Attachment I

Exhibit No. TRANSCO-400

Testimony of Stephen Cole-Hatchard, Jr.

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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

NEW YORK TRANSCO LLC	**)**	**DOCKET NO. ER24-____-000**

DIRECT TESTIMONY OF
STEPHEN COLE-HATCHARD, JR.

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STEPHEN COLE-HATCHARD, JR.

I. Introduction

Q 1. PLEASE STATE YOUR NAME AND BUSINESS ADRESS.

A 1. My name is Stephen Cole-Hatchard, Jr. My business address is 1 Hudson City Center, Hudson, NY 12534.

Q 1. IN WHAT CAPACITY ARE YOU EMPLOYED?

A 2. I am currently the Project Director for New York Transco LLC ("Transco"), responsible for all project development activities associated with the Propel New York Energy Project ("Propel NY Energy Project" or "Project"). Prior to my current position, I was the Senior Project Manager for Transco for the Rock Tavern to Sugarloaf Project ("RTS Project"), which is part of the "Segment B" or New York Energy Solution ("NYES") project, which the New York Independent System Operator, Inc. ("NYISO") had selected as the more efficient or cost-effective transmission solution from among competing projects to address a transmission need driven by a public policy requirement ("Public Policy Transmission Need") identified by the New York State Public Service Commission ("NYPSC").

Q 3. WHAT ARE YOUR AREAS OF RESPONSIBILITY IN YOUR CURRENT POSITION?

A 3. As Project Director, I lead and coordinate overall project development for the Propel NY Energy Project. Specifically, I am responsible for planning and managing every aspect of the Project's development to ensure that it remains within budget and stays on schedule from initiation through closeout. This includes determining contracting strategies for all aspects of the Project while identifying, quantifying, and mitigating risks, confirming procurement of all necessary materials when needed, scheduling necessary outages to complete construction activities, identifying appropriate staging areas for Project equipment, and supervising a team of office and field personnel who will oversee the construction and commissioning of the Project.

Q 4. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EMPLOYMENT EXPERIENCE.

A 4. I have a Bachelor of Science in Civil Engineering from Manhattan College and a Master of Business Administration with specializations in Corporate Finance, Management, and Real Estate from New York University's Stern School of Business. I started my career in 2013 by joining Consolidated Edison Company of New York, Inc.'s ("Con Ed") leadership development program. During my time at Con Ed, I was a gas operations Construction Supervisor and Chief Construction Inspector in substation and transmission construction. I have experience building both underground and overhead electric transmission lines and substations in congested urban and suburban areas.

From 2015 to 2017, I was a Chief Construction Inspector where I had numerous responsibilities including oversight of excavation crews that were exposing and repairing critical 345 kilovolt ("kV") electric lines and gas transmission mains throughout the five boroughs of New York City. From 2017 to 2019, I was the lead Chief Construction

Inspector for a 6-mile underground 138 kV electric feeder across Queens, New York. I was then promoted to Engineer in a group tasked with creating and implementing alternative contracting strategies for large capital projects faced with compressed timelines and budgets.

In 2020, I joined Transco as Project Manager for the RTS Project and was later promoted to Senior Project Manager in 2021 before ascending to my current position of Project Director. The RTS Project was a 12-mile overhead transmission line rebuild that included the demolition of an existing station and complete rebuild of a new substation and the construction of an additional bay at an energized breaker-and-a-half station. The RTS Project was delivered ahead of schedule and under budget.

Q 5. HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE A REGULATORY BODY?

A 5. I submitted written direct testimony in Transco's NYPSC Public Service Law ("PSL") Article VII proceeding involving the RTS Project in Case 20-T-0549.

II. Purpose and Scope of Testimony

Q 6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A 6. The purpose of my testimony is to describe the significant construction risks in developing the Propel NY Energy Project. Specifically, I describe the risks associated with constructing underground and submarine cables in highly congested areas.

Q 7. WHAT TOPICS WILL YOU DISCUSS IN THE REMAINDER OF YOUR TESTIMONY?

