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June 29, 2026

VIA HAND DELIVERY
Mr. Adam Teitzman
Division of the Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 20260020-EI
Petition for determination of Need for Andytown-Oasis Transmission Lines in Broward and Miami-Dade Counties, by Florida Power & Light Company.

Dear Mr. Teitzman:

In accordance with directives contained in Florida Public Service Commission Order No. PSC-2026-0169-CFO-EI, Florida Power & Light Company hereby submits the attached revised public version of Document No. 01501-2026.

Please contact me if you or your Staff has any questions regarding this filing at (561) 304-5662 or will.p.cox@fpl.com.

Sincerely,

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

CERTIFICATE OF SERVICE
Docket No. 20260020-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by electronic mail this 29th day of June 2026 to the following:

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/s/ William P. Cox
William P. Cox

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20260020-EI

FLORIDA POWER & LIGHT COMPANY

MARCH 11, 2026

IN RE: PETITION FOR DETERMINATION OF NEED FOR ANDYTOWN-OASIS TRANSMISSION LINES PROJECT IN BROWARD AND MIAMI-DADE COUNTIES, BY FLORIDA POWER & LIGHT COMPANY

EXHIBIT A TO THE PETITION

The Andytown-Oasis Project

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Executive Summary

This Petition provides the background information concerning the Andytown-Oasis Project ("AOP" or "Project"), as well as the need for and benefits resulting from the AOP. The need for the AOP is based on the following considerations:

- Address future thermal overloads and low voltage conditions in Miami-Dade County under contingency events in compliance with NERC Reliability Standards TPL-001-5.1[1] and NUC-001-4[2];
- Maintain transmission reliability for FPL customers in Miami-Dade County; and
- Increase power transfer capability of the transmission system to support growing demand in Miami-Dade County.

FPL evaluated multiple transmission alternatives for meeting the identified needs, which resulted in the selection of the AOP. The AOP presents the overall best alternative to address the continued customer load growth in Miami-Dade County, current and planned generation expansion in Miami-Dade County, compliance with mandatory NERC Reliability Standards, and maintaining reliability in Miami-Date County for both existing and future customers. The AOP will continue to support low-cost electricity for the economic well-being of residents of the state of Florida.

[1] NERC Reliability Standard TPL-001-5.1 defines the scenarios and expected levels of system performance the Bulk Electric System ("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

I. Description of FPL Electrical Facilities

In order to provide an overview of FPL's existing electrical transmission system, a map of FPL's transmission network indicating the general location of generating plants, major substations, and transmission lines is shown in Attachment 1. As shown in Attachment 1, the load in the Miami-Dade County area is currently served by existing generation resources in Miami-Dade County and several 500 kV, 230 kV, and 138 kV circuits running north-south from Broward County.

A listing of FPL's historical and forecasted peak demand is provided in Schedules 3.1 and 3.2 of Florida Power & Light Company Ten Year Power Plant Site Plan (2025-2034) submitted on April 1, 2025, to the Florida Public Service Commission ("Commission"), which are incorporated herein as Attachments 2 and 3.

II. The Andytown-Oasis Project

Over the past three years (2023-2025), FPL's service area in Miami-Dade County has reported summer peak loads between 6,014 MW and 6,239 MW. FPL's 2025 forecast projects that by 2033, the summer peak load in Miami-Dade County will be approximately 7,200 MW. Transmission assessment studies conducted by FPL in 2025 identified potential system limitations that will require additional facilities to meet transmission reliability and increase transfer capability for Miami-Dade County as shown in Attachment 7. These studies have identified that by 2033, FPL's existing transmission network will not be able to support the growing load demand in Miami-Dade County, and a need for a new transmission solution is required to maintain transmission reliability in the area.

