

State of Florida



Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: May 4, 2010
TO: Ann Cole, Commission Clerk, Office of Commission Clerk
FROM: Anna R. Williams, Attorney, Office of the General Counsel *ARW*
RE: Docket No. 090109-EI - Petition for approval of solar energy power purchase agreement between Tampa Electric Company and Energy 5.0, LLC.

Please place the attached Tampa Electric Company's responses to Staff's Fifth Set of Interrogatories (No. 84) into the Docket file.

Thank you.

ARW
Attachment

RECEIVED FPSC
10 MAY -4 PM 2:36
COMMISSION
CLERK

DOCUMENT NUMBER-DATE
03709 MAY -4 09
FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of solar energy power purchase agreement between Tampa Electric Company and Energy 5.0, LLC. || DOCKET NO. 090109-EI
|| DATED: APRIL 6, 2010

STAFF'S FIFTH SET OF INTERROGATORIES TO
TAMPA ELECTRIC COMPANY (NO. 84)

The Staff of the Florida Public Service Commission, by and through its undersigned attorney, propounds the following interrogatories, pursuant to Rule 1.340, Florida Rules of Civil Procedure, to Tampa Electric Company (TECO). These interrogatories shall be answered under oath by you or your agent, who is qualified and who will be identified, with the answers being served as provided by the Rules of Civil Procedure, **and within the time period set out in Order No. PSC-10-0133-PCO-EI**. As provided by Rule 1.340(a), Florida Rules of Civil Procedure, each interrogatory shall be answered separately and fully in writing under oath unless it is objected to. Each answer shall be signed by the person making it.

Give the name, address, and relationship to (TECO) of those persons providing the answers to each of the following interrogatories.

If an interrogatory contained herein asks for information that has already been provided or is in the process of being provided to the Commission through a Commission audit, please so state, indicating the date provided and the audit document/record request number.

DEFINITIONS

“You”, “your”, “Company” or “TECO” refers to Tampa Electric Company, its employees and authorized agents.

“Document” refers to written matter of any kind, regardless of its form, and to information recorded on any storage medium, whether in electrical, optical or electromagnetic form, and capable of reduction to writing by the use of computer hardware and software.

INTERROGATORIES

84. Please compare and contrast the attached as-available energy contract, submitted to the Commission by Progress Energy on April 5, 2010, with the negotiated contract between TECO and Energy 5.0.

ERIK L. SAYLER
Senior Attorney, Office of the General Counsel

FLORIDA PUBLIC SERVICE COMMISSION
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850
(850) 413-6199

AFFIDAVIT

STATE OF FLORIDA)

COUNTY OF _____)

I hereby certify that on this _____ day of _____, 2010, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared _____, who is personally known to me, and he/she acknowledged before me that he/she provided the answers to interrogatory number(s) _____ from STAFF'S FIFTH SET OF INTERROGATORIES TO TAMPA ELECTRIC COMPANY (NO. 84) in Docket No(s). 090109-EI, and that the responses are true and correct based on his/her personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this _____ day of _____, 2010.

Notary Public
State of Florida, at Large

My Commission Expires:

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of solar energy power purchase agreement between Tampa Electric Company and Energy 5.0, LLC. | DOCKET NO. 090109-E1
| DATED: APRIL 6, 2010

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that the original and one correct copy of STAFF'S FIFTH SET OF INTERROGATORIES TO TAMPA ELECTRIC COMPANY (NO. 84) has been served by electronic and U. S. mail to Ausley Law Firm, James D. Beasley, Esquire, Post Office Box 391, Tallahassee, Florida 32302, on behalf of Tampa Electric Company, and that a true copy thereof has been furnished to the following by U. S. mail this 6th day of April, 2010:

Tampa Electric Company
Ms. Paula K. Brown
P.O. Box 111
Tampa, FL 33601-0111

Richard A. Zambo
Mosaic Fertilizer, LLC
2336 S.E. Ocean Blvd. #309
Stuart, FL 34996

Robert Scheffel Wright/John T. LaVia III
Young van Assenderp, P.A.
225 South Adams Street, Suite 200
Tallahassee, Florida 32301

Energy 5.0, LLC
1601 Forum Place, Suite 1010
West Palm Beach, FL 33401

ERIK L. SAYLER
Senior Attorney, Office of the General Counsel

FLORIDA PUBLIC SERVICE COMMISSION
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850
(850) 413-6199

**ATTACHMENT TO
INTERROGATORY # 84**



April 5, 2010

VIA HAND DELIVERY

Mr. Tom Ballinger
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

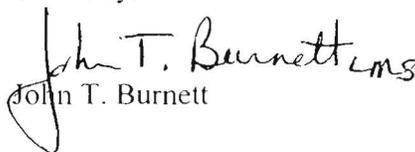
Dear Mr. Ballinger:

Pursuant to Rule 25-17.0825(1)(b), F.A.C., Progress Energy Florida, Inc. ("PEF") hereby submits a recently signed As-Available Energy Contract entered into with National Solar.

This As-Available contract will provide PEF with 25MW of solar PV energy and will be located in Sumter County, FL. The National Solar facility will be a stand-alone facility intended to generate solar electricity only. PEF does not have any ownership interests and will purchase the entire output from National Solar. PEF is still reviewing the interconnection costs, however, any and all costs will be paid for by National Solar. The National Solar facility has targeted an in-service date of late 2012.

Thank you for your attention to this matter. Should you have any questions, please feel free to call me at (727) 820-5184.

