "reach for yield"
21 by purchasing utility stocks for their generous dividends. However, this has
22 driven the valuation of utility stocks to unusually high levels. For many years,
23 utility equities' price-earnings ratios were at a premium to the market only if
24 earnings were depressed. Now, most utility stocks have a relative price-
25 earnings ratio above 1.0—significantly above that figure, in some cases. The
26 average dividend yield of stocks in the Electric Utility Industry is just 3.25%,

1 which is low, by historical standards. Moreover, the recent quotations of most
2 utility stocks are well within their 2022-2024 Target Price Range.⁷

3 This is further supported by a recent Edward Jones report on the utility sector:

4 Utility valuations have climbed back to record levels as 10-year Treasury bond
5 rates have fallen back below 2%. On a price-to-earnings basis, remain
6 significantly above their historical average, and have been trading near all-
7 time highs. We have seen utility valuations moving in line with interest rate
8 movements, although there have been exceptions to this. Overall, however,
9 we believe the low-interest rate environment has been the biggest factor in
10 pushing utilities higher since many investors buy them for their dividend yield.

11 Utilities recently hit new all-time highs, and are still trading significantly
12 above their average price-to earnings ratio over the past decade. The premium
13 valuation continues to reflect not only the low interest rate environment, but
14 also the stable and predominantly regulated earnings growth we foresee.⁸

15 As noted by analysts, over the last few years, utility stocks have experienced high
16 valuations and low dividend yields driven by investors moving into dividend paying stocks
17 from bonds due to the low interest rates in the bond market; however, those dynamics are
18 changing. Analysts recognize that as interest rates increase, bonds become a substitute for
19 utility stocks. As utility stock prices decline, the dividend yields increase. This change in
20 market conditions implies that the ROE calculated using historical market data in the DCF
21 model may understate the forward-looking cost of equity.

22 **Q. What is the effect of high valuations on utility stocks on the DCF model?**

23 A. High valuations have the effect of depressing the dividend yields, which results in overall
24 lower estimates of the cost of equity resulting from the DCF model.

⁷ Value Line Electric (East) Utility Industry, August 16, 2019.

⁸ Andy Pusateri and Andy Smith. Edward Jones, Utilities Sector Outlook (August 19, 2019), at 2-3.

1 **Q. How has the Standard & Poor’s (“S&P”) Utilities Index responded to the low interest**
2 **rate environment of recent years?**

3 **A.** Figure 3 demonstrates market conditions from 2007-2019 as measured by the S&P Utilities
4 index and the yield on 30-year Treasury bonds. As shown in that Figure, the S&P Utilities
5 index increased steadily from the beginning of 2009 through early November 2017, as
6 yields on 30-year Treasury bonds declined in response to accommodative federal monetary
7 policy.

Figure 3: S&P Utilities Index and Treasury Bond Yields - 2007 – 2019⁹



Q. Have regulators recently responded to the historically low dividend yields for utility companies and the corresponding effect on the DCF model?

A. Yes. The Commission’s proposed methodology includes an equal weighting of the DCF, CAPM, Expected Earnings and Risk Premium models to better reflect investor behavior and capital market conditions.¹⁰ In addition, the Illinois Commerce Commission (“ICC”), the Pennsylvania Public Utility Commission (“PPUC”) and the Missouri Public Service

⁹ Bloomberg Professional. Data through March 29, 2019.

¹⁰ FERC Docket No. EL11-66-001, et. al., Order Directing Briefs, issued October 16, 2018, at para. 32.

1 Commission (“Missouri PSC”) have all considered the effect of low dividend yields on the
2 DCF results in recent decisions.

3 In a 2012 decision for PPL Electric Utilities, the PPUC noted that it had
4 traditionally relied primarily on the DCF method to estimate the cost of equity for regulated
5 utilities, but the PPUC recognized that market conditions were causing the DCF model to
6 produce results that were much lower than other models, such as the CAPM and Bond
7 Yield Plus Risk Premium. The PPUC’s Order explained:

8 Sole reliance on one methodology without checking the validity of the results
9 of that methodology with other cost of equity analyses does not always lend
10 itself to responsible ratemaking. We conclude that methodologies other than
11 the DCF can be used as a check upon the reasonableness of the DCF derived
12 equity return calculation.¹¹

13 The PPUC ultimately concluded:

14 As such, where evidence based on the CAPM and RP methods suggest that
15 the DCF-only results may understate the utility’s current cost of equity capital,
16 we will give consideration to those other methods, to some degree, in
17 determining the appropriate range of reasonableness for our equity return
18 determination.¹²

19 In a 2016 ICC case, the ICC Staff relied on a DCF analysis that resulted in
20 average returns for their proxy groups of 7.24 percent to 7.51 percent. The company
21 demonstrated that these results were uncharacteristically low, by comparing the results of
22 ICC Staff’s models to recently authorized ROEs for regulated utilities and the return on the
23 S&P 500.¹³ The ICC agreed with the Company that the ICC Staff’s proposed ROE of 8.04

¹¹ Pennsylvania Public Utility Commission, PPL Electric Utilities, R-2012-2290597, meeting held December 5, 2012, at 80.

¹² *Id.*, at 81.

¹³ State of Illinois Commerce Commission, Docket No. 16-0093, Illinois-American Water Company Initial Brief, August 31, 2016, at 10.

1 percent was anomalous and recognized that a non-competitive return will deter investment
2 in Illinois.¹⁴ In setting the return in that proceeding, the ICC found that it was necessary to
3 consider other factors beyond the outputs of the financial models, particularly whether the
4 return is sufficient to attract capital, maintain financial integrity, and commensurate with
5 returns for companies of comparable risk, while balancing the interests of customers and
6 shareholders.¹⁵

7 Finally, in February 2018, the Missouri PSC issued a decision in Spire's 2017 gas
8 rate case. In explaining the rationale for its decision, the Commission cited the importance
9 of considering multiple methodologies to estimate the cost of equity and the need for the
10 authorized ROE to be consistent with returns in other jurisdictions and to reflect the
11 growing economy and investor expectations for higher interest rates.

12 13 **C. Proxy Group Selection**

14 **Q. Why have you used a group of proxy companies to estimate the Cost of Equity for**
15 **Central Hudson?**

16 A. In this proceeding, I am estimating the Cost of Equity for Central Hudson's Hurley Avenue
17 project. Since the ROE is a market-based concept, and given the fact that Central Hudson's
18 operations do not make up the entirety of a publicly traded entity, it is necessary to
19 establish a group of companies that is both publicly traded and comparable to Central

¹⁴ Illinois Staff's analysis and recommendation in that proceeding were based on its application of the multi-stage DCF model and the CAPM to a proxy group of water utilities.

¹⁵ State of Illinois Commerce Commission Decision, Docket No. 16-0093, Illinois-American Water Company, 2016 WL 7325212 (2016), at 55.

1 Hudson in certain fundamental business and financial respects to serve as its “proxy” for
2 purposes of the ROE estimation process.

3 Even if Central Hudson’s regulated electric transmission operations were held by
4 a stand-alone publicly traded entity, it is possible that transitory events could bias its
5 market value in one way or another over a given period of time. A significant benefit of
6 using a proxy group is its ability to mitigate the effects of anomalous events that may be
7 associated with any one company.

8 **Q. What guidance did you rely on in developing your proxy group?**

9 A. In October 2018, the Commission issued an Order in response to the remand from the D.C.
10 Circuit indicating plans to establish ROEs, the Commission summarized proxy group
11 selection guidelines as follows:

12 In selecting these proxy groups, the Commission intends to continue to use the
13 same screens for developing a proxy group as the Commission has used in
14 recent cases, including Opinion Nos. 531 and 551. These screens are: (1) the
15 use of a national group of companies considered electric utilities by Value
16 Line; (2) the inclusion of companies with credit ratings no more than one notch
17 above or below the utility or utilities whose ROE is at issue; (3) the inclusion
18 of companies that pay dividends and have neither made nor announced a
19 dividend cut during the six month study period; (4) the inclusion of companies
20 with no merger activity during the six-month study period that is significant
21 enough to distort the study inputs; and (5) companies whose ROE results pass
22 threshold tests of economic logic, including both a low-end outlier test and a
23 high-end outlier test...¹⁶

24 The Commission was clear to point out that it was making no generic findings as
25 to the specific entities that may be included in proxy groups; rather, it left that
26 determination to individual rate proceedings.

¹⁶ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at para. 49.

1 **Q. How did you establish a proxy group that is risk appropriate for Central Hudson?**

2 A. Consistent with the Commission guidance I identified a group of companies that are most
3 comparable to Central Hudson using the following screening criteria:

4 1. All of the companies have publicly-traded common stock or partnership
5 units;

6 2. All of the companies are currently paying cash dividends or distributions;

7 3. All of the companies are within one credit notch of Central Hudson's A-
8 (S&P)/A3 (Moody's) credit rating; and

9 2. None of the companies is engaged in significant transformative transactions
10 involving mergers, acquisitions, divestitures, or other significant event
11 during the analysis period.

12 **Q. What companies emerged from the application of these screening criteria?**

13 A. Figure 4 summarizes the companies that met the screening criteria:

1

Figure 4: Proxy Group

Company	Ticker
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Avangrid, Inc.	AGR
Black Hills Corporation	BKH
CenterPoint Energy, Inc.	CNP
CMS Energy Corporation	CMS
Consolidated Edison, Inc.	ED
Dominion Resources, Inc.	D
DTE Energy Company	DTE
Duke Energy Corporation	DUK
Entergy Corporation	ETR
Evergy Inc.	EVRG
Eversource Energy	ES
Exelon Corporation	EXC
NextEra Energy, Inc.	NEE
OGE Energy Corporation	OGE
Pinnacle West Capital Corporation	PNW
PNM Resources, Inc.	PNM
Portland General Electric Company	POR
PPL Corporation	PPL
Public Service Enterprise Group Inc.	PEG
Sempra Energy	SRE
Southern Company	SO
Wisconsin Energy Corporation	WEC

2 The proxy group is comprised of a group of electric utility companies that most
3 closely approximate the risk profile of Central Hudson.

1 **Q. How do the overall risks of the proxy companies compare with the risks faced by**
2 **Central Hudson?**

3 A. The proxy companies I have selected are the most reasonable companies to reflect Central
4 Hudson Hurley Avenue project's business operations and associated risks. However, as
5 shown on Application Attachment 3, Schedule 2, all 27 of the proxy companies are
6 significantly more diversified than Central Hudson both in terms of geographic markets
7 and lines of business. Each of the proxy group companies has a more diversified portfolio
8 of assets, which serves to reduce overall risk. In addition, the smallest proxy company has
9 a market capitalization of more than \$3 billion. In contrast, Central Hudson's Hurley
10 Avenue Facility is a single, smaller transmission asset with a total investment of less than
11 1.00 percent of the size of the smallest proxy company. As such, Central Hudson is subject
12 to undiversifiable risks which, while significant to the Company, are not nearly as
13 significant and more diversified for any of the proxy group members. Therefore, Central
14 Hudson's overall risks are somewhat higher than the average proxy group company, and
15 the median results are a conservative measure of the Company's Cost of Equity.

16 **III. COST OF EQUITY ESTIMATION APPROACHES**

17 **Q. Please briefly discuss the ROE in the context of the regulated rate of return.**

18 A. The overall rate of return for a regulated utility is based on its weighted average cost of
19 capital, in which the cost rates of the individual sources of capital are weighted by their
20 respective book values. While the costs of debt and preferred stock can be directly
21 observed, the cost of equity is market-based and, therefore, must be estimated based on
22 observable market data.

1 **Q. How is the required ROE determined?**

2 A. The required ROE is estimated by using one or more analytical techniques that rely on
3 market-based data to quantify investor expectations regarding required equity returns,
4 adjusted for certain incremental costs and risks. Informed judgment is then applied to
5 determine where the Company's cost of equity falls within the range of results. The key
6 consideration in determining the cost of equity is to ensure that the methodologies
7 employed reasonably reflect investors' views of the financial markets in general, as well as
8 the subject company (in the context of the proxy group), in particular.

9 **Q. What methods did you use to determine the Company's ROE?**

10 A. Consistent with the Commission's recent Order in Docket No. EL-11-66-001, I considered
11 the results of the DCF model, the CAPM approach, the Risk Premium model, and the
12 Expected Earnings methodology. The DCF and CAPM approaches are widely used in
13 regulatory proceedings to determine authorized ROEs, and both methods apply observable
14 market data to estimate the cost of equity. As such, I typically place more weight on these
15 methodologies. As discussed in more detail below, a reasonable ROE estimate
16 appropriately considers alternative methodologies and the reasonableness of their
17 individual and collective results.

18 **Q. Has the Commission indicated a preference for the four methodologies that you have**
19 **relied on for just and reasonable ROE determination?**

20 A. Yes, until recently the Commission has consistently relied primarily on the Two-Stage
21 DCF model for just and reasonable ROE determination.¹⁷ However, in October 2018, the

¹⁷ The Two-Stage DCF methodology has been outlined in Opinion No. 528, 145 FERC ¶ 61,040 (2013) at para. 637-

1 Commission issued an Order in response to the remand from the D.C. Circuit indicating
2 plans to establish ROEs based on an equal weighting of the results of four financial models:
3 the DCF, CAPM, Expected Earnings and Risk Premium. The Commission explains its
4 reasons for moving away from sole reliance on the DCF model as follows:

5 Our decision to rely on multiple methodologies in these four complaint
6 proceedings is based on our conclusion that the DCF methodology may no
7 longer singularly reflect how investors make their decisions. We believe that,
8 since we adopted the DCF methodology as our sole method for determining
9 utility ROEs in the 1980s, investors have increasingly used a diverse set of
10 data sources and models to inform their investment decisions. Investors
11 appear to base their decisions on numerous data points and models, including
12 the DCF, CAPM, Risk Premium, and Expected Earnings methodologies. As
13 demonstrated in Figure 2 below, which shows the ROE results from the four
14 models over the four test periods at issue in this proceeding, these models do
15 not correlate such that the DCF methodology captures the other
16 methodologies. In fact, in some instances, their cost of equity estimates may
17 move in opposite directions over time. Although we recognize the greater
18 administrative burden on parties and the Commission to evaluate multiple
19 models, we believe that the DCF methodology alone no longer captures how
20 investors view utility returns because investors do not rely on the DCF alone
21 and the other methods used by investors do not necessarily produce the same
22 results as the DCF. Consequently, it is appropriate for our analysis to consider
23 a combination of the DCF, CAPM, Risk Premium, and Expected Earnings
24 approaches.¹⁸

25 As such, I have applied The Commission's stated preference and applied equal
26 weighting of the results of the DCF, CAPM, Expected Earnings and Risk Premium in
27 developing my recommendation.

698.

¹⁸ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at para. 40.

A. DCF Methodology

Q. Please describe the DCF method of estimating the cost of common equity capital.

A. The DCF method reflects the assumption that the market price of a share of stock represents the discounted present value of the stream of all future dividend/distributions that investors expect the firm to pay. The DCF method suggests that investors in common stocks expect to realize returns from two sources: a current dividend/distribution yield, plus expected growth – *i.e.*, appreciation – in the value of their shares as a result of future dividend/distribution increases. Estimating the cost of capital with the DCF method therefore is a matter of calculating the current dividend/distribution yield and estimating the future growth rate in dividend/distributions that investors reasonably expect from a company.

The dividend/distribution yield portion of the DCF method for a company generally consists of the dividend/distribution per share of that company divided by the price per share, and utilizes current and readily available information regarding stock prices and dividend/distributions. The market price of a firm's stock reflects investors' assessments of risks and potential earnings as well as their assessments of alternative opportunities in the competitive financial markets. By using the market price to calculate the dividend/distribution yield, the DCF method implicitly recognizes investors' market assessments and alternatives. However, the other component of the DCF formula, investors' expectations regarding the future long-run growth rate of dividend/distributions, is not readily apparent from stock market data and must be estimated using informed judgment.

1 **Q. What DCF formula do you use in this proceeding?**

2 A. In its recent decisions on rate of return, the Commission has utilized the following general
3 form of the DCF model:

4
5
$$K = \frac{D(1 + .5g)}{P} + g \quad [1]$$

6
7

8 where: K = the cost of capital, or total return that investors expect to receive;
9
10 P = the current market price of the stock;
11
12 D = the current annual dividend/distribution rate; and
13
14 g = the expected growth rate which the Commission calculates as a
15 weighted average of the short-term analyst growth rates and a
16 projection of long-term GDP growth.¹⁹

17 **Q. What specific form of the DCF model did you rely on?**

18 A. I applied the Two-Stage DCF model that has historically been relied on by the
19 Commission.²⁰ Each of the assumptions discussed below was developed consistent with
20 the methodology that has been relied on by the Commission.

21 **Q. What assumptions are required for that application of the DCF model?**

22 A. The Commission's Two-Stage DCF model requires the following inputs:

¹⁹ The FERC growth rate applies a two-thirds weight to analysts' growth expectations and one third weight to GDP growth estimates.

²⁰ The Two-Stage DCF methodology has been outlined in Opinion No. 528, 145 FERC ¶ 61,040 (2013) at para. 637-698.

- 1 1. The average of the high and low stock prices for each month during a six-month
2 period;²¹
- 3 2. The annualized dividend/distribution per share at the end of the selected six months;
- 4 3. Consensus earnings growth estimates for the first stage growth rate in the Two-
5 Stage DCF model; and
- 6 4. An estimate of GDP growth to be used in the second stage of the model as the long-
7 term growth rate.

8 **Q. How did you calculate the dividend/distribution yields for the companies in your**
9 **comparison group?**

10 A. The dividend/distribution yields were calculated for each company by dividing the
11 annualized dividend/distribution by the average of the stock prices for each company. For
12 the price component of the calculation, I obtained the high and low price for each month
13 during the six-month period from April 2019 through September 2019. The dividend yield
14 was then calculated for each month using the dividend/distribution yield that had been
15 announced by the company at that time. The six dividend yields over this time period were
16 then averaged to derive the dividend yield that was used in the DCF analysis. This is
17 consistent with the approach that was relied upon by the Commission in both Opinion No.
18 510 and *Kern River*.²² These calculations are shown on Application Attachment 3,
19 Schedule 3. The dividend/distribution yields are multiplied by the quarterly

²¹ I relied on the six-month period ending May 31, 2019.

²² Trial Staff Initial Brief, Exhibit S-3, June 17, 2008, p. 212. Opinion No. 510, *Portland Natural Gas Transmission System*, 134 FERC ¶ 61,129 (February 17, 2011), at 89. Opinion No. 486-B, *Kern River Gas Transmission Company*, 126 FERC ¶ 61,034 (January 15, 2009), at 111.

1 dividend/distribution adjustment factor $(1 + .5g)$ to arrive at the dividend/distribution yield
2 component of the DCF model.

3 **Q. Did you calculate the DCF results that would be obtained using the Commission's**
4 **Two-Stage DCF methodology?**

5 A. Yes. Using the methodology outlined by the Commission in in Opinion Nos. 528, 510,
6 524, and *Kern River*, I calculated a DCF cost of equity for the proxy group using the
7 Commission's traditional two-stage model. First-stage growth rates for the proxy group
8 companies were based on the analyst growth rates compiled by Thomson Reuters First Call
9 and published by Yahoo! Finance.²³ Consistent with the underlying assumptions in the
10 DCF model, all companies included in the analysis must have a positive long-term growth
11 rate forecast by Thomson First Call. The second-stage growth rates for corporations in the
12 proxy group were calculated using the average of Blue Chip Financial Forecasts ("Blue
13 Chip"), U.S. Energy Information Administration ("EIA") and the Social Security
14 Administration forecasts of nominal GDP growth. The growth rates relied upon for the
15 analyses are provided in Application Attachment 3, Schedule 3.

16 **Q. Please summarize the results of your DCF analyses.**

17 A. As shown in Figure 5 (below), the Two-Stage DCF analysis produces a range of results
18 from 6.08 percent to 11.12 percent with a median result of 8.06 percent. The DCF results
19 achieved from this analysis for each of the proxy group companies are provided in
20 Application Attachment 3, Schedule 3.

²³ Thompson reports IBES earnings growth estimates. These estimates are reported publicly through Yahoo!Finance.