The AOP will include building four new transmission lines: (1) one 500 kV line starting at FPL's existing Andytown substation in Broward County and ending at FPL's planned Oasis substation in Miami-Dade County; (2) one 500 kV line starting at FPL's existing Quarry substation in Miami-Dade County and ending at FPL's planned Oasis substation in Miami-Dade County; (3) one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County and ending at FPL's existing Quarry substation in Miami-Dade County; and (4) one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County and ending at FPL's existing Levee substation in Miami-Dade County. The AOP will effectively address potential overloads and low voltage conditions in Miami-Dade County under contingency events, maintain transmission reliability for customers in the County, and increase the power transfer capability for the transmission system to support the growing customer demand in the County. Attachment 4, Page 1 is a map showing the AOP, featuring the study area for the

project with the existing facilities in the area and the location of the proposed project lines. Page 2 of Attachment 4 is a more detailed system view of the study area with the existing and proposed project facilities.

The estimated construction costs for AOP include design, engineering, right-of-way preparation, and land acquisition, in nominal or year-of-installation dollars. Attachment 10 is the estimated construction schedule for AOP.

Project Costs	$MM
Andytown-Oasis Project Estimated Construction Costs	$781.89 ($699.8 CPVRR)

III. Transmission Planning Criteria and Process

FPL plans, designs, and operates its transmission system in accordance with the mandatory Reliability Standards established by the North American Electric Reliability Corporation ("NERC"). Specifically, FPL's transmission system is designed and operated to meet the system performance and long-term planning horizon for the BES required by NERC Reliability Standard TPL-001-5.1. Additionally, FPL's transmission system is designed and operated to comply with the applicable provisions of NERC Reliability Standard NUC-001-4, which establishes coordination requirements between nuclear plant generator operators and transmission entities to ensure reliable long term system planning and operation.[3]

In general, the transmission system must remain stable, with both thermal and voltage limits maintained within applicable facility ratings for each of the contingency categories listed on Table 1 of NERC Reliability Standard TPL-001-5.1, which is provided in Attachment 5. FPL adheres to these NERC standards, both TPL-001-5.1 and NUC-001-4, as part of its comprehensive transmission planning criteria. FPL's transmission planning process consists of five major steps: (1) the preparation of system models, (2) the assessment of the transmission system performance to comply with NERC Reliability Standards, (3) the development and evaluation of transmission expansion alternatives, (4) the selection and approval of the preferred alternatives, and (5) the incorporation of the expansion plan into the Florida Reliability Coordinating Council ("FRCC") Regional Planning Process. A more detailed discussion of these steps is provided in Attachment 6.

[3] FPL's transmission planning incorporates the Nuclear Plant Interface Requirements ("NPIR") of NERC Reliability Standard NUC-001-4 that support nuclear plant reliability, which is provided in Attachment 9.

IV. Discussion of Need and Benefits

The need for the AOP is based on the following considerations:

- Address future thermal overloads and low voltage conditions in Miami-Dade County under contingency events in compliance with NERC Reliability Standards TPL-001-5.1 and NUC-001-4;
- Maintain transmission reliability for FPL customers in Miami-Dade County; and
- Increase power transfer capability of the transmission system to support growing demand in Miami-Dade County.

As a result of the growing customer base and electric demand load in Miami-Dade County, the FPL transmission system is projected to exceed voltage and thermal facility ratings under several contingency scenarios. These studies have identified that by 2033, FPL's existing transmission network will not be able to support the growing load demand in Miami-Dade County, and a need for a new transmission solution is required to maintain transmission reliability in the area. In addition, the transmission assessment studies conducted by FPL in 2025 identified system limitations exceeding transmission criteria required by NERC Reliability Standards TPL-001-5.1 and NUC-001-4. The AOP will address NERC TPL-001-5.1 and NUC-001-4 system reliability deficiencies and provide a resilient, hardened path from Broward County into Miami-Dade County. A detailed description of the system improvements follows.

Address Future Thermal Overloads and Low Voltage Conditions

Appendix A shows the load flow diagrams that illustrate the AOP's capability to address potential future thermal overloads and low voltage conditions.

