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March 11, 2026

-VIA ELECTRONIC FILING-

Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 20260020-EI
**Petition for determination of need for Andytown-Oasis transmission lines project in
Broward and Miami-Dade Counties, by Florida Power & Light Company.**

Dear Mr. Teitzman:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") in the above-referenced docket is the testimony and exhibits of FPL witness Miguel A. Yanes.

Exhibits MAY-1 and MAY-4 to Mr. Yanes's testimony contain confidential information. This electronic filing includes only the redacted versions of those documents. Contemporaneous herewith, FPL will file via hand-delivery a Request for Confidential Classification.

Please feel free to contact me at 561-304-5662 if you have any questions about this transmittal.

Sincerely,

/s/ William P. Cox
William P. Cox
Senior Counsel
Florida Bar No. 0093531

Enclosure

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**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 20260020-EI**

**FLORIDA POWER & LIGHT COMPANY
DIRECT TESTIMONY OF MIGUEL A. YANES**

Filed: March 11, 2026

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1 **I. INTRODUCTION AND SUMMARY**

2

3 **Q. Please state your name and business address.**

4 A. My name is Miguel A. Yanes. My business address is 4200 W. Flagler Street, Miami,
5 Florida 33134.

6 **Q. By whom are you employed and what position do you hold?**

7 A. I am employed by Florida Power & Light Company (“FPL” or the “Company”) as
8 Senior Director, Transmission Services and Planning.

9 **Q. Please describe your duties and responsibilities in that position.**

10 A. My responsibilities include overseeing the Transmission and Distribution Planning
11 organization, which develops long-term system plans to address load growth, North
12 American Electric Reliability Corporation (“NERC”) Reliability Standards, and system
13 performance. I have also served on various NERC groups, such as the NERC
14 Resources Subcommittee, the NERC Frequency Working Group, Florida Reliability
15 Coordinating Council (“FRCC”) Chair for Interregional Transfer Capability Study.
16 Currently, I am a member of the North American Transmission Forum, Chair of the
17 FRCC Federal Energy Regulatory Commission (“FERC”) Task Forces for Order 881
18 and Order 1920, and NERC Certified Reliability Coordinator.

19 **Q. Please describe your educational background and professional experience.**

20 A. I have a Bachelor of Science degree in Electrical Engineering from Florida
21 International University. I joined FPL in 2002 and have more than 24 years of technical
22 and managerial experience gained from serving in a variety of positions within FPL.
23 Prior to my current position, I served as FPL’s Senior Manager of System Operations

1 responsible for ensuring the safe and reliable performance of the FPL Bulk Electric
2 System (“BES”), which included the real-time operation of FPL’s generation,
3 transmission, and substation assets and coordination with the FRCC and its members.

4 **Q. Are you sponsoring any exhibits in this case?**

5 A. Yes. I am sponsoring the following exhibits, which are attached to my direct testimony.

- 6 • Exhibit MAY-1 FPL Electrical Transmission Grid Map
- 7 • Exhibit MAY-2 Map of Study Area with Existing Facilities and Proposed
8 Project
- 9 • Exhibit MAY-3 Andytown-Oasis Expected Construction Schedule
- 10 • Exhibit MAY-4 List of Contingencies

11 **Q. What is the purpose of your testimony?**

12 A. The purpose of my testimony is to sponsor and support FPL’s request for a
13 determination of need for the Andytown-Oasis Transmission Lines project (“AOP” or
14 “Project”). Specifically, my testimony presents the following information in support
15 of the AOP:

- 16 • General overview of the FPL transmission system;
- 17 • A general description of the AOP including the design and operating voltage of
18 the proposed transmission lines, the starting and ending points of the lines, the
19 approximate cost of the AOP, and the projected in-service date;
- 20 • Discussion of FPL’s transmission planning process;
- 21 • The specific conditions, contingencies, and factors that demonstrate the need
22 for the AOP, including the transmission reliability benefits of the AOP;

- 1 • The alternatives to the AOP that were evaluated and rejected by FPL in favor
2 of the AOP; and
- 3 • The adverse consequences to FPL’s electric system and customers if the AOP
4 is delayed or denied.