A 7. I will describe the many risks and challenges of constructing the Propel NY Energy Project. In particular, I will describe the challenges of constructing a project of this size and complexity in the congested areas of Long Island, Westchester County and New York City

as well as the challenges specific to the material procurement, labor, equipment staging and storage of nearly 304 circuit miles of terrestrial and submarine transmission cable in those congested areas. I will describe the limited options Transco has for sourcing the necessary materials and equipment, including the sophisticated transportation needs to deliver the materials and equipment. Lastly, I will describe the overall challenges of constructing underground and submarine cables and the need for horizontal directional drilling under the East River in a non-standard manner because of the space limitations in the congested urban Project area.

III. Overview of the Project

Q 8. PLEASE PROVIDE AN OVERVIEW OF THE PROJECT.

A 8. Transco was awarded the development rights to the Project through the Public Policy Transmission Planning Process ("PPTPP") administered by the NYISO in accordance with the requirements of its Open Access Transmission Tariff ("OATT" or "Tariff"). The Project includes the construction of 4 new electric transmission substations and approximately 230 circuit miles of new underground 345 kV transmission cable, 34 circuit miles of new underground 138 kV transmission cable and 40 circuit miles of new submarine 345 kV transmission cable, all within heavily congested areas of New York City, Long Island, and Westchester County. Mr. Haering provides a detailed summary and description of the Project's specific components in his testimony.

Q 9. HAS A PROJECT OF THIS SIZE AND SCOPE BEEN CONSTRUCTED IN THIS PART OF NEW YORK?

A 9. I have been responsible for utility project development in the greater New York City area for roughly 10 years. The size and scope of the Project is unprecedented: it involves the

development of 4 new substations in heavily congested areas; nearly 304 circuit miles of underground and submarine three-phase electric transmission cables requiring 88 miles of excavation; two major water crossings, including roughly 6,000 feet of horizontal directional drilling across the East River; and multiple trenchless crossing locations, all within heavily congested areas of New York City and its immediate surrounding suburbs of Nassau, Suffolk, and Westchester Counties. Previous submarine lines have been built in the New York City area, including the Cross Sound Cable, Neptune, and HTP transmission lines, but all were single submarine cables that were built before 2010 and were strategically sited to take advantage of existing infrastructure to lessen the challenges associated with the submarine landing spots. Also, two of those projects were located in Long Island and did not cross into New York City. Consolidated Edison Company of New York, Inc. has recently installed major 138 kV underground transmission cables; however, those projects did not require PSL Article VII permitting because the cables were entirely underground and fully within a single city with a population greater than 125,000. Moreover, that project included significantly fewer miles of transmission cable, and thus did not have the same permitting or construction risk as compared to the Propel NY Energy Project.

Q 10. WHAT MAKES THIS PROJECT PARTICULARLY DIFFICULT TO CONSTRUCT?

A 10. Other than the new substation development, the construction efforts associated with the Propel NY Energy Project all occur underground and underwater. There is simply no alternative. All of the construction will occur within heavily developed and congested areas and involves laying nearly 304 circuit miles of 345 kV or 138 kV electric

transmission cable. In simple terms, the Propel NY Energy Project is a single project solution required to meet a PPTN by a required in-service date that is essentially no less than 7 very challenging, independent transmission line and substation projects. Absent this comprehensive project, these individual projects would likely be implemented over a 10 to 20-year timeframe under normal utility planning processes. While utilities and developers have successfully completed projects in the greater New York City area within the past 4 years, all the work completed in those 4 years is significantly less than the scope of work that is required for the Propel NY Energy Project. In my description of the construction risks, I will outline the significant challenges that are not necessarily present for other more conventional projects.

IV. Description of the Risks and Challenges

Q 11. PLEASE DESCRIBE THE RISKS AND CHALLENGES FOR THE DEVELOPMENT OF THE PROJECT.

A 11. There are many risks and challenges associated with the Propel NY Energy Project. I have organized those construction risks into the following areas:

- Permitting risk
- Scheduling risk
- Procurement risk
- Underground/submarine development risk
- Outage risk

Q 12. WHAT ARE THE PERMITTING RISKS ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT?

A 12. In his testimony, Mr. Haering includes a comprehensive description of the necessary permits Transco must obtain in order to construct the Project. He also describes the risks associated with obtaining those permits, including the parkland alienation effort Transco expects to conduct. I would only add that the Project has a required in-service date of May

2030 and we will need to obtain the necessary permits in the development timeframe that allows us to begin construction four years prior to that date. A significant component of the Project need is to reduce congestion associated with the anticipated offshore wind project development. In order to allow for the full benefit expected by New York constituencies, Transco must receive the necessary permits and complete its work by the required in-service date. If Transco does not complete its work, the resiliency and reliability benefits provided by the Project will not be realized, and the offshore wind facilities will need to be curtailed because the existing transmission capability cannot support it.