FPL studies have identified the following contingency event as one of the most critical scenarios for the system: [redacted]. For this scenario, the [redacted] could drop below required levels. Critically, pursuant to NERC Reliability Standard NUC-001-4, the [redacted].

Page 1 of Appendix A shows the power flow diagram depicting the low voltage scenario in Summer 2033 at [redacted] without the AOP implemented. In order to mitigate the low voltage condition mentioned above, it would be necessary to implement load shedding measures and disrupt power to customers in Miami-Dade County to preserve the integrity of the FPL transmission grid, which would result in violation of NERC Reliability Standards TPL-001-5.1 and NUC-001-4.

FPL's studies have also identified thermal overloads under the contingency of a [redacted] line section. Under this contingency scenario, the [redacted] line loading would exceed (as high as [redacted]) its thermal rating (see Appendix A page 5). Overloaded electric lines occur when demand exceeds capacity, causing the wires to overheat, damaging the equipment and creating significant safety hazards and risk of power outages. In order to mitigate the overloads

mentioned above, it would be necessary to implement load shedding measures and disrupt power to customers in Miami-Dade County to preserve the integrity of the FPL transmission grid, which would result in violation of NERC Reliability Standard TPL-001-5.1.

Appendix A pages 2 and 6 show load flow output diagrams for Summer 2033 peak conditions with the AOP in-service under the contingencies described above. With the construction of the AOP, there is a new, resilient 500 kV north to south connection which resolves the low voltage condition at the [redacted] and avoids the potential overloads on the [redacted] line.

Maintain Transmission Reliability

Appendix B shows the load flow diagrams that illustrate the AOP's capability to maintain transmission reliability.

FPL studies determined that the following contingency scenario will adversely impact the reliability of system: [redacted] Under this contingency scenario, the loading on [redacted] line would exceed (as high as [redacted] its thermal rating (see Appendix B page 1). In order to mitigate these overloads, it would be necessary to implement load shedding measures and disrupt power to customers in the South Area of FPL's service area.

FPL's studies have also identified thermal overloads under the contingency of the [redacted]. Under this

contingency scenario, the loading on the [redacted] would exceed (as high as [redacted]) its thermal rating (see Appendix B page 5). In order to mitigate the overloads mentioned above, it would be necessary to implement load shedding measures and disrupt power to customers in Miami-Dade County.

With the construction of the AOP, thermal overloads on the [redacted] and [redacted] will be resolved, and there will be no reliability impacts to customers due to these contingency events. Appendix B pages 2 and 6 show load flow output diagrams for Summer 2033 peak conditions with the AOP in-service under the contingencies described above.

Increase Power Transfer Capability

Appendix C shows the load flow diagrams that illustrate AOP's increased power transfer capability.

Currently, the existing transmission system between Broward and Miami-Dade County has three (3) 500 kV lines (the backbone of the transmission system) flowing power north to south. Together, these existing lines deliver [redacted] to Miami-Dade County for summer peak conditions with no contingencies, see Appendix C page 1. Under the contingency of an [redacted] the power flowing in the existing 500 kV lines into Miami-Dade County will increase to [redacted] to compensate for the loss of generation, see Appendix C page 5. The construction of the AOP will extend the 500 kV backbone into Miami-Dade County, injecting [redacted] deep into the most southern part of FPL's service area under these contingency conditions (see Appendix C page 6).

Project Benefits

In summary, the construction of the AOP provides the following benefits to Miami-Dade County:

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

V. Discussion of Project Transmission Alternatives

In order to maintain a reliable transmission system for Miami-Dade County and meet the identified needs discussed above, FPL evaluated multiple transmission alternatives. The factors used to evaluate the performance of these alternatives include cost, reliability, compatibility with long range plans, operational flexibility, and construction difficulty. Attachment 8 includes a matrix comparing each of the transmission alternatives.

