

Dorothy Menasco

From: Stright, Lisa [Lisa.Stright@pgnmail.com]
Sent: Monday, April 26, 2010 2:07 PM
To: Filings@psc.state.fl.us
Cc: Schef Wright ; richzambo@aol.com; koswald@co.pinellas.fl.us; Thomas.Murphy@veoliaes.com; rhauser@co.pinellas.fl.us; Burnett, John
Subject: Supplemental Information - Dkt# 090499-EQ
Attachments: FINAL (Signed) - Supplemental Information - Dkt# 090499-EQ (4.26.10).pdf

This electronic filing is made by:

John T. Burnett
299 First Avenue North
St. Petersburg, FL 33733
(727) 820-5184
john.burnett@pgnmail.com

Docket No. 090499-EQ

On behalf of Progress Energy Florida

Consisting of 27 pages.

The attached document for filing is
Supplemental information to be filed
In Docket No. 090499-EQ.

Lisa Stright

Regulatory Analyst - Legal Dept.
Progress Energy Svc Co.
106 E. College Ave., Suite 800
Tallahassee, FL 32301
direct line: (850) 521-1425
VN 230-5095
lisa.stright@pgnmail.com

DOCUMENT NUMBER-DATE

03316 APR 26 2010

FPSC-COMMISSION CLERK

4/26/2010



April 26, 2010

VIA ELECTRONIC FILING

Ms. Ann Cole, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Petition for approval of letter agreement to negotiated purchase power contract with Pinellas County Resource Recovery by Progress Energy Florida, Inc.; Docket No. 090499-EQ

Dear Ms. Cole:

Enclosed please find a copy of a letter PEF received from Pinellas County regarding the above referenced docket. PEF has reviewed the letter and the attachments thereto and agrees with the County that the information presented therein should be considered by the FPSC Staff and the Commission prior to the consideration of this docket at agenda. Specifically, the supplemental information further demonstrates that the letter agreement at issue in this docket is and was in the best interest of PEF's customers and must be factored into Staff's analysis and recommendation, and the Commission's ultimate ruling on this matter. Therefore, PEF respectfully requests that this letter and the attachments thereto be included in the docket file for this case and be made available to Technical Staff for their review and consideration.

Thank you for your assistance in this matter, and please feel free to contact me should you have any questions.

Sincerely,

John T. Burnett lms
John T. Burnett

JTB/lms
Enclosure

cc: Kelsi Oswald (PCU)
Robert Hauser (PCU)
Thomas Murphy (Veolia)
Scheff Wright
Richard Zambo

DOCUMENT NUMBER - DATE

03316 APR 26 09

FPSC-COMMISSION CLERK

**BOARD OF COUNTY
COMMISSIONERS**

Nancy Bostock
Neil Brickfield
Calvin D. Harris
Susan Latvala
John Morroni
Karen Williams Seel
Kenneth T. Welch



April 23, 2010

Dave Gammon
Progress Energy Florida
299 First Avenue North – PEF 155
St. Petersburg, FL 33701

Re: PSC Docket #090499

Dear Mr. Gammon:

Pinellas County has reviewed Progress Energy Florida's (PEF) November 2, 2009 petition to the Public Service Commission in PSC Docket No. 090499-EQ, requesting approval of the August 18, 2009 letter agreement between PEF and Pinellas County modifying the negotiated power purchase agreement between PEF and the County. The subject modifications provided for a temporary reduction in capacity at the Pinellas County Resource Recovery Facility (PCRRF). We have also reviewed the subsequent correspondence between PEF and the PSC Staff regarding this issue. We believe that additional information and supporting documentation relating to this request would be beneficial for the PSC to consider before reaching a final decision on PEF's petition. The information shows that had the County continued with its original plan to use portable generators to supplement electricity production for the County's site loads behind the meter, as we shared and discussed with you, we would have maintained our rolling average capacity above 70%. We respectfully request that you submit this additional information to the PSC staff for their consideration, in the hopes that they will reconsider their initial recommendation to deny PEF's petition.