Q 13. WHAT ARE THE SCHEDULING ISSUES YOU EXPECT TO CONTEND WITH?

A 13. The typical linear transmission project of this magnitude is spread out over a larger geographic area. The Project, by contrast, is located in a relatively small, but extremely dense geographic area. Because of this unique element of the Project, we expect to face the following scheduling/execution challenges:

- Local ordinances: Many communities in the Project area have noise, light, and work hour restrictions that Transco will be required to comply with. For example, our active work in most areas is expected to be limited to the hours of 8:00 am – 5:00 pm, or very near to this window. The NYPSC, as part of the permit authorizations, should include the approved work schedule, including workable hours; however, unless we receive specific authorization not to comply with other requirements, we could receive work stipulations from the New York City, the respective counties, or other municipalities that differ from the NYPSC schedule.

- Daily production efficiency: Typically, production rates for electric transmission construction are approximately 75 feet per day. Because the Project involves installing nearly 304 circuit miles of transmission line within 4 years, we will need to have multiple work crews working at the same time at different locations to meet the in-service date.

  Because the majority of the work will be underground, Transco will need to restore all work areas with steel plates to allow for ordinary street activity during non-

working hours and remove those plates before construction activities may commence. I expect that it will take at least two hours to set up for the construction activities and the same amount of time to restore the area for normal passage. Under the restrictions of an 8:00 am – 5:00 pm work day, this will only provide Transco with four hours of active work time to perform necessary work activities.

Additionally, in an ideal construction scenario the work progresses in an assembly-line like manner; excavation crews perform their work, a separate crew installs pipe and the required protection, followed by a restoration crew performing backfill operations within a few days. Often times, the permitted work hours between midblock segments and the immediately adjacent intersections have different work hours, and they are not necessarily aligned due to traffic conditions. The less overlapping hours available for this assembly-line like manner the less efficient the construction crews are. The team will be challenged with these coordination issues for all 88 miles of excavation work.

- Staging: The construction activities will require the use of heavy machinery and materials. Of the total 304 circuit miles of transmission cable, we anticipate needing nearly 264 circuit miles of terrestrial electric transmission cable alone, with the remaining 40 circuit miles consisting of submarine cable. This terrestrial transmission cable needs to be specially ordered and manufactured into approximately 2,000-foot-long segments. We anticipate having to handle nearly 700 individual reels of cable, with each reel weighing at least 20 tons. We will need sufficient space to house/store this material and the necessary machinery; and also be able to move it where needed for construction activity on a daily basis.

- Labor: The work needed to construct the Project is highly specialized and requires skilled labor to accomplish. Because other transmission developers and offshore wind developers, as well as some of the local utilities with development projects of their own, are in need of similar labor skill sets, we expect there to be a shortage of labor with the required skills and necessary experience to complete the Project. It will be difficult to find contractors with a core workforce with the ability to supply resources for this magnitude of a project. We will also need multiple work crews throughout the day, so if the schedule slips for any reason, we will need to develop strategies to return to schedule. The Jones Act also introduces uncertainty and risk limiting the number of vessels that are available to install the submarine cables across the Long Island Sound, as more fully described in Mr. Tsoukalis' testimony.

- Road shutdowns: Certain locations will require us to shut down the road entirely and plan detours. This will take coordination with the local neighborhoods, the City of New York and New York State departments of transportation and other affected entities.

Q 14. YOU MENTION THE USE OF HEAVY EQUIPMENT AND MATERIALS, WILL THERE BE ANY COMPLICATIONS REGARDING TRANSPORTING THIS EQUIPMENT?

A 14. Yes, both the urban and suburban areas in the Project area have narrow roads leading to the anticipated construction sites. We will require the use of tractor trailers to move the cable reels and other large pieces of equipment to where they need to be with limited staging areas as noted above. It will require significant time and effort to identify the appropriate routing for the trucks so that we are not overloading bridges and only utilizing roadways that will accommodate the size and weight of the vehicles to make necessary stops and turns.

Q 15. WHAT ARE THE RISKS ASSOCIATED WITH PROCURING EQUIPMENT AND MATERIALS FOR THE PROJECT?