5 **Q. Please summarize your testimony.**

6 A. FPL is proposing to build four new transmission lines: (1) one 500 kV line starting at
7 FPL’s existing Andytown substation in Broward County and ending at FPL’s planned
8 Oasis substation in Miami-Dade County; (2) one 500 kV line starting at FPL’s existing
9 Quarry substation in Miami-Dade County and ending at FPL’s planned Oasis
10 substation in Miami-Dade County; (3) one 230 kV line starting at FPL’s planned Oasis
11 substation in Miami-Dade County and ending at FPL’s existing Quarry substation in
12 Miami-Dade County; and (4) one 230 kV line starting at FPL’s planned Oasis
13 substation in Miami-Dade County and ending at FPL’s existing Levee substation in
14 Miami-Dade County. FPL’s analysis of multiple transmission alternatives identified
15 the AOP as the most cost-effective and efficient solution to: (a) address future thermal
16 overloads and low voltage conditions in Miami-Dade County under contingency events
17 in compliance with mandatory NERC Reliability Standards TPL-001-5.1¹ and NUC-
18 001-4²; (b) maintain transmission reliability for FPL customers in Miami-Dade
19 County; and (c) increase power transfer capability of the transmission system to support
20 growing demand in Miami-Dade County.

¹ NERC Reliability Standard TPL-001-5.1 defines the scenarios and expected levels of system performance the BES must comply within the long-term planning horizon.

<https://www.nerc.com/globalassets/standards/reliability-standards/tpl/tpl-001-5.1.pdf>

² NERC Reliability Standard NUC-001-4 establishes coordination requirements between nuclear plant generator operators and transmission entities to ensure reliable long-term system planning and operation.

<https://www.nerc.com/globalassets/standards/reliability-standards/nuc/nuc-001-4.pdf>

1 The AOP project accounts for the growing electric demand in Miami-Dade County³,
2 in compliance with NERC Reliability Standards and meeting transmission system
3 resiliency needs to address the rising need for low-cost electricity and support
4 economic well-being of residents across Miami-Dade County. The estimated
5 construction cost for the Project is \$781.89 million. The final cost of the Project is
6 subject to the ultimate line routing, length, and conditions of certification required by
7 the Transmission Line Siting Board. This Project will maintain transmission reliability
8 in Miami-Dade County by minimizing the exposure to double contingency events and
9 provide hardened infrastructure capable of withstanding major storms.

10

11 **II. OVERVIEW OF FPL’S TRANSMISSION SYSTEM**

12

13 **Q. Please describe FPL’s transmission system.**

14 A. The FPL transmission system is comprised of approximately 9,700 circuit miles of
15 transmission lines and 932 substations that integrate FPL’s generation and distribution
16 system. FPL’s transmission system interconnects with a larger transmission network,
17 which includes other utilities in Florida and the Eastern Interconnection (“EI”)
18 transmission network. The EI reaches from central Canada eastward to the Atlantic
19 coast, south to Florida and west to the foot of the Rockies. The EI has multiple points
20 of interconnection with other utilities that enable power to be exchanged during
21 planned and unplanned scenarios.

³ Miami-Dade County represents nearly one quarter of FPL’s total system load in 2025.

1 **Q. How does FPL design its transmission system?**

2 A. The FPL transmission system is designed to integrate all FPL generation resources to
3 serve FPL’s customers and to meet FPL’s firm long-term transmission service
4 obligations in a reliable and cost-effective manner. FPL plans, designs, and operates
5 its transmission system in accordance with requirements established by NERC
6 Reliability Standards. NERC Reliability Standard TPL-001-5.1 defines the scenarios
7 and expected levels of system performance for the BES over the long-term planning
8 horizon. In general, the transmission system must remain stable, with both thermal and
9 voltage limits maintained within applicable facility ratings for each contingency
10 category listed on Table 1 of NERC Reliability Standard TPL-001-5.1.⁴ As part of its
11 transmission planning criteria, FPL complies with the system performance
12 requirements of the NERC Reliability Standard TPL-001-5.1.