PLEASE ADDRESS REPLY TO:
3095 - 114th Avenue North
St. Petersburg, Florida 33716
Phone: (727) 464-7500
FAX: (727) 464-7713
Website: www.pinellascounty.org



The County has provided some specific comments to items included in the data requests from the PSC Staff and PEF's associated responses, as well as to the PSC staff recommendations. We have also attached documentation to demonstrate that we had completed all planning and engineering for the County's portable-generator plan, and that the County was prepared to implement that alternate approach when PEF suggested the option of a temporary and partial curtailment – which option was of significant benefit to PEF's customers.

In response to PSC Data Request #3, PEF provided actual generation data for the period in question and the resultant rolling average capacity factor had the reduction in committed capacity not been in place. While the data provided is accurate, it assumes that generation from PCRRF would have been the same with and without the letter agreement in place. This is an erroneous assumption: if the County had not had the letter agreement for reduction in capacity commitment, we would have used portable generators to provide power to serve in-house (or "parasitic") load, thus allowing us to maintain the PCRRF's rolling average capacity factor above 70%. (See further information in response to Data Request #4).

In the PSC Data Request #4, Question 2, the PSC questions whether it was appropriate to calculate payments assuming the County would have maintained a 70% capacity factor throughout the period. We believe that this was and is the only methodology to use in evaluating the letter agreement, because the County would indeed have maintained the PCRRF's capacity factor above 70% absent the letter agreement. In other words, this is the only correct comparison scenario for evaluating the costs and benefits of the letter agreement.

The County had scheduled construction work, and was aware that given the condition of the plant and the capacity at that time, it was unlikely the WTE facility would be able to maintain a 70% rolling average capacity factor during the construction project, if the County had continued to serve all in-house or parasitic loads from the PCRRF's output. The County evaluated several alternatives, and determined that utilizing portable generators to supplement in-house power generation was the best available option. The County developed a plan to temporarily install and operate four portable 2-MW generators which would have been electrically tied-into the facility's internal buss, with a fifth 2-MW generator available on standby. All elements of this plan had been finalized and priced (equipment rental, engineering support for tie-in, fuel supply, etc.). Documentation of these arrangements has been included with this letter.

As part of the planning process, the County prepared an estimate of projected generation for the period from August through December to calculate the amount of supplemental energy that would be needed to maintain the PCRRF's capacity factor above 70% (see attached table). When this table is updated with actual generation for this period, it demonstrates that the County would have been able to maintain the PCRRF's capacity factor above 70% utilizing portable generators.

Notably, the County would only have needed three portable generators to maintain its capacity factor above 70%, but would likely have exceeded 70% to some extent since the plan included having four generators online, with a fifth unit on standby to use as a backup or to supplement generation, as necessary.

In their recommendation, the PSC Staff states: "The data request response also included a table showing monthly capacity factor reduction savings provided by the modified agreement. The total of the monthly amounts indicated that PEF customers would save about \$2.6 million in reduced capacity payments. Unfortunately, the response provided nothing to demonstrate how the amount of the monthly savings was derived."

PEF's previous responses clearly show the reduction in cost based on comparing the full capacity payment to the capacity payment under the reduced commitment. This is also shown in the attached table.

PSC staff also state: "The curtailment, therefore, benefited PCRR by allowing it to take action to improve the capacity factor of the generating facility, and thereby, the revenue stream. The curtailment provided no benefit to PEF's customers, first because the PPA protects customers by reducing payments as power production declines, and second because the output from PCRR was not needed to maintain PEF's reserve margin."

Staff incorrectly concluded that there was "no benefit to PEF's customers" because it relied on incomplete information that ultimately resulted in an inappropriate comparison, namely, comparing what happened to the reference case instead of comparing **what would have happened, absent the letter agreement between PEF and Pinellas County**, to the reference case. There was, in fact, a financial benefit to PEF's customers from the letter agreement, due to the reduction in the capacity payments to the County. Planning data shows that the County would have been able to maintain the capacity above 70% using other methods had this agreement not been in place.