Figure 5: DCF Results

	DCF Results
High	11.12%
Median	8.06%
Low	6.08%

B. CAPM Analysis

Q. Please briefly describe the Capital Asset Pricing Model.

A. The CAPM is a risk premium approach that estimates the cost of equity for a given security as a function of a risk-free return plus a risk premium to compensate investors for the non-diversifiable or “systematic” risk of that security. This second component is the product of the market risk premium and the Beta coefficient, which measures the relative riskiness of the security being evaluated.

The CAPM is defined by four components, each of which must theoretically be a forward-looking estimate:

$$K_e = r_f + \beta(r_m - r_f) \quad [2]$$

Where:

K_e = the required market ROE;

β = Beta coefficient of an individual security;

r_f = the risk-free rate of return; and

r_m = the required return on the market.

In this specification, the term $(r_m - r_f)$ represents the market risk premium.

According to the theory underlying the CAPM, since unsystematic risk can be diversified

away, investors should only be concerned with systematic or non-diversifiable risk. Non-diversifiable risk is measured by Beta, which is defined as:

$$\beta = \frac{\text{Covariance}(r_e, r_m)}{\text{Variance}(r_m)} \quad [3]$$

The variance of the market return (i.e., Variance (r_m)) is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the general market (i.e., Covariance (r_e, r_m)) reflects the extent to which the return on that security will respond to a given change in the general market return. Thus, Beta represents the risk of the security relative to the general market.

Q. What risk-free rate did you use in your CAPM analysis?

A. I relied on three sources for my estimate of the risk-free rate: (1) the 6-month average yield on 30-year U.S. Treasury bonds of 2.53 percent;²⁴ (2) the average projected 30-year U.S. Treasury bond yield for Q4 2019 through Q4 2020 of 2.40 percent;²⁵ and (3) the average projected 30-year U.S. Treasury bond yield for 2021 through 2025 of 3.60 percent.²⁶

Q. Why did you use the 30-year Treasury bond yield as the risk-free rate in the CAPM analysis?

A. In determining the security most relevant to the application of the CAPM, it is important to select the term (or maturity) that best matches the life of the underlying investment. As noted by Morningstar:

The traditional thinking regarding the time horizon of the chosen Treasury security is that it should match the time horizon of whatever is being valued... Note that the horizon is a function of the investment, not the investor. If an

²⁴ Bloomberg Professional.

²⁵ Blue Chip Financial Forecasts, Vol. 38, No. 9, September 1, 2019, at 2.

²⁶ Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14.

1 investor plans to hold stock in a company for only five years, the yield on a
2 five-year Treasury note would not be appropriate since the company will
3 continue to exist beyond those five years.²⁷

4 Because utility companies represent long-duration investments, it is appropriate to
5 use yields on long-term Treasury bonds as the risk-free rate component of the CAPM. In
6 my view, the 30-year Treasury bond is the appropriate security for that purpose. Because
7 the cost of capital is intended to be forward-looking, it is appropriate to consider projected
8 measures of interest rates and the market risk premium. As discussed previously, the
9 estimation of the cost of equity in this case should be forward looking since it is the return
10 that investors would receive over the future rate period. Therefore, the inputs and
11 assumptions used in the CAPM analysis should reflect the expectations of the market at
12 that time. As shown in Application Attachment 3, Schedule 4, leading economists surveyed
13 by Blue Chip are expecting an increase in long-term interest rates over the next five years.
14 This is an important consideration for equity investors as they assess their return
15 requirements, especially in the context of the CAPM analysis, which is able to take into
16 consideration the effect of the market's expectations for interest rate increases on the cost
17 of equity.

18 **Q. What Beta coefficients did you use in your CAPM analysis?**

19 A. As shown on Application Attachment 3, Schedule 4, I used the Beta coefficients for the
20 proxy group companies as calculated by Value Line and Bloomberg. The Beta coefficients
21 reported by Bloomberg are calculated using ten years of weekly returns relative to the S&P

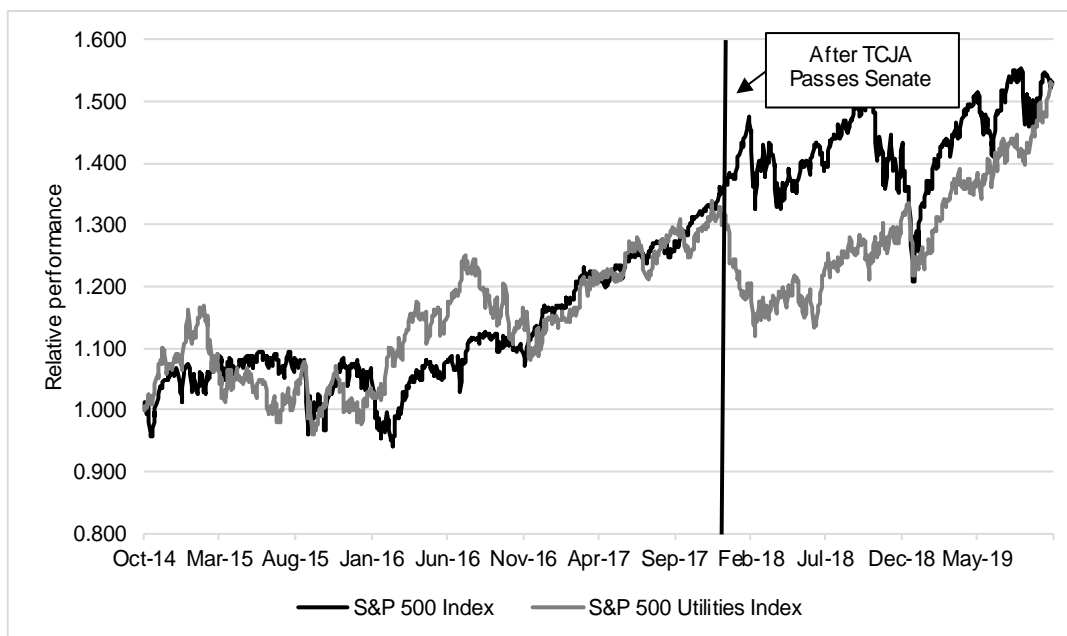
²⁷ Morningstar Inc., Ibbotson SBBI 2013 Valuation Yearbook, at 44.

500 Index. Value Line's calculation is based on five years of weekly returns relative to the New York Stock Exchange Composite Index.

Q. Why did you select a ten-year period to calculate the Beta coefficients from Bloomberg?

A. The Tax Cuts and Jobs Act of 2017 ("TCJA") has had a significant effect on utility companies. While other industries are able to retain the benefits of a reduced corporate income tax rate, this benefit has largely been passed through to customers by utility companies. This fundamental difference affected investors' view of the utility industry relative to other industries. As shown in Figure 8, after the Senate passed the TCJA on December 2, 2017, utilities significantly deviated from the broader market.

Figure 8: Performance of the Utility Industry Relative to the S&P 500²⁸



²⁸ Source: Bloomberg Professional. Data through September 30, 2019.

1 The effect of utility industry performance deviating significantly from the broader market,
2 understates the Beta for utility companies as compared with historical averages. To reflect
3 the long-term relationship, which has been that utility stocks are less volatile than the
4 broader market (*i.e.*, the relative volatility for utility companies has been lower than the
5 S&P 500 over the ten-year measure), I selected a ten-year period to calculate the Beta
6 coefficients from Bloomberg.

7 **Q. How did you estimate the market risk premium in the CAPM?**

8 A. I estimated the market risk premium based on the expected return on S&P 500 Index less
9 the yield on the 30-year Treasury bond. I calculate the expected return on the S&P 500
10 Index companies for which dividend yields and long-term earnings projections are
11 available using the Constant Growth DCF model discussed earlier in my Direct Testimony.
12 Based on an estimated market capitalization-weighted dividend yield of 1.97 percent and a
13 weighted long-term growth rate of 11.74 percent, the estimated required market return for
14 the S&P 500 Index is 13.83 percent. As shown in Application Attachment 3, Schedule 4,
15 the implied market risk premium over the projected yields on the 30-year U.S. Treasury
16 bond, range from 10.23 percent to 11.43 percent.

17 **Q. Has the Commission endorsed the use of a forward-looking market risk premium?**

18 A. Yes, in the Order issued in October 2018, in response to the remand from the U.S. Court of
19 Appeals for the District of Columbia, the Commission specifically stated:

20 The expected return can be estimated either using a backward-looking
21 approach, a forward-looking approach, or a survey of academics and
22 investment professionals. A CAPM analysis is backward-looking if the
23 expected return is determined based on historical, realized returns. A CAPM
24 analysis is forward-looking if the expected return is based on a DCF analysis
25 of a large segment of the market. Thus, in a forward-looking CAPM analysis,

1 the market risk premium is calculated by subtracting the risk-free rate from
2 the result produced by the DCF analysis.²⁹

3 Additionally, in Opinion No. 531-B, the Commission specifically endorsed a
4 method that is similar to the method I have used to calculate the forward-looking market
5 risk premium (i.e., applying a Constant Growth DCF analysis to the S&P 500 and using the
6 30-year Treasury bond yields).³⁰ In response to arguments against this methodology, the
7 Commission stated:

8 We are also unpersuaded that the growth rate projection in the NETOs' CAPM
9 study was skewed by the NETOs' reliance on analysts' projections of non-
10 utility companies' medium-term earnings growth, or that the study failed to
11 consider that those analysts' estimates reflect unsustainable short-term stock
12 repurchase programs and are not long-term projections. As explained above,
13 the NETOs based their growth rate input on data from IBES, which the
14 Commission has found to be a reliable source of such data. Thus, the time
15 periods used for the growth rate projections in the NETOs' CAPM study are
16 the time periods over which IBES forecasts earnings growth. Petitioners'
17 arguments against the time period on which the NETOs' CAPM analysis is
18 based are, in effect, arguments that IBES data are insufficient in a CAPM
19 study.³¹

20 ***

21 While an individual company cannot be expected to sustain high short term
22 growth rates in perpetuity, the same cannot be said for a stock index like the
23 S&P 500 that is regularly updated to contain only companies with high market
24 capitalization, and the record in this proceeding does not indicate that the
25 growth rate of the S&P 500 stock index is unsustainable.³²

26 **Q. What are the results of your CAPM analyses?**

27 A. As shown in Figure 6 (*see* also Application Attachment 3, Schedule 4), my CAPM analysis
28 produces a range of median returns from 9.58 percent to 9.98 percent.

²⁹ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at 41.

³⁰ 150 FERC ¶ 61,165, Docket Nos. EL11-66-002, Opinion No. 531-B (March 3, 2015), at para. 109-111.

³¹ *Id.*, at para. 112.

³² *Id.*, at para. 113.

Figure 6: CAPM Results

	Median
Current Risk-Free Rate 6-Month Average (2.53%)	9.58%
Projected Risk-Free Rate 2019Q4 – 2020Q4 (2.40%)	9.53%
Projected Risk-Free Rate 2021 – 2025 (3.60%)	9.98%
Mean Result	9.69%

C. Expected Earnings Analysis

Q. Please describe the Expected Earnings approach.

A. The Expected Earnings approach is based on the principle that rates of return available from alternative investments of comparable risk can provide a meaningful comparison to establish what alternative returns are available to investors. This approach is highly consistent with the standards established in the *Hope* and *Bluefield* cases for determining the fairness or reasonableness of a regulated company's allowed ROE. The approach that I have used is based on Value Line's projected ROE for the proxy group companies. Consistent with Commission precedent, I adjusted Value Line's end-of-year book values to account for growth in common equity that occurs over the course of a given year. Specifically, the Commission endorsed this Expected Earnings approach in the Order issued in October 2018, in response to the remand from the D.C. Circuit by stating:

The returns on book equity that investors expect to receive from a group of companies with risks comparable to those of a particular utility are relevant to determining that utility's cost of equity, because those returns on book equity help investors determine the opportunity cost of investing in that particular utility instead of other companies of comparable risk. Because investors rely on Expected Earnings analyses to help estimate the opportunity cost of

investing in a particular utility, we find this type of analysis useful in determining a utility's ROE.³³

Q. What are the results of your Expected Earnings analyses?

A. As shown in Application Attachment 3, Schedule 5, my Expected Earnings analysis produces a range of returns from 6.05 percent to 14.60 percent and a median estimate of 10.77 percent.

D. Bond Yield Plus Risk Premium Analysis

Q. Please describe the Bond Yield Plus Risk Premium approach.

A. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with equity ownership and therefore require a premium over the return they would have earned as a bondholder. That is, since returns to equity holders have greater risk than returns to bondholders, equity investors must be compensated to bear that risk. Risk premium approaches, therefore, estimate the cost of equity as the sum of the equity risk premium and the yield on a particular class of bonds. In my analysis, I used actual authorized returns for electric utilities.

Q. Has the Commission endorsed the approach you have used to calculate the risk premium?

A. Yes, in the Order issued in October 2018, in response to the remand from the U.S. Court of Appeals for the District of Columbia, the Commission specifically stated:³⁴

Multiple approaches have been advanced to determine the equity risk premium for a utility. For example, a risk premium can be developed ...

³³ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at 42.

³⁴ Federal Energy Regulatory Commission, Docket No. EL 11-66-001, et al., Order Directing Briefs, issued October 16, 2018, at 41-42.

1 indirectly by conducting a risk premium analysis for the market as a whole
2 and then adjusting that result to reflect the risk of the company at issue.
3 Another approach for the utility context is to “examin[e] the risk premiums
4 implied in the returns on equity allowed by regulatory commissions for
5 utilities over some past period relative to the contemporaneous level of the
6 long-term U.S. Treasury bond yield.”

7 **Q. Please describe how you calculated the expected return using the risk premiums**
8 **implied in the authorized returns on equity by regulatory commissions for utilities.**

9 A. It is important to recognize both academic literature and market evidence indicating that the
10 equity risk premium (as used in this approach) is inversely related to the level of interest
11 rates. That is, as interest rates increase (decrease), the equity risk premium decreases
12 (increases). Consequently, it is important to develop an analysis that: (1) reflects the
13 inverse relationship between interest rates and the equity risk premium; and (2) relies on
14 recent and expected market conditions. Such an analysis can be developed based on a
15 regression of the risk premium as a function of U.S. Treasury bond yields. If we let
16 authorized ROEs for electric utilities serve as the measure of required equity returns and
17 define the yield on the long-term U.S. Treasury bond as the relevant measure of interest
18 rates, the risk premium simply would be the difference between those two points.³⁵

19 **Q. Is the Risk Premium analysis based on authorized ROE relevant to investors?**

20 A. Yes. Investors are aware of ROE awards in other jurisdictions, and they consider those
21 awards as a benchmark for a reasonable level of equity returns for utilities of comparable

³⁵ See e.g., S. Keith Berry, *Interest Rate Risk and Utility Risk Premia during 1982-93*, Managerial and Decision Economics, Vol. 19, No. 2 (March, 1998), in which the author used a methodology similar to the regression approach described below, including using allowed ROEs as the relevant data source, and came to similar conclusions regarding the inverse relationship between risk premia and interest rates. See also Robert S. Harris, *Using Analysts' Growth Forecasts to Estimate Shareholders Required Rates of Return*, Financial Management, Spring 1986, at 66.

1 risk operating in other jurisdictions. Since my Bond Yield Plus Risk Premium analysis is
2 based on authorized ROEs for electric utilities relative to corresponding Treasury yields, it
3 provides relevant information to assess the return expectations of investors.

4 **Q. What did your Risk Premium analysis based on authorized ROE reveal?**

5 A. I performed two Risk Premium analyses, considering both state-jurisdictional and FERC-
6 authorized ROEs. As shown on Figure 7 below, in the analysis of state-jurisdictional
7 ROEs, there has been a strong negative relationship between risk premia and interest rates.
8 To estimate that relationship, I conducted a regression analysis using the following
9 equation:

$$RP = a + b(T) \text{ [4]}$$

11 Where:

12 RP = Risk Premium (difference between allowed ROEs and the yield on 30-year
13 U.S. Treasury bonds)

14 a = intercept term

15 b = slope term

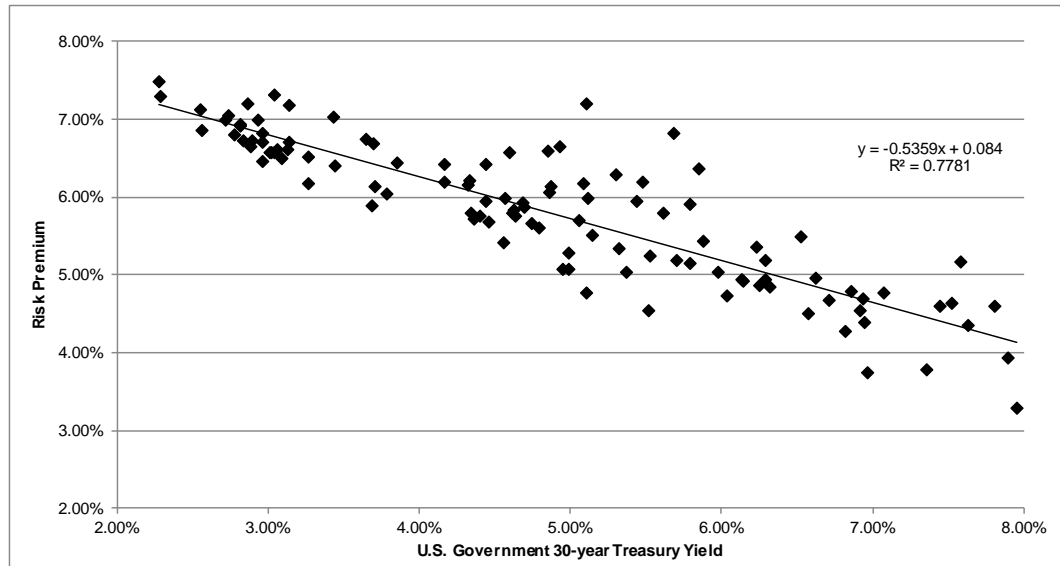
16 T = 30-year U.S. Treasury bond yield

17 Data regarding state-jurisdictional allowed ROEs were derived from 791 electric
18 utility rate cases from 1992 through September 2019 as reported by Regulatory Research
19 Associates (“RRA”).³⁶ Data for FERC authorized ROEs were derived from 95
20 Commission decisions from 2006 through 2018 compiled from Thomson Reuters Westlaw.

³⁶ This analysis eliminated limited issue rider cases, transmission-only cases, and cases that were silent with respect to the authorized ROE. After applying those screening criteria, the analysis was based on data for 611 cases.

For both analyses, the equations' coefficients were statistically significant at the 99.00 percent level.

Figure 7: State-Jurisdictional Risk Premium Results



As shown on Application Attachment 3, Schedule 6, the current yield on the 30-year U.S. Treasury bond yield (i.e., 2.53 percent), the risk premium would be 7.04 percent to 7.42 percent, resulting in an estimated ROE of 9.57 percent to 9.95 percent. Based on the near-term (2019-2020) projections of the 30-year U.S. Treasury bond yield (i.e., 2.40 percent), the risk premium would be 7.11 percent to 7.49 percent, resulting in an estimated ROE of 9.51 percent to 9.89 percent. Based on longer-term (2021-2025) projections of the 30-year U.S. Treasury bond yield (i.e., 3.60 percent), the risk premium would be 6.47 percent to 6.84 percent, resulting in an estimated ROE of 10.07 percent to 10.44 percent. The overall average estimated ROE is 9.91 percent.

1 **IV. SUMMARY AND CONCLUSIONS**

2 **Q. Would you please summarize the results of your cost of capital study?**

3 A. As shown in Figure 8, for an average risk utility, averaging the median results of the DCF,
4 CAPM, and Expected Earnings models, along with the risk premium results suggests an
5 ROE of 9.6 percent is reasonable. While I believe that the risk profile of Central Hudson
6 relative to the proxy group would support an ROE commensurate with an above average
7 risk utility, the Company's proposed base ROE of 9.6 percent is reasonable, if not
8 conservative. In addition to the base ROE, Central Hudson seeks a 50 basis point RTO
9 membership incentive because these facilities will be under the operational authority of the
10 NYISO, and a 50 basis point ROE incentive adder for its use of solid state power electronic
11 flow control technology in lieu of traditional series compensation originally proposed by
12 the NYISO. This new advanced transmission technology will meet the needs of the
13 Common System Deliverability Upgrade in a more flexible manner, providing options in
14 the future for enhanced system efficiency and improved transfer capability. Central
15 Hudson's requested ROE, inclusive of incentives, is 10.6 percent, which is within the range
16 of reasonableness.