Sincerely,

Handwritten signature of John T. Burnett in black ink, with the initials "JTB" and "ims" visible.
John T. Burnett

JTB/lms
Attachment



SECTION No. IX
SECOND REVISED SHEET No. 9.100
CANCELS FIRST REVISED SHEET No. 9.100

**AGREEMENT FOR PURCHASE OF AS-AVAILABLE ENERGY
AND/OR PARALLEL OPERATION WITH A QUALIFYING FACILITY**

TABLE OF CONTENTS

	<u>Begins on Sheet No.</u>
Agreement for the Purchase of As-Available or Parallel Operation with a Qualifying Facility	9.101
Appendix A - Interconnection Scheduling and Cost Responsibility	9.200
Appendix B - Parallel Operating Procedures	9.250
Appendix C - Rates	9.300

ISSUED BY: Mark A. Myers, Vice President, Finance
EFFECTIVE: December 19, 2003



SECTION No. IX
SECOND REVISED SHEET No. 9.101
CANCELS FIRST REVISED SHEET No. 9.101

AGREEMENT FOR THE PURCHASE OF
AS-AVAILABLE AND/OR PARALLEL OPERATION WITH
A QUALIFYING FACILITY

between

NATIONAL SOLAR POWER PARTNERS

and

PROGRESS ENERGY FLORIDA

ISSUED BY: Mark A. Myers, Vice President, Finance
EFFECTIVE: December 19, 2003

TABLE OF CONTENTS

	<u>Sheet</u>
INTRODUCTION AND PARTIES	
RECITALS	9.104
ARTICLE I	
DEFINITIONS	9.105
ARTICLE II	
FACILITY	9.107
ARTICLE III	
TERM	9.107
ARTICLE IV	
PURCHASE OF AS-AVAILABLE ENERGY	9.108
ARTICLE V	
INTERCONNECTION SCHEDULING AND COST RESPONSIBILITIES	
QF PARALLEL OPERATING PROCEDURES.....	9.108
ARTICLE VI	
ENERGY PAYMENTS.....	9.108
ARTICLE VII	
CHARGES TO THE QF	9.109
ARTICLE VIII	
METERING	9.109
ARTICLE IX	
PAYMENT PROCEDURE.....	9.109
ARTICLE X	
INSURANCE	9.110
ARTICLE XI	
REGULATORY CHANGES	9.111



ARTICLE XII
FACILITY RESPONSIBILITY AND ACCESS 9.111

ARTICLE XIII
INDEMNIFICATION 9.112

ARTICLE XIV
EXCLUSION OF INCIDENTAL CONSEQUENTIAL,
AND INDIRECT DAMAGES 9.113

ARTICLE XV
COMMUNICATIONS 9.113

ARTICLE XVI
SECTION HEADINGS FOR CONVENIENCE 9.114

ARTICLE XVII
GOVERNING LAW 9.114

EXECUTION 9.115

AGREEMENT

This Agreement ("Agreement") is made and entered by and between NATIONAL SOLAR POWER PARTNERS, a LLC, having its principal place of business at 1050 WEST NASA BLVD., SUITE 105 MELBOURNE, FL 32901 (hereinafter referred to as the "QF"), and Florida Power Corporation d.b.a. Progress Energy Florida, a private utility corporation organized under the laws of the State of Florida, having its principal place of business at St. Petersburg, Florida (hereinafter referred to as the "Company"). The QF and the Company may be hereinafter referred to individually as a "Party" and collectively as the "Parties."

WITNESSETH:

WHEREAS, the QF desires Parallel Operation with the Company and the Company desires to purchase any as available energy to be generated by the Facility and made available for sale to the Company, consistent with FPSC Rules 25-17.080, 25-17.082, 25-17.0825, 25-17.084, 26-17.086, 25-17.087, 25-17.0883 and 25-17.0889, as such rules may be amended from time to time; and

WHEREAS, the QF will engage in interconnected operation of the QF's generating facility with either the Company or with [utility]'s system (hereinafter referred as the "Transmission Service Utility") which is directly interconnected at one or more points with the Company.

NOW, THEREFORE, for mutual consideration, the Parties covenant and agree as follows:

ARTICLE I: DEFINITIONS

As used in this Agreement and in the Appendices hereto, the following capitalized terms shall have the following meanings:

- 1.1 **Appendices** means the schedules, exhibits and attachments which are appended hereto and are hereby incorporated by reference and made a part of this Agreement.
 - 1.1.1 **Appendix A** sets forth the Company's Interconnection Scheduling and Cost Procedures.
 - 1.1.2 **Appendix B** sets forth the Company's Parallel Operating Procedures.
 - 1.1.3 **Appendix C** sets forth the Company's Rates for Purchase of As-Available Energy.
- 1.2 **Company's Interconnection Facilities** means all equipment located on the Company's side of the Point of Delivery, (including without limitation), equipment for connection, switching, transmission, distribution, protective relaying and safety provisions which in the Company's judgment is required to be installed for the delivery and measurement of electric energy into the Company's system on behalf of the QF, including all metering and telemetering equipment installed for the measurement of such energy regardless of its location in relation to the Point of Delivery.
- 1.3 **As-Available Energy** means energy produced and sold by a QF on an hour-by-hour basis for which contractual commitments as to quantity, time, or reliability of delivery are not required.
- 1.4 **Distributed Resource** means a facility that is defined as a Distributed Resource in the Institute of Electrical and Electronics Engineers ("IEEE") Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems.
- 1.5 **Execution Date** means the date on which the Company executes this Agreement.

- 1.6 **Facility** means all equipment, as described in this Agreement, used to produce electric energy and, for a cogeneration facility, used to produce useful thermal energy through the sequential use of energy.
- 1.7 **FERC** means the Federal Energy Regulatory Commission and any successor.
- 1.8 **FPSC** means the Florida Public Service Commission and any successor.
- 1.9 **Force Majeure Event** means an event or occurrence that is not reasonably foreseeable by a Party, is beyond its reasonable control, and is not caused by its negligence or lack of due diligence, including, but not limited to, natural disasters, fire, lightning, wind, perils of the sea, flood, explosions, acts of God or the public enemy, strikes, lockouts, vandalism, blockages, insurrections, riots, war, sabotage, action of a court or public authority, or accidents to or failure of equipment or machinery, including, if applicable, equipment of the Transmission Service Utility.
- 1.10 **Interconnection Costs** means the actual costs incurred by the Company for the Company's Interconnection Facilities, including, without limitation, the cost of equipment, engineering, communication and administrative activities.
- 1.11 **Interconnection Costs Offset** means the estimated costs included in the Interconnection Costs that the Company would have incurred if it were not purchasing electric energy but instead itself generated or purchased from other sources an equivalent amount of electric energy and provided normal service to the Facility as if it were a non-generating customers.
- 1.12 **KW** means one (1) kilowatt of electric capacity.
- 1.13 **KWH** means one (1) kilowatt-hour of electric energy.
- 1.14 **Parallel Operation** means the QF will engage in interconnected operation of the QF's generating facility with the Company.