The PSC Staff also stated that, "In attempting to reconcile PEF's claim of a \$2.6 million customer savings, staff came to realize the savings claim was an estimate based on PCRR maintaining capacity factors above 70 percent for both the modified and original agreement scenarios. **If that had been the case, the estimate would have been accurate.** [emphasis added] Since the curtailment has ended, however, the actual numbers are available, and the results portray the contrasting picture shown above." Again, the Staff – lacking information about the County's portable generator plan - simply used the incorrect frame of reference by looking at what happened after the letter agreement was executed instead of **what would have happened** if the letter agreement had not been in place.

The results, as looked at after the fact, are not representative of what would have occurred had the County not had an agreement to reduce the capacity in place with PEF. As shown, the County would have been able, and was in fact fully prepared, to maintain the PCRRF's capacity factor above 70%. It should also be noted that the PCRRF has maintained an average of 96% monthly rolling average since the curtailment period concluded.

In summary, the PSC staff analysis based on incomplete data indicates that "the letter agreement appears to staff to have been crafted to preclude PCRR from losing too much money in capacity payments during the planned maintenance activity rather than providing any customer savings." In fact, when complete data is considered, it becomes apparent that the letter agreement between PEF and Pinellas County provided customer savings, reduced risk to the bulk electric system, increased future reliability, and cost Pinellas County as much or more than the portable generator plan would have cost. Importantly, the letter agreement substantially benefited PEF customers by reducing the capacity payments PEF would otherwise have made to the County during the period.

We appreciate your assistance in providing this additional information to the PSC staff for their consideration. If you have any questions or need additional data, please do not hesitate to contact me.

Sincerely,



Kelsi Oswald
WTE Program Manager
Pinellas County Utilities

cc: Gary Hart, PEF
John Burnett, PEF
Thomas Murphy, Veolia
Robert Hauser, PCU

Capacity Payments Scenarios

- Scenario 1 Rolling Average stays above 70% with 54.75 MW commitment
- Scenario 2 Rolling Average stays above 70% with reduced commitment
- Scenario 3 Rolling average falls below 70% with 54.75 MW commitment

	Scenario 1	Scenario 2	Scenario 3
September	\$ 2,595,150	\$2,133,790	\$875,453
October	\$ 2,595,150	\$1,730,100	\$875,453
November	\$ 2,595,150	\$1,730,100	\$875,453
December	\$ 2,595,150	\$2,176,577	\$875,453

Total Payments \$ 10,380,600 \$7,770,567 \$3,501,812

If PEF had not allowed the County the reduced commitment, and the County had remained above 70% by either utilizing portable generators or delaying the construction work, PEF would have incurred costs of \$10,380,600 for capacity payments.

By allowing the County the reduced commitment, PEF rate payers realized a \$2,610,033 savings in capacity payments.

THE PSC STAFF's conclusion that the ratepayers would have benefited by PEF not allowing the reduced commitment is erroneously based on the County falling below 70% - this would not have been the case. Actual generation would have been higher either through portable generators or delay of construction.

Reducing the capacity commitment had the same monthly cost to the County as renting portable generators and paying for fuel during the construction period.

Reducing the capacity commitment presented much less risk to reliability of the bulk electric system than use of portable generators.

Reducing the capacity commitment facilitated an earlier return to higher and more reliable generation than would have occurred if the County had deferred construction.

**BACKUP FOR SUPPLEMENTAL ENERGY NEEDED TO
MAINTAIN CAPACITY ABOVE 70%**



"Koon, Luke J"
<lkoon@co.pinellas.fl.us>
07/24/2009 07:43 AM

To <yoon.chae@veoliaes.com>,
<Christopher.Neu@veoliaes.com>,
<fj40@tampabay.rr.com>,
cc "Hauser, Robert" <rhauser@co.pinellas.fl.us>, "Oswald,
Kelsi" <koswald@co.pinellas.fl.us>,
<Steve.Passage@veoliaes.com>,
bcc

Subject Additional Electrical Capability

History This message has been forwarded

All;

Per the meeting held yesterday, attached is a projection of net electrical generation using four (4) diesel power generators rated at 2 MW each.