13 **Q. Please provide a brief description of the existing load and electric characteristics.**

14 A. FPL manages the most expansive Transmission & Distribution (“T&D”) grid in the
15 state of Florida. FPL’s T&D grid currently serves more than 6 million customer
16 accounts representing 12 million people in 43 counties in peninsular and Northwest
17 Florida. FPL’s all-time summer peak demand is 28,733 MWh on July 31, 2025, and
18 the all-time winter peak is 27,668 MWh on February 2, 2026. An overview of FPL’s
19 existing electrical transmission network indicating the general location of generating
20 plants, substations, and transmission lines is shown in Exhibit MAY-1.

⁴ NERC Reliability Standard TPL-001-5.1 is located at <https://www.nerc.com/globalassets/standards/reliability-standards/tpl/tpl-001-5.1.pdf>. The referenced Table 1 is on Pages 21-29 of this standard.

1 Exhibit MAY-2, Page 1 is a map showing the AOP, featuring the study area for the
2 project with the existing facilities in the area and the general location of the proposed
3 project lines. Page 2 of Exhibit MAY-2 is a more detailed system view of the study
4 area with the existing and proposed project facilities.

5 **Q. Why are the four lines needed for this project and could FPL stagger the**
6 **implementation of these lines for the AOP beyond 2033?**

7 A. The four lines are necessary to address the identified NERC Reliability Standards TPL-
8 001-5.1 and NUC-001-4 violations beginning in 2033 as identified in the 2025
9 transmission planning studies. While FPL plans to stagger the completion dates of the
10 AOP lines in multiple phases between 2031 and 2033, this project must be completed
11 by December 2033 in order to maintain compliance with the NERC Reliability
12 Standards based on the most recent transmission planning assessment studies.

13 **Q. Why is the AOP project a mix of 500 kV and 230 kV lines?**

14 A. The proposed 500 kV lines provide increased transfer capabilities into Miami-Dade
15 County while the 230 kV transmission lines enable effective distribution closer to the
16 load demand area in Miami-Dade County.

17 **Q. What is FPL’s timetable for permitting, right-of-way acquisition, design, and**
18 **construction of the AOP?**

19 A. Exhibit MAY-3 provides an indicative schedule of permitting, right-of-way
20 acquisition, design, and construction for the AOP.

21 **Q. What is FPL’s estimated construction cost of the AOP?**

22 A. The estimated construction cost of the AOP is \$781.89 million (\$699.8 million
23 Cumulative Present Value Revenue Requirement (“CPVRR”).

1 **Q. What is the projected in-service date for the AOP?**

2 A. The projected in-service date is December 2033.

3

4 **IV. FPL PLANNING PROCESS**

5

6 **Q. How does FPL determine the need for new transmission lines?**

7 A. FPL identifies and analyzes the need for new transmission lines through its annual
8 transmission planning process. The transmission planning process consists of five major
9 steps: (1) the preparation of system models, (2) the assessment of the transmission
10 system performance to comply with NERC Reliability Standards, (3) the development
11 and evaluation of transmission expansion alternatives, (4) the selection and approval of
12 the preferred alternatives, and (5) the incorporation of the expansion plan into the
13 FRCC Regional Planning Process.

14

15 FPL plans, designs, and operates its transmission system to comply with NERC
16 Reliability Standards. NERC Reliability Standard TPL-001-5.1 defines scenarios and
17 expected levels of system performance that the BES must comply with in the long-term
18 planning horizon. In general, the system must remain stable, and both thermal and
19 voltage limits must stay within applicable facility ratings for each of the operating
20 contingency categories listed on Table 1 of NERC Reliability Standard TPL-001-5.1.
21 The transmission planning process incorporates meeting the NERC Reliability
22 Standards as well as proposed projects required within short-term planning horizons to
23 address additional needs across the BES. These include changes of power transfers

1 across areas associated with transmission service, generator interconnection requests
2 or generation retirements, growing load demand, and maintaining overall transmission
3 reliability of the BES, such as providing loop service to customers and the addition of
4 relay points on transmission lines with several distribution stations. The planned
5 transmission system, with its expected loads and transfers, must be stable and within
6 applicable ratings for all categories of contingency scenarios. The design of new
7 transmission connections should consider and minimize, to the extent practical, the
8 adverse consequences of all contingency categories and maintain transmission
9 reliability.

