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April 25, 2012

Ms. Ann Cole Division of the Commission Clerk and Administrative Services Florida Public Service Commission Betty Easley Conference Center 2540 Shumard Oak Boulevard, Room 110 Tallahassee, FL 32399-0850

Re: Docket No. 120079-EQ - Florida Power & Light Company's Responses to Commission **Staff Questions** 

Dear Ms. Cole:

Please find attached the responses of Florida Power & Light Company to questions raised by Commission Staff at the April 24, 2012 informal meeting in this docket.

Thank you for your assistance. Please contact me should you or your staff have any additional questions regarding this filing.

Sincerely,

1/ami/leSmith for William P. Cox Senior Attorney

Florida Bar No. 0093531

WPC/bag Enclosures cc: Lawrence Harris, Esq. Walter Clemence Phillip Ellis

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# RESPONSES FROM FLORIDA POWER & LIGHT COMPANY TO COMMISSION STAFF QUESTIONS

DOCKET NO. 120079-EQ - PETITION FOR APPROVAL OF FACILITY CHARGES TO INTERCONNECTION CUSTOMER-OWNED RENEWABLE GENERATION OF TROPICANA MANUFACTURING COMPANY, BY FLORIDA POWER & LIGHT COMPANY

1. The net metering rule, Rule 25-6.065 (4)(c), F.A.C., requires a utility-interactive inverter to isolate the customers system in the instance of a loss of power from the utility. Why does FPL need to install additional safety equipment to isolate Tropicana in the event of a loss of power from FPL?

### ANSWER:

The need for, and the primary function of, the interconnection facilities being installed is to prevent a fault on Tropicana's system from causing an interruption on FPL's transmission system. The proposed relay protection systems also have the capability of isolating Tropicana from the FPL system in the event of loss of power.

The proposed Tropicana interconnection features the use of synchronous generators with motors that produce fault current. This type of generation differs from solar installations with inverters that have anti-islanding functions (Anti-islanding prevents a generator from exporting power onto the grid when power is lost from host utility). When a generator of this type is connected to the transmission system, a sync check (i.e., ensuring that generation and transmission system are in phase) must be performed once the fault is cleared to prevent causing serious damage to the transmission system.

As requested by Tropicana, Tropicana will have the ability to generate in the event of power loss from FPL once isolated from the FPL transmission system. This functionality is enabled by the configuration of the proposed interconnection facilities.

2. Please describe the purpose of each expenditure in Exhibit A.

## ANSWER:

#### **EXHIBIT A**

## BREAKDOWN OF INTERCONNECTION CHARGES

Below is a breakdown of the estimate<sup>1</sup> for the Tropicana Ft. Pierce Continuous Parallel project:

1. Foundation, Conduit, Grounding, and Substation Contractor \$5,938.00 Labor



**Purpose:** Labor to trench, lay conduit, and construct a small foundation for a junction box that will connect control cable, which allows communication between FPL and Tropicana protection systems.

2. Relay Protection Cabinets (Quantity=3)

\$42,750.00

**Purpose:** Prevents fault on Tropicana's system from causing fault on FPL system.

3. Other Materials (Protection & Control ("P&C") + Substation)

\$ 4,750.00

**Purpose:** Miscellaneous materials needed for interconnection project, including conduit, uni-strut, concrete, and control cable (mounting and termination material).

4. P&C Contractor Labor

\$23,750.00

**Purpose:** Labor for pulling cable, wiring, and programming relay cabinets and programming relay panel for sync check.

5. FPL P&C & Substation Engineering

\$17,812.00

**Purpose:** Engineering, permitting, designing, drafting prints, and procuring material needed for the interconnection.

**Total Charge** 

\$95,000.00

As stated in Paragraphs 8 and 11 of FPL's Petition in this docket, Tropicana will ultimately be charged by FPL only the actual costs for interconnection, as any difference between the estimated and actual costs will be refunded to or billed to Tropicana as appropriate.