Luke Eled.Cap72309.xls

7/23/2009

file: *Elect.Cap72309*

	<u>Monthly Proj.</u>	<u>Monthly Expected</u>	<u>Monthly Capacity</u>	<u>Cumm. Projected</u>	<u>Cumm. Expected</u>	<u>12-Mo. Cap. Avg.</u>	<u>Supplimental Electrical Generation</u>			
							<u>1.7 MW</u>	<u>3.4 MW</u>	<u>5.1 MW</u>	<u>6.8 MW</u>
July, 09	26,477	40,734	65.00%	204,370	281,798	72.52%				
Aug. 09	30,962	40,734	76.01%	235,332	322,532	72.96%	72.39%	72.58%	72.77%	72.96%
Sept. 09	25,132	39,420	63.75%	260,464	361,952	71.96%	70.95%	71.28%	71.62%	71.96%
Oct. 1-18	0	0	0.00%	260,464	361,952	71.96%	70.95%	71.28%	71.62%	71.96%
Oct. 19-31	10,481	17,739	59.08%	270,945	379,691	71.36%	70.92%	71.07%	71.21%	71.36%
Nov. 09	23,292	39,420	59.09%	294,237	419,111	70.21%	69.33%	69.62%	69.91%	70.21%
Dec. 09	36,245	40,734	88.98%	306,239	432,251	70.85%	69.97%	70.26%	70.56%	70.85%
Jan. 10	31,690	40,734	77.80%	308,295	432,251	71.32%	70.45%	70.74%	71.03%	71.32%
Feb. 10	24,192	36,792	65.75%	310,669	436,905	71.11%	70.32%	70.58%	70.85%	71.11%

Notes:

- Additional 6.8 net MW/H added starting Aug. 16th.
- Added 2,448 MW to Aug. generation
- CIP Unit #1 starts Sept. 7th.
- Added 4,896 MW to Sept. generation
- Oct. 1-18 Curtailment
- Added 2,203 MW to Oct. 19-31 generation
- Added 4,896 MW to Nov. generation
- Added 5,059 MW to Dec. generation
- Added 5,059 MW to Jan. generation
- Added 4,570 MW to Feb. generation

Update to initial projection of supplemental energy needs prepared in July 2009 reflecting actual generation during curtailment period

4/14/2010 file: Elect.Cap72309

	Actual Energy	Monthly	Monthly	Cumm.	Cumm.	12-Mo.	Supplemental Electrical Generation			
	<u>Generated</u>	<u>Expected</u>	<u>Capacity</u>	<u>Actual</u>	<u>Expected</u>	<u>Cap. Avg.</u>	<u>1.7 MW</u>	<u>3.4 MW</u>	<u>5.1 MW</u>	<u>6.8 MW</u>
July, 09	25,983	40,734	63.79%	203,876	281,798	72.35%				
Aug. 09	29,390	40,734	72.15%	233,266	322,532	72.32%	72.53%	72.73%	72.93%	73.13%
Sept. 09	17,594	39,420	44.63%	250,860	361,952	69.31%	69.83%	70.34%	70.86%	71.38%
Oct. 1-17.5	0	0	0.00%	250,860	361,952	69.31%	69.83%	70.34%	70.86%	71.38%
Oct. 17.5-31	8,644	17,739	48.73%	259,504	379,691	68.35%	68.99%	69.63%	70.26%	70.90%
Nov. 09	29,771	39,420	75.52%	289,275	419,111	69.02%	69.89%	72.51%	71.63%	72.51%
Dec. 09	35,501	40,734	87.15%	300,533	432,251	69.53%	70.66%	71.80%	72.94%	74.08%

	Supplemental Electrical Generation (MW)			
	1.7 MW	3.4 MW	5.1 MW	6.8 MW
Aug.	653	1306	1958	2611
Sept.	1224	2448	3672	4896
Oct. 1-17.5	0	0	0	0
Oct. 17.5-31	551	1102	1652	2203
Nov.	1224	2448	3672	4896
Dec.	1264	2530	3794	5059

Notes: Supplemental generation started Aug 16, ended Dec. 31.
Oct. 1-17.5 Alloted Curtailment

BACKUP FOR PORTABLE GENERATOR RENTAL



August 4, 2009

Mr. Christopher Neu
Veolia Environmental Services
3001 110th Ave North
St. Petersburg, FL 33716
Ph# 727-572-9163

Dear Chris,

I am pleased to submit the following proposal for your review.