10 **Q. Did FPL perform any studies to determine the need for the AOP?**

11 A. Yes. Transmission assessment studies were conducted by FPL in 2025. These studies
12 have identified that by 2033, FPL’s existing transmission network will not be able to
13 support the growing load demand in Miami-Dade County. These potential system
14 limitations will require additional facilities to meet transmission reliability and increase
15 transfer capability for Miami-Dade County as shown in Exhibit MAY-4.

16 **Q. Please describe the contingency scenarios identified that support the need for
17 proposed AOP Project.**

18 A. FPL transmission assessment studies analyzed seven contingency categories
19 (scenarios) that are explicitly defined by NERC Reliability Standard TPL-001-5.1 on
20 Table 1 (Category P1 through P7). Each category includes single-contingency or
21 multiple-contingency events with specific overload and/or under-voltage conditions to
22 identify the potential risk of cascading interruptions and/or instability in the
23 transmission system. As a result, FPL transmission assessment studies in 2025

1 identified the future contingency scenarios and corresponding system stability
2 challenges (*i.e.*, thermal overload and low voltage conditions) that must be addressed
3 as shown in Exhibit MAY-4 in order to maintain compliance with the NERC Reliability
4 Standards. These identified future contingency scenarios serve as the basis for the AOP
5 need.

7 V. NEED FOR THE PROJECT

9 **Q. Please describe the needs addressed and benefits provided by the AOP.**

10 A. The construction of the AOP addresses the growing needs of Miami-Dade County
11 customers, while also providing overall system stability and benefits. Specifically, the
12 Project will:

- 13 • Address future thermal overloads and low voltage conditions in Miami-Dade
14 County under contingency events in compliance with NERC Reliability
15 Standards TPL-001-5.1 and NUC-001-4;
- 16 • Maintain transmission reliability for FPL customers in Miami-Dade County;
- 17 • Increase power transfer capability of the transmission system to support
18 growing demand in Miami-Dade County; and
- 19 • Provide resilient, hardened transmission service to the area.

20
21 Over the past three years (2023-2025), FPL's service area in Miami-Dade County has
22 reported summer peak loads between 6,014 MW and 6,239 MW. FPL's 2025 forecast
23 projects that by 2033, the summer peak load in Miami-Dade County will be

1 approximately 7,200 MW.⁵ As a result of the growing customer base and electric
2 demand loads in Miami-Dade County, FPL's transmission system is projected to
3 exceed facility ratings under several contingency scenarios. These studies have
4 identified that by 2033, FPL's existing transmission network will not be able to support
5 the growing load demand in Miami-Dade County, and a need for a new transmission
6 solution is required to maintain transmission reliability in the area. The AOP will
7 address NERC Reliability Standard TPL-001-5.1 transmission reliability deficiencies
8 and provide a resilient, hardened path from Broward County into Miami-Dade County.

9 **Q. Is the AOP the most cost-effective alternative to meet the identified need based**
10 **on the criteria in the applicable transmission line need determination statute,**
11 **Section 403.537, Florida Statutes?**

12 A. Yes. As I will discuss further, the AOP is the most cost-effective alternative, taking
13 into account the demand for electricity, maintaining transmission reliability and
14 integrity, and addressing the need for abundant, low-cost electrical energy to assure the
15 economic well-being of the residents of this state.

16

17 **VI. DISCUSSION OF TRANSMISSION ALTERNATIVES**

18

19 **Q. Did FPL consider transmission alternatives to the AOP?**

20 A. Yes, FPL considered transmission alternatives to the AOP to meet the identified need.

⁵ As a result of the growing load demand in Miami-Dade County for 2033, FPL's generation for Miami-Dade County is expected to remain flat at approximately 3,160 MW while the forecasted need for transmission import is expected to increase by 1,000 MW.