- 1.15 **Point of Delivery** means the point(s) where electric energy delivered to the Company pursuant to this Agreement enters the Company's system.
- 1.16 **Point of Metering** means the point(s) where electric energy made available for delivery to the Company, subject to adjustment for losses, is measured.
- 1.17 **Point of Ownership** means the interconnection point(s) between the Facility and the interconnected utility.
- 1.18 **Qualifying [Small Power Production or Cogeneration] Facility ("QF")** means a facility that meets the requirements defined in FPSC Rule 25-17.080.

ARTICLE II: FACILITY

- 2.1 The Facility shall be located in SUMTER COUNTY of Section _____ Township _____, Range _____. The Facility shall meet all other specifications identified in the Appendices hereto in all material respects and no change in the designated location of the Facility shall be made by the QF. The Facility shall be designed and constructed by the QF or its agents at the QF's sole expense.
- 2.2 Throughout the Term of this Agreement, the Facility shall be a Qualifying [Cogeneration or Small Power Production] Facility.

ARTICLE III TERM

The Term of this agreement shall begin on the Execution Date and shall continue until terminated by the Company for good cause or by the QF. Upon termination or expiration of this Agreement, the Parties shall be relieved of their obligations under this Agreement except for the obligation to pay each other all monies under this Agreement, which obligation shall survive termination or expiration.

ARTICLE IV: PURCHASE OF AS-AVAILABLE ENERGY

- 4.1 The QF shall sell and arrange for delivery of the As-Available Energy to the Company and the Company agrees to purchase, accept and pay for the As-Available Energy made available to the Company and which the Company is able to receive at the Point of Delivery in accordance with the terms and conditions of this Agreement, or a separately negotiated contract.
- 4.2 The QF shall not commence initial deliveries of energy to the Point of Delivery without the prior written consent of the Company, which consent shall not unreasonably be withheld.

ARTICLE V: INTERCONNECTION SCHEDULING AND COST RESPONSIBILITIES OF PARALLEL OPERATING PROCEDURES

- 5.1 The QF's interconnection scheduling and cost responsibilities and parallel operating procedures shall be those specified in Appendices A & B. Interconnection with, and delivery into, the Company's system must be accomplished in accordance with the provisions of FPSC Rule 25-17.087. Additionally, as provided in FPSC Order No. PSC-06-0707-PAA-EI, issued August 18, 2006, in Docket No. 060410-EI, for a QF that is a Distributed Resource, the QF's interconnection with the Company's system must be accomplished in accordance with the provisions of the IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems that is in effect at the time of construction.
- 5.2 The location and voltage of the Point of Interconnection and the Point of Metering will be specified by the Company.

ARTICLE VI: ENERGY PAYMENTS

- 6.1 For that electric energy received by the Company at the Point of Delivery each month, the Company will pay the QF an amount as computed in Appendix C.
- 6.2 Energy payments pursuant to sections 9.1.1 and 9.1.2 hereof shall be subject to the delivery voltage adjustment value applicable to the Facility and approved from time to time by the FPSC pursuant to Appendix C.

ARTICLE VII: CHARGES TO THE QF

The Company shall bill and the QF shall pay all charges applicable under Appendix A and C.

ARTICLE VIII: METERING

- 8.1 All electric energy shall be capable of being measured as described in Appendix C, Determination of Payment, at the Point of Metering. All electric energy delivered to the Company shall be adjusted for losses from the Point of Metering to the Point of Delivery. Any additional required metering equipment to measure electric energy and the telemetering equipment necessary to transmit such measurements to a location specified by the Company shall be installed, calibrated and maintained by the Company and all related costs shall be charged to the QF, pursuant to Appendix A, as part of the Company's Interconnection Facilities.
- 8.2 All meter testing and related billing corrections, for electricity sold and purchased by the Company, shall conform to the metering and billing guidelines contained in FPSC Rules 25-6.052 through 25-6.060 and FPSC Rule 25-6.103, as they may be amended from time to time, notwithstanding that such guidelines apply to the utility as the seller of electricity.

ARTICLE IX: PAYMENT PROCEDURE

- 9.1 Bills shall be issued and payments shall be made monthly to the QF and by the QF in accordance with the following procedures:
- 9.1.1 The electric energy payment calculated for a given month shall be tendered, with cost tabulations showing the basis for payment, by the Company to the QF as a single payment. Such payments to the QF shall be due and payable twenty (20) business days following the date the meters are read.

- 9.1.2 When any amount is owing from the QF, the Company shall issue a monthly bill to the QF with cost tabulations showing the basis for the charges. All amounts owing to the Company from the QF shall be due and payable twenty (20) business days after the date of the Company's billing statement. Amounts owing to the Company for retail electric service shall be payable in accordance with the provisions of the applicable rate schedule.
- 9.1.3 At the option of the QF, the Company will provide a net payment or net bill, whichever is applicable, that consolidates amounts owing to the QF with amounts owing to the Company.
- 9.1.4 Except for charges for retail electric service, any amount due and payable from either Party to the other pursuant to this Agreement that is not received by the due date shall accrue interest from the due date at the rate equal to the thirty (30) day highest grade commercial paper as published in the Wall Street Journal on the first business day of each month. Such interest shall be compounded monthly.
- 9.1.5 The QF may elect net sale or simultaneous purchase and sale in accordance with the provisions of FPSC Rule 25-17.082, such election not to be changed more often than every twelve (12) months.