Figure 8: Summary of Results

	Median
DCF Result	8.1%
CAPM Result	9.7%
Expected Earnings Result	10.8%
Risk Premium Result	9.9%
Average	9.6%

Q. Does this conclude your Prepared Direct Testimony in this proceeding?

A. Yes.

Summary of ROE Model Results

Model	Lower Bound	Lower Median	Median	Upper Median	Upper Bound
Discounted Cash Flow [1]	6.1%	7.2%	8.1%	8.9%	11.1%
Capital Asset Pricing Model [2]	7.9%	9.2%	9.7%	10.3%	11.4%
Expected Earnings [3]	6.0%	9.3%	10.8%	12.2%	14.6%
Risk Premium [4]			9.9%		
Average – ROE Estimate			9.6%		12.4%

Notes:

[1] See Schedule 3
[2] See Schedule 4
[3] See Schedule 5
[4] See Schedule 6

Proxy Group Comparison

		[1]	[2]	[3]	[4]
Company	Ticker	Electric Activities	Natural Gas Activities	States of Operation	Market Capitalization (\$ Millions)
ALLETE, Inc.	ALE	Distribution, Generation, Transmission	Distribution	IA, MN, ND, OR, PA, WI	4,346
Alliant Energy Corporation	LNT	Distribution, Generation, Transmission	Distribution	IA, MN, OK, WI	11,750
Ameren Corporation	AEE	Distribution, Generation, Transmission	Distribution	IA, IL, MO	18,656
American Electric Power Company, Inc.	AEP	Distribution, Generation, Transmission		AR, CA, CO, FL, HI, IN, KS, KY, LA, MI, MN, NM, NV, NY, OH, OK, PA, TN, TX, UT, VA, WV	43,684
Avangrid, Inc.	AGR	Distribution, Generation, Transmission	Distribution	AZ, CA, CO, CT, IA, IL, KS, MA, ME, MN, MO, NC, ND, NH, NM, NY, OH, OR, PA, SD, TX, VT, WA	15,616
Black Hills Corporation	BKH	Distribution, Generation, Transmission	Distribution	AR, CO, IA, KS, MT, NE, SD, WY	4,636
CenterPoint Energy, Inc.	CNP	Generation, Transmission	Distribution	AL, AR, GA, IL, IN, LA, MN, MO, MS, OH, OK, TN, TX, WI	14,696
CMS Energy Corporation	CMS	Distribution, Generation, Transmission	Distribution	MI, NC, OH, WI	16,581
Consolidated Edison, Inc.	ED	Distribution, Generation, Transmission	Distribution	AZ, CA, MA, MD, MN, MT, NE, NJ, NV, NY, PA, RI, SD, TX	28,969
Dominion Energy, Inc.	D	Distribution, Generation, Transmission	Distribution	CA, CO, CT, FL, GA, ID, IN, MD, MN, NC, NY, OH, OR, PA, SC, TN, UT, VA, WV, WY	61,595
DTE Energy Company	DTE	Distribution, Generation, Transmission	Distribution	AL, CA, IL, MI, MN, NC, NY, OH, TX, UT	23,458
Duke Energy Corporation	DUK	Distribution, Generation, Transmission	Distribution	AZ, CA, CO, FL, IN, KS, KY, MA, NC, NJ, NM, NY, OH, OK, PA, SC, TN, TX, VT, WI, WY	65,314
Entergy Corporation	ETR	Distribution, Generation, Transmission	Distribution	AR, LA, MI, MS, NY, TN, TX	19,955
Evergy Inc.	EVRG	Distribution, Generation, Transmission		CA, KS, MO, MS, OK	14,797
Eversource Energy	ES	Distribution, Generation, Transmission	Distribution	CT, MA, ME, NH	24,544
Exelon Corporation	EXC	Distribution, Generation, Transmission	Distribution	AL, AZ, CA, CO, CT, DC, DE, GA, ID, IL, KS, MA, MD, ME, MI, MN, MO, NJ, NM, NY, OH, OK, OR, PA, TX, UT	46,836
NextEra Energy, Inc.	NEE	Distribution, Generation, Transmission		AL, AZ, CA, CO, FL, GA, IA, IL, IN, KS, MA, ME, MI, MN, MO, MS, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, SD, TX, VA, VT, WA, WI	99,269
OGE Energy Corporation	OGE	Distribution, Generation, Transmission	Distribution	AL, AR, IL, LA, MO, MS, OK, TX	8,573
Pinnacle West Capital Corporation	PNW	Distribution, Generation, Transmission		AZ, NM	10,641
PNM Resources, Inc.	PNM	Distribution, Generation, Transmission		AZ, NM	3,910
Portland General Electric Company	POR	Distribution, Generation, Transmission		MT, OR, WA	4,852
PPL Corporation	PPL	Distribution, Generation, Transmission	Distribution	IL, IN, KY, OH, PA, TN, VA	22,081
Public Service Enterprise Group Inc.	PEG	Distribution, Generation, Transmission	Distribution	AZ, CA, CO, CT, DE, FL, HI, MD, NC, NJ, NY, OH, OR, PA, TX, UT, VT	30,152
Sempra Energy	SRE	Distribution, Generation, Transmission	Distribution	AL, CA, HI, NV	37,212
Southern Company	SO	Distribution, Generation, Transmission	Distribution	AL, CA, FL, GA, IL, LA, MD, ME, MN, MS, NC, NJ, NM, NV, OK, SC, TN, TX, VA	58,403
Wisconsin Energy Corporation	WEC	Distribution, Generation, Transmission	Distribution	AZ, CA, IA, IL, MA, MI, MN, NE, NJ, WI	26,869
Xcel Energy Inc.	XEL	Distribution, Generation, Transmission	Distribution	CO, MI, MN, ND, NM, SD, TX, WI, WY	30,842
Central Hudson Hurley Avenue Project		Transmission		NY	

Notes:

[1] Source: S&P Market Intelligence

[2] Source: S&P Market Intelligence

[3] Source: S&P Market Intelligence

[4] Bloomberg Professional

Central Hudson Proxy Group

DCF Approach

		[1]	[2]	[3]	[4]	[5]	[6]	
		Analysts						
		Expected Dividend	Projected EPS	GDP	Weighted	Investor		
		Yield Times	Growth Rate	Growth	Average	Required		
Company	Ticker	Credit Rating	Dividend Yield	(1 + 0.50g)	(g)	Rate	Growth Rate	Return
ALLETE, Inc.	ALE	BBB+	2.80%	2.88%	6.00%	4.23%	5.41%	8.29%
Alliant Energy Corporation	LNT	A-	2.89%	2.96%	5.05%	4.23%	4.78%	7.73%
Ameren Corporation	AEE	BBB+	2.54%	2.60%	4.70%	4.23%	4.54%	7.14%
American Electric Power Company, Inc.	AEP	A-	3.04%	3.12%	6.10%	4.23%	5.48%	8.60%
Avangrid, Inc.	AGR	BBB+	3.49%	3.59%	6.40%	4.23%	5.68%	9.27%
Black Hills Corporation	BKH	BBB+	2.65%	2.70%	2.96%	4.23%	3.38%	6.08%
CenterPoint Energy, Inc.	CNP	BBB+	3.93%	4.02%	5.11%	4.23%	4.82%	8.84%
CMS Energy Corporation	CMS	BBB+	2.63%	2.72%	7.14%	4.23%	6.17%	8.89%
Consolidated Edison, Inc.	ED	A-	3.39%	3.45%	3.45%	4.23%	3.71%	7.16%
Dominion Resources, Inc.	D	BBB+	4.80%	4.91%	4.59%	4.23%	4.47%	9.38%
DTE Energy Company	DTE	BBB+	2.96%	3.03%	4.45%	4.23%	4.38%	7.40%
Duke Energy Corporation	DUK	A-	4.18%	4.27%	4.06%	4.23%	4.12%	8.39%
Entergy Corporation	ETR	BBB+	3.54%		Negative	4.23%		
Eversource Energy	ES	A-	3.13%	3.23%	6.80%	4.23%	5.94%	9.17%
Exelon Corporation	EXC	BBB+	2.82%	2.89%	5.63%	4.23%	5.16%	8.06%
NextEra Energy, Inc.	NEE	A-	3.01%		Negative	4.23%		
OGE Energy Corporation	OGE	BBB+	2.43%	2.51%	7.99%	4.23%	6.74%	9.25%
Pinnacle West Capital Corporation	PNW	A-	3.45%	3.51%	3.40%	4.23%	3.68%	7.19%
PNM Resources, Inc.	PNM	BBB+	3.12%	3.19%	5.05%	4.23%	4.78%	7.97%
Portland General Electric Company	POR	BBB+	2.38%	2.45%	6.18%	4.23%	5.53%	7.98%
PPL Corporation	PPL	A-	2.85%	2.91%	4.80%	4.23%	4.61%	7.52%
Public Service Enterprise Group Inc.	PPL	A-	5.42%	5.47%	0.59%	4.23%	1.80%	7.27%
Sempra Energy	PEG	BBB+	3.16%	3.22%	3.65%	4.23%	3.84%	7.07%
Southern Company	SRE	BBB+	2.86%	2.98%	10.10%	4.23%	8.14%	11.12%
Wisconsin Energy Corporation	SO	A-	4.47%	4.52%	1.37%	4.23%	2.32%	6.85%
Xcel Energy Inc.	WEC	A-	2.79%	2.87%	6.12%	4.23%	5.49%	8.36%
	XEL	A-	2.72%	2.79%	5.80%	4.23%	5.28%	8.07%
Average								8.12%
Lower threshold [7]								5.14%
Upper threshold [8]								12.09%
Zone of Reasonableness Low								6.08%
Median of Lower Half								7.23%
Median								8.06%
Median of Upper Half								8.86%
Zone of Reasonableness High								11.12%

Notes:

[1] See Schedule 3 pg. 2

[2] Equals [1]*(1+[5]*0.5)

[3] Source: Yahoo! Finance

[4] See Schedule 3 pg. 8

[5] Equals [3]*2/3 + [4]*1/3

[6] Equals [2] + [5]

[7] 6-Mo.Average of Baa Utility Index +1%

[8] Equals Median of [6] * 1.5

Central Hudson Proxy Group

Dividend Yield Calculations

ALLETE, Inc.

ALE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	83.59	88.60	86.09	2.35	2.73%
Aug-19	83.28	88.38	85.83	2.35	2.74%
Jul-19	82.38	88.58	85.48	2.35	2.75%
Jun-19	80.70	86.52	83.61	2.35	2.81%
May-19	78.98	83.35	81.17	2.35	2.90%
Apr-19	78.86	83.43	81.14	2.35	2.90%
Average					2.80%

Alliant Energy Corporation

LNT

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	50.36	54.59	52.48	1.42	2.71%
Aug-19	48.77	53.00	50.88	1.42	2.79%
Jul-19	48.48	50.95	49.72	1.42	2.86%
Jun-19	46.84	50.17	48.50	1.42	2.93%
May-19	46.01	49.08	47.55	1.42	2.99%
Apr-19	45.72	47.41	46.56	1.42	3.05%
Average					2.89%

Ameren Corporation

AEE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	73.31	80.85	77.08	1.90	2.47%
Aug-19	73.67	77.52	75.60	1.90	2.51%
Jul-19	74.23	77.28	75.76	1.90	2.51%
Jun-19	72.95	77.77	75.36	1.90	2.52%
May-19	71.24	76.14	73.69	1.90	2.58%
Apr-19	70.27	73.77	72.02	1.90	2.64%
Average					2.54%

American Electric Power Company, Inc.

AEP

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	90.08	94.89	92.49	2.68	2.90%
Aug-19	87.04	91.50	89.27	2.68	3.00%
Jul-19	87.08	91.82	89.45	2.68	3.00%
Jun-19	85.26	91.99	88.63	2.68	3.02%
May-19	82.56	89.01	85.79	2.68	3.12%
Apr-19	82.15	85.77	83.96	2.68	3.19%
Average					3.04%

Avangrid, Inc.

AGR

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	49.05	52.48	50.77	1.76	3.47%
Aug-19	48.32	51.39	49.85	1.76	3.53%
Jul-19	47.50	51.49	49.50	1.76	3.56%
Jun-19	50.12	52.32	51.22	1.76	3.44%

Central Hudson Proxy Group

Dividend Yield Calculations

May-19	48.85	51.29	50.07	1.76	3.52%
Apr-19	49.56	52.86	51.21	1.76	3.44%
Average					3.49%

Black Hills Corporation

BKH

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	74.06	78.87	76.47	2.02	2.64%
Aug-19	70.15	80.61	75.38	2.02	2.68%
Jul-19	77.14	81.26	79.20	2.02	2.55%
Jun-19	75.63	82.01	78.82	2.02	2.56%
May-19	71.31	78.52	74.92	2.02	2.70%
Apr-19	70.45	74.14	72.30	2.02	2.79%
Average					2.65%

CenterPoint Energy, Inc.

CNP

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	27.62	30.71	29.17	1.15	3.94%
Aug-19	27.16	29.48	28.32	1.15	4.06%
Jul-19	28.26	29.72	28.99	1.15	3.97%
Jun-19	28.15	30.24	29.20	1.15	3.94%
May-19	28.20	31.17	29.68	1.15	3.87%
Apr-19	29.96	31.04	30.50	1.15	3.77%
Average					3.93%

CMS Energy Corporation

CMS

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	60.10	65.31	62.71	1.53	2.44%
Aug-19	57.43	63.31	60.37	1.53	2.53%
Jul-19	57.06	59.54	58.30	1.53	2.62%
Jun-19	55.37	59.34	57.36	1.53	2.67%
May-19	54.07	57.71	55.89	1.53	2.74%
Apr-19	53.55	55.60	54.58	1.53	2.80%
Average					2.63%

Consolidated Edison, Inc.

ED

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	88.58	94.97	91.78	2.96	3.23%
Aug-19	84.45	89.11	86.78	2.96	3.41%
Jul-19	84.42	89.77	87.10	2.96	3.40%
Jun-19	85.55	90.51	88.03	2.96	3.36%
May-19	83.61	88.92	86.27	2.96	3.43%
Apr-19	83.32	86.23	84.78	2.96	3.49%
Average					3.39%

Dominion Resources, Inc.

D

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
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Central Hudson Proxy Group

Dividend Yield Calculations

Sep-19	76.05	81.43	78.74	3.67	4.66%
Aug-19	73.76	78.09	75.92	3.67	4.83%
Jul-19	73.46	78.72	76.09	3.67	4.82%
Jun-19	73.54	79.47	76.51	3.67	4.80%
May-19	72.61	78.31	75.46	3.67	4.86%
Apr-19	74.41	77.91	76.16	3.67	4.82%
Average					4.80%

DTE Energy Company

DTE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	127.16	134.37	130.76	3.78	2.89%
Aug-19	124.93	131.73	128.33	3.78	2.95%
Jul-19	126.18	132.09	129.14	3.78	2.93%
Jun-19	123.91	131.87	127.89	3.78	2.96%
May-19	122.55	129.99	126.27	3.78	2.99%
Apr-19	122.05	125.76	123.91	3.78	3.05%
Average					2.96%

Duke Energy Corporation

DUK

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	92.33	96.80	94.57	3.78	4.00%
Aug-19	86.31	93.35	89.83	3.78	4.21%
Jul-19	86.17	90.60	88.39	3.78	4.28%
Jun-19	84.28	90.68	87.48	3.71	4.24%
May-19	84.46	91.06	87.76	3.71	4.23%
Apr-19	87.93	91.33	89.63	3.71	4.14%
Average					4.18%

Entergy Corporation

ETR

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	111.10	118.34	114.72	3.64	3.17%
Aug-19	103.92	113.46	108.69	3.64	3.35%
Jul-19	101.13	107.35	104.24	3.64	3.49%
Jun-19	95.42	104.48	99.95	3.64	3.64%
May-19	93.91	99.84	96.88	3.64	3.76%
Apr-19	92.73	96.94	94.84	3.64	3.84%
Average					3.54%

Evergy Inc.

EVRG

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	63.35	67.81	65.58	1.90	2.90%
Aug-19	59.60	66.00	62.80	1.90	3.03%
Jul-19	59.54	62.12	60.83	1.90	3.12%
Jun-19	57.91	61.54	59.73	1.90	3.18%
May-19	56.65	59.85	58.25	1.90	3.26%
Apr-19	56.33	58.20	57.27	1.90	3.32%
Average					3.13%

Central Hudson Proxy Group

Dividend Yield Calculations

Eversource Energy

ES

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	79.87	85.93	82.90	2.14	2.58%
Aug-19	75.48	81.15	78.32	2.14	2.73%
Jul-19	74.77	78.53	76.65	2.14	2.79%
Jun-19	72.86	77.87	75.36	2.14	2.84%
May-19	70.06	75.43	72.75	2.14	2.94%
Apr-19	69.09	71.78	70.44	2.14	3.04%
Average					2.82%

Exelon Corporation

EXC

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	46.64	49.32	47.98	1.45	3.02%
Aug-19	43.69	47.47	45.58	1.45	3.18%
Jul-19	44.90	49.80	47.35	1.45	3.06%
Jun-19	47.38	51.18	49.28	1.45	2.94%
May-19	47.68	50.82	49.25	1.45	2.94%
Apr-19	48.79	51.03	49.91	1.45	2.91%
Average					3.01%

NextEra Energy, Inc.

NEE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	216.37	233.45	224.91	5.00	2.22%
Aug-19	206.48	225.57	216.03	5.00	2.31%
Jul-19	201.06	212.50	206.78	5.00	2.42%
Jun-19	196.37	208.91	202.64	5.00	2.47%
May-19	187.30	204.73	196.01	5.00	2.55%
Apr-19	187.43	194.65	191.04	5.00	2.62%
Average					2.43%

OGE Energy Corporation

OGE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	42.41	45.77	44.09	1.55	3.52%
Aug-19	41.39	43.53	42.46	1.46	3.44%
Jul-19	42.11	43.92	43.01	1.46	3.39%
Jun-19	41.53	44.41	42.97	1.46	3.40%
May-19	40.42	43.36	41.89	1.46	3.49%
Apr-19	40.90	43.25	42.08	1.46	3.47%
Average					3.45%

Pinnacle West Capital Corporation

PNW

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	91.18	98.58	94.88	2.95	3.11%
Aug-19	90.48	95.79	93.13	2.95	3.17%
Jul-19	90.53	96.45	93.49	2.95	3.16%
Jun-19	93.35	99.81	96.58	2.95	3.05%

Central Hudson Proxy Group

Dividend Yield Calculations

May-19	91.95	97.92	94.93	2.95	3.11%
Apr-19	93.14	96.33	94.74	2.95	3.11%
Average					3.12%

PNM Resources, Inc.

PNM

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	48.71	52.95	50.83	1.16	2.28%
Aug-19	47.59	51.47	49.53	1.16	2.34%
Jul-19	48.89	51.44	50.17	1.16	2.31%
Jun-19	47.09	52.10	49.59	1.16	2.34%
May-19	45.57	48.35	46.96	1.16	2.47%
Apr-19	44.28	47.42	45.85	1.16	2.53%
Average					2.38%

Portland General Electric Company

POR

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	54.78	58.43	56.61	1.54	2.72%
Aug-19	53.47	57.27	55.37	1.54	2.78%
Jul-19	53.38	55.95	54.67	1.54	2.82%
Jun-19	52.72	55.98	54.35	1.54	2.83%
May-19	51.66	53.93	52.80	1.54	2.92%
Apr-19	49.79	52.55	51.17	1.54	3.01%
Average					2.85%

PPL Corporation

PPL

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	29.20	31.90	30.55	1.65	5.40%
Aug-19	28.55	29.99	29.27	1.65	5.64%
Jul-19	29.43	31.25	30.34	1.65	5.44%
Jun-19	29.72	31.80	30.76	1.65	5.36%
May-19	29.61	31.45	30.53	1.65	5.40%
Apr-19	30.47	32.21	31.34	1.65	5.26%
Average					5.42%

Public Service Enterprise Group Inc.