1 **Q. Please describe the transmission alternatives that were considered and explain the**
2 **reasons why they were rejected.**

3 A. FPL evaluated the following two transmission alternatives to the proposed AOP
4 Project:

5 Alternative I: The Conservation-Oasis Project (“Alternative I Project”) consists of
6 building four new transmission lines: one 500 kV line starting at FPL’s existing
7 Conservation substation in Broward County ending at FPL’s planned Oasis substation
8 in Miami-Dade County; one 500 kV line starting at FPL’s existing Quarry substation
9 in Miami-Dade County ending at FPL’s planned Oasis substation in Miami-Dade
10 County; one 230 kV line starting at FPL’s planned Oasis substation ending at FPL’s
11 existing Quarry substation; and one 230 kV line starting at FPL’s planned Oasis
12 substation in Miami-Dade County ending at FPL’s existing Flagami substation in
13 Miami-Dade County. Similar to the AOP, the newly proposed transmission lines
14 would use portions of existing FPL right-of-way corridors, with additional right-of-
15 way acquisition being required to complete the projects and address the anticipated
16 transmission reliability limitations concerns by 2033. The estimated construction cost
17 of this alternative is \$1,004.29 million (\$925.2 million CPVRR). This alternative was
18 rejected for several reasons. The cost of this alternative is approximately \$222.4 million
19 higher than the AOP. Additionally, this alternative presents significant routing and
20 permitting challenges through densely populated areas in Miami-Dade County where
21 FPL has limited right-of-way for new transmission lines.

22

1 Alternative II: The Andytown-Oasis Two Circuits Project (“Alternative II Project”)
2 consists of building four new transmission lines: two 500 kV lines starting at FPL’s
3 existing Andytown substation in Broward County ending at FPL’s planned Oasis
4 substation in Miami-Dade County; one 230 kV line starting at FPL’s planned Oasis
5 substation to FPL’s existing Levee substation; and one 230 kV line starting at FPL’s
6 planned Oasis substation in Miami-Dade County ending at FPL’s existing Flagami
7 substation in Miami-Dade County. Similar to the AOP, the newly proposed
8 transmission lines for the Alternative II Project would use portions of existing FPL
9 right-of-way corridors, with additional right-of-way acquisition being required to
10 complete the projects and address the anticipated transmission reliability limitations
11 concerns by 2033. The estimated construction cost of this alternative is \$974.19 million
12 (\$876.6 million CPVRR). This alternative was rejected for multiple reasons. The cost
13 of this alternative is approximately \$192.3 million higher than the AOP. This
14 alternative presents significant routing and permitting challenges through densely
15 populated areas in Miami-Dade County where FPL has limited right-of-way for new
16 transmission lines.

17

18 **VII. ADVERSE CONSEQUENCES OF DELAY OR DENIAL OF THE AOP**

19

20 **Q. Would there be adverse consequences to FPL’s customers in the AOP Service**
21 **Area if the AOP is not timely approved?**

22 **A.** Yes. If the AOP is not built by December 2033, the transmission system would
23 experience potential overloads and low voltage conditions under contingency events,

1 resulting in multiple NERC Reliability Standard violations. In addition, sufficient
2 transmission capacity would not be available to serve the existing and future customers
3 in Miami-Dade County. Further, by virtue of the growing loads in the area, the
4 transmission system and FPL customers in the area would experience negative impacts
5 to their transmission reliability, such as NERC Reliability Standard violations,
6 transmission system overloads, low voltage conditions, and customer load shedding
7 due to insufficient transmission capacity.

8 **Q. Should the Florida Public Service Commission (“Commission”) approve the need**
9 **for the AOP?**

10 A. Yes. For all the reasons described above, the Commission should determine that there
11 is a need for the AOP to preserve transmission reliability and integrity in the area and
12 to maintain low-cost electrical energy for the economic well-being of the residents of
13 Florida.