**Project: Temporary Power Generation
Pinellas County Waste to Energy Facility**

- (5) Caterpillar Model XQ2000 KW Power Modules
- Rated 2000 KW standby, 1825 KW Prime, 1640 KW Continuous
 - Main circuit breaker, 277 / 480 volt, Wye
 - 40' sound attenuated enclosure
 - Trailer mounted with 1250 gallon on board fuel tank
 - Paralleling switchgear

- (4) 2500 gallon auxiliary fuel tanks, skid mounted
(4) 3000 Amp Manual Transfer switches

36,800 ft of 4/0 power cable, (736) 50' sections with Cam Lok ends

Rental Pricing:

Power Modules: (4) Prime units: \$ 44,000.00 / Month (Each)
(1) Spare Unit: No charge

Fuel Tanks: \$ 1,000.00 / Month (Each)
Transfer Switches: \$ 2,500.00 / Month (Each)
Power Cable: \$ 38,400.00 / Month

Total Monthly Rental Cost: \$ 228,400.00

Inbound Freight: \$ 5,000.00 (Budget price)
Return Freight: \$ 5,000.00 (Budget price)

Ring Power Service Tech for start up: \$ 2,800.00 (based on normal business hours)
Start up includes training for Veolia personnel

PM Service: \$ 2,500.00 per service (Each)

Rental Purchase Option:

The above equipment is available on our Rental Purchase Option Program in which 100% of the rental payments are applied toward the purchase price of the unit. Interest is accrued on the unpaid balance.

Notes:

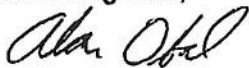
Sales tax is not included in the rental rates
Installation and removal is not included in the rental rates
Engineering is not included in the rental rates
Diesel fuel is not included in the rental rates
Pricing is based on a minimum (6) Month rental
Veolia to provide 24 hour monitoring of all equipment

Insurance Requirement:

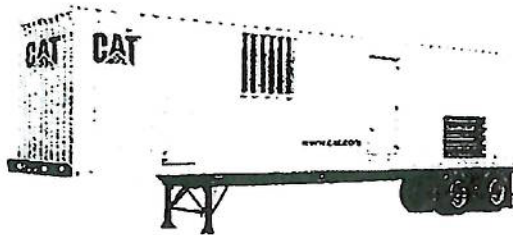
Veolia is responsible for providing an insurance certificate including liability coverage and property damage for rented/leased equipment. If a certificate is not provided there will be an additional monthly charge of 14% for our Fire, Theft, Vandalism Waiver.

Please feel free to call with any questions.

Best Regards,



Alan Obal
Ring Power Corporation
Power Systems Division
Cell # 727-639-0599



XQ2000 (3516B) UTILITY POWER MODULE SOUND ATTENUATED 480 V, 60 Hz, 1825 KW PRIME

FEATURES



EMISSIONS AND NOISE

- Meets most worldwide emissions requirements without after treatment. Low noise to achieve a noise pressure of only 75 dB(A) at 15 meters.

COMPLETE SOLUTION WITH ATTACHMENTS

- Wide range of rugged features, system attachments, factory designed, selected and tested at 60 Hz. Fully Prototype Tested with certified torsional vibration analysis and actual noise measurements available.



ENGINE

- Reliable, rugged, Caterpillar 3516B diesel engine.
- V16, 4 stroke-cycle, turbocharged-Aftercooled.
- Worldwide industry leader.
- Designed for maximum performance and minimum fuel consumption.



GENERATOR

- Exclusive Caterpillar SR4B generator, performance and design matched to Caterpillar 3516B engine.
- Single bearing, Form Wound, 825 Frame, 6 lead.
- Permanent magnet excitation with Caterpillar CDVR digital voltage regulator.
- Optimum winding pitch for least total harmonic distortion.



WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through your Caterpillar dealer, with over 1,800 dealer branch stores operating in 166 countries.
- Caterpillar dealer services technicians are trained to service every aspect of your electric power generation system.
- Customer Support Agreements offer back-to-back services from scheduled inspections and preventive maintenance to total maintenance and repair contracts.



GENERATOR SET & CONTAINER

- Cooling system 43C ambient operating & vertical discharge radiator for close proximity to buildings.
- Industry standard 40 foot (12 m) container. Interior walls and ceiling are insulated with 4 in (100 mm) of acoustic glass and covered with perforated metal sheet for a durable interior wall surface. Floor of container is insulated with acoustic glass and covered with galvanized steel.
- Three lockable personnel (padlock) doors are provided with sound attenuation and double sealed. One door is located on each side of the engine for service and one on the container left side to access the control room. Includes Stainless steel hardware & hinges and panic release.
- External access door provided for bus bars and auxiliary connections for external power source feeding (jacket water heater, battery charger, space heater in generator, switchgear space heater, A/C lighting and sockets).
- Convenient external lockable connections for fuel.
- Fuel transfer system.
- 24 VDC interior lights with 60 minutes timer in switchgear room and in engine room.
- 1,250 Gals (4,731 L) fuel tank with cooler (part of the radiator), primary filter water separator.
- 30 Gals (110 L) lube oil make up tank (gravity) with manual fill from interior.
- Delivered fully tested, ready to operate.
- Two 4.5 kg (10 lb) carbon dioxide fire extinguisher bottle mounted on wall.
- Meets or exceeds specifications: ISO 3046, IEC 34, ISO 8528, EGSA101P, JEM1359, AS1359, AS2789, BS4999, NEMA MG1-22

FEATURES (Continued)

SWITCHGEAR & CONTROLS

- Caterpillar Utility paralleling switchgear is intended for automatic or manual paralleling with a utility power source as a load management system, with provisions for standby operation feeding an isolated load network. Modes of operation are field configurable and include:
 - Single Unit Island Mode.
 - Multiple Unit Island Mode (up to 10 units).
 - o Includes Load Sense / Load Demand control.
 - o Load sharing capability is provided via network communication.
 - Single Unit Utility Parallel Mode.
 - o Automatic paralleling.
 - o Selectable for Import / Export control. (Requires 4-12-20 mA customer input.)
- Convenient operator interface
 - 6" Touch screen graphic display
 - Graphical one-line diagrams.
- Modules can operate in groups up to 10 with all communications synchronizing and load sharing between units by datalink for quick and convenient setup. (Max cumulative distance 1500 ft)
- Protection includes 3000A Generator circuit breaker with 100kA Interrupt Capability, extensive protective relays and internal power distribution.
- Convenient customer connections for power and fluids.
- Request to run signal (customer input)

FACTORY INSTALLED STANDARD EQUIPMENT

Feature	Benefits
Caterpillar 3516B Engine	Air cleaner with service indicator Batteries Primary & secondary fuel filters with service indicators; lubricating oil pump, fuel priming pump Lube oil make-up system Critical Grade silencers with side inlet and end outlet Radiator; jacket water heater (two elements 4500 W) Service meter; standard eight-gauge instrument panel Electronic ADEM [®] III Governing System The ADEM [®] III control is designed to control/interface Electronic Unit Injector (EUI) equipped engines. The ADEM [®] III controller is composed of the ADEM III [®] ECM, control software, sensors, actuators, fuel injectors, and interface to the generator system. All ADEM [®] III controllers are designed to survive the harshest environments. Environmentally sealed, die-cast aluminum housing isolates and protects electronic components from moisture and dirt contamination. Rigorous vibration testing ensures product reliability and durability. SIMPLE SERVICING - Each ADEM [®] III system works in combination with the Caterpillar ET service tool software to keep the engine operating at peak performance. <ul style="list-style-type: none"> - Displays measured parameters. - Retrieves active and logged event codes documenting abnormal system operation. - Performs calibrations and diagnostic tests. - Supports flash programming of new software into the ADEM[®] III ECM SELF DIAGNOSTICS - Each ADEM [®] III ECM has a full compliment of self diagnostics. The ECM can detect faults in the electrical system and report those faults to the service technician for quick repair.

FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

Feature	Benefits
Caterpillar SR4B Generator	480 Volt SR4B brushless, 825 frame Permanent magnet excited, three-phase with digital voltage regulator Class H insulation operating at class F for extended life Single bearing, 6 lead star connected Three phase voltage sensing Space heater
Generator Set EMCP [®] 3.3 Local control panel	Generator mounted EMCP [®] 3.3 local panel Provides MODBUS datalink to engine and generator Convenient service access for Caterpillar service tools (not included) The Caterpillar EMCP [®] 3.3 places fully featured power metering, protective relaying and engine and generator control and monitoring at your fingertips. Integration with the CDVR provides enhanced system performance. Ability to view and reset diagnostics on J1939 Network modules via the control panel removes the need for a separate service tool for troubleshooting. Fully featured power metering, protective relaying, engine and generator parameter viewing, and expanded AC metering are all integrated into this controller. Real-time clock allows for date and time stamping of diagnostics and events. OPERATOR INTERFACE <ul style="list-style-type: none"> - Graphical display with positive image, transfective LCD, adjustable white backlight/contrast. - Two LED status indicators (1 red, 1 amber). - Three Engine Control Keys and Status Indicators (Run/Auto/Stop). - Lamp Test Key. - Alarm Acknowledgement Key. - Display Navigation Keys - Two Shortcut Keys: Engine Operating Parameters and Generator Operating Parameters.
Switchgear controls	Caterpillar Utility paralleling switchgear is intended for automatic or manual paralleling with a utility power source as a load management system, with provisions for standby operation feeding an isolated load network. Modes of operation are field configurable and include: <ul style="list-style-type: none"> - Single Unit Island Mode - Multiple Unit Island Mode <ul style="list-style-type: none"> · Includes Load Sense / Load Demand control · Load sharing capability is provided via network communication - Single Unit Utility Parallel Mode. <ul style="list-style-type: none"> · Automatic paralleling · Selectable for Import / Export control · If Import control is selected a 4-12-20mA signal is required and will be provided by others that is scalable to the utility contribution

FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

Features	Benefits		
Switchgear controls (Continued)	<p>INCOMING UTILITY BREAKER STATUS CIRCUIT - Circuit to accept customers contact from remote utility disconnect device. Customer to provide a normally open form "a" contact to indicate when the local load network is connected to the utility grid.</p> <p>UTILITY TRANSFER TRIP CIRCUIT - Circuit accepts input (normally open dry contact) from customer's system protective relay(s) or other controlling device. Operation of contacts causes tripping of the generator circuit breaker via the generator lock-out relay (ANSI device 86) and places the engine in cooldown mode. Circuit is disabled when operating in single unit or multiple unit island modes.</p>		
Switchgear monitoring	<p>Graphical mimic one line that shows generator with its respective circuit breaker in a one-line representation of the system. The graphics utilize black and white indicators and bar graphs while actively displaying the following information:</p> <ul style="list-style-type: none"> - Utility CB Open/Closed. Input contacts provided by others. - Utility kW. A 4-12-20mA signal required and provided by others that is scalable to the utility contribution. - Generator CB Open/Closed/Tripped - Generator Volts/Amps/kW/Frequency - Engine Stopped/Running/Cooldown/Pre-Alarm/Shutdown - Engine ECS Position Off/Auto/Manual/Cooldown - Utility Output kW - System Summary Alarm <p>Display includes all alarms and values from local EMCP[®] panel via MODBUS[®] datalink plus monitoring and protection items in switchgear. Event logging is also included with up to 500 stored events.</p> <p style="text-align: center;"><u>Standard system local annunciation is also included</u></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> Status, Light Only (Non-Latching) Multiple Unit Island Mode Gen CB Open (Green) Gen Tripped Gen ECS in Auto Alarm, Light and Horn (Non-Latching) Gen Fail to Synch Shutdown Alarm, Light and Horn (Latching) Emergency Stop Rupture Basin Gen Loss of Field Gen Undervoltage Gen Underfrequency 78/81 df/dt shutdown </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> Single Unit Island Mode Single Unit Utility Parallel Mode Gen CB Closed (Red) Gen ECS Not in Auto Emergency Mode Low Fuel Main Tank Fuel system alarm Processor Fault Critical Low fuel Level Gen Circuit Breaker Tripped Gen Reverse Power Gen Overvoltage Gen Overfrequency </td> </tr> </table>	<ul style="list-style-type: none"> Status, Light Only (Non-Latching) Multiple Unit Island Mode Gen CB Open (Green) Gen Tripped Gen ECS in Auto Alarm, Light and Horn (Non-Latching) Gen Fail to Synch Shutdown Alarm, Light and Horn (Latching) Emergency Stop Rupture Basin Gen Loss of Field Gen Undervoltage Gen Underfrequency 78/81 df/dt shutdown 	<ul style="list-style-type: none"> Single Unit Island Mode Single Unit Utility Parallel Mode Gen CB Closed (Red) Gen ECS Not in Auto Emergency Mode Low Fuel Main Tank Fuel system alarm Processor Fault Critical Low fuel Level Gen Circuit Breaker Tripped Gen Reverse Power Gen Overvoltage Gen Overfrequency
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FACTORY INSTALLED STANDARD EQUIPMENT (Continued)