PEG

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	60.00	62.60	61.30	1.88	3.07%
Aug-19	55.27	60.87	58.07	1.88	3.24%
Jul-19	56.81	61.35	59.08	1.88	3.18%
Jun-19	58.22	61.50	59.86	1.88	3.14%
May-19	57.50	61.63	59.57	1.88	3.16%
Apr-19	57.70	60.36	59.03	1.88	3.18%
Average					3.16%

Sempra Energy

SRE

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
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Central Hudson Proxy Group

Dividend Yield Calculations

Sep-19	139.03	148.14	143.59	3.87	2.70%
Aug-19	131.32	142.91	137.12	3.87	2.82%
Jul-19	134.56	141.29	137.93	3.87	2.81%
Jun-19	130.52	141.86	136.19	3.87	2.84%
May-19	124.67	136.37	130.52	3.87	2.97%
Apr-19	124.91	130.00	127.45	3.87	3.04%
Average					2.86%

Southern Company

SO

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	58.24	62.36	60.30	2.48	4.11%
Aug-19	55.38	58.84	57.11	2.48	4.34%
Jul-19	54.44	57.08	55.76	2.48	4.45%
Jun-19	53.15	56.54	54.84	2.48	4.52%
May-19	52.16	54.77	53.46	2.48	4.64%
Apr-19	50.89	53.29	52.09	2.48	4.76%
Average					4.47%

Wisconsin Energy Corporation

WEC

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	89.02	98.19	93.61	2.36	2.52%
Aug-19	85.16	96.46	90.81	2.36	2.60%
Jul-19	82.18	87.93	85.06	2.36	2.77%
Jun-19	79.46	85.70	82.58	2.36	2.86%
May-19	76.61	83.01	79.81	2.36	2.96%
Apr-19	75.88	79.03	77.45	2.36	3.05%
Average					2.79%

Xcel Energy Inc.

XEL

Month	Low Price	High Price	Average Price	Indicated Annualized Dividend	Dividend Yield
Sep-19	62.19	66.05	64.12	1.62	2.53%
Aug-19	58.74	64.91	61.83	1.62	2.62%
Jul-19	58.80	62.03	60.42	1.62	2.68%
Jun-19	56.37	61.97	59.17	1.62	2.74%
May-19	55.26	59.62	57.44	1.62	2.82%
Apr-19	54.46	56.71	55.59	1.62	2.91%
Average					2.72%

**Long-Term
U.S. Gross Domestic Product (GDP)
Growth Forecasts**

	[A]	[B]	[C]
Source	Beginning Year	Ending Year	Annual GDP Growth
BCFF [1]	2021	2030	4.14%
EIA [2]	2023	2050	4.20%
SSA [3]	2023	2075	4.35%
Average			4.23%

Notes:

[1] Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14.
Nominal GDP=(Real GDP)*(GDP Chained Price Index)

[2] Energy Information Administration Annual Energy Outlook 2019 with projections to 2050
February 2019), Table A20. Macroeconomic Indicators. Nominal GDP=(Real GDP)*(GDP Chain
Type Price Index). http://www.eia.gov/forecasts/aeo/tables_ref.cfm.

[3] Social Security Administration: The 2019 OASDI Trustees Report, Table VI.G4.—OASDI and HI
Annual and Summarized Income, Cost, and Balance as a Percentage of GDP, Calendar Years 2018-95
https://www.ssa.gov/oact/tr/2019/VI_G2_OASDHI_GDP.html

Central Hudson Proxy Group

Capital Asset Pricing Model

$$K = R_f + \beta (R_m - R_f)$$

		[1]	[2]	[3]
Risk Free Rate		2.53%	2.40%	3.60%
Market Return [4]		13.83%	13.83%	13.83%
Risk Premium [5]		11.30%	11.43%	10.23%

Company	Ticker	Value Line Beta	Bloomberg Beta	Average Beta	Current Yield	Near-term projected 30-year U.S. Treasury bond yield (Q4 2019 - Q4 2020)		Projected 30-year U.S. Treasury bond yield (2021 - 2025)
ALLETE, Inc.	ALE	0.65	0.70	0.68	10.17%	10.13%		10.52%
Alliant Energy Corporation	LNT	0.60	0.69	0.65	9.84%	9.80%		10.22%
Ameren Corporation	AEE	0.55	0.65	0.60	9.32%	9.27%		9.75%
American Electric Power Company, Inc.	AEP	0.55	0.63	0.59	9.20%	9.15%		9.64%
Avangrid, Inc.	AGR	0.40	0.50	0.45	7.64%	7.57%		8.22%
Black Hills Corporation	BKH	0.75	0.75	0.75	11.03%	11.00%		11.30%
CenterPoint Energy, Inc.	CNP	0.80	0.73	0.76	11.17%	11.14%		11.42%
CMS Energy Corporation	CMS	0.55	0.65	0.60	9.31%	9.26%		9.74%
Consolidated Edison, Inc.	ED	0.45	0.53	0.49	8.08%	8.01%		8.62%
Dominion Resources, Inc.	D	0.55	0.60	0.58	9.05%	8.99%		9.50%
DTE Energy Company	DTE	0.55	0.66	0.61	9.40%	9.34%		9.81%
Duke Energy Corporation	DUK	0.50	0.53	0.52	8.37%	8.31%		8.89%
Entergy Corporation	ETR	0.60	0.65	0.62	9.58%	9.53%		9.98%
Eversource Energy	ES	0.60	0.66	0.63	9.68%	9.63%		10.07%
Exelon Corporation	EXC	0.70	0.64	0.67	9.64%	9.59%		10.04%
NextEra Energy, Inc.	NEE	0.55	0.64	0.60	10.11%	10.07%		10.47%
OGE Energy Corporation	OGE	0.80	0.74	0.77	10.07%	10.07%		11.03%
Pinnacle West Capital Corporation	PNW	0.55	0.66	0.61	10.73%	10.70%		8.87%
PNM Resources, Inc.	PNM	0.60	0.75	0.68	8.36%	8.29%		9.13%
Portland General Electric Company	POR	0.60	0.68	0.64	8.63%	8.57%		9.12%
PPL Corporation	PPL	0.65	0.63	0.64	8.63%	8.57%		9.12%
Public Service Enterprise Group Inc.	PEG	0.65	0.69	0.67	5.14%	5.14%		5.14%
Sempra Energy	SRE	0.75	0.70	0.73	14.37%	14.29%		14.97%
Southern Company	SO	0.50	0.53	0.52				
Wisconsin Energy Corporation	WEC	0.50	0.58	0.54				
Xcel Energy Inc.	XEL	0.50	0.58	0.54				
Lower threshold [6]					5.14%	5.14%		5.14%
Upper threshold [7]					14.37%	14.29%		14.97%
Zone of Reasonableness Low					7.64%	7.57%		8.22%
Median of Lower Half					9.05%	8.99%		9.50%
Median					9.58%	9.53%		9.98%
Median of Upper Half					10.11%	10.07%		10.47%
Zone of Reasonableness High					11.25%	11.21%		11.49%

Notes:

[1] Source: Bloomberg Professional

[2] Source: Blue Chip Financial Forecasts, Vol. 38, No. 9, September 1, 2019, at 2

[3] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[4] Source: Bloomberg Professional

[5] Equals [4] - Risk Free Rate

[6] 6-Mo.Average of Baa Utility Index +1%

[7] Equals Median of [6] * 1.5

Central Hudson Proxy Group

Expected Earnings Analysis

		[1]	[2]	[3]
				Adjusted
Company	Ticker	Value Line 2022-2024	Adjustment Factor	Return on Common Equity
ALLETE, Inc.	ALE	9.50%	1.02	9.65%
Alliant Energy Corporation	LNT	10.00%	1.02	10.23%
Ameren Corporation	AEE	10.50%	1.03	10.85%
American Electric Power Company, Inc.	AEP	10.50%	1.03	10.77%
Avangrid, Inc.	AGR	6.00%	1.01	6.05%
Black Hills Corporation	BKH	9.50%	1.03	9.75%
CenterPoint Energy, Inc.	CNP	10.00%	1.06	10.65%
CMS Energy Corporation	CMS	14.00%	1.04	14.60%
Consolidated Edison, Inc.	ED	8.50%	1.02	8.67%
Dominion Resources, Inc.	D	13.00%	1.05	13.70%
DTE Energy Company	DTE	10.50%	1.04	10.88%
Duke Energy Corporation	DUK	8.50%	1.02	8.64%
Entergy Corporation	ETR	11.00%	1.03	11.36%
Evergy Inc.	EVRG	8.50%	0.99	8.39%
Eversource Energy	ES	9.00%	1.03	9.31%
Exelon Corporation	EXC	9.00%	1.03	9.24%
NextEra Energy, Inc.	NEE	13.50%	1.03	13.89%
OGE Energy Corporation	OGE	11.50%	1.02	11.69%
Pinnacle West Capital Corporation	PNW	10.50%	1.02	10.72%
PNM Resources, Inc.	PNM	10.00%	1.03	10.29%
Portland General Electric Company	POR	9.00%	1.02	9.15%
PPL Corporation	PPL	13.00%	1.04	13.47%
Public Service Enterprise Group Inc.	PEG	11.00%	1.02	11.26%
Sempra Energy	SRE	12.00%	1.05	12.60%
Southern Company	SO	12.50%	1.03	12.86%
Wisconsin Energy Corporation	WEC	12.00%	1.02	12.21%
Xcel Energy Inc.	XEL	11.00%	1.02	11.26%
Lower threshold [4]				5.14%
Upper threshold [5]				16.16%
Zone of Reasonableness Low				6.05%
Median of Lower Half				9.31%
Median				10.77%
Median of Upper Half				12.21%
Zone of Reasonableness High				14.60%

Notes:

[1] Source: Value Line

[2] Equals $2 \times (1 + 5\text{-Yr. Change in Equity}) / (2 + 5 \text{ Yr. Change in Equity})$

[3] Equals [1] + [2]

[4] 6-Mo.Average of Baa Utility Index +1%

[5] Median of Column [3] * 1.5

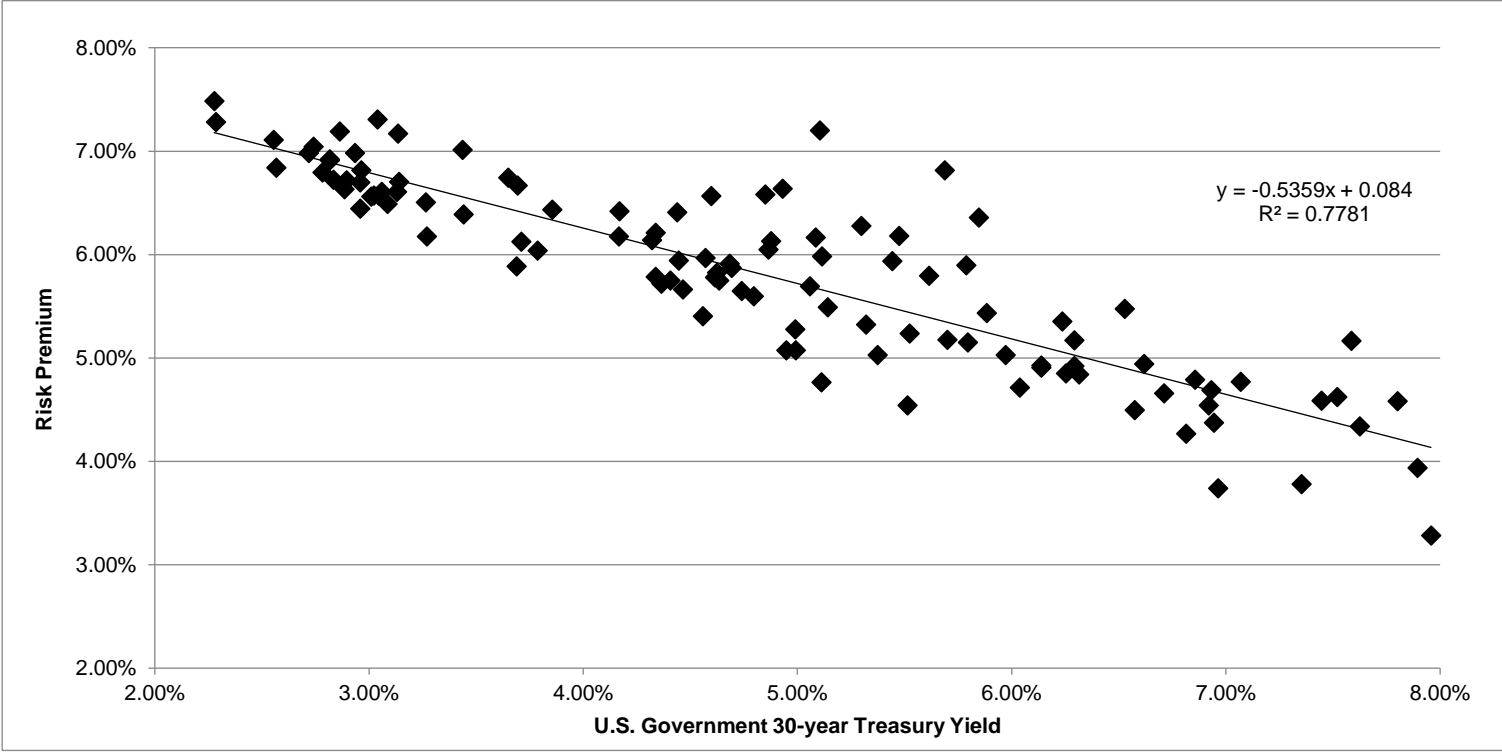
Risk Premium - State Jurisdictional Electric Utilities

	[1]	[2]	[3]	[4]
	Average			
	Authorized	U.S. Govt.		
	Electric	30-year	Risk	Number of
Quarter	ROE	Treasury	Premium	Cases
1992.1	12.38%	7.80%	4.58%	10
1992.2	11.83%	7.89%	3.93%	12
1992.3	12.03%	7.45%	4.59%	8
1992.4	12.14%	7.52%	4.62%	15
1993.1	11.84%	7.07%	4.77%	7
1993.2	11.64%	6.86%	4.79%	9
1993.3	11.15%	6.31%	4.84%	6
1993.4	11.04%	6.14%	4.90%	6
1994.1	11.07%	6.57%	4.49%	10
1994.2	11.13%	7.35%	3.78%	5
1994.3	12.75%	7.58%	5.17%	1
1994.4	11.24%	7.96%	3.28%	12
1995.1	11.96%	7.63%	4.34%	8
1995.2	11.32%	6.94%	4.37%	8
1995.3	11.37%	6.71%	4.66%	5
1995.4	11.58%	6.23%	5.35%	7
1996.1	11.46%	6.29%	5.17%	2
1996.2	11.46%	6.92%	4.54%	9
1996.3	10.70%	6.96%	3.74%	2
1996.4	11.56%	6.62%	4.94%	5
1997.1	11.08%	6.81%	4.27%	4
1997.2	11.62%	6.93%	4.68%	3
1997.3	12.00%	6.53%	5.47%	1
1997.4	11.06%	6.14%	4.92%	2
1998.1	11.31%	5.88%	5.43%	4
1998.2	12.20%	5.85%	6.35%	1
1998.3	11.65%	5.47%	6.18%	2
1998.4	12.30%	5.10%	7.20%	3
1999.1	10.40%	5.37%	5.03%	2
1999.2	10.94%	5.79%	5.15%	1
1999.3	10.75%	6.04%	4.71%	2
1999.4	11.10%	6.25%	4.85%	1
2000.1	11.21%	6.29%	4.92%	4
2000.2	11.00%	5.97%	5.03%	1
2000.3	11.68%	5.79%	5.89%	2
2000.4	12.50%	5.69%	6.81%	2
2001.1	11.38%	5.44%	5.93%	2
2001.2	10.88%	5.70%	5.18%	2
2001.3	10.76%	5.52%	5.23%	7
2001.4	11.57%	5.30%	6.27%	4
2002.1	10.05%	5.51%	4.54%	2
2002.2	11.41%	5.61%	5.79%	6
2002.3	11.25%	5.08%	6.17%	3
2002.4	11.57%	4.93%	6.64%	3
2003.1	11.43%	4.85%	6.58%	6
2003.2	11.16%	4.60%	6.56%	4
2003.3	9.88%	5.11%	4.76%	4
2003.4	11.09%	5.11%	5.98%	6
2004.1	11.00%	4.88%	6.12%	3
2004.2	10.64%	5.32%	5.32%	7
2004.3	10.75%	5.06%	5.69%	3
2004.4	10.91%	4.86%	6.04%	8
2005.1	10.56%	4.69%	5.87%	5
2005.2	10.13%	4.47%	5.66%	6
2005.3	10.85%	4.44%	6.41%	4
2005.4	10.59%	4.68%	5.91%	9
2006.1	10.38%	4.63%	5.75%	3
2006.2	10.63%	5.14%	5.49%	5
2006.3	10.06%	4.99%	5.07%	7
2006.4	10.39%	4.74%	5.65%	10
2007.1	10.39%	4.80%	5.59%	9
2007.2	10.27%	4.99%	5.28%	11
2007.3	10.02%	4.95%	5.07%	4
2007.4	10.39%	4.61%	5.78%	13
2008.1	10.15%	4.41%	5.75%	8
2008.2	10.54%	4.57%	5.97%	8
2008.3	10.38%	4.44%	5.94%	11
2008.4	10.39%	3.65%	6.74%	8
2009.1	10.45%	3.44%	7.01%	9
2009.2	10.58%	4.17%	6.42%	9
2009.3	10.46%	4.32%	6.14%	3
2009.4	10.54%	4.34%	6.21%	17
2010.1	10.45%	4.62%	5.82%	15
2010.2	10.08%	4.36%	5.71%	14
2010.3	10.29%	3.86%	6.43%	12
2010.4	10.34%	4.17%	6.17%	17
2011.1	9.96%	4.56%	5.40%	11
2011.2	10.12%	4.34%	5.78%	10
2011.3	10.36%	3.69%	6.67%	8
2011.4	10.34%	3.04%	7.31%	11
2012.1	10.30%	3.14%	7.17%	7
2012.2	9.92%	2.93%	6.98%	13
2012.3	9.78%	2.74%	7.04%	8

Risk Premium - State Jurisdictional Electric Utilities

	[1]	[2]	[3]	[4]
	Average			
	Authorized	U.S. Govt.		
Quarter	Electric	30-year	Risk	Number of
	ROE	Treasury	Premium	Cases
2012.4	10.05%	2.86%	7.19%	24
2013.1	9.74%	3.13%	6.61%	10
2013.2	9.84%	3.14%	6.70%	7
2013.3	9.83%	3.71%	6.12%	6
2013.4	9.82%	3.79%	6.04%	19
2014.1	9.57%	3.69%	5.88%	5
2014.2	9.83%	3.44%	6.39%	5
2014.3	9.77%	3.26%	6.50%	10
2014.4	9.78%	2.96%	6.81%	13
2015.1	9.66%	2.55%	7.11%	5
2015.2	9.51%	2.88%	6.63%	6
2015.3	9.40%	2.96%	6.44%	2
2015.4	9.65%	2.96%	6.69%	11
2016.1	9.70%	2.72%	6.98%	3
2016.2	9.41%	2.57%	6.84%	5
2016.3	9.76%	2.28%	7.48%	8
2016.4	9.55%	2.83%	6.72%	16
2017.1	9.61%	3.04%	6.57%	10
2017.2	9.61%	2.90%	6.71%	10
2017.3	9.73%	2.82%	6.91%	4
2017.4	9.74%	2.82%	6.92%	19
2018.1	9.59%	3.02%	6.57%	7
2018.2	9.57%	3.09%	6.49%	12
2018.3	9.66%	3.06%	6.60%	9
2018.4	9.44%	3.27%	6.17%	10
2019.1	9.57%	3.01%	6.56%	6
2019.2	9.58%	2.78%	6.79%	8
2019.3	9.57%	2.29%	7.28%	4
AVERAGE	10.64%	4.82%	5.81%	791
MEDIAN	10.54%	4.80%	5.91%	

Risk Premium - State Jurisdictional Electric Utilities



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.88210
R Square	0.77809
Adjusted R Square	0.77606
Standard Error	0.00437
Observations	111

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.0073	0.0073	382.1947	0.0000
Residual	109	0.0021	0.0000		
Total	110	0.0094			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.0840	0.00139	60.61737	0.00000	0.08125	0.08674	0.08125	0.08674
U.S. Govt. 30-year Treasury	-0.5359	0.02741	-19.54980	0.00000	-0.59027	-0.48160	-0.59027	-0.48160