ARTICLE X: INSURANCE

The provisions of this Article do not apply to a QF whose Facility is not directly interconnected with the Company's system.

- 10.1 The QF shall deliver to the Company, at least fifteen (15) days prior to the commencement of any work on the Company's Interconnection Facilities, a certificate of insurance certifying the QF's coverage under a liability insurance policy issued by a reputable insurance company authorized to do business in the State of Florida naming the QF as a named insured and the

Company as an additional named insured, which policy shall contain a broad form contractual endorsement specifically covering liabilities arising out of the interconnection with the Facility, or caused by the operation of the Facility or by the QF's failure to maintain the Facility in satisfactory and safe operating condition.

- 10.2 The insurance policy providing such coverage shall provide public liability insurance, including property damage, in an amount not less than \$1,000,000 for each occurrence. The required insurance policy shall be endorsed with a provision requiring the insurance company to notify the Company at least thirty (30) days prior the effective date of any cancellation or material change in the policy.
- 10.3 The QF shall pay all premiums and other charges due on said insurance policy and shall keep said policy in force during the entire period of interconnection with the Company.

ARTICLE XI: REGULATORY CHANGES

The Parties agree that the Company's payment obligations under this Agreement are expressly conditioned upon the mutual commitments set forth in this Agreement. Payments for as-available energy made to QF's pursuant to this Agreement shall be recovered by the Company through the Commission's periodic review of fuel and purchased power.

ARTICLE XII: FACILITY RESPONSIBILITY AND ACCESS

- 12.1 Representatives of the Company shall at all reasonable times have access to the Facility and to property owned or controlled by the QF and having relationship to the interconnection for the purpose of inspecting, testing, and obtaining other technical information deemed necessary by the Company in connection with this Agreement. Any inspections or testing by the Company shall not relieve the QF of its obligation to maintain the Facility.

12.2 In no event shall any Company statement, representation, or lack thereof, either express or implied, relieve the QF of its exclusive responsibility for the Facility and its exclusive obligations, if applicable, with the Transmission Service Utility. Any Company inspection of property or equipment owned or controlled by the QF or the Transmission Service Utility, or any Company review of or consent to the QF's or the Transmission Service Utility's plans, shall not be construed as endorsing the design, fitness or operation of the Facility or the Transmission Service Utility's equipment nor as a warranty or guarantee.

12.3 The Company shall reactivate the Company's Interconnection Facilities at its own expense if the same are rendered inoperable due to actions of the Company or its agents, or a Force Majeure Event.

ARTICLE XIII: INDEMNIFICATION

The QF agrees to indemnify and save harmless the Company and its employees, officers, and directors against any and all liability, loss, damage, costs or expense which the Company, its employees, officers and directors may hereafter incur, suffer or be required to pay by reason of negligence on the part of the QF in performing its obligations pursuant to this Agreement or the QF's failure to abide by the provisions of this Agreement. The Company agrees to indemnify and save harmless the QF and its employees, officers, and directors against any and all liability, loss, damage, cost or expense which the QF, its employees, officers, and directors may hereafter incur, suffer, or be required to pay by reason of negligence on the part of the Company in performing its obligations pursuant to this Agreement or the Company's failure to abide by the provisions of this Agreement. The QF agrees to include the Company as an additional insured in any liability insurance policy or policies the QF obtains to protect the QF's interests with respect to the QF's indemnity and hold harmless assurance to the Company contained in this Article.



**ARTICLE XIV: EXCLUSION OF INCIDENTAL
CONSEQUENTIAL AND INDIRECT DAMAGES**

Neither Party shall be liable to the other for incidental, consequential or indirect damages, including, but not limited to, the cost of replacement power, whether arising in contract, tort, or otherwise.

ARTICLE XV: COMMUNICATIONS

15.1 Any non-emergency or operational notice, request, consent, payment or other communication made pursuant to this Agreement to be given by one Party to the other Party shall be in writing, either personally delivered or mailed to the representative of said other Party designated in this section, and shall be deemed to be given when received. Notices and other communications by the Company to the QF shall be addressed to:

NATIONAL SOLAR POWER PARTNERS
1050 WEST NASA BLVD, SUITE 105
MELBOURNE, FL 32901
C/O JOHN BROUGHTON, PRESIDENT

Notices to the Company shall be addressed to:

Manager-Cogeneration Contracts & Administration
Progress Energy Florida
P.O. Box 14042
St. Petersburg, FL 33733

15.2 Communications made for emergency or operational reasons may be made to the following persons and shall thereafter be confirmed promptly in writing.

To The Company: System Dispatcher on Duty
Title: System Dispatcher
Telephone: (727) 866-5888
Telecopier: (727) 384-7865

To The QF: Name: JOHN BROUGHTON
Title: PRESIDENT
Telephone: () 321-422-4010
Telecopier: () 321-639-0326



15.3 Either Party may change its representatives names in this section by prior written notice to the other Party.

15.4 The Parties' representatives designated above shall have full authority to act for their respective principals in all technical matters relating to the performance of this Agreement. However, they shall not have the authority to amend, modify, or waive any provision of this Agreement.

ARTICLE XVI: SECTION HEADINGS FOR CONVENIENCE

Article or section headings appearing in this Agreement are inserted for convenience only and shall not be construed as interpretations of text.

ARTICLE XVII: GOVERNING LAW

The interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the State of Florida.



IN WITNESS WHEREOF, the QF and the Company have caused this Agreement to be executed by their duly authorized representatives on the day and year first above written.