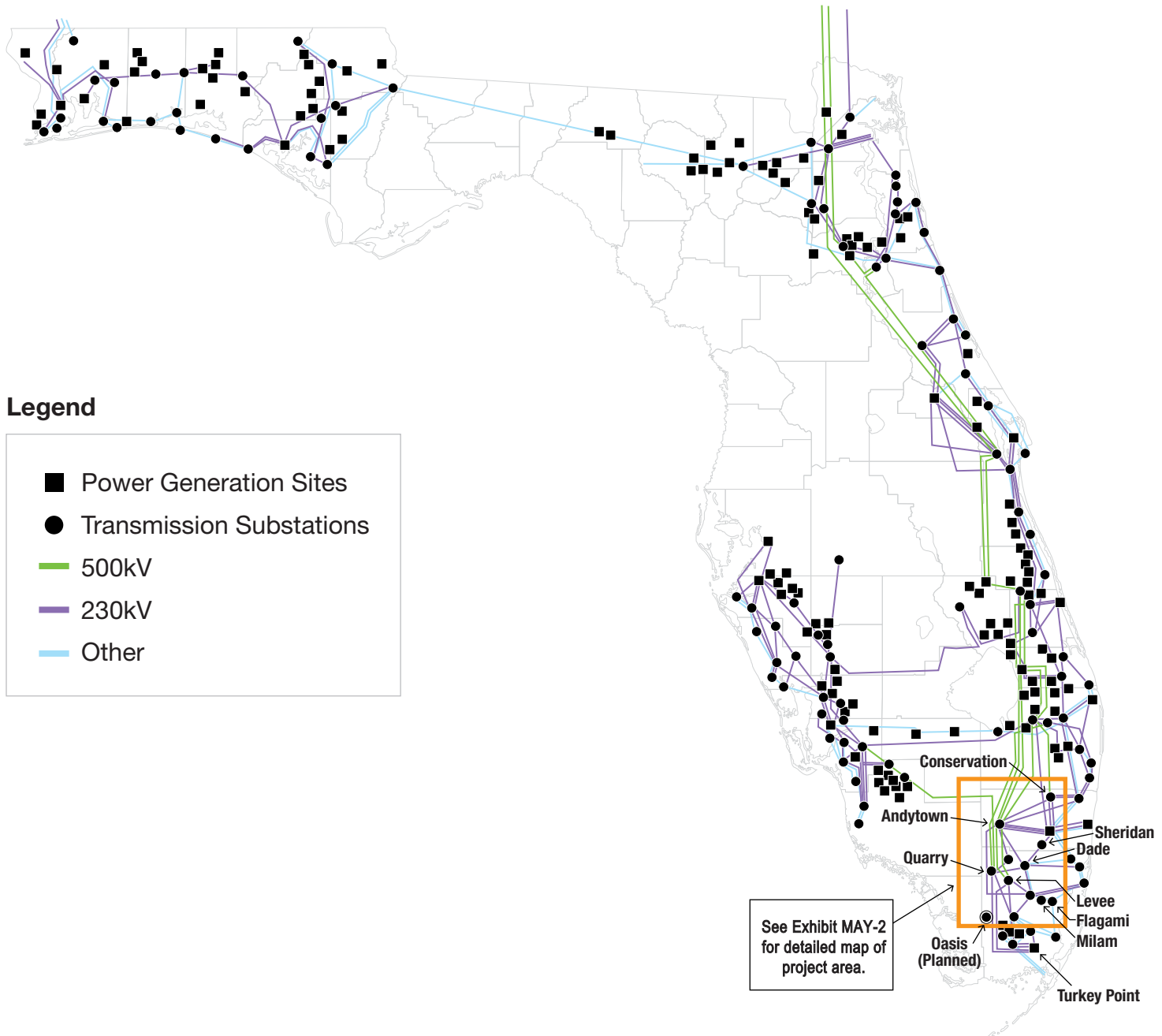
14 **Q. Does this conclude your direct testimony?**