	[8]	[9]	[10]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current Yield (6-Month Average) [5]	2.53%	7.04%	9.57%
Blue Chip Consensus Forecast (Q4 2019 - Q4 2020) [6]	2.40%	7.11%	9.51%
Blue Chip Consensus Forecast (2021-2025) [7]	3.60%	6.47%	10.07%
AVERAGE			9.72%

Notes:

[1] Source: Regulatory Research Associates, accessed June 5, 2019

[2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the quarter

[3] Equals Column [1] – Column [2]

[4] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 2

[5] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[6] See notes [4] & [5]

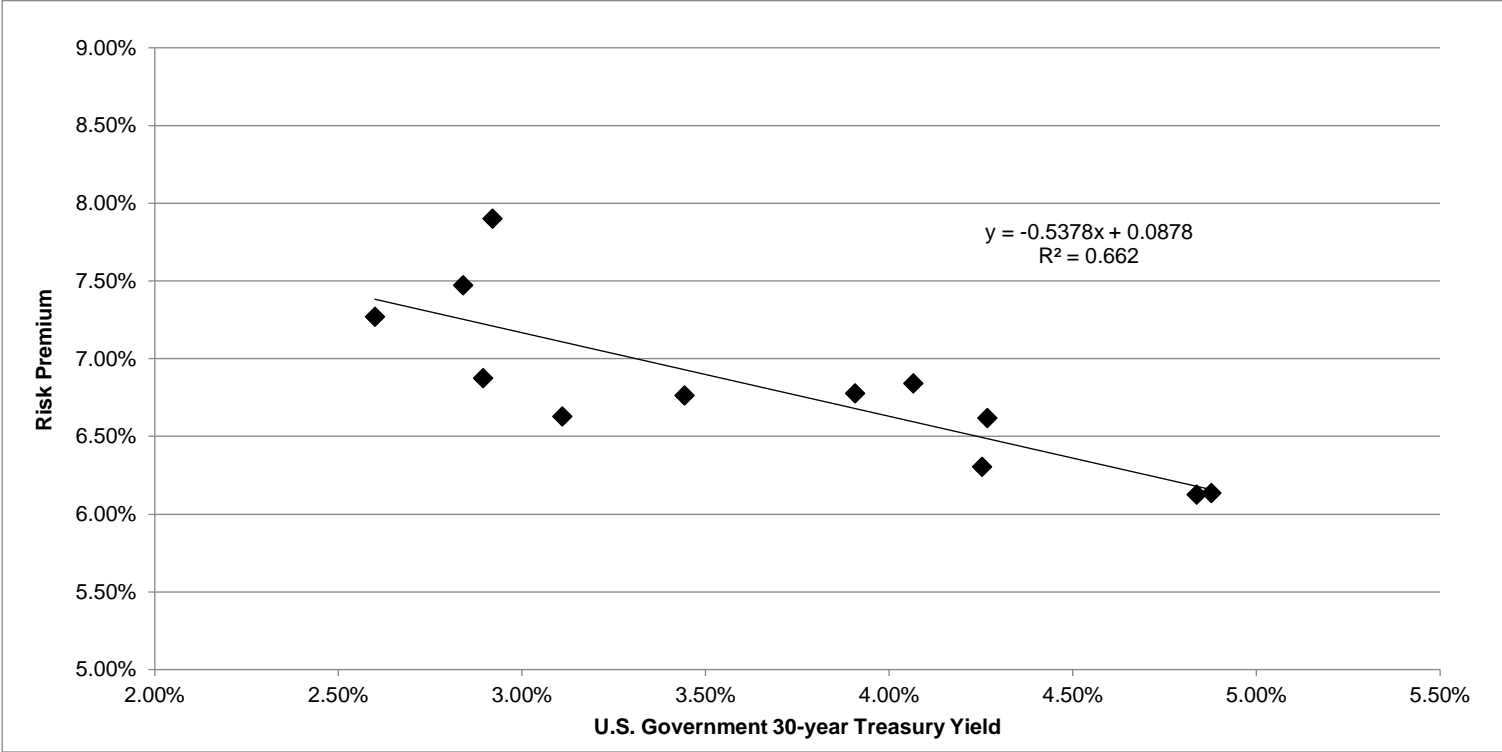
[7] Equals 0.083992 + (-0.535935 x Column [6])

[8] Equals Column [6] + Column [7]

Risk Premium - FERC Electric Transmission

	[1]	[2]	[3]
	Average Authorized Electric ROE	U.S. Govt. 30-year Treasury	Risk Premium
2006	11.01%	4.88%	6.13%
2007	10.96%	4.84%	6.13%
2008	10.88%	4.27%	6.62%
2009	10.91%	4.07%	6.84%
2010	10.56%	4.25%	6.30%
2011	10.68%	3.91%	6.78%
2012	10.82%	2.92%	7.90%
2013	10.20%	3.44%	6.76%
2015	10.31%	2.84%	7.47%
2016	9.87%	2.60%	7.27%
2017	9.77%	2.89%	6.87%
2018	9.74%	3.11%	6.63%
AVERAGE	10.48%	3.67%	6.81%
MEDIAN	10.62%	3.67%	6.77%

Risk Premium - FERC Electric Transmission



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.81366
R Square	0.66204
Adjusted R Square	0.62824
Standard Error	0.00324
Observations	12

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.0002	0.0002	19.5891	0.0013
Residual	10	0.0001	0.0000		
Total	11	0.0003			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.0878	0.00455	19.28551	0.00000	0.07766	0.09795	0.07766	0.09795
U.S. Govt. 30-year Treasury	-0.5378	0.12150	-4.42596	0.00128	-0.80850	-0.26705	-0.80850	-0.26705

	[7]	[8]	[9]
	U.S. Govt. 30-year Treasury	Risk Premium	ROE
Current Yield (6-Month Average) [4]	2.53%	7.42%	9.95%
Blue Chip Consensus Forecast (Q4 2019 - Q3 2020) [5]	2.40%	7.49%	9.89%
Blue Chip Consensus Forecast (2021-2025) [6]	3.60%	6.84%	10.44%
AVERAGE			10.09%

Notes:

[1] Source: Westlaw

[2] Source: Bloomberg Professional, quarterly bond yields are the average of each trading day in the year

[3] Equals Column [1] – Column [2]

[4] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 2

[5] Source: Blue Chip Financial Forecasts, Vol. 38, No. 6, June 1, 2019, at 14

[6] See notes [4] & [5]

[7] Equals 0.087802 + (-0.537775 x Column [6])

[8] Equals Column [6] + Column [7]

JOSHUA C. NOWAK

Assistant Vice President

Mr. Nowak is a financial and economic consultant with more than ten years of experience in the energy industry. He has provided expert testimony on regulatory issues in several proceedings before regulatory commissions in Alaska, New Hampshire, New York, and Texas. Mr. Nowak specializes in providing rate case services on cost of capital matters related to return on equity and financial market issues. He is also experienced in providing strategic direction on financing activities including bond offerings, credit rating analysis, and investor relations. Previously, Joshua was the Director of Regulatory Strategy & Integrated Analytics at National Grid. He holds a Bachelor's Degree in Economics and History from Boston College.

REPRESENTATIVE EXPERIENCE

Expert Testimony and Litigation Support

Mr. Nowak's work includes regulatory project management, research, and analysis for expert witness testimony. His work has included:

- Expert testimony on cost of capital, capital structure, and debt financing issues
- Expert testimony, sponsoring lead-lag studies, in support of utility cash working capital requirements
- Extensive support for expert testimony in cost of capital and return on equity proceedings through research, financial analysis, and testimony development
- Project management of expert testimony assignments, including all phases of the regulatory schedule
- Performing analysis to support expert testimony regarding affiliate expenses and allocations

Management and Operations Consulting

Mr. Nowak has taken a lead analytical role in developing benchmarking analyses and process reviews. Specifically, he has:

- Developed benchmarking analyses, in support of expert testimony, comparing electric and gas utilities' cost and operational efficiency, taking into account a situational assessment of exogenous factors
- Performed a process review of a gas utility's expansion projects, including an evaluation of policies, procedures, and financial models
- Supported analysis for a report of the reasonableness of a shared service company's administrative and general costs



Policy Analysis

Mr. Nowak has contributed to projects related to policy review including:

- A review of natural gas capacity options and a cost-benefit analysis for state regulators seeking to reduce energy costs for ratepayers

Financial Analysis

Other financial analysis Mr. Nowak has conducted include:

- Extensive analysis on issues related to utilities' cost of capital
- Developing dispatch models to estimate historical revenues for a merchant power plants
- Estimating damages for breach of contract in fuel delivery commitment
- Researching strategic investment opportunities for merchant generators
- A report on the profitability of various generation technologies in a deregulated energy market
- Reviewing internal financial models used by utility clients
- Supporting utility asset appraisals, including research and analysis for income approach, cost approach, and sales comparison approach

Other Experience

In his previous work, Mr. Nowak contributed to the evaluation of regulatory policy for government clients. His experience included performing policy analysis, including economic impact assessments, for federal regulations.

PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2018 – Present)

Assistant Vice President

National Grid USA (2017 – 2018)

Director, Regulatory Strategy & Integrated Analytics

ScottMadden, Inc. (formerly Sussex Economic Advisors, LLC) (2012 – 2016)

Director

Principal

Concentric Energy Advisors, Inc. (2007 – 2012)

Senior Consultant

Consultant

Assistant Consultant

Analyst

RTI International (2006 – 2007)

Economist



EDUCATION

Boston College

B.A., Economics and History, 2006



SPONSOR	DATE	CASE/APPLICANT	DOCKET	SUBJECT
Regulatory Commission of Alaska				
ENSTAR Natural Gas Company, a Division of Semco Energy, Inc.	06/16	ENSTAR Natural Gas Company, a Division of Semco Energy, Inc.	TA 285-4	Cash Working Capital
Public Utilities Commission of New Hampshire				
Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities	10/13	Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities	Docket No. DE 16-383	Cash Working Capital
New York Public Service Commission				
Niagara Mohawk Power Corporation d/b/a National Grid	07/17	Niagara Mohawk Power Corporation d/b/a National Grid	Case 17-E-0238 / Case 17-G-0239	Capital Structure and Overall Cost of Capital
Public Utility Commission of Texas				
Wind Energy Transmission Texas, LLC	05/15	Wind Energy Transmission Texas, LLC	Docket No. 44746	Cash Working Capital
Lone Star Transmission, LLC	05/14	Lone Star Transmission, LLC	Docket No. 42469	Cash Working Capital
Railroad Commission of Texas				
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	03/14	CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD No. 10432	Cash Working Capital
Texas Gas Service Company, a Division of One Gas, Inc.	12/15	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10488	Cash Working Capital
Texas Gas Service Company, a Division of One Gas, Inc.	03/16	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10506	Cash Working Capital
Texas Gas Service Company, a Division of One Gas, Inc.	06/16	Texas Gas Service Company, a Division of One Gas, Inc.	GUD No. 10526	Cash Working Capital

SmartValve™

Overview

The SmartValve™ leverages proven Guardian™ technology and builds upon the success of its predecessors. The SmartValve can increase or decrease the reactance of a line, thereby pushing power away from or pulling more power towards the circuit on which it is installed.

A modular, Static Synchronous Series Compensator (SSSC), the SmartValve injects a leading or lagging voltage in quadrature with the line current, providing the functionality of a series capacitor or series reactor respectively. The SmartValve does not have the negative characteristics of these passive devices, such as the risk of sub-synchronous resonance (SSR) with series capacitors and the constant VAR consumption of series reactors.

SmartValve solutions are connected in series with a utility facility, operate at line potential and have no connection to ground. This technology is particularly effective in highly meshed electric grids where spare system capacity can be utilized to resolve overload situations. SmartValves can be installed on dedicated transmission towers within the transmission right-of-way or in banks inside or nearby existing substations. Due to their modularity and high kVAr output in compact and lightweight enclosures, they are particularly well-suited for [Mobile applications](#). SmartValve technology is applied to all three phases, with the number of devices per phase determined by the amount of compensation required.

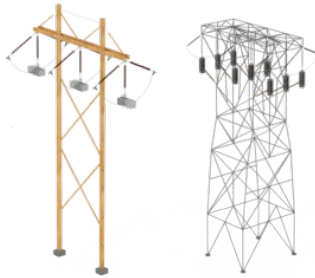
Bypass functionality, which provides protection and control of the SmartValve, is either integrated into the SmartValve or installed as a discrete device, called the SmartBypass, in parallel with one or more SmartValves. The SmartValve 1-900, SmartValve 1-1800 and SmartValve 2-3600 models are deployed with the SmartBypass. SmartValve 5-1800i and 10-3600i models have an integrated bypass.

Regardless of whether the bypass functionality is integrated or discrete, it builds upon the proven success of the bypass systems used in Guardian products. It enables operators to manually bypass a SmartValve or switch them in series with the transmission line.

Note: The SmartValve was formerly known as the Power Router.



Deployment Options



Tower-based Deployment

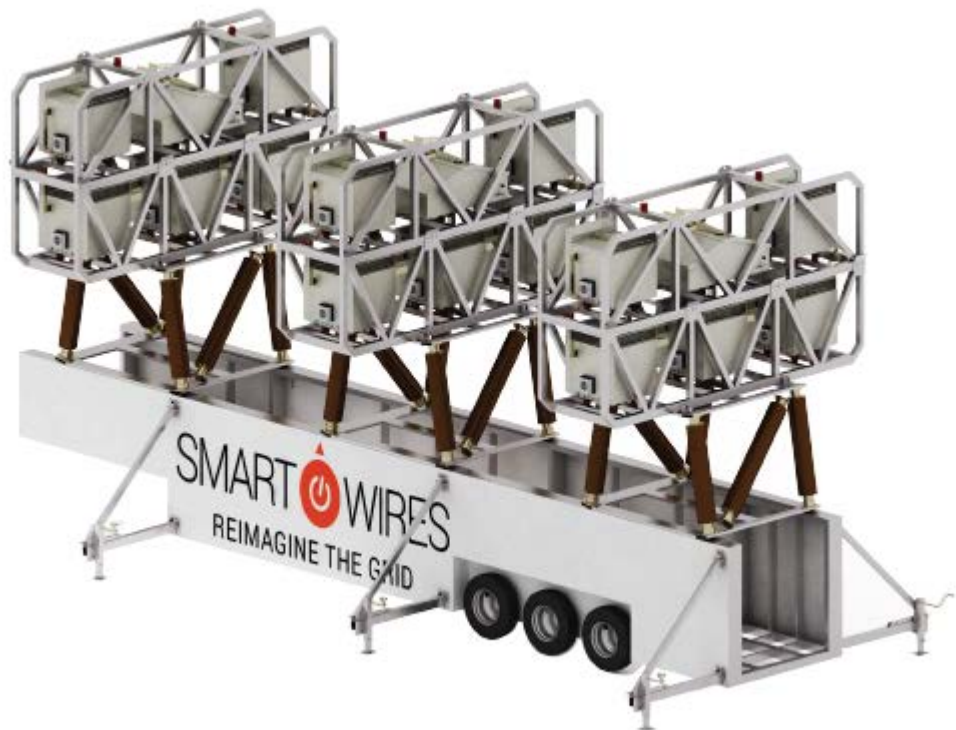
This tower can replace an existing structure within a circuit or serve as a new dedicated tower in the middle of a span. Existing towers can also be modified to accommodate units. Utilities needing to replace old poles or towers can use this method to upgrade their infrastructure and simultaneously add power flow control capabilities to their system.



Ground-based Deployment

This extremely high-density deployment can be constructed on a small footprint within an existing right-of-way, a substation or a dedicated parcel of land adjacent to the ROW or a substation.

Smart Wires works directly with the utility to determine the bank design that is best suited for a particular application.



Mobile Deployment

The [mobile deployment](#) method is a containerized solution that can be fully installed and commissioned in 8 hours. Installation requires a very limited line outage. Installation requires a very limited outage ranging from a couple of hours to a couple of days, depending on site conditions. This method is ideal for short-term and near-term needs such as construction & maintenance support, short-term congestion, transmission emergencies and bridge solutions.

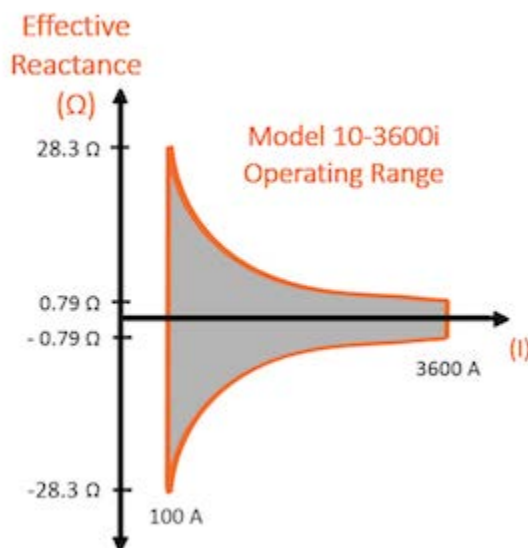
Operating Principles

The SmartValve acts as a solid-state synchronous voltage source, consisting of a series of voltage-source converters. The H-Bridge of each converter employs the use of Insulated Gate Bipolar Transistors (IGBTs). The H-Bridge is controlled to inject a voltage directly into the network facility to maintain a desired reactance. It does this by sensing the line current through a current transformer to determine the correct injection voltage magnitude to maintain the desired reactance.

The bypass provides protection and control of the power electronic converters, enabling the rapid bypass of the power electronic converters during fault conditions. Under normal operation, the bypass enables operators to switch the converters in series with the utility's network facility.

The principal components of the bypass are the normally-closed mechanical contactor (VSL), the Silicon Controlled Rectifiers (SCRs), the Metal Oxide Varistor (MOV) and the differential-mode chokes (DMCs). The bypass is either integrated into the SmartValve or installed as a discrete device, called the SmartBypass™.

Unlike conventional series capacitors or reactors, the SmartValve can inject the voltage independently of the line current, thus increasing the effective reactance injection when operated below the rated value, as shown in the graph in the figure.



The figure shows the effective reactance injection as a function of line current. The orange boundary of the operating range reflects the maximum reactance available of an individual SmartValve 10-3600i with a maximum output voltage of ± 2830 V RMS of the fundamental. The grey area inside reflects the range available if the output voltage is varied lower than ± 2830 V RMS of the fundamental. The collective fleet of SmartValve units can be controlled to maintain a fixed reactance since the injected voltage can be controlled as a function of line current. Other SmartValve models follow a similar operating range curve; the maximum current and maximum reactance values will differ.

Operating Modes

The SmartValve has two distinct modes of operation. The modes during normal operation are determined by the state of the bypass as follows:

1. **Injection Mode** – In this mode, the VSL of the bypass is open and the SCRs of the bypass are not conducting; enabling the power electronic converters to inject a voltage into the network facility. The maximum magnitude of the voltage is determined by the respective converter ratings.
2. **Monitoring Mode** – No voltage is injected as the VSL is closed or the SCRs are conducting and the converters are bypassed.

Control Methods

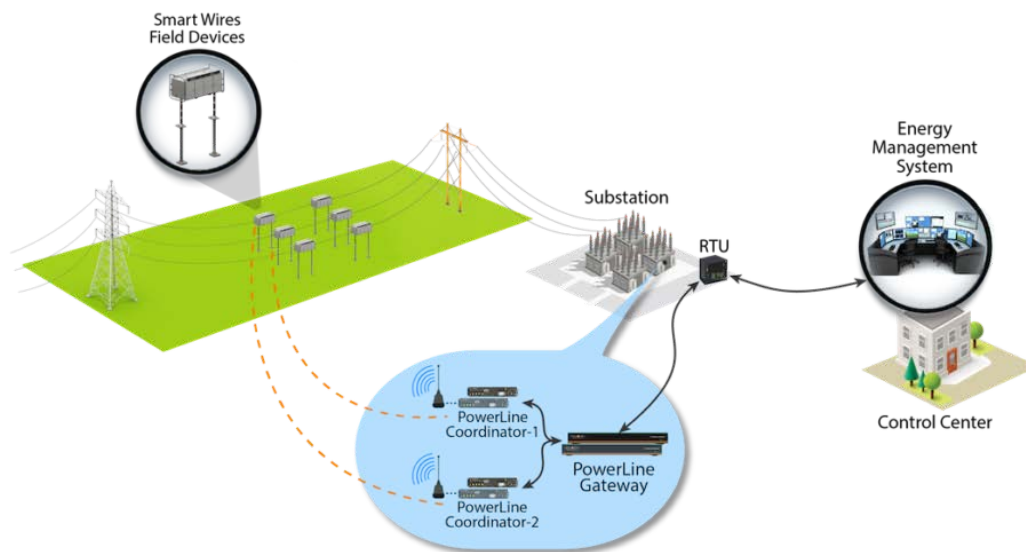
There are various control methods for the SmartValve, defined by levels of required automation and communication.