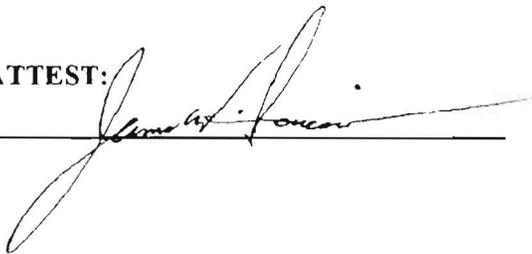
The Qualifying Facility:

By: 

Title: President

Date: 3/16/10

ATTEST:



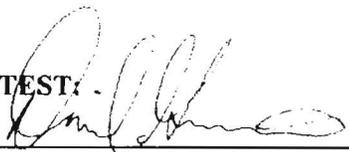
The Company:

By: 

Title: PRESIDENT & CEO

Date: 3/21/10

ATTEST:



APPENDIX A

INTERCONNECTION SCHEDULING AND COST RESPONSIBILITY

1.0 Purpose

This appendix provides the procedures for the scheduling of construction for the Company's Interconnection Facilities as well as the cost responsibility of the QF for the payment of Interconnection Costs. This appendix applies to all QF's, whether or not their Facility will be directly interconnected with the Company's system. All requirements contained herein shall apply in addition to and not in lieu of the provisions of the Agreement.

2.0 Submission of Plans and Development of Interconnection Schedules and Cost Estimates

2.1 No later than sixty (60) days after the Execution Date, the QF shall specify the date it desires the Company's Interconnection Facilities to be available for receipt of the electric energy and shall provide a preliminary written description of the Facility and, if applicable, the QF's anticipated arrangements with the Transmission Service Utility, including without limitation, a one-line diagram, anticipated Facility site data and any additional facilities anticipated to be needed by the Transmission Service Utility. Based upon the information provided, the Company shall develop preliminary written Interconnection Costs and scheduling estimates for the Company's Interconnection Facilities within sixty (60) days after the information is provided. The schedule developed hereunder will indicate when the QF's final electrical plans must be submitted to the Company pursuant to section 2.2 hereof.

2.2 The QF shall submit the Facility's final electrical plans and all revisions to the information previously submitted under section 2.1 hereof to the Company no later than the date specified under section 2.1 hereof, unless such date is modified in the Company's reasonable discretion. Based upon the information provided and within sixty (60) days after the information is provided, the Company shall update its written Interconnection Costs and schedule estimates, provide the estimated time period required for construction of the Company's Interconnection Facilities, and specify the date by which the Company must receive notice from the QF to initiate construction, which date shall, to the extent practical, be consistent with the QF's schedule for delivery of energy into the Company's system. The final electrical plans shall include the following information, unless all or a portion of such information is waived by the Company in its discretion:

- a. Physical layout drawings, including dimensions;
- b. All associated equipment specifications and characteristics including technical parameters, ratings, basic impulse levels, electrical main one-line diagrams, schematic diagrams, system protections, frequency, voltage, current and interconnection distance;
- c. Functional and logic diagrams, control and meter diagrams, conductor sizes and length, and any other relevant data which might be necessary to understand the Facility's proposed system and to be able to make a coordinated system;
- d. Power requirements in watts and vars;
- e. Expected radio-noise, harmonic generation and telephone interference factor;
- f. Synchronizing methods; and
- g. Facility operating/instruction manuals.
- h. If applicable, a detailed description of the facilities to be utilized by the Transmission Service Utility to deliver energy to the Point of Delivery.

- 2.3 Any subsequent change in the final electrical plans shall be submitted to the Company and it is understood and agreed that any such changes may affect the Company's schedules and Interconnection Costs as previously estimated.
- 2.4 The QF shall pay the actual costs incurred by the Company to develop all estimates pursuant to section 2.1 and 2.2 hereof and to evaluate any changes proposed by the QF under section 2.3 hereof, as such costs are billed pursuant to Article VII of the Agreement. At the Company's option, advance payment for these cost estimates may be required, in which event the Company will issue an adjusted bill reflecting actual costs following completion of the cost estimates.
- 2.5 The Parties agree that any cost or scheduling estimates provided by the Company hereunder shall be prepared in good faith but shall not be binding. The Company may modify such schedules as necessary to accommodate contingencies that affect the Company's ability to initiate or complete the Company's Interconnection Facilities and actual costs will be used as the basis for all final charges hereunder.

3.0 Payment Obligations for Interconnection Costs.

- 3.1 The Company shall have no obligation to initiate construction of the Company's Interconnection Facilities prior to a written notice from the QF agreeing to the Company's interconnection design requirements and notifying the Company to initiate its activities to construct the Company's Interconnection Facilities; provided, however, that such notice shall be received not later than the date specified by the Company under section 2.2 hereof. The QF shall be liable for and agrees to pay all Interconnection Costs incurred by the Company on or after the specified date for initiation of construction.
- 3.2 The QF agrees to pay all of the Company's actual Interconnection Costs as such costs are incurred and billed in accordance with Article VII of the Agreement. Such amounts shall be billed pursuant to section 3.2.1 if the QF elects the payment option

permitted by FPSC Rule 25-17.087(3). Otherwise the QF shall be billed pursuant to section 3.2.2.

3.2.1 Upon a showing of credit worthiness, the QF shall have the option of making monthly installment payments for Interconnection Costs over a period no longer than thirty six (36) months. The period selected is _____ months. Principal payments will be based on the estimated Interconnection Costs less the Interconnection Costs Offset, divided by the repayment period in months to determine the monthly principal payment. Payments will be invoiced in the first month following first incurrence of Interconnection Costs by the Company. Invoices to the QF will include principal payments plus interest on the unpaid balance, if any, calculated at a rate equal to the thirty (30) day highest grade commercial paper rate as published in the Wall Street Journal on the first business day of each month. The final payment or payments will be adjusted to cause the sum of principal payments to equal the actual Interconnection Costs.

3.2.2 When Interconnection Costs are incurred by the Company, such costs will be billed to the QF to the extent that they exceed the Interconnection Costs Offset.

3.3 If the QF notifies the Company in writing to interrupt or cease interconnection work at any time and for any reason, the QF shall nonetheless be obligated to pay the Company for all costs incurred in connection with the Company's Interconnection Facilities through the date of such notification and for all additional costs for which the Company is responsible pursuant to binding contracts with third parties.