Alternative I

The Conservation-Oasis Project ("Alternative I Project") consists of building four new transmission lines: one 500 kV line starting at FPL's existing Conservation substation in Broward County ending at FPL's planned Oasis substation in Miami-Dade County; one 500 kV line starting at FPL's existing Quarry substation in Miami-Dade County ending at FPL's planned Oasis substation in Miami-Dade County; one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County ending at FPL's existing Quarry substation in Miami-Dade County; and one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County ending at FPL's existing Flagami substation in Miami-Dade County. Similar to the AOP, the newly proposed transmission lines for the Alternative I Project would use portions of existing FPL right-of-way corridors, with additional right-of-way acquisition being required to complete the projects and address the anticipated transmission reliability concerns by 2033.

Page 2 of Attachment 4 provides a map showing the proposed Alternative I Project along with the existing electrical facilities in the area. The line route is conceptual and for illustrative

purposes only. The estimated construction cost of this alternative is $1,004.29 million ($925.2 million CPVRR).

This alternative was rejected for the following reasons:

1. The cost of this alternative is approximately $222.4 million higher than the AOP.
2. This alternative presents significant routing and permitting challenges through densely populated areas in Miami-Dade County where FPL has limited right-of-way for new transmission lines.

Alternative II

The Andytown-Oasis Two Circuits Project ("Alternative II Project") consists of building four new transmission lines: two 500 kV lines starting at FPL's existing Andytown substation in Broward County ending at FPL's planned Oasis substation in Miami-Dade County; one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County and ending at FPL's existing Levee substation in Miami-Dade County; and one 230 kV line starting at FPL's planned Oasis substation in Miami-Dade County ending at FPL's existing Flagami substation in Miami-Dade County. Similar to the AOP, the newly proposed transmission lines for the Alternative II Project will use portions of existing FPL right-of-way corridors, with the acquisition of additional rights-of-way required to complete the Alternative II Project and address the anticipated transmission reliability concerns by 2033.

Page 3 of Attachment 4 provides a map showing the proposed Alternative II Project along with the existing electrical facilities in the area. The line route is conceptual and for illustrative

purposes only. The estimated construction cost of this alternative is $974.19 million ($876.6 million CPVRR).

This alternative was rejected for the following reasons:

1. The cost of this alternative is approximately $192.3 million higher than the AOP.
2. This alternative presents significant routing challenges through densely populated areas in Miami-Dade County where FPL has limited right-of-way for new transmission lines.

Attachment 8 shows the decision-making analysis which summarizes the points of comparison of the AOP and Alternatives I and II, described above. The points of comparison are cost, reliability, compatibility with long range plans, operational flexibility, and construction difficulty.