- **Without a Communication System** – This is the simplest control method for first and early-stage deployments. The fleet of deployed SmartValves continuously delivers a pre-programmed default level of reactance or voltage and does not require backhaul communications.

- **With a Communication System** – This control method is the most common and most flexible. The E2E Communication and Control System communicates wirelessly with the entire fleet. Details on the communication system are provided in Section 5. The operator does not need to control individual devices, but can program a desired value for the fleet to achieve as follows:
 1. **Injection at a fixed voltage** – The SmartValve fleet is set to output a fixed voltage injection that is either capacitive or inductive. In this control method, the injected reactance will vary as the line current changes.
 2. **Injection at a fixed reactance** – In this control method the SmartValve fleet is set to output a fixed reactance that is either capacitive or inductive. In this control method, the injected voltage will vary as the line current changes to keep the reactance at a set value.
 3. **Current control** – In this control method the SmartValve fleet actively regulates the magnitude of the current through the facility to stay below a given level or equal a given level.
 4. **Set point** – In this control method the SmartValve fleet is set to output a preset reactance level. The operator may choose among various presets.

More advanced control methods are possible, depending upon utility needs and how the equipment is integrated into the system. For example, it is possible to change the injected reactance of a fleet of SmartValves connected to Facility A based on a parameter measured from Facility B.

Communication & Control



The End to End (E2E) Communication and Control System (referred to as the E2E system) seamlessly interfaces with utility Energy Management Systems (EMS) and manages the operation of Smart Wires Field Devices (SWFDs).

Utilities operators control the amount of reactance provided by the fleet of SWFDs at the EMS level. EMS commands are transmitted to the PowerLine Gateway over a secure communication channel. The PowerLine Gateway is an IT/SCADA device, located at the substation, which provides configuration, observation, control and asset management services for the SWFDs. The PowerLine Gateway supports multiple communication protocols – including DNP3, IEC 61850, 60870-5-104 and others – and transmits the utility's EMS commands to the PowerLine Coordinator. The PowerLine Coordinator, an IT/SCADA device located either in the substation or in the field, manages the secure wireless network that is used for communication with the SWFDs.

Once the SWFDs are programmed initially, each unit largely controls its individual reactance injection on the transmission circuit. The SWFDs detect faults and automatically bypass when the current is at fault condition levels.

The Smart Wires Difference

Smart Wires solutions offer key advantages compared to traditional approaches to infrastructure investments. All of Smart Wires products are **modular** in-nature, meaning that deployments can be fine-tuned to meet system needs. Should utilities require a different amount of power flow control at some point in the future, Smart Wires' installations can be easily scaled up or down. Smart Wires solutions are **quick to deploy**, providing utilities with an installed solution capable of addressing emergency needs. Also, all products are designed to be **easy to re-deploy**. This means that if grid conditions change and power flow control is no longer needed on a specific circuit, the Smart Wires solution can be moved to a different location on the grid. This reusable investment is perfectly suited for addressing problems that are known to be short-term or temporary in nature.

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

LISTING OF ASSUMPTIONS

Total Project Cost	\$20,179,439
Less: Contribution in Aid of Construction	<u>(\$17,621,749)</u>
Central Hudson Investment	\$2,557,690
Return on Investment Pre- Tax	9.35%
Return on Investment After- Tax	7.44%
Debt Component of ROI (Pre & After Tax)	2.04%
Equity Component of ROI Pre-Tax	7.31%
Equity Component of ROI After-Tax	5.40%
Taxes Other Than Income Tax Rate	0.50%
A&G Rate	1.42%
O&M Rate (excluding Salaries)	2.60%
Revenue Tax Rate	0.00% (a)
Federal Income Tax Rate (Net of SIT Deduction)	19.64% (b)
State Income Tax Rate w/ MTA Surcharge	6.500% (c)
Tax Rate on CIAC	0.00% (d)

Note (a)

Revenue Taxes are not applicable for this investment.

Note (b)

Federal Income Tax Rate	21.00%
(1 minus State Income Rate with MTA surcharge)	<u>0.9350</u>
Federal Income Tax Rate (Net of SIT Deduction)	<u>19.635%</u>

Note (c)

NYS Income Tax Rate	6.50%
MTA Surcharge on Tax Rate @ 17%	<u>1.00</u>
NYS Income Tax Rate w/ MTA Surcharge	<u>6.500%</u>

MTA Taxes are not applicable for this investment.

Note (d)

Since this is an interconnection, the CIAC is non-taxable for income tax purposes.

6.12.5 Attachment 1 – Rate Mechanism for the Recovery of the Hurley Avenue Highway System Deliverability Upgrade

6.12.5.1 Applicability

This Attachment 1 to Rate Schedule 12 of the ISO OATT establishes the HFC for the recovery of costs for the Hurley Avenue Highway System Deliverability Upgrade (“Project”). Central Hudson Gas & Electric Corporation (“Central Hudson”) may recover eligible costs for the Project in accordance with the requirements of Rate Schedule 12 of the ISO OATT. For purposes of Rate Schedule 12 of the ISO OATT: (i) the Project shall constitute the applicable “Highway SDU”; and (ii) Central Hudson shall constitute the applicable “Transmission Owner” to recover costs for the Project through the HFC.

6.12.5.2 Project Revenue Requirement

For purposes of Rate Schedule 12 of the ISO OATT, the revenue requirement for the Project shall be determined in accordance with the formula rate template provided in Section 6.12.5.2.1 of this Attachment and the procedures set forth in Section 6.12.5.2.2 of this Attachment.

6.12.5.2.1 Formula Rate Template

[PLACEHOLDER – DELETE]

6.12.5.2.2 Description of Annual Update Process

Central Hudson will recalculate the Hurley-FC revenue requirement, prospectively for the rate to be charged over the next year and retrospectively as a true up to actual rate base and expense, annually with the new rates to be effective each June 1, to permit the Hurley-FC to be adjusted to actual costs. The annual update will reflect the FERC Form 1 Report data from the most recent calendar year for all components of the allocation methodology, as well as actual project costs and associated income taxes and an updated megawatt-hour forecast for billing to the LSEs. Central Hudson will coordinate with the ISO to post the results of its annual updates to the NYISO's website. The annual update will include supporting documentation and be subject to review and challenge as described herein.

Central Hudson will track the gross plant costs of the Hurley-FC SDU. The Hurley-FC revenue requirement will equal Central Hudson's trued up rate base, at the Commission approved return on equity, and ongoing operations and maintenance and other costs based on the entire project cost. Based on those actual costs the Hurley-FC revenue requirements will be adjusted annually. Central Hudson will determine its annual adjusted revenue requirement using the template set forth in 6.12.5.2.1.

Central Hudson will coordinate with the ISO to post its proposed annual update to a publicly accessible location on the ISO's website by no later than April 15, of each year. Interested parties may submit comments to Central Hudson no later than May 1 of each year regarding the posted annual update. Central Hudson will coordinate with the ISO to post all comments submitted by interested parties to a publicly accessible location on the ISO's website. Central Hudson will submit an informational filing to the Commission with the results of its annual update, reflecting (to the extent necessary) any changes in response to comments

submitted by interested parties, by May 15 of each year. Central Hudson will also coordinate with the ISO to post the results of its annual update, as filed with the Commission, to a publicly accessible location on the ISO's website by May 15 of each year.

Index

Rate Formula Template
Utilizing FERC Form 1 Data

Projected Annual Transmission Revenue Requirement
For the 12 months ended 5/31/21

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Appendix A	Main body of the Formula Rate
Attachment 1	Detail of the Revenue Credits
Attachment 2	Monthly Plant and Accumulated Depreciation balances
Attachment 3	Cost Support Detail
Attachment 4	Calculations showing the revenue requirement by Investment, including any Incentives,
Attachment 5	Cost of Debt should Construction Financing be Obtained
Attachment 6a and 6b	Detail of the Accumulated Deferred Income Tax Balances
Attachment 7	True-Up calculations
Attachment 8	Depreciation Rates
Attachment 9	Workpapers

Formula Rate - Non-Levelized			Rate Formula Template Utilizing FERC Form 1 Data		Projected Annual Transmission Revenue Requirement For the 12 months ended 5/31/21	
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE						
			(1)	(2)	(3)	
Line No.					Allocated Amount	
1	GROSS REVENUE REQUIREMENT	(line 74)		12 months		
	REVENUE CREDITS		Total	Allocator		
2	Total Revenue Credits	Attachment 1, line 6	-	TP		-
3	Net Revenue Requirement	(line 1 minus line 2)				-
4	True-up Adjustment	Attachment 7	-	DA		-
5	NET ADJUSTED REVENUE REQUIREMENT	(line 3 plus line 4)			\$	-

Formula Rate - Non-Levelized			Rate Formula Template Utilizing FERC Form 1 Data			For the 12 months ended 5/31/21		
			HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE					
(1)			(2)	(3)	(4)	(5)		
Line No.		Form No. 1 Page, Line, Col.	Company Total	Allocator		Transmission (Col 3 times Col 4)		
RATE BASE:								
GROSS PLANT IN SERVICE (Note M)								
6	Production	(Attach 2, line 75)	-	NA	-	-		
7	Transmission	(Attach 2, line 15)	-	TP	1.0000	-		
8	Distribution	(Attach 2, line 30)	-	NA	-	-		
9	General & Intangible	(Attach 2, lines 45 & 60)	-	W/S	-	-		
10	TOTAL GROSS PLANT (sum lines 6-9)	(GP=1 if plant =0)	-	GP=	-	-		
ACCUMULATED DEPRECIATION & AMORTIZATION (Note M)								
12	Production	(Attach 2, line 151)	-	NA	-	-		
13	Transmission	(Attach 2, line 91)	-	NA	-	-		
14	Distribution	(Attach 2, line 106)	-	NA	-	-		
15	General & Intangible	(Attach 2, lines 121 & 136)	-	NA	-	-		
16	TOTAL ACCUM. DEPRECIATION (sum lines 12-15)		-			-		
NET PLANT IN SERVICE								
18	Production	(line 6- line 12)	-			-		
19	Transmission	(line 7- line 13)	-			-		
20	Distribution	(line 8- line 14)	-			-		
21	General & Intangible	(line 9- line 15)	-			-		
22	TOTAL NET PLANT (sum lines 18-21)	(NP=1 if plant =0)	-	NP=	-	-		
ADJUSTMENTS TO RATE BASE (Note A)								
24	ADIT	(Attach 6a, line 9)	#DIV/0!	DA	1.0000	#DIV/0!		
24b	Tax Reform	(Attach 11a, line 8)	#REF!			#REF!		
25	Account No. 255 (enter negative) (Note F)	(Attach 3, line 153)	-	NP	-	-		
26	CWIP	(Attach 10)	-	DA		-		
27	Unfunded Reserves (enter negative)	(Attach 3, line 170a)	-	DA	1.0000	-		
28	Unamortized Regulatory Assets	(Attach 10) (Note L)	-	DA	1.0000	-		
29	Unamortized Abandoned Plant	(Attach 10) (Note K)	-	DA	1.0000	-		
30	TOTAL ADJUSTMENTS (sum lines 24-29)		#DIV/0!			#DIV/0!		
31	LAND HELD FOR FUTURE USE	Attachment 10	-	NA	1.0000	-		
WORKING CAPITAL (Note C)								
33	CWC	calculated (1/8 * Line 45)	9,045,405			#DIV/0!		
34	Materials & Supplies (Note B)	(Attach 3, line 189)	-	NA	1.0000	-		
35	Prepayments (Account 165 - Note C)	(Attach 3, line 170)	-	GP	-	-		
36	TOTAL WORKING CAPITAL (sum lines 33-35)		9,045,405			#DIV/0!		

37	RATE BASE (sum lines 22, 30, 31, & 36)	#DIV/0!	#DIV/0!
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Formula Rate - Non-Levelized		Rate Formula Template Utilizing FERC Form 1 Data		For the 12 months ended 5/31/21		
		HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE				
(1)	(2)	(3)	(4)	(5)		
	Form No. 1 Page, Line, Col.	Company Total	Allocator	Transmission (Col 3 times Col 4)		
38	O&M					
39	Transmission	321.116.b	11,753,917	AGP	#DIV/0!	#DIV/0!
40	Less Accounts 565, 561 and 561.1 to 561.8	321.99.b & 87.b to 94.b	2,321,480	AGP	#DIV/0!	#DIV/0!
41	A&G	323.205.b	62,930,800	W/S	#DIV/0!	#DIV/0!
42	Less EPRI & Reg. Comm. Exp. & Other Ad.	(Note D & Attach 3, line 171)	-	W/S	#DIV/0!	#DIV/0!
43	Plus Transmission Related Reg. Comm. Exp.	(Note D & Attach 3, line 172)	-	AGP	#DIV/0!	#DIV/0!
44	PBOP expense adjustment	(Attach 3, line 243)	-	AGP	#DIV/0!	#DIV/0!
44a	Less Account 566	321.100.b	1,103,807	W/S	#DIV/0!	#DIV/0!
44b	Amortization of Regulatory Assets	(Attach 10, line 2)	-	W/S	#DIV/0!	#DIV/0!
44c	Account 566 excluding amort. of Reg Assets	(line 44a less line 44b)	1,103,807	W/S	#DIV/0!	#DIV/0!
45	TOTAL O&M (sum lines 39, 41, 43, 44, 44b, 44c less lines 40 & 42, 44a) (Note D)		72,363,237			#DIV/0!
46	DEPRECIATION EXPENSE					
47	Transmission	336.7.f	-	DA	1.0000	-
48	General and Intangible	336.1.f + 336.10.f	-	W/S	1.0000	-
49	Amortization of Abandoned Plant	(Attach 3, line 155) (Note K)	-	DA	1.0000	-
50	TOTAL DEPRECIATION (Sum lines 47-49)		-			-
51	TAXES OTHER THAN INCOME TAXES (Note E)					
52	LABOR RELATED					
53	Payroll	263.3.i +263.4.i + 263.12.i	42,567,300	W/S	#DIV/0!	#DIV/0!
54	Highway and vehicle	263...i (enter FN1 line #)	-	W/S	#DIV/0!	#DIV/0!
55	PLANT RELATED					
56	Property	263.24.i +263.25.i	39,087,352	AEP	#DIV/0!	#DIV/0!
57	Gross Receipts	263.14.i +263.26.i	(7,259)	NA	-	-
58	Other	263.15.i	720	AEP	#DIV/0!	#DIV/0!
59	TOTAL OTHER TAXES (sum lines 53-58)		81,648,113			#DIV/0!
60	INCOME TAXES (Note F)					
61	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p))}*(1-n) =		0.2614			0.2614
62	CIT=(T/1-T) * (1-(WCLTD/R)) =		#DIV/0!			#DIV/0!
63	where WCLTD=(line 95) and R= (line 98)					
64	and FIT, SIT, p, & n are as given in footnote F.					
65	1 / (1 - T) = (T from line 61)		1.3538			1.354
66	Amortized Investment Tax Credit (Attachment 4, line 14)		-			
67	Income Tax Calculation = line 62 * line 71 * (1-n)	#DIV/0!				#DIV/0!
68	ITC adjustment (line 65 * line 66 * (1- n))		-	NP	-	-
69	Total Income Taxes (line 67 plus line 68)		#DIV/0!			#DIV/0!
70	RETURN					
71	[Rate Base (line 37) * Rate of Return (line 98)]	#DIV/0!		NA		#DIV/0!
72	Rev Requirement before Incentive Projects (sum lines 45, 50, 59, 69, 71)	#DIV/0!				#DIV/0!
73	Incentive Return and Income Tax on Authorized Projects (Attach 4, line 58, col h)	#DIV/0!		DA	100%	#DIV/0!
74	Total Revenue Requirement (sum lines 72 & 73)	#DIV/0!				#DIV/0!

Formula Rate - Non-Levelized		Rate Formula Template Utilizing FERC Form 1 Data		For the 12 months ended 5/31/21		
		HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE				
		SUPPORTING CALCULATIONS AND NOTES				
75	TRANSMISSION PLANT INCLUDED IN RTO RATES					
76	Total transmission plant (line 7, column 3)					-
77	Less transmission plant excluded from RTO rates (Note H)	(Attachment 3, line 175)				2,557,690.00
78	Less transmission plant included in OATT Ancillary Services (Note H)	(Attachment 3, line 175)				-
79	Transmission plant included in RTO rates (line 76 less lines 77 & 78)					2,557,690.00
80	Percentage of transmission plant included in RTO Rates (line 79 divided by line 76) [If line 76 equal zero, enter 1)			TP=		1.0000
81	ADJUSTED TRANSMISSION PLANT INCLUDED IN RTO RATES					
82	Total transmission plant (line 15, column 3)					-
	Plus CIAC Reveived (O&M, A&G and Taxes other than income would be on full amount)					17,621,749.00
83	Total Adjusted Transmission Plant					17,621,749.00
	Transmission plant included in RTO rates (line 82 less lines & 83)					-
84				AGP=		#DIV/0!

Attachment 1 - Revenue Credit Workpaper*
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Account 454 - Rent from Electric Property (300.19.b)	Notes 1 & 3	
1 Rent from FERC Form No. 1		-
Account 456 (including 456.1) (300.21.b and 300.22.b)	Notes 1 & 3	
2 Other Electric Revenues (Note 2)		-
3 Professional Services		-
4 Revenues from Directly Assigned Transmission Facility Charges (Note 2)		-
5 Rent or Attachment Fees associated with Transmission Facilities		-
6 Total Revenue Credits	Sum lines 2-5 + line 1	-

Note 1 All revenues booked to Account 454 that are derived from cost items classified as transmission-related will be included as a revenue credit. All revenues booked to Account 456 (includes 456.1) that are derived from cost items classified as transmission-related, and are not derived from rates under this transmission formula rate will be included as a revenue credit. Work papers will be included to properly classify revenues booked to these accounts to the transmission function. A breakdown of all Account 454 revenues by subaccount will be provided below, and will be used to derive the proper calculation of revenue credits. A breakdown of all Account 456 revenues by subaccount and customer will be provided and tabulated below, and will be used to develop the proper calculation of revenue credits.

Note 2 If the facilities associated with the revenues are not included in the formula, the revenue is shown below, but not included in the total above and explained in the Attachment 3.