SECTION No. IX
SECOND REVISED SHEET No. 9.204
CANCELS FIRST REVISED SHEET No. 9.204

4.0 Payment Obligation for Operation, Maintenance and Repair of the Company's Interconnection Facilities

The QF also agrees to pay monthly through the Term of the Agreement for all costs associated with the operation, maintenance and repair of the Company's Interconnection Facilities, based on a percentage of the total Interconnection Costs net of the Interconnection Costs Offset, as set forth in Appendix C.

APPENDIX B

PARALLEL OPERATING PROCEDURES

1.0 Purpose

This appendix provides general operating, testing, and inspection procedures intended to promote the safe parallel operation of the Facility with the Company's system. All requirements contained herein shall apply in addition to and not in lieu of the provisions of the Agreement.

2.0 Schematic Diagram

Exhibit B-1, attached hereto and made a part hereof, is a schematic diagram showing the major circuit components connecting the Facility and the Company's [substation] and showing the Point of Delivery and the Point of Metering and/or Point of Ownership, if different. All switch number designations initially left blank on Exhibit B-1 will be inserted by the Company on or before the date on which the Facility first operates in parallel with the Company's system.

3.0 Operating Standards

3.1 The QF and the Company will independently provide for the safe operation of their respective facilities, including periods during which the other Party's facilities are unexpectedly energized or de-energized.

3.2 The QF shall reduce, curtail, or interrupt electrical generation or take other appropriate action for so long as it is reasonably necessary, which in the judgment of the QF or the Company may be necessary to operate and maintain a part of either Party's system, to address, if applicable, an emergency on either Party's system.

3.3 As provided in the Agreement, the QF shall not operate the Facility's electric generation equipment in parallel with the Company's system without prior written consent of the Company. Such consent shall not be given until the QF has satisfied all criteria under the Agreement and has:

- (i) submitted to and received consent from the Company of its as-built electrical specifications;
- (ii) demonstrated to the Company's satisfaction that the Facility is in compliance with the insurance requirements of the Agreement; and
- (iii) demonstrated to the Company's satisfaction that the Facility is in compliance with all regulations, rules, orders, or decisions of any governmental or regulatory authority having jurisdiction over the Facility's generating equipment or the operation of such equipment.

3.4 After any approved Facility modifications are completed, the QF shall not resume parallel operation with the Company's system until the QF has demonstrated that it is in compliance with all the requirements of section 4.2 hereof.

3.5 The QF shall be responsible for coordination and synchronization of the Facility's equipment with the Company's electrical system, and assumes all responsibility for damage that may occur from improper coordination or synchronization of the generator with the utility's system.

3.6 The Company shall have the right to open and lock, with a Company padlock, manual disconnect switch numbers(s) _____ and isolate the Facility's generation system without prior notice to the QF. To the extent practicable, however, prior notice shall be given. Any of the following conditions shall be cause for disconnection:

1. Company system emergencies and/or maintenance repair and construction requirements;
2. hazardous conditions existing on the Facility's generating or protective equipment as determined by the Company;
3. adverse effects of the Facility's generation to the Company's other electric consumers and/or system as determined by the Company;
4. failure of the QF to maintain any required insurance; or
5. failure of the QF to comply with any existing or future regulations, rules, orders or decisions of any governmental or regulatory authority having jurisdiction over the Facility's electric generating equipment or the operation of such equipment.

3.7 The Facility's electric generation equipment shall not be operated in parallel with the Company's system when auxiliary power is being provided from a source other than the Facility's electric generation equipment.

3.8 Neither Party shall operate switching devices owned by the other Party, except that the Company may open the manual disconnect switch number(s) _____ owned by the QF pursuant to section 3.6 hereof.

3.9 Should one Party desire to change the operating position of a switching device owned by the other Party, the following procedures shall be followed:

- (i) The Party requesting the switching change shall orally agree with an authorized representative of the other Party regarding which switch or switches are to be operated, the requested position of each switching device, and when each switch is to be operated.
- (ii) The Party performing the requested switching shall notify the requesting Party when the requested switching change has been completed.
- (iii) Neither Party shall rely solely on the other party's switching device to provide electrical isolation necessary for personnel safety. Each Party will perform work on its side of the Point of Ownership as if its facilities are energized or test for voltage and install grounds prior to beginning work.
- (iv) Each Party shall be responsible for returning its facilities to approved operating conditions, including removal of grounds, prior to the Company authorizing the restoration of parallel operation.
- (v) The Company shall install one or more red tags similar to the red tag shown in Exhibit B-2 attached hereto and made a part hereof, on all open switches. **Only Company personnel on the Company's switching and tagging list shall remove and/or close any switch bearing a Company red tag under any circumstances.**

3.10 Should any essential protective equipment fail or be removed from service for maintenance or construction requirements, the Facility's electric generation equipment shall be disconnected from the Company's system. To accomplish this

disconnection, the QF shall either (i) open the generator breaker number(s) _____ ;
or (ii) open the manual disconnect switch number(s) _____.

3.10.1 If the QF elects option (i), the breaker assembly shall be opened and drawn out by QF personnel. As promptly as practicable, Company personnel shall install a Company padlock and a red tag on the breaker enclosure door.

3.10.2 If the QF elects option (ii), the switch shall be opened by QF personnel or by Company personnel and, as promptly as practicable, Company personnel will install a Company padlock and a red tag.

4.0 Inspection and Testing

4.1 The inspection and testing of all electrical relays governing the operation of the generator's circuit breaker shall be performed in accordance with manufacturer's recommendations, but in no case less than once every 12 months. This inspection and testing shall include, but not be limited to, the following:

- (i) electrical checks on all relays and verification of settings electrically;
- (ii) cleaning of all contacts;
- (iii) complete testing of tripping mechanisms for correct operating sequence and proper time intervals; and
- (iv) visual inspection of the general condition of the relays.

- 4.2 In the event that any essential relay or protective equipment is found to be inoperative or in need of repair, the QF shall notify the Company of the problem and cease parallel operation of the generator until repairs or replacements have been made. The QF shall be responsible for maintaining records of all inspections and repairs and shall make said records available to the Company upon request.
- 4.3 The Company shall have the right to operate and test any of the Facility's protective equipment to assure accuracy and proper operation. This testing shall not relieve the QF of the responsibility to assure proper operation of its equipment and to perform routine maintenance and testing.