VI. Adverse Consequences of Not Constructing the Andytown-Oasis Project

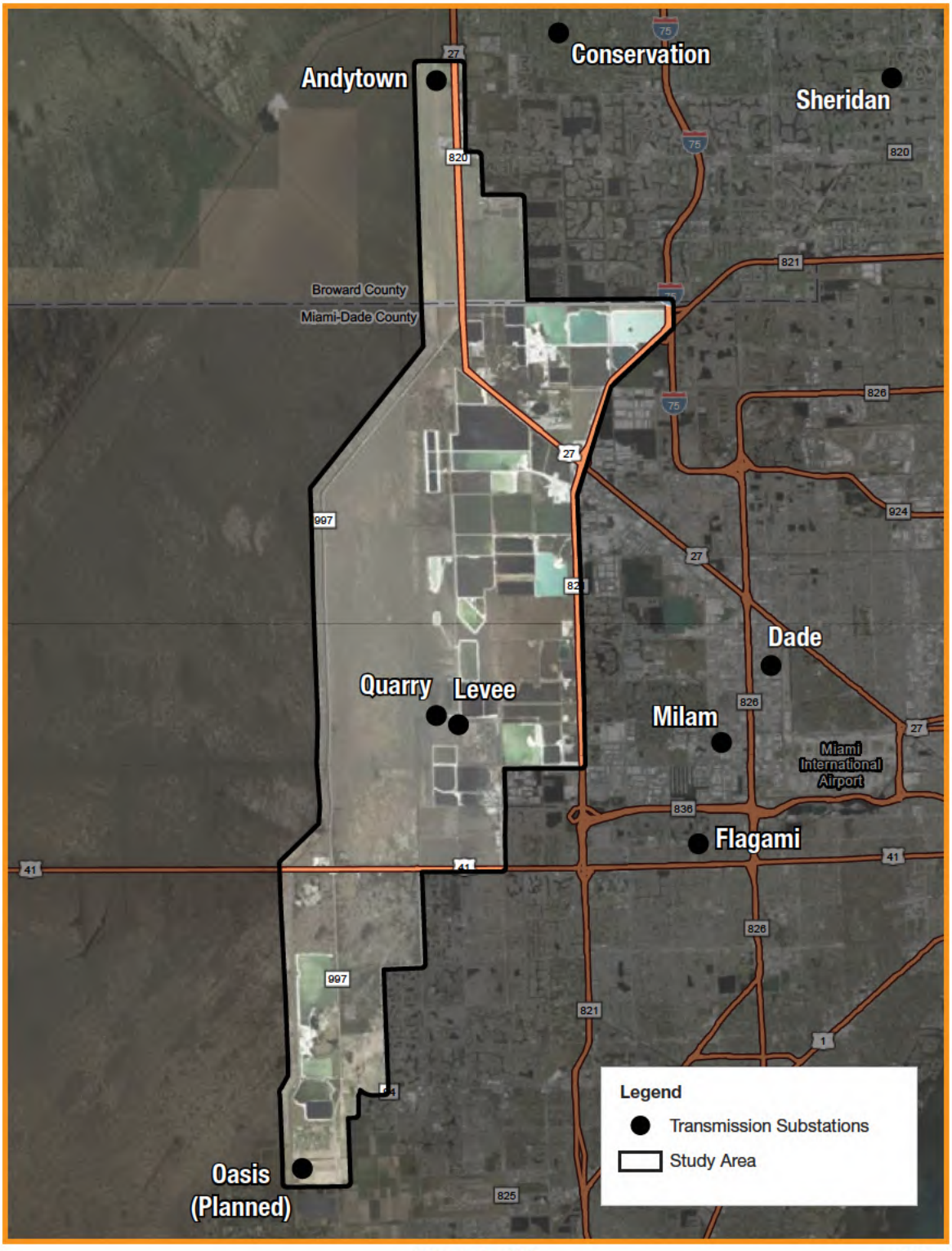
As shown in Attachment 7, the purpose and need for the AOP is to (a) address future thermal overloads and low voltage conditions in Miami-Dade County under contingency events in compliance with NERC Reliability Standards TPL-001-5.1 and NUC-001-4; (b) maintain transmission reliability for FPL customers in Miami-Dade County; and (c) increase power transfer capability of the transmission system to support growing demand in Miami-Dade County. If the AOP is not built by December 2033, the transmission system would experience potential overloads and/or low voltage conditions under contingency events, both resulting in NERC Reliability Standard and NPIR agreement violations and requiring load shedding in Miami-Dade County. In addition, sufficient transmission capacity would not be available to serve the existing and future customers in Miami-Dade County. Further, by virtue of the growing loads in the area, the transmission system and FPL customers in the area would experience negative impacts to their transmission reliability, such as NERC Reliability Standard violations, transmission system overloads, low voltage conditions, and customer load shedding due to insufficient transmission capacity.