Note 3 All Account 454 and 456 Revenues must be itemized below

Line No.			TOTAL	NY-ISO	Other 1	Other 2
1	Account 456					
1a	Transmission Service		-	-	-	-
...			-	-	-	-
1x	Trans. Fac. Charge		-	-	-	-
2	Trans Studies		-	-	-	-
3	Total		-	-	-	-
4	Less:					
5	Revenue for Demands in Divisor		-	-	-	-
6	Sub Total Revenue Credit		-	-	-	-
7	Prior Period Adjustments		-	-	-	-
8	Total		-	-	-	-
9	Account 454		\$			
9a	Joint pole attachments - telephone		-			
9b	Joint pole attachments - cable		-			
9c	Underground rentals		-			
9d	Transmission tower wireless rentals		-			
9e	Misc non-transmission rentals		-			
9f			-			
9g			-			
...						
9x			-			
10	Total		-			

Attachment 2 - Cost Support
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Plant in Service Worksheet

1	<u>Calculation of Transmission Plant In Service</u>	Source	Year	Balance
2	March	company records	2018	
3	April	company records	2018	
4	May	company records	2018	
5	June	company records	2018	
6	July	company records	2018	
7	August	company records	2018	
8	September	company records	2018	
9	October	company records	2018	
10	November	company records	2018	
11	December	p207.58.g	2018	
12	January	company records	2019	
13	February	company records	2019	
14	March	company records	2019	
15	Transmission Plant In Service	(sum lines 2-14) /13		
16	<u>Calculation of Distribution Plant In Service</u>	Source		
17	March	company records	2018	
18	April	company records	2018	
19	May	company records	2018	
20	June	company records	2018	
21	July	company records	2018	
22	August	company records	2018	
23	September	company records	2018	
24	October	company records	2018	
25	November	company records	2018	
26	December	p207.75.g	2018	
27	January	company records	2019	
28	February	company records	2019	

29	March	company records	2019
30	Distribution Plant In Service	(sum lines 17-29) /13	
31	<u>Calculation of Intangible Plant In Service</u>	Source	
32	March	company records	2018
33	April	company records	2018
34	May	company records	2018
35	June	company records	2018
36	July	company records	2018
37	August	company records	2018
38	September	company records	2018
39	October	company records	2018
40	November	company records	2018
41	December	p205.5.g	2018
42	January	company records	2019
43	February	company records	2019
44	March	company records	2019
45	Intangible Plant In Service	(sum lines 32-44) /13	
46	<u>Calculation of General Plant In Service</u>	Source	
47	March	company records	2018
48	April	company records	2018
49	May	company records	2018
50	June	company records	2018
51	July	company records	2018
52	August	company records	2018
53	September	company records	2018
54	October	company records	2018
55	November	company records	2018
56	December	p207.99.g	2018
57	January	company records	2019
58	February	company records	2019
59	March	company records	2019
60	General Plant In Service	(sum lines 47-59) /13	

61	<u>Calculation of Production Plant In Service</u>	Source		
62	March	company records	2018	
63	April	company records	2018	
64	May	company records	2018	
65	June	company records	2018	
66	July	company records	2018	
67	August	company records	2018	
68	September	company records	2018	
69	October	company records	2018	
70	November	company records	2018	
71	December	p205.46.g	2018	
72	January	company records	2019	
73	February	company records	2019	
74	March	company records	2019	
75	Production Plant In Service	(sum lines 62-74) /13		
76	<u>Total Plant In Service</u>	(sum lines 15, 30, 45, 60, & 75)		-

Accumulated Depreciation Worksheet

Appendix A Line #s, Descriptions, Notes, Form 1 Page #s and Instructions

77	<u>Calculation of Transmission Accumulated Depreciation</u>	Source	Year	Balance
78	March	company records	2018	
79	April	company records	2018	
80	May	company records	2018	
81	June	company records	2018	
82	July	company records	2018	
83	August	company records	2018	
84	September	company records	2018	
85	October	company records	2018	
86	November	company records	2018	
87	December	p219.25.b	2018	
88	January	company records	2019	
89	February	company records	2019	

90	March	company records	2019	
91	Transmission Accumulated Depreciation	(sum lines 78-90) /13		
92	<u>Calculation of Distribution Accumulated Depreciation</u>	Source		
93	March	company records	2018	
94	April	company records	2018	
95	May	company records	2018	
96	June	company records	2018	
97	July	company records	2018	
98	August	company records	2018	
99	September	company records	2018	
100	October	company records	2018	
101	November	company records	2018	
102	December	p219.25.b	2018	
103	January	company records	2019	
104	February	company records	2019	
105	March	company records	2019	
106	Distribution Accumulated Depreciation	(sum lines 93-105) /13		-
107	<u>Calculation of Intangible Accumulated Amortization</u>	Source		
108	March	company records	2018	
109	April	company records	2018	
110	May	company records	2018	
111	June	company records	2018	
112	July	company records	2018	
113	August	company records	2018	
114	September	company records	2018	
115	October	company records	2018	
116	November	company records	2018	
117	December	p200.21.c	2018	
118	January	company records	2019	
119	February	company records	2019	
120	March	company records	2019	
121	Accumulated Intangible Amortization	(sum lines 108-120) /13		-

122	<u>Calculation of General Accumulated Depreciation</u>	Source	
123	March	company records	2018
124	April	company records	2018
125	May	company records	2018
126	June	company records	2018
127	July	company records	2018
128	August	company records	2018
129	September	company records	2018
130	October	company records	2018
131	November	company records	2018
132	December	p219.28.b	2018
133	January	company records	2019
134	February	company records	2019
135	March	company records	2019
136	Accumulated General Depreciation	(sum lines 123-135) /13	-
137	<u>Calculation of Production Accumulated Depreciation</u>	Source	
138	March	company records	2018
139	April	company records	2018
140	May	company records	2018
141	June	company records	2018
142	July	company records	2018
143	August	company records	2018
144	September	company records	2018
145	October	company records	2018
146	November	company records	2018
147	December	p219.20 thru 219.24.b	2018
148	January	company records	2019
149	February	company records	2019
150	March	company records	2019
151	Production Accumulated Depreciation	(sum lines 138-150) /13	
152	<u>Total Accumulated Depreciation and Amortization</u>	(sum lines 91, 106, 121, 136, & 151)	-

Attachment 3 - Cost Support
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

				Details	
Numbering continues from Attachment 2		Beginning of Year	End of Year	Average Balance	
153	Account No. 255 (enter negative)	267.8.h	-	-	
154	Unamortized Abandoned Plant (recovery of abandoned plant requires a FERC order approving the amount and recovery period)	Attachment 10, line 2, col. (v)		-	Amortization Expense
155	Amortization of Abandoned Plant	Attachment 10, line 2, col. (h)			-
156	Prepayments (Account 165) (Prepayments exclude Prepaid Pension Assets)		Year	Balance	
157	March	111.57.c	2018		
158	April	company records	2018		
159	May	company records	2018		
160	June	111.57.c	2018		
161	July	company records	2018		
162	August	company records	2018		
163	September	111.57.c	2018		
164	October	company records	2018		
165	November	company records	2018		
166	December	111.57.c	2018		
167	January	company records	2019		
168	February	company records	2019		
169	March	111.57.c	2019		
170	Prepayments	(sum lines 157-169) /13		-	

Reserves

170a	(b)	(c)	(d) Enter 1 if NOT in a trust or reserved account, enter zero (0) if included in a trust or reserved account	(e) Enter 1 if the accrual account is included in the formula rate, enter (0) if O if the accrual account is NOT included in the formula rate	(f) Enter the percentage paid for by customers, 1 less the percent associated with an offsetting liability on the balance sheet	(g) Allocation (Plant or Labor Allocator)	(h) Amount Allocated, col. c x col. d x col. e x col. f x col. g
		Amount					
	Injuries & Damages Reserve 112.27.d		1	-	-	-	-
	Reserve 2	-	-	-	-	-	-
	Reserve 3	-	-	-	-	-	-
	Reserve 4	-	-	-	-	-	-
	...	-	-	-	-	-	-
	...	-	-	-	-	-	-
	Total						-

All unfunded reserves will be listed above, specifically including (but not limited to) all subaccounts for FERC Account Nos. 228.1 through 228.4. "Unfunded reserve" is defined as an accrued balance (1) created and increased by debiting an expense which is included in this formula rate (column (e), using the same allocator in column (g) as used in the formula to allocate the amounts in the corresponding expense account) (2) in advance of an anticipated expenditure related to that expense (3) that is not deposited in a restricted account (e.g., set aside in an escrow account, see column (d)) with the earnings thereon retained within that account. Where a given reserve is only partially funded through accruals collected from customers, only the balance funded by customer collections shall serve as a rate base credit, see column (f). The source of monthly balance data is company records.

EPRI Dues Cost Support			
Allocated General & Common Expenses		EPRI & EEI Costs to be Excluded	Details
171	EPRI and EEI Dues to be excluded from the formula rate	EPRI Dues p353._f (enter FN1 line #)	-

Regulatory Expense Related to Transmission Cost Support			
Directly Assigned A&G		Form 1 Amount	Transmission Related
172	Regulatory Commission Exp Account 928	p323.189.b	-
* insert case specific detail and associated assignments here			

Multi-state Workpaper			
Income Tax Rates		New York	MTA
173	Weighting SIT=State Income Tax Rate or Composite Multiple state rates are weighted based on the state apportionment factors on the state income tax returns and the number of days in the year that the rates are effective (see Note F)	1	0
		6.50%	0.00%
			0
			0.00%
			6.50%

Safety Related and Education and Out Reach Cost Support			
Directly Assigned A&G		Form 1 Amount	Safety Related, Education, Siting & Outreach Related
174	General Advertising Exp Account 930.1	company records	-
Safety advertising consists of any advertising whose primary purpose is to educate the recipient as to what is safe or is not safe. Education advertising consists of any advertising whose primary purpose is to educate the recipient as about transmission related facts or issues Outreach advertising consists of advertising whose primary purpose is to attract the attention of the recipient about a transmission related issue Siting advertising consists of advertising whose primary purpose is to inform the recipient about locating transmission facilities Lobbying expenses are not allowed to be included in account 930.1			

Excluded Plant Cost Support			
Adjustment to Remove Revenue Requirements Associated with Excluded Transmission Facilities		Excluded Transmission Facilities	Transmission plant included in OATT Ancillary Services and not otherwise excluded
175	Excluded Transmission Facilities	2,557,690	-
			All other Transmission Assets besides the Hurley Ave Smart Wires
Add more lines if necessary			

Materials & Supplies					
Note: for the projection, the prior year's actual balances will be used		Stores Expense	Transmission Materials	Construction	
Form No.1 page		Undistributed	& Supplies	Materials & Supplies	Total
		p227.16	p227.8	p227.5	
176	March	Company Records	-		-
177	April	Company Records	-		-
178	May	Company Records	-		-
179	June	Company Records	-		-

180	July	Company Records	-	-
181	August	Company Records	-	-
182	September	Company Records	-	-
183	October	Company Records	-	-
184	November	Company Records	-	-
185	December	Column c	-	-
186	January	Company Records	-	-
187	February	Company Records	-	-
188	March	Company Records	-	-
189	Average			-

PBOPs

Details				
189	<u>Calculation of PBOP Expenses</u>			
190	<u>ConEd</u>			
191	Total PBOP expenses			
192	Labor dollars			
193	Cost per labor dollar			
194	labor (labor not capitalized) current year	Company Records		
195	PBOP Expense for current year			
196	PBOP Expense in Account 926 for current year	Company Records		
197	PBOP Adjustment for Appendix A, Line 44			
198	Lines 191-193 cannot change absent approval or acceptance by FERC in a separate proceeding.			
198	<u>NiMo</u>			
199	Total PBOP expenses			
200	Labor dollars			
201	Cost per labor dollar			
202	labor (labor not capitalized) current year	Company Records		
203	PBOP Expense for current year			
204	PBOP Expense in Account 926 for current year	Company Records		
205	PBOP Adjustment for Appendix A, Line 44			
206	Lines 199-201 cannot change absent approval or acceptance by FERC in a separate proceeding.			
207	<u>NYSEG</u>			
208	Total PBOP expenses			
209	Labor dollars			
210	Cost per labor dollar			
211	labor (labor not capitalized) current year	Company Records		
212	PBOP Expense for current year			
213	PBOP Expense in Account 926 for current year	Company Records		
214	PBOP Adjustment for Appendix A, Line 44			
215	Lines 208-210 cannot change absent approval or acceptance by FERC in a separate proceeding.			
216	<u>RGE</u>			
217	Total PBOP expenses			
218	Labor dollars			
219	Cost per labor dollar			
220	labor (labor not capitalized) current year	Company Records		

221	PBOP Expense for current year	
222	PBOP Expense in Account 926 for current year	Company Records
223	PBOP Adjustment for Appendix A, Line 44	
224	Lines 217-219 cannot change absent approval or acceptance by FERC in a separate proceeding.	
225	<u>CHG&E</u>	
226	Total PBOP expenses	
227	Labor dollars	
228	Cost per labor dollar	
229	labor (labor not capitalized) current year	Company Records
230	PBOP Expense for current year	
231	PBOP Expense in Account 926 for current year	Company Records
232	PBOP Adjustment for Appendix A, Line 44	
233	Lines 226-228 cannot change absent approval or acceptance by FERC in a separate proceeding.	
234	<u>HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE</u>	
235	Total PBOP expenses	
236	Labor dollars	
237	Cost per labor dollar	
238	labor (labor not capitalized) current year	Company Records
239	PBOP Expense for current year	
240	PBOP Expense in Account 926 for current year	Company Records
241	PBOP Adjustment for Appendix A, Line 44	
242	Lines 235-237 cannot change absent approval or acceptance by FERC in a separate proceeding.	
243	PBOP expense adjustment	(sum lines 197, 214, 205, 223, 232, & 241)

Incentive ROE and 60/40 Project Worksheet
Attachment 4

Rate Formula Template
Utilizing Appendix A Data

For the 12 months ended 12/31/2019

The calculations below calculate that additional revenue requirement for 50 basis points of ROE and 0.5 percent change in the equity component of the capital structure. These amounts are then used to calculate the actual increase in revenue in the table below (starting on line 66) associated with the actual incentive authorized by the Commission. The use of the 50 basis point calculations per settlement discussions.

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE				
Base ROE and Income Taxes Carrying Charge		Allocator		Result
1	Rate Base			#DIV/0!
2	BASE RETURN CALCULATION:			
3	Long Term Debt (Appendix A, Line 91)	\$ -	% #DIV/0!	Cost #DIV/0!
4	Preferred Stock (Appendix A, Line 92)	100	0%	0.00%
5	Common Stock (Appendix A, Line 93)	(100)	#DIV/0!	9.40%
6	Total (sum lines 3-5)	-		#DIV/0!
7	Return multiplied by Rate Base (line 1 * line 6)			
8	INCOME TAXES			
9	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614		
10	CIT=(T/1-T) * (1-(WCLTD/R)) =	#DIV/0!		
11	where WCLTD=(line 3) and R= (line 6)			
12	and FIT, SIT & p are as given in footnote F on Appendix A.			
13	1 / (1 - T) = (T from line 9)	1.3538		
14	Amortized Investment Tax Credit (266.8f) (enter negative)	-		
15	Income Tax Calculation = line 10 * line 7 * (1-n)	#DIV/0!		#DIV/0!
16	ITC adjustment (line 13 * line 14) * (1-n)	-	NP	-
17	Total Income Taxes (line 15 plus line 16)	#DIV/0!		#DIV/0!
18	Base Return and Income Taxes	Sum lines 7 and 17		#DIV/0!
19	Rate Base	Line 1		#DIV/0!
20	Return and Income Taxes at Base ROE	Line 18 / line 19		#DIV/0!
100 Basis Point Incentive ROE and Income Taxes Carrying Charge				Attachment 4
21	Rate Base			Result #DIV/0!
22	50 Basis Point Incentive Return impact on			
23	Long Term Debt (line 3)	\$ -	% #DIV/0!	Cost #DIV/0!
24	Preferred Stock (line 4)	100.00	0%	0.00%
25	Common Stock (line 5 plus 50 basis points)	(100.00)	#DIV/0!	9.90%
26	Total (sum lines 24-26)	-		#DIV/0!
27	50 Basis Point Incentive Return multiplied by Rate Base (line 21 * line 26)			
28	INCOME TAXES			
29	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614		
30	CIT=(T/1-T) * (1-(WCLTD/R)) =	#DIV/0!		
31	where WCLTD=(line 23) and R= (line 26)			
32	and FIT, SIT & p are as given in footnote F on Appendix A.			
33	1 / (1 - T) = (T from line 29)	1.3538		
34	Amortized Investment Tax Credit (line 14)	-		
35	Income Tax Calculation = line 30 * line 27 * (1-n)	#DIV/0!		#DIV/0!
36	ITC adjustment (line 33 * line 34) * (1-n)	-	NP	-
37	Total Income Taxes (line 35 plus line 36)	#DIV/0!		#DIV/0!
38	Return and Income Taxes with 100 basis point increase in ROE	Sum lines 27 and 37		#DIV/0!
39	Rate Base	Line 21		#DIV/0!
40	Return and Income Taxes with 100 basis point increase in ROE	Line 38 / line 39		#DIV/0!
41	Difference in Return and Income Taxes between Base ROE and 50 Basis Point Incentive	Line 41- Line 20		#DIV/0!
Effect of 1% Increase in the Equity Ratio				Results
42	Rate Base			#DIV/0!
43	50 Basis Point Incentive Return			
44	Long Term Debt (line 3 minus 1% in equity ratio)	\$ -	% #DIV/0!	Cost #DIV/0!
45	Preferred Stock (line 4)	-	0%	0.00%
46	Common Stock (line 5 plus 1% in equity ratio))	-	#DIV/0!	9.40%
47	Total (sum lines 44-46)	-		#DIV/0!
48	Line 47 x line 42			
49	INCOME TAXES			
50	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = (Appendix A, line 61)	0.2614		
51	CIT=(T/1-T) * (1-(WCLTD/R)) =	#DIV/0!		

52	where WCLTD=(line 44) and R= (line 47)																
53	and FIT, SIT & p are as given in footnote F on Appendix A.																
54	1 / (1 - T) = (T from line 50)			1.3538													
55	Amortized Investment Tax Credit (line 14)			-													
56	Income Tax Calculation = line 51 * line 48 * (1-n)			#DIV/0!													#DIV/0!
57	ITC adjustment (line 54 * line 55) * (1-n)			-		NP		-									-
58	Total Income Taxes (line 56 plus line 57)			#DIV/0!													#DIV/0!
59	Return and Income Taxes with 1% Increase in the Equity Ratio					Sum lines 48 and 58											#DIV/0!
60	Rate Base					Line 42											#DIV/0!
61	Return and Income Taxes with 1% Increase in the Equity Ratio					Line 59 / line 60											#DIV/0!
62	Difference between Base ROE and 1% Increase in the Equity Ratio					Line 61 - Line 20											#DIV/0!
																	Attachment 4
63	Revenue Requirement per project including incentives																
64	Expense Allocator [Appendix A, lines 45 and 59, less Appendix A, line 44b / Gross Transmission Plant In Service Column (l)] (Note B)																#DIV/0!
65	Base Carrying Charge (used in , Line 102 Appendix A																#DIV/0!

The table below breaks out the total revenue requirement on Appendix A separately for each investment. The total of Column (p) must equal the amount shown on Appendix A, Line 3.

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
Line	Description	Net Investment (Note A)	ROE Authorized by FERC (Note C)	ROE Base (From Appendix A, line 93)	Incentive % Authorized by FERC	Line 41	Col (e) / .01 x Col (f)	Incentive \$ (Col (b) x Col (g)	Equity % in Capital Structure (% above base %, -% below base %)(1 equals 1%)	Impact of Equity Component of Capital Structure(Col (b) x (i) x Line 62	Base Return and Tax (Line 65 x Col (b)	Gross Plant In Service (Note B)	Expense Allocator (line 64)	O&M, Taxes Other than Income (Col. (l) x Col. (n)	Depreciation/Am ortization Expense	Total Revenues (Col. (h) + (j) + (k) +(n) +(o))
66	Up to 228 million	#DIV/0!	9.4%	9.40%	0.005	#DIV/0!	#DIV/0!	#DIV/0!	-	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
66a	Over 228 million	-	9.4%	9.40%	-	#DIV/0!	#DIV/0!	#DIV/0!	-	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
66b	Regulatory Asset	-	9.4%	9.40%	-	#DIV/0!	#DIV/0!	#DIV/0!	-	#DIV/0!	#DIV/0!	-	#DIV/0!	#DIV/0!	-	#DIV/0!
66c	-	-	0.0%	9.40%	-				-						-	
...				9.40%												
...				9.40%												
...				9.40%												
...				9.40%												
...				9.40%												
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...				9.40%												
...				9.40%												
...				9.40%												
...				9.40%												
...				9.40%												
67	Total	#DIV/0!		9.40%				#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Check Sum Appendix A Line 3																#DIV/0!
Difference (must be zero)																#DIV/0!

- Note:
- A Column (b), Net Investment includes the Net Plant In Service, unamortized regulatory assets, unamortized abandoned plant and CWIP
 - B Column (l), Gross Plant in Service excludes Regulatory Assets, CWIP, and Abandoned Plant.
 - C Column (e), for each project with an incentive in column (e), note the docket No. in which FERC granted the incentive>

Project	Docket No.	Note
TOTs 1 - Ramapo to Rock Tavern	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate
TOTs 2 - Staten Island Unbottling Feeder Split	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate
TOTs 3 - NYSEG's Marcy South Series Comp Fraser to Coopers Corner	ER15-572	Up to \$228 million for the 3 TOTS projects in aggregate

Attachment 5 - Financing Costs for Long Term Debt using the Internal Rate of Return Methodology (Note 13)
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
HYPOTHETICAL EXAMPLE

Assumes financing will be a 5 year loan with Origination Fees of \$2.1 million and a Commitments Fee of 0.3% on the undrawn principal.
Consistent with GAAP, the Origination Fees and Commitments Fees will be amortized using the standard Internal Rate of Return formula below.
Each year, the amounts withdrawn, the interest paid in the year, Origination Fees, Commitments Fees, and total loan amount will be updated on this attachment.