5.0 Notification

- 5.1 Communications made for emergency or operational reasons may be made to the following persons and shall thereafter be confirmed promptly in writing:

To The Company: System Dispatcher on Duty
Title: System Dispatcher
Telephone: (727)384-7211
Telecopier: (727)384-7865

To The QF: Name JOHN BROUGHTON
Title: PRESIDENT
Telephone: 321 422 4010
Telecopier: 321 639 0326

- 5.2 Each Party shall provide as much notification as practicable to the other Party regarding planned outages of equipment that may affect the other Party's operation.



SECTION No. IX
SECOND REVISED SHEET No. 9.256
CANCELS FIRST REVISED SHEET No. 9.256

EXHIBIT B-1

Exhibit B-1 will be unique for each Facility
and must be complete prior to parallel
operation with the Company



SECTION No. IX
SECOND REVISED SHEET No. 9 257
CANCELS FIRST REVISED SHEET No. 9 257

EXHIBIT B-2

A switch or switch point (i.e., elbow, open jumpers, etc.) with a red tag attached is open and shall not be closed under any circumstances. After a switch has been red tagged, that switch cannot be closed until the red tag is removed. Red tags can only be removed when authorized by a specific written order.



SECTION No. IX
SECOND REVISED SHEET No. 9.300
CANCELS FIRST REVISED SHEET No. 9.300

APPENDIX C
RATES

TABLE OF CONTENTS

	<u>Begins on Sheet No.</u>
SCHEDULE 1 Payments for As-Available Energy	9.310
SCHEDULE 2 Methodology for Calculating Avoided Energy Costs	9.320
SCHEDULE 3 Charges to Qualifying Facility	9.330

ISSUED BY: Mark A. Myers, Vice President, Finance
EFFECTIVE: December 19, 2003

**APPENDIX C
RATES****SCHEDULE 1****PAYMENTS FOR AS-AVAILABLE ENERGY****Payments:**

As-Available Energy is purchased at a unit cost, in cents per kilowatt-hour, based on the Company's actual hourly avoided energy costs which are calculated by the Company in accordance with the methodology described in Schedule 2 of this Appendix. Customer charges directly attributable to the purchase of As-Available Energy from the Qualifying Facility are deducted from the Qualifying Facility's total monthly energy payment. Avoided energy costs include incremental fuel and identifiable variable operation and maintenance expenses, and identifiable variable utility power purchases. An adjustment for line losses reflecting delivery voltage shall also be included. When interchange transactions take place, the incremental costs are calculated after the purchase or before the sale of the interchange energy. All sales shall be adjusted for losses from the point of metering to the point of interconnection.

Estimated As-Available Energy Cost:

Upon request by a qualifying facility or any interested person, each utility shall provide within 30 days its most current projections of its generation mix, fuel price by type of fuel, and at least a five year projection of fuel forecasts to estimate future as-available energy prices as well as any other information reasonably required by the qualifying facility to project future avoided cost prices including, but not limited to, a 24 hour advance forecast of hour-by-hour avoided energy costs. The Company may charge an appropriate fee, not to exceed the actual cost of production and copying, for providing such information.

**APPENDIX C
RATES****SCHEDULE 2****METHODOLOGY FOR CALCULATING AVOIDED ENERGY COSTS****Introduction:**

A unit commitment computer program is utilized to determine the hourly avoided energy cost as the basis for purchase of as-available energy from qualifying facilities. All economic, unit constraint, and system requirements data necessary for program execution is based on real time data accumulated during the hour that energy was received.

Determination of Energy Block Size:

The energy received from all as-available QFs is determined by the Company's Meter Department for metered energy and the Company's Energy Control Department for telemetered energy. The Energy Control Department combines these inputs to determine the total energy received by the Company from QFs for the period. The energy block size will be the equivalent of this total divided by the number of hours in the period, rounded to the nearest five MW. The energy price payable to the QFs will be based on this energy block size. A time aligned matrix of energy received from each QF excluding non-time-of-day QFs (less than 100 KW) is produced from this data (Energy Received Matrix).

Unit Commitment Program Execution:

The Unit Commitment Program is executed with the following hourly input data for the desired period:

1. Unit constraint data to simulate actual unit operating conditions and availability.
2. Resource economic data consistent with the data used in the actual dispatch of energy resources. This includes a replacement cost of fuel based on an average forecast price from the Company's suppliers for oil, the price for interruptible gas, and the spot market price of coal.
3. System load and operating/spinning reserve requirements actually experienced.
4. Interchange purchases in the magnitude and at the average variable cost actually incurred. The cost of emergency purchases shall be assumed equal to that of the average unit cost of emergency purchases made during the prior twelve months' period for which emergency purchase information is available.

The unit commitment program is executed a second time for the same period with an increase in the hourly system load equal to the energy block size. All other data remain the same.

Determination of Energy Price:

A comparison of the unit commitment program executions described above produces the energy prices. The hourly cost of the second execution minus the corresponding hourly cost of the first execution equals the hourly energy cost avoided by the Company as a result of the energy supplied by the QFs. These hourly avoided energy costs will be arranged into a time aligned matrix of energy prices (Energy Price Matrix).

Determination of Identifiable Variable Operation & Maintenance Cost:

The Company's Fossil Plant Performance Department examines for a five year historic period all the Company's production operation and maintenance expenses excluding fuel costs and identifies the variable component. A ratio of variable costs to total O&M costs excluding fuel is derived for various fossil generating types. The appropriate ratio is applied to each fossil generating type's unit cost (on a KWH basis) for the most current twelve months' period to establish the current variable O&M unit cost for each generating type. These unit costs are then weighted according to the current twelve months' generation output of each generating type to determine the average current variable O&M unit cost.