A 15. We anticipate that the current global supply chain shortages on equipment and construction materials will also risk the completion of the Project on time. We have already solicited multiple offers from different suppliers to be able to mitigate this risk, but the reality is that we only have a few viable options. For example, I mentioned that we will need to order nearly 40 circuit miles of submarine transmission cable. The current lead time for this cable, as well as the Phase Angle Regulators ("PARs") and autotransformers needed for the Project, is in the 6 – 7 year range.

We have solicited multiple vendors, but there is a limited pool of vendors that have produced the required cable at the 345kV voltage class. The majority of viable manufacturers are overseas, and we will need to ship that material to the Project site. Irrespective of the manufacturers being overseas or domestic, all manufacturers will need to ship at least a portion of the cable. There are only a handful of vessels that are capable

of transporting the required cabling to the Project site. Due to high demand and limited supply, reservation of the necessary vessels to transport the cable will be challenging and could lead to delay.

Further, we have identified only a handful of viable companies that can manufacture the PARs and autotransformers. In order to reduce the risk, we expect to order from different vendors and will not transport all of the major equipment in a single voyage. Once the manufacturing of the PARs (and the transmission cable) is complete, careful coordination of delivery with limited availability of transport vessels is required, and the reservation of those vessels could become increasingly challenging and impact project schedule. Any delay in an earlier stage of the Project will further compound risks in the later stages of the Project when the transmission cables, autotransformers, and PARs are scheduled to arrive.

Q 16. WHAT ARE THE UNIQUE RISKS ASSOCIATED WITH CONSTRUCTING UNDERGROUND CABLES?

A 16. Unlike normal overhead transmission where the terrain is observable and it is easier to identify (and avoid) obstacles, underground obstructions are much more challenging to identify in advance of construction. Often when the final routing is set, the only way to bypass an obstacle in real-time is to address the issue; in other words, at that point there is no alternative. Although we can rely on engineered drawings and information requests to the utilities in the area, there will still be unexpected findings. Often we will not know the extent of the underground obstructions that we will encounter until we excavate. Some locations may require advanced relocation work to move existing facilities ahead of our

construction. We need to carefully excavate the streets because we will be crossing water, sewer, gas, and electric lines that are highly critical to the greater New York City area.

Also, as I mentioned, the specially ordered terrestrial transmission cable will be manufactured into 2,000-foot-long segments. This will require manholes approximately every 2,000 feet; these manholes are currently scheduled to be approximately 20' x 40' structures. The manholes require an area without any gas mains or utility lines for the most efficient construction effort. If we cannot find a suitable space for the manholes, existing utilities will need to be relocated to allow for the necessary clearance, adding cost and risk to the Project. Certain facilities, for example, a gas or electric transmission feeder, that cannot be moved will result in a need to engineer a solution as the situation arises.

Q 17. WHAT ARE THE UNIQUE RISKS ASSOCIATED WITH CONSTRUCTING SUBMARINE CABLES?

A 17. Submarine development is difficult for many reasons. Submarine cable installation is an incredibly technical and specialized scope of work. As a result, securing those resources is a significant challenge, particularly with the amount of offshore wind development anticipated later in this decade.

Access to the necessary equipment is also an issue – lead times are easily in the seven-year timeframe due to offshore wind developers holding most of the manufacturing commitments. Once Transco is able to secure a production slot, we still need to navigate the risks associated with installation of the submarine cable. The Long Island Sound already has pre-existing, critical facilities that Transco will need to cross. Crossing over preexisting facilities requires significant coordination with the utility owner(s), and there

is always the risk of inadvertent damage during installation. There are also challenges and risks around the landfall of the submarine cables.

Q 18. CAN YOU EXPLAIN SOME OF THE TRENCHLESS CROSSING TECHNIQUES THAT WILL BE UTILIZED?

A 18. There are several trenchless crossing techniques that will be utilized throughout the Project area, including jack and bore and horizontal directional drilling ("HDD"). These techniques are typically utilized in locations where traditional open cut excavation techniques are not possible (*i.e.*, railroad crossings, waterbody crossing, major arterial highways, etc.).