VII. Conclusion

The AOP is needed by December 2033 to efficiently and effectively (a) address future thermal overloads and low voltage conditions in Miami-Dade County under contingency events in compliance with NERC Reliability Standards TPL-001-5.1 and NUC-001-4; (b) maintain transmission reliability for FPL customers in Miami-Dade County; and (c) increase power transfer capability of the transmission system to support growing demand in Miami-Dade County. The Project is the most cost-effective alternative, taking into account the demand for electricity, maintaining transmission reliability and integrity, and addressing the need for abundant, low-cost electrical energy to assure the economic well-being of the residents of this state. Furthermore, the Project meets area load requirements by serving potential future industrial, commercial, and residential customer load, while maximizing system reliability and minimizing cost to customers. The Commission, therefore, should grant FPL's Petition for a Determination of Need for the Andytown-Oasis Project and determine that the cost and reliability benefits of the Project would preserve and enhance electric system reliability and integrity in the area.

Andytown-Oasis Project – Overview

Satellite View of Study Area



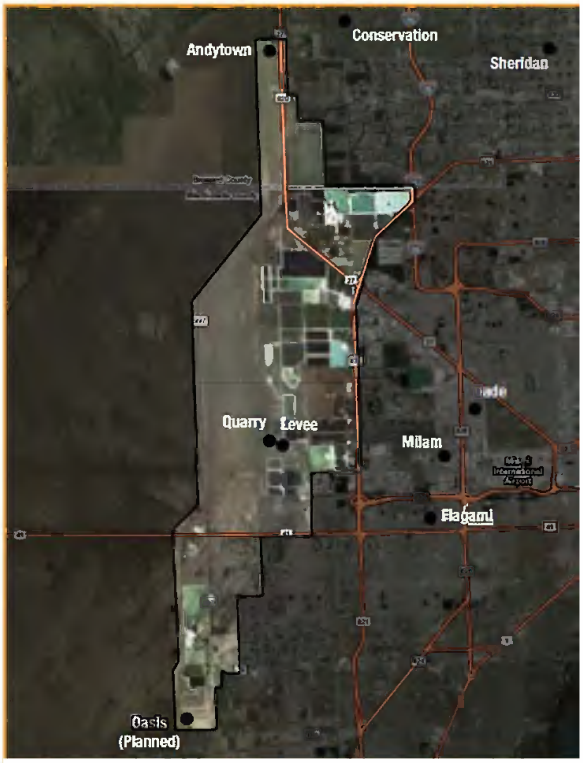
Andytown-Oasis Project – Detail

System View of Existing Facilities and Proposed Project

[redacted]

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



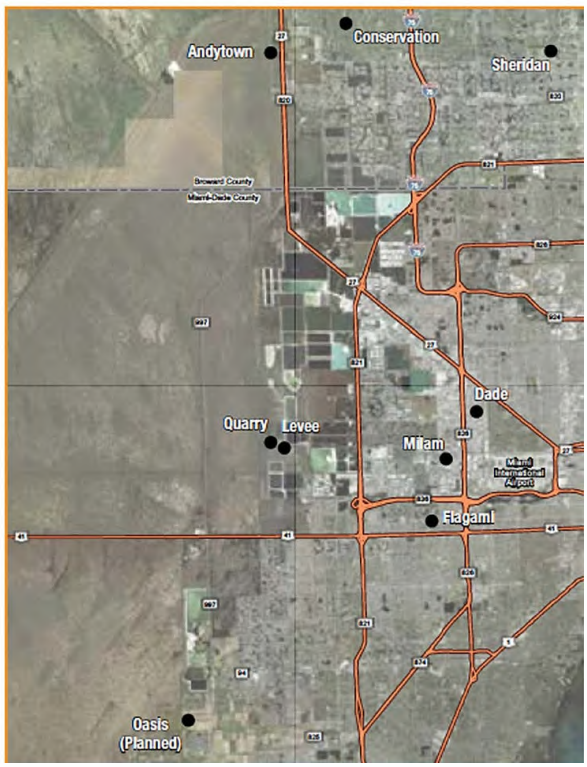
Project Alternative 1 (not recommended)