Table 1

Total Loan Amount	\$ -
-------------------	------

Table 2

Internal Rate of Return ¹	#NUM!
Based on following Financial Formula ² :	
$NPV = 0 = \sum_{t=1}^N \frac{C_t}{(1+IRR)^{pwr(t)}}$	

Table 3

Origination Fees	
Underwriting Discount	-
Arrangement Fee	-
Upfront Fee	-
Rating Agency Fee	-
Legal Fees	-
Total Issuance Expense	-
Annual Rating Agency Fee	
Annual Bank Agency Fee	-
Revolving Credit Commitment Fee	0.000%

Table 4

	2014	2015	2016	2017	2018	2019	2020
LIBOR Rate	0.64%	1.03%	1.60%	2.13%	2.13%	2.13%	2.13%
Spread	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Interest Rate	2.89%	3.28%	3.85%	4.38%	4.38%	4.38%	4.38%

Table 5

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
	Year		Capital Expenditures (\$000's)	Principal Drawn In Quarter (\$000's)	Principal Drawn To Date (\$000's)	Interest & Principal (\$000's)	Origination Fees (\$000's)	Commitment & Utilization Fee (\$000's)	Net Cash Flows (\$000's)
					Cumulative Col. D	1/4 * Interest Rate from Line 16 x Col. E prior quarter and Principal repayment	Input in first Qtr of Loan	(line 1/1000 less Col. E prior quarter)*line 13/4 +line 12/4000+line 11/4000	(D-F-G-H)
	3/31/2014	Q3	-	-	-				-
	6/30/2014	Q4	-	-	-	-		-	-
	9/30/2014	Q1	-	-	-	-		-	-
	12/31/2014	Q2	-	-	-	-		-	-
	3/31/2015	Q3	-	-	-	-		-	-
	6/30/2015	Q4	-	-	-	-		-	-
	9/30/2015	Q1	-	-	-	-		-	-
	12/31/2015	Q2	-	-	-	-		-	-
	3/31/2016	Q3	-	-	-	-		-	-
	6/30/2016	Q4	-	-	-	-		-	-
	9/30/2016	Q1	-	-	-	-		-	-
	12/31/2016	Q2	-	-	-	-		-	-
	3/31/2017	Q3	-	-	-	-		-	-
	6/30/2017	Q4	-	-	-	-		-	-
	9/30/2017	Q1	-	-	-	-		-	-
	12/31/2017	Q2	-	-	-	-		-	-
	3/31/2018	Q3	-	-	-	-			-

- Notes
1. The IRR is the input to Debt Cost shown on Appendix A, Page 4, Line 95 during the construction period, after obtaining project financing, in accordance with Note G of Appendix A.
2. The IRR is a discount rate that makes the net present value of a series of cash flows equal to zero. The IRR equation is shown on line 4.
- N is the last quarter the loan would be outstanding
- t is each quarter
- Ct is the cash flow (Table 5, Col. I in each quarter)
- Alternatively the equation can be written as $0 = C_0 + C_1/(1+IRR) + C_2/(1+IRR)^2 + C_3/(1+IRR)^3 + \dots + C_n/(1+IRR)^n$ and solved for IRR
- The Excel™ formula on line 2 is : (round(XIRR(first quarter of loan Col A of Table 5:last quarter of loan Col A of Table 5, first quarter of loan Col I of Table 5: last quarter of loan Col I of Table 5, 8%),4))
- The 8% in the above formula is a seed number to ensure the formula produces a positive number.
3. Line 1 reflects the loan amount, the maximum amount that can be drawn on
4. Lines 5 through 13 include the fees associated with the loan. They are estimated based on current bank condition and are updated with the actual fees once the actual fees are known.
5. The estimate of the average 3 month Libor forward rate for the year on line 14 is that published by Bloomberg Finance L.P. during August of the prior year and is trued-up to actual average 3 month Libor rate for the year under the loan.
6. Table 5, Col. C reflect the capital expenditures in each quarter
7. Table 5, Col. D reflect the amount of the loan that is drawn down in the quarter
8. Table 5, Col. E is the amount of principle drawn down
9. Table 5, Col F calculates the interest on the principle drawn down to date based on the applicable interest on line 16
10. Table 5, Col. G is the total origination fees in line 10 and is input in the first quarter that a portion of the loan in drawn
11. Table 5, Col. H is calculated as follows:
- (line 1/1000 less Col. E prior quarter)*line 13/4 +line 12/4000+line 11/4000
- Where A = Loan amount in line 1 less the amount drawn down (Table 5, Col. (E)) in the prior quarter
12. The inputs shall be estimated based on the current market conditions and is subject to true up for all inputs , e.g., fees, interest rates, spread, and Table 3 once the amounts are known
13. Prior to obtaining long term debt, the cost of debt, will be 3.28%. If NY Transco obtains project financing, the long term debt rate will be determined using the methodology in Attachment 5 and Attachment 5 contains a hypothetical example of the internal rate of return methodology; the methodology will be applied to actual amounts for use in Attachment A. After the first project is placed into service, NY Transco will use the its actual cost of long term debt determined in Attachment 3. The capital structure will be the actual capital structure up to 53% equity.

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)
Beginning of Year

Item		Transmission Related	Plant Related	Labor Related	Total	
1	ADIT-282	-	-	-		From Acct. 282 total, below
2	ADIT-283	-	-	-		From Acct. 283 total, below
3	ADIT-190	-	-	-		From Acct. 190 total, below
4	Subtotal	-	-	-		
5	Wages & Salary Allocator			#DIV/0!		
6	NP		-			
7	Beginning of Year	-	-	#DIV/0!	#DIV/0!	
8	End of year from Attachment 6b, line 7	-	-	#DIV/0!	#DIV/0!	
9	Average of Beginning of Year and End of Year ((7 +8)/2)	-	-	#DIV/0!	#DIV/0!	Enter as negative Appendix A, line 24.

In filling out this attachment, a full and complete description of each item and justification for the allocation to Columns B-F and each separate ADIT item will be listed, dissimilar items with amounts exceeding \$100,000 will be listed separately. For ADIT directly related to project depreciation or CWIP, the balance must shown in a separate row for each project.

	A	B	C	D	E	F	G
10	ADIT-190	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
11a		-		-			
11b		-		-			
11c		-					
11d		-					
11e		-					
12	Subtotal - p234	-	-	-	-	-	
13	Less FASB 109 Above if not separately removed	-					
14	Less FASB 106 Above if not separately removed	-		-			
15	Total	-	-	-	-	-	

- Instructions for Account 190:
161. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
172. ADIT items related only to Transmission are directly assigned to Column D
183. ADIT items related to Plant and not in Columns C & D are included in Column E
194. ADIT items related to labor and not in Columns C & D are included in Column F
205. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)
Beginning of Year

	A	B	C	D	E	F	G
21	ADIT- 282	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
22a	MACRS for plant additions	-		-			Timing difference related to depreciation for TOTS Projects placed in service

22b						
22c						
...						
...						
...						
...						
...						
...						
...						
23	Subtotal - p275	-	-	-	-	
24	Less FASB 109 Above if not separately removed	-				
25	Less FASB 106 Above if not separately removed	-		-		
26	Total	-	-	-	-	

- Instructions for Account 282:
- 27

28

29

30

31
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Attachment 6a - Accumulated Deferred Income Taxes (ADIT) Worksheet (Beginning of Year)

Beginning of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	
32	ADIT- 283						
33a	COR	-		-			Cost of removal
33b		-					
33c		-					
33d		-					
33e		-					
...							
...							
...							
...							
...							
34	Subtotal - p277	-	-	-	-	-	
35	Less FASB 109 Above if not separately removed	-		-			
36	Less FASB 106 Above if not separately removed						
37	Total	-	-	-	-	-	

- Instructions for Account 283:
- 38

39

40

41

42
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)
End of Year

	Line	Transmission Related	Plant Related	Labor Related	Total	
1	1 ADIT-282		-	-		From Acct. 282 total, below
2	2 ADIT-283		-	-		From Acct. 283 total, below
3	3 ADIT-190		-	-		From Acct. 190 total, below
4	4 Subtotal		-	-		
5	5 Wages & Salary Allocator			#DIV/0!		
6	6 NP		-			
7	7 End of Year ADIT		-	#DIV/0!	#DIV/0!	

In filling out this attachment, a full and complete description of each item and justification for the allocation to Columns B-F and each separate ADIT item will be listed, dissimilar items with amounts exceeding \$100,000 will be listed separately. For ADIT directly related to project depreciation or CWIP, the balance must be shown in a separate row for each project.

	A	B	C	D	E	F	G
8	ADIT-190	Total	Gas, Prod Or Other Related	Transmission Related	Plant Related	Labor Related	Justification
9a		-					
9b		-					
9c		-					
9d		-					
9e		-					
...							
...							
...							
...							
...							
...							
10	Subtotal - p234	-	-	-	-	-	
11	Less FASB 109 Above if not separately removed	-					
12	Less FASB 106 Above if not separately removed	-		-			
13	Total	-	-	-	-	-	

- Instructions for Account 190:
- 14

15

16

17

18
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE
Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)
End of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod Or Other	Transmission	Plant	Labor	
19	ADIT- 282						

		Related	Related	Related	Related	Justification
20a	MACRS for plant additions					Timing difference related to depreciation
20b						
20c						
...						
...						
...						
...						
...						
...						
21	Subtotal - p275	-	-	-	-	
22	Less FASB 109 Above if not separately removed	-				
23	Less FASB 106 Above if not separately removed	-		-		
24	Total	-	-	-	-	

- Instructions for Account 282:
- 25

26

27

28

29
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C

2. ADIT items related only to Transmission are directly assigned to Column D

3. ADIT items related to Plant and not in Columns C & D are included in Column E

4. ADIT items related to labor and not in Columns C & D are included in Column F

5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Attachment 6b - Accumulated Deferred Income Taxes (ADIT) Worksheet (End of Year)

End of Year

	A	B	C	D	E	F	G
		Total	Gas, Prod				
			Or Other	Transmission	Plant	Labor	
			Related	Related	Related	Related	
31a	COR						Cost of removal
31b							
31c							
31d							
31e							
...							
...							
...							
...							
...							
32	Subtotal - p277	-	-	-	-	-	

33	Less FASB 109 Above if not separately removed	-		-		
34	Less FASB 106 Above if not separately removed	-		-		
35	Total	-	-	-	-	

Instructions for Account 283:

- 36
1. ADIT items related only to Non-Electric Operations (e.g., Gas, Water, Sewer) or Production are directly assigned to Column C
- 37
2. ADIT items related only to Transmission are directly assigned to Column D
- 38
3. ADIT items related to Plant and not in Columns C & D are included in Column E
- 39
4. ADIT items related to labor and not in Columns C & D are included in Column F
- 40
5. If the item giving rise to the ADIT is not included in the formula, the associated ADIT amount shall be excluded

Attachment 7 - Example of True-Up Calculation (Note 3)
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

2017		2017			
Revenue Requirement Billed (Note 1)		Actual Revenue Requirement (Note 2)		Over (Under) Recovery	
\$2,164,047	Less	\$2,164,047	Equals	\$0	

Interest Rate on Amount of Refunds or Surcharges	Over (Under) Recovery Plus Interest	Monthly Interest Rate on Attachment 7a	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
		0.4225%				

An over or under collection will be recovered prorata over year collected, held for one year and returned prorata over next year.
If the first year is a partial year, the true-up (over or under recovery per month and interest calculation) will reflect only the number of months for which the rate was charged.

Calculation of Interest					Monthly		
January	Year 2017	-	0.4225%	12	-	-	-
February	Year 2017	-	0.4225%	11	-	-	-
March	Year 2017	-	0.4225%	10	-	-	-
April	Year 2017	-	0.4225%	9	-	-	-
May	Year 2017	-	0.4225%	8	-	-	-
June	Year 2017	-	0.4225%	7	-	-	-
July	Year 2017	-	0.4225%	6	-	-	-
August	Year 2017	-	0.4225%	5	-	-	-
September	Year 2017	-	0.4225%	4	-	-	-
October	Year 2017	-	0.4225%	3	-	-	-
November	Year 2017	-	0.4225%	2	-	-	-
December	Year 2017	-	0.4225%	1	-	-	-
					Annual		
January through December	Year 2018	-	0.4225%	12	-	-	-
Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months					Monthly		
January	Year 2019	-	0.4225%		-	-	-
February	Year 2019	-	0.4225%		-	-	-
March	Year 2019	-	0.4225%		-	-	-
April	Year 2019	-	0.4225%		-	-	-
May	Year 2019	-	0.4225%		-	-	-
June	Year 2019	-	0.4225%		-	-	-
July	Year 2019	-	0.4225%		-	-	-
August	Year 2019	-	0.4225%		-	-	-
September	Year 2019	-	0.4225%		-	-	-
October	Year 2019	-	0.4225%		-	-	-
November	Year 2019	-	0.4225%		-	-	-
December	Year 2019	-	0.4225%		-	-	-
Total Amount of True-Up Adjustment					\$	-	
Less Over (Under) Recovery					\$	-	
Total Interest					\$	-	

Note 1: Revenue requirements billed is input, source data are the invoices from NYISO. The amounts exclude any true ups or prior period adjustments.
Note 2: The actual revenue requirement is input from Attachment 4, line 66, column p. The amounts exclude any true-ups or prior period adjustments.
Note 3: This "Example" sheet will be populated with actuals and used in each year's annual true-up calculation.

True-Up Interest Calculation

Attachment 7a
Page 2

		Pursuant to 18 C.F.R. Section 18 35.19 (a)
	FERC Quarterly Interest Rate	
1	Qtr 3 (Previous Year)	4.69%
2	Qtr 4 (Previous Year)	4.96%
3	Qtr 1 (Current Year)	5.18%
4	Qtr 2 (Current Year)	5.45%
5	Average of the last 4 quarters (Lines 1-4 / 4)	5.07%
6	Interest Rate Used for True-up adjustment (Note B)	0.0507
7	Monthly Interest Rate for Attachment 7 (Line 6 / 12)	0.0042

Attachment 8 - Depreciation and Amortization Rates
HURLEY AVENUE PROJECT - SYSTEM DISTRIBUTION UPGRADE

Account Number	FERC Account	Rate (Annual) Percent
TRANSMISSION PLANT		
1 350.1	Land Rights	
2 352	Structures and Improvements	0.13
3 353	Station Equipment	0.38
4 354	Towers and Fixtures	
5 355	Poles and Fixtures	0.91
6 356	Overhead Conductor and Devices	0.50
7 357	Underground Conduit	
8 358	Underground Conductor and Devices	
9 356.3	Smart Wire Device	2.50
10 PRODUCTION PLANT	All Accounts	
11 DISTRIBUTION PLANT	All Accounts	
GENERAL PLANT		
12 390	Structures & Improvements	
13 391	Office Furniture & Equipment	
14 392	Transportation Equipment	
15 393	Stores Equipment	
16 394	Tools, Shop & Garage Equipment	
17 395	Laboratory Equipment	
18 396	Power Operated Equipment	
19 397	Communication Equipment	
20 398	Miscellaneous Equipment	
INTANGIBLE PLANT		

21 303	Miscellaneous Intangible Plant	
	5 Yr	
	7 Yr	
	10 Year	
	15 year	
	Transmission facility Contributions in Aid of Construction	Note 1

These depreciation and amortization rates will not change absent the appropriate filing at FERC.

Note 1: The Contribution in Aid of Construction (CIAC) made for this project is assumed to be applied to offset all transmission plant categories with the remaining balance in account 35x for the new Smart Wire Devices for the purposes of calculating rate base and depreciation to be recovered.

Attachment 9 - Workpapers

Regulatory Assets																					
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
									May 31	June 30	July 31	Aug. 31	Sept. 30	Oct. 31	Nov. 30	Dec. 31	Jan 31	Feb 28	Mar 31	Apr 30	May 31
No.	Project Name	Recovery Amnt Approved *	Recovery Period Months *	Monthly Amort Exp (b) / (c)	Amort Periods this year	Current Amort Expense x (e)	(d) % Allocated to Formula Rate *	Amort Exp in Formula Rate** (f) x (g)	2020	2020	2020	2020	2020	2020	2020	2020	2021	2021	2021	2021	2021
1a			0	-	12	-	1	-	0	0	0	0	0	0	0	0	0	0	0	0	0
1b				-		-		-													
1c				-		-		-													
...				-		-		-													
1x				-		-		-													
...				-		-		-													
1x				-		-		-													
2	Total Regulatory Asset in Rate Base (sum lines 1a-1x):								-												

* Non-zero values in these columns may only be established per FERC order
**All amortizations of the Regulatory Asset are to be booked to Account 566

Abandoned Plant																					
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
									March	April	May	June	July	August	September	October	November	December	January	February	March
No.	Project Name	Recovery Amnt Approved *	Recovery Period Months *	Monthly Amort Exp (b) / (c)	Amort Periods this year	Current Amort Expense x (e)	(d) % Allocated to Formula Rate *	Amort Exp in Formula Rate (f) x (g)	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019
3a				-		-		-													
3b				-		-		-													
3c				-		-		-													
...				-		-		-													
...				-		-		-													
...				-		-		-													
...				-		-		-													
...				-		-		-													
3x				-		-		-													
4	Total Abandoned Plant in Rate Base (sum lines 3a-3x):																				

* Non-zero values in these columns may only be established per FERC order

Land Held for Future Use (LHFU)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
No.	Subaccount No.	Item Name	Land Held for Future Use and Estimated Date	March	April	May	June	July	August	September	October	November	December	January	February	March	Average of Columns (d) Through (p)
5a				2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2019	2019	2019	-
5b																	-
5c																	-
...																	-
...																	-
...																	-
...																	-
...																	-
...																	-
5x																	-
6	Total LHFU in rate base (sum lines 5a-5x):																-

CWIP in Rate Base

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	
No.	Project Name	job ID	Construction Start Date	Estimated in-service date	Approval Doc. No.	March	April	May	June	July	August	September	October	November	December	January	February	March	Avg (f) through (r)	% approved for recovery	Rate Base Amnt (s) x (t)	
7a																			-	0.0%	-	
7b																			-	0.0%	-	
7c																			-	0.0%	-	
...																			-	0.0%	-	
																			-	0.0%	-	
																			-	0.0%	-	
																			-	0.0%	-	
...																			-	0.0%	-	
																			-	0.0%	-	
7x																			-	0.0%	-	
8	Total (sum lines 7a-7x)																		Total CWIP in Rate Base			-

Change to recovery percent in Column (t) requires FERC order

Actual Additions by FERC Account
The total of these additions should total the additions reported in the FERC Form No.1 on page 206, lines 48 to 56

[illegible]

Intangible Plant Detail

The total

	Item	Description	Source	Service Life	Amount
11a			Company Records		
11b			Company Records		
11c			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
...			Company Records		
11x			Company Records		
12	Total	(sum lines 11a-11x) ties to p207.5.g			

12	Total (sum lines 11a-11x) ties to p207.5.g
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Detail of Affiliate Charges Included in NY Transco's Books as Requested by Certain Parties to the Filing

Transactions between NY Transco and any entity that is associated (affiliated) with NY Transco must be reported on page 429 of the Form No. 1. The chart below is to include all charges to the NY Transco by an affiliate, by Affiliate and by FERC account number

	Central Hudson G&E	Consolidated Edison	National Grid	NY State E&G	Rochester G&E	Orange & Rockland	Niagara Mohawk	Total
13a								-
13b								-
13c								-
13d								-
13e								-
13f								-
13g								-
13h								-
13i								-
13j								-
13k								-
13l								-
13m								-
13n								-
13o								-
13p								-
13q								-
13r								-
13s								-
13t								-
13u								-
13x								-
14	Total	-	-	-	-	-	-	-

(sum lines 13a-13x)