**APPENDIX C
RATES****SCHEDULE 2
METHODOLOGY FOR CALCULATING AVOIDED ENERGY COSTS**

Page 2 of 2

Determination of Line Loss (Delivery Voltage) Adjustment:

The Company's average system line losses are analyzed annually for the prior calendar year, and delivery efficiencies are developed for the transmission, distribution primary, and distribution secondary voltage levels. This analysis is provided in the Company's semi-annual fuel cost recovery filing with the FPSC in Exhibit Schedule E1. An adjustment factor, calculated as the reciprocal of the appropriate delivery efficiency factor, is applicable to the above determined avoided costs to reflect the delivery voltage level at which QF energy is received by the Company.

Determination of Payment:

The actual payment to each QF for the period is determined by one of the following methods:

1. For QFs (less than 100 KW) Time-of-Day Metered

Average On-Peak and Off-Peak energy prices derived from the "Energy Price Matrix" are applied to the QF's corresponding On-Peak and Off-Peak energy contained in the "Energy Received Matrix." Added to this amount is an amount representing avoided variable O&M cost which is calculated by applying the Company's variable O&M cost per KWH to the total energy received by the Company from the QF. The total amount derived is then adjusted by the delivery voltage adjustment.

2. For QFs (less than 100 KW) Non-Time-of-Day Metered

The average Off-Peak energy price derived from the "Energy Price Matrix" is applied to the QF's energy contained in the "Energy Received Matrix." Added to this amount is an amount representing avoided variable O&M cost which is calculated by applying the Company's variable O&M cost per KWH to the total energy received by the Company from the QF. The total amount derived is then adjusted by the delivery voltage adjustment.

3. For QFs (100 KW or Greater) Hourly Metered

The "Energy Price Matrix" is applied to corresponding elements of the QF's "Energy Received Matrix." Added to this amount is an amount representing avoided variable O&M cost which is calculated by applying the Company's variable O&M cost per KWH to the total energy received by the Company from the QF. The total amount derived is then adjusted by the delivery voltage adjustment.

**APPENDIX C
RATES****SCHEDULE 3****CHARGES TO QUALIFYING FACILITY****Customer Charges:**

The Qualifying Facility shall be billed \$74.42 monthly for the costs of meter reading, billing, and other appropriate administrative costs.

Operation, Maintenance, and Repair Charges:

The Qualifying Facility shall be billed monthly for the costs associated with the operation, maintenance, and repair of the interconnection. These include (a) the Company's inspections of the interconnection and (b) maintenance of any equipment beyond that which would be required to provide normal electric service to the Qualifying Facility if no sales to the Company were involved.

The Qualifying Facility shall pay a monthly charge equal to 0.50% of the Interconnection Costs less the Interconnection Costs Offset.

Taxes and Assessments:

The Qualifying Facility shall be billed or credited monthly an amount equal to the taxes, assessments, or other impositions, if any, for which the Company is liable as a result of its installation of facilities in connection with this Agreement, its purchase of As-Available Energy produced by the Qualifying Facility, or any other activity undertaken pursuant to this Agreement. Such amount billed shall not include any amounts (i) for which the Company would have been liable had it generated or purchased from other sources an equivalent amount of electric energy; or (ii) which are recovered by the Company

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

In re: Petition for approval of Solar)	DOCKET NO. 090109-EI
Energy Power Purchase Agreement)	FILED: APRIL 26, 2010
Between Tampa Electric and Energy)	
5.0, LLC)	

**TAMPA ELECTRIC COMPANY'S
ANSWERS TO FIFTH SET OF INTERROGATORIES (NO. 84)
OF
FLORIDA PUBLIC SERVICE COMMISSION STAFF**

Tampa Electric files this its Answers to Interrogatories (No. 84) propounded and served on April 6, 2010, by the Florida Public Service Commission Staff.

**TAMPA ELECTRIC COMPANY
DOCKET NO. 090109-EI
INDEX TO STAFF'S FIFTH SET OF INTERROGATORIES (NO. 84)**

<u>Number</u>	<u>Witness</u>	<u>Subject</u>	<u>Bates Stamped Page</u>
84	Smith	Please compare and contrast the attached as-available energy contract, submitted to the Commission by Progress Energy on April 5, 2010, with the negotiated contract between TECO and Energy 5.0.	1

Benjamin Smith II
Manager, Power Marketing

Tampa Electric Company
702 N. Franklin Street
Tampa, Florida 33602

TAMPA ELECTRIC COMPANY
DOCKET NO. 090109-EI
STAFF'S FIFTH SET OF
INTERROGATORIES
INTERROGATORY NO. 84
PAGE 1 OF 1
FILED: APRIL 26, 2010

- 84.** Please compare and contrast the attached as-available energy contract, submitted to the Commission by Progress Energy on April 5, 2010, with the negotiated contract between TECO and Energy 5.0.
- A.** Tampa Electric does not have access to Progress Energy's as-available energy cost, however; Tampa Electric's projected levelized avoided energy costs is approximately \$80/MWH. The avoided energy cost does not include any costs associated with renewable energy or greenhouse gas legislation.

A F F I D A V I T

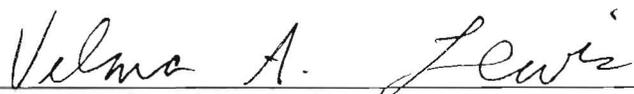
STATE OF FLORIDA)
)
COUNTY OF HILLSBOROUGH)

Before me the undersigned authority personally appeared Carlos Aldazabal who deposed and said that he is Director, Regulatory Affairs at Tampa Electric Company, and that the individuals listed in Tampa Electric Company's response to Staff's Fifth Set of Interrogatories, (No. 84) prepared or assisted with the responses to this interrogatory to the best of his information and belief.

Dated at Tampa, Florida this 22nd day of April, 2010.



Sworn to and subscribed before me this 22nd day of April, 2010.





VELMA A. LEWIS
MY COMMISSION # DD 642991
EXPIRES: August 22, 2011
Bonded Thru Budget Notary Services

My Commission expires _____