System View of Existing Facilities and Project Alternative 1

[redacted]

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



Project Alternative 2 (not recommended)

System View of Existing Facilities and Project Alternative 2

[redacted]

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

ATTACHMENT 7

TPL-001-5.1 Transmission Planning Assessment 2025												
			Without AOP (Base case)		With AOP		Alt.I		Alt.II			
TPL-001-5.1 Contingency Categories	Identified Future Contingency Scenarios	Impacted Line/Substation	Loading (%)	Voltage (P.U.)	Loading (%)	Voltage (P.U.)	Loading (%)	Voltage (P.U.)	Loading (%)	Voltage (P.U.)	Appendix	TLSA Project Benefit
[redacted]												

[redacted]

Assumptions:

Numbers based on Summer 2033 cases

Loading % based on Normal Rating

P.U. = Per Unit

AOP = Andytown-Oasis Transmission Lines project

Transfer Analysis Summary Table

Contigency	Monitored Flowgate Branch (North to South Flow)	Without AOP (Base case) Flow (MW)	With AOP Flow (MW)	Alt.I Flow (MW)	Alt.II Flow (MW)	Appendix
[redacted]						

Numbers based on Summer 2033 cases.

MW = Megawatt

Attachment 9
NERC Standard NUC-001
Nuclear Plant Interface
Coordination,
Bates Numbers
000024-000067
is Confidential in its Entirety