15 A. Yes.



FPL Electrical Transmission Grid Map

General representation of FPL's transmission system

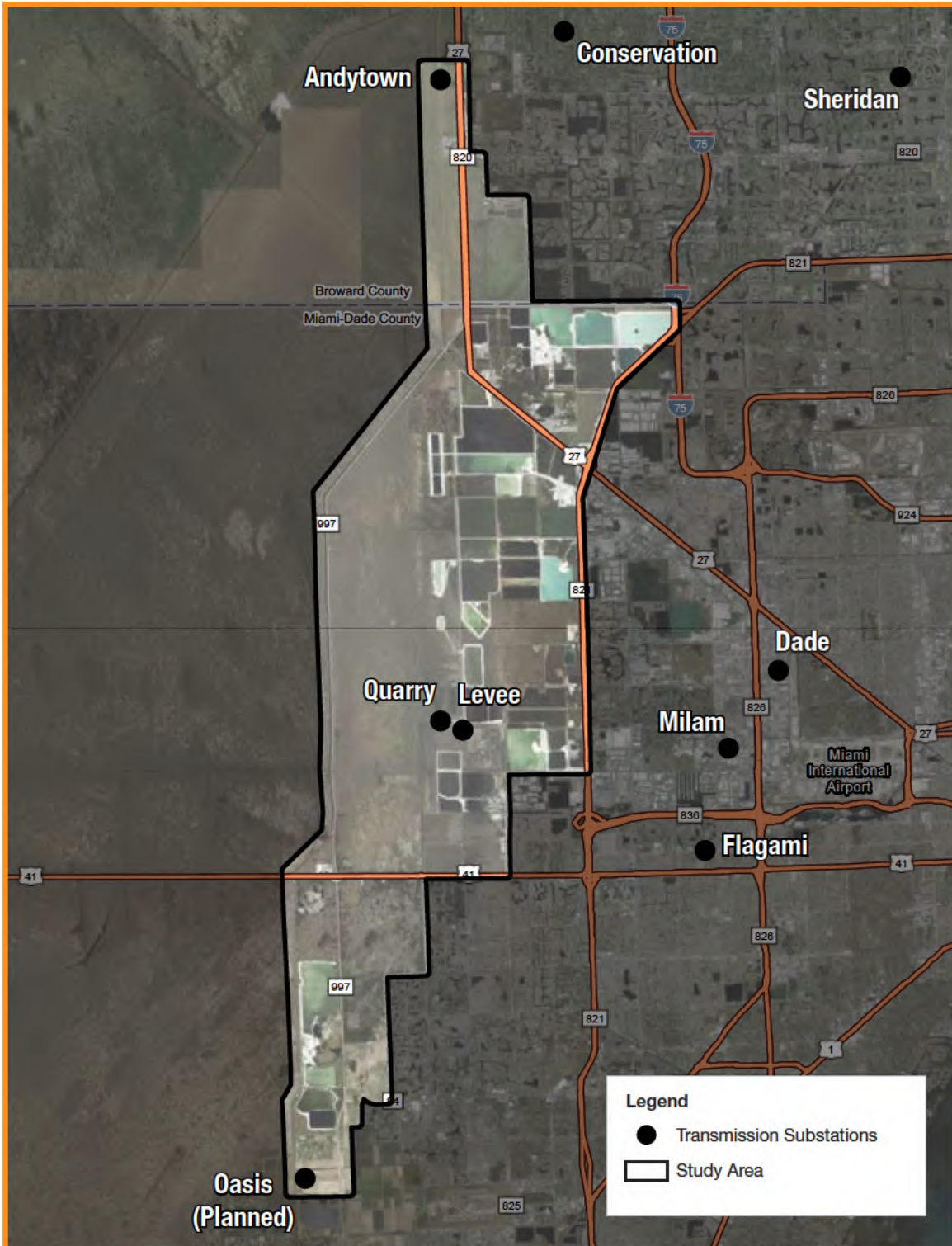


NOTE:
This map is a general representation of FPL's Transmission System.