Feature	Benefits
Switchgear protection	<p>Power Module switchgear on 3516B generator set. Switchgear consist of a Generator control cabinet (upper) and one Utility / AC Distribution cabinet (lower). Switchgear is built to meet UL Standards.</p> <p>Generator Circuit Breaker - UL Listed 3000A, 100kA interrupt capability, three pole, drawout, electrically operated, molded case circuit breaker.</p> <p>Display of EMCP3.3 faults, CDVR and ADEM[®]III provided by Modbus RTU PowerLynx Generator / Intertie Protective Relaying including</p> <p>Device 15 # Auto synchronizer Device 25 # Synchronizing check Device 27/59 # Under/Over voltage Device 32 # Reverse Power Device 40 # Loss of excitation Device 65 # Governor load sharing, soft loading control Device 78/81 Rate of change of frequency Device 90 # VAR/PF and cross current compensation controller Device 810/U # Under/Over frequency</p> <p>Two form C run contacts included for motor starters and motorized louvers AC distribution cabinet - Includes circuit breakers and distribution for motor starters, battery charger, fuel transfer pump, AC lighting, generator space heater, convenience receptacles, ventilation fans, motorized louvers, jacket water heaters</p>
Switchgear connections	<p>BUS BARS - Three phase, plus fully rated neutral, bus bars are silver-plated copper with NEMA standard hole pattern for connection of customer load cables. Bus bars are sized for full load capacity of the generator set at 0.8 power factor. Also includes ground bus, silver-plated copper, for connection to the generator frame ground and field ground cable.</p> <p>SHORE POWER CONNECTION BLOCK - 240 VAC shore power connections for jacket water heaters, generator space heater and battery charger. Includes fault protection and relays to de-energize jacket water heaters and generator space heater when engine is running.</p>

AVAILABLE OPTIONAL EQUIPMENT

Feature	Benefits
Remote Software	Includes installed Ethernet modem, Ethernet switch and web server (supports up to 2 clients, if required additional clients can be added at additional cost) provides via Internet Explorer located on customer PC, data access.
Site Controller	<p>Includes industrial PC and site PC software.</p> <p>Local communications, via Internet Explorer located on customer PC, provided to interface with touchscreen. Server software and Ethernet compatible touchscreen provided.</p> <p>This option is browser based with ability to view 1 to 10 individual units with Internet Explorer. From the customer PC you can launch a browser and look at each initial unit with the same views displayed at the local unit. The customer will be responsible for the Ethernet network (wiring, hubs, router, switches, etc.) between customer remote PC and multiple on site units.</p>

SPECIFICATIONS for 60 Hz - 1825 EKW, 480 V -

CATERPILLAR SR4B GENERATOR