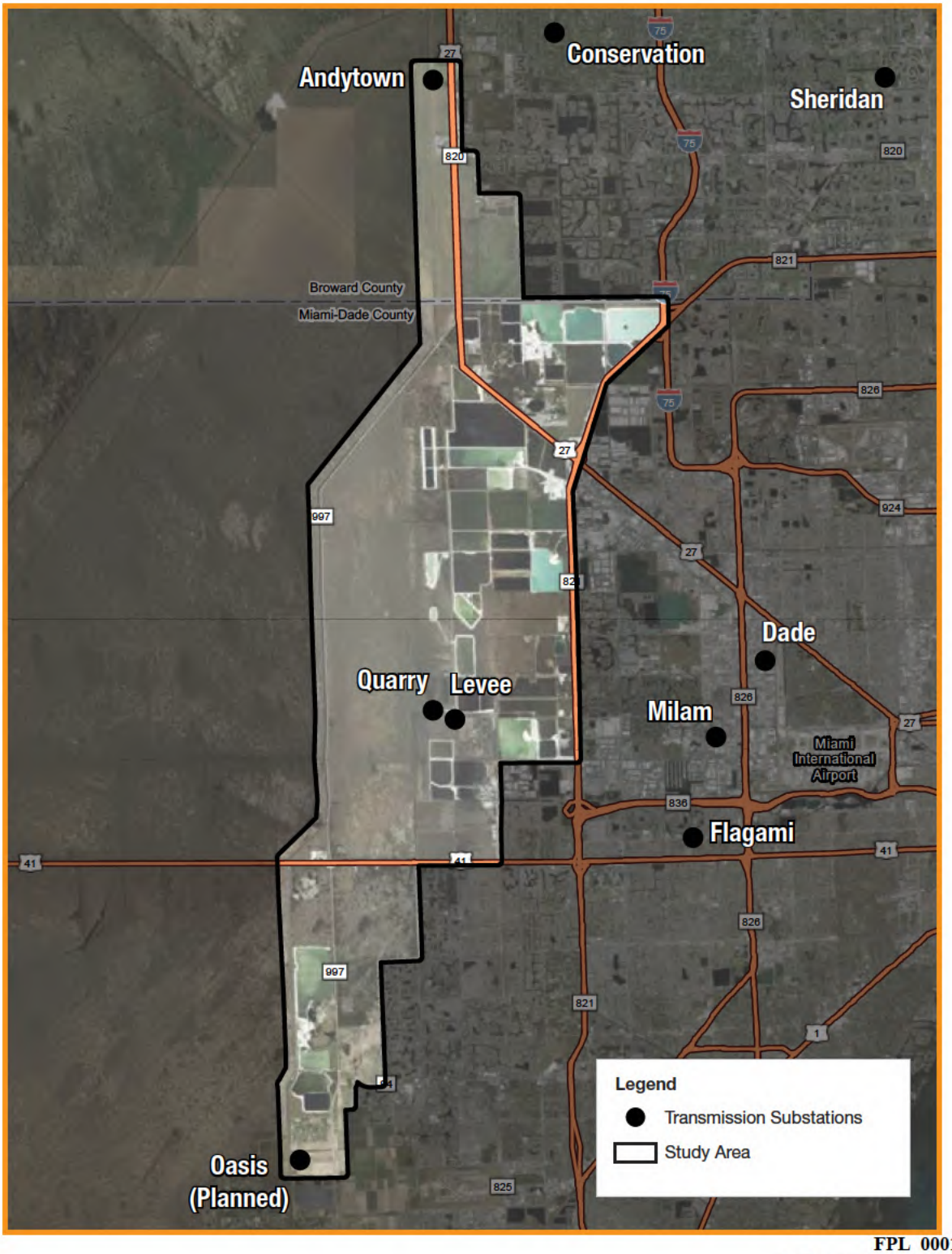
Appendix A

Load Flow Diagrams / Address future thermal overloads and low voltage conditions

Appendices A, B and C,
Bates Numbers
000069-000104
are Confidential in Their
Entirety

Andytown-Oasis Project – Overview

Satellite View of Study Area



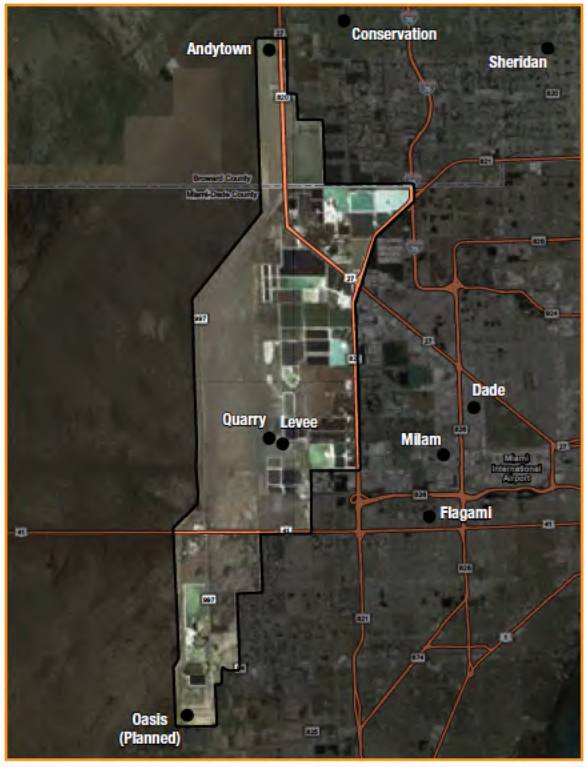
Andytown-Oasis Project – Detail

System View of Existing Facilities and Proposed Project

[redacted]

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



List of Contingencies
TPL-001-5.1 Transmission Planning Assessment 2025

TPL-001-5.1 Contingency Categories *(scenarios)*	Identified Future Contingency Scenarios	Impacted Line/Substation	Without AOP (Base case)		With AOP	
			Loading (%)	Low Voltage (P.U.)	Loading (%)	Low Voltage (P.U.)
[redacted]						

Assumptions:
Numbers based on Summer 2033 cases
Loading % based on Normal Rating
P.U. = Per Unit
AOP = Andytown-Oasis Transmission Lines project

Docket No. 20260020-EI
List of Contingencies
Exhibit MAY-4, Page 1 of 1