The most significant HDD is the crossing of the East River near the Whitestone Bridge. It is currently expected to be roughly 6,000 feet long. Historical geotechnical conditions in this location will present their own challenges during drilling operations, but it is the laydown space required on each end that poses the most significant challenge and risk. In a typical drill setup the total length of pipe to be pulled through, in this case 6,000 feet, is typically laid out to enable the pipe to be pulled through continuously without stopping to prevent potential cave-ins of the drilled hole. Given the location, the construction team will be challenged to find 6,000 feet of space on either side of the drill location. The success of this drill will be dependent on close coordination with multiple stakeholders to maximize space available, and efficient use of the laydown space provided. In the event we are not able to secure sufficient space, the risk of successfully completing the installation without unexpected impact on cost and schedule will increase.

Additionally, each landfall for the submarine cables crossing the Long Island Sound will require their own HDD. We are currently expecting four landfall drills at each end for a total of eight landfall drills. Each of the four landfalls are in very congested areas on both

the north and south sides and require parkland alienation legislation, which Mr. Haering describes in his testimony. The landfall locations on each side of the submarine crossing are incredibly congested and that will present a challenge to stage all four drill landings.

Q 19. WILL ANY OF THE EXISTING ELECTRIC FACILITIES IN THE PROJECT AREA REMAIN ENERGIZED DURING THE CONSTRUCTION EFFORT?

A 19. Yes. Complicating construction efforts is the fact that the work in the streets will be around other utilities' electric facilities that will remain energized during construction. Furthermore, work on the Project will be around existing electrical substations that are typically designed to accommodate the existing equipment with little room for expansion. As a result, work is often performed in tight confines and not as efficiently as in a new substation. Because we are working within live substations, we will need to coordinate outages on the bulk power system to facilitate the final cutover work into the stations.

Outage scheduling will require significant coordination with the affected utilities. The stations that we are interconnecting with are critical to maintaining the reliability of the electrical grid. While we will maximize the amount of pre-outage work, when we enter into an outage, we are subject to availability and timing provided by the local utilities for work that must be performed during the outage.

Q 20. IS TRANSCO REQUESTING AN INCENTIVE ADDER TO ITS BASE RETURN ON EQUITY TO ADDRESS THE PROJECT RISKS AND CHALLENGES DESCRIBED IN YOUR TESTIMONY?

A 20. Yes. As explained in detail in Mr. Haering's testimony, Transco is requesting a 150 basis point adder to its base return on equity ("ROE") component to address the significant risks and challenges Transco will face in the development of the Project ("Risk and Challenges Adder").

Q 21. IS THE RISK AND CHALLENGES ADDER APPROPRIATE UNDER THE CIRCUMSTANCES?

A 21. Yes. The testimonies of Mr. Mullin, Mr. Haering, Mr. Caso, Mr. Tsoukalis and Mr. McKenzie support, among other incentive rate requests, Transco's Risk and Challenges Adder request. I will not reiterate those comments here. However, I briefly note that the Risks and Challenges Adder is designed to mitigate the demonstrable risks and challenges the developer faces in the development of its project. I am not aware of any completed or proposed project in the past 50 years in this area or even in this region that has the size and scope of Transco's Project. The Propel NY Energy Project is located in one of the most congested urban and suburban residential and commercial areas in the country, and as a result, the Project is entirely composed of underground or submarine transmission cables, involves two separate water crossings, will require seven separate State Legislative park alienation pronouncements, and has a planned four-year construction schedule. The Project faces significant financial risks and challenges, and as this and other testimonies indicate, a 150 basis point adder will better allow Transco to address those risks. Given the demonstrable construction risks outlined in my testimony, it is certainly appropriate to include a 150 basis point ROE adder given the complexities associated with the development of the Project. There is simply no comparison on project scope that I am aware of.

Q 22. DOES THIS CONCLUDE YOUR TESTIMONY?

A 22. Yes.

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New York Transco, LLC	)	**Docket No. ER24-____-000**

AFFIDAVIT OF STEPHEN COLE-HATCHARD, JR.

Pursuant to 28 U.S.C. § 1746, I, Stephen Cole-Hatchard, Jr., under penalty of perjury, state under oath that the information contained in the foregoing "Prepared Direct Testimony of Stephen Cole-Hatchard, Jr." on behalf of New York Transco, LLC is true, correct, accurate, and complete to the best of my knowledge and belief.

Executed this 17 day of October 2023

_/s/*Stephen Cole-Hatchard, Jr.*__
Stephen Cole-Hatchard, Jr.