Andytown-Oasis Project – Overview

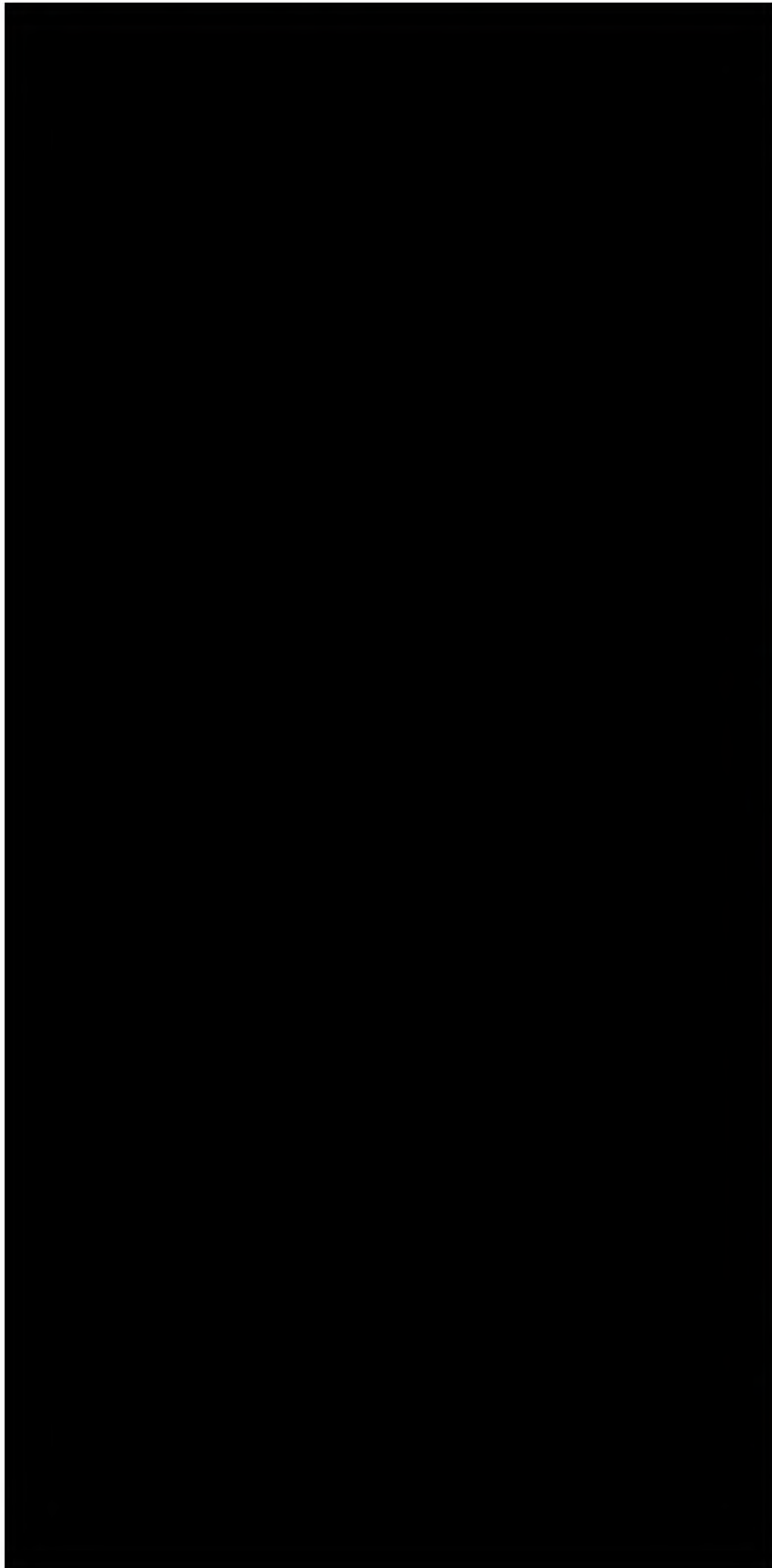
Satellite View of Study Area





Andytown-Oasis Project – Detail

System View of Existing Facilities and Proposed Project



Legend

- Transmission Substations
- 500 kV Existing/Expected In Service Prior to AOP
- 230 kV Existing/Expected In Service Prior to AOP
- Other Existing/Expected In Service Prior to AOP
- - - Proposed 500 kV
- - - Proposed 230 kV



Andytown-Oasis Expected Construction Schedule

Milestone	Begin	End
TLSA and FPSC Need Determination Process	Feb-26	Oct-27
Transmission Line and ROW Design & Material Orders	Mar-25	Dec-28
Substation Design & Material Orders	Mar-25	Dec-28
Permitting (station & line)	Mar-25	Dec-28
Andytown Site Preparation	N/A	N/A
Oasis Site Preparation	Oct-26	Dec-28
ROW Engineering/Surveying	Jan-26	Dec-28
ROW Acquisition	Jan-26	Jun-29
Transmission Line ROW Preparation	Jan-29	Jan-30
Substation Construction (Andytown, Oasis)	Jan-29	Nov-33
Transmission Line Construction	Jan-29	Nov-33
In-service/Commissioning	-	Dec-33

Exhibit MAY-4
List of Contingencies,
Bates Number 000107
is Confidential in its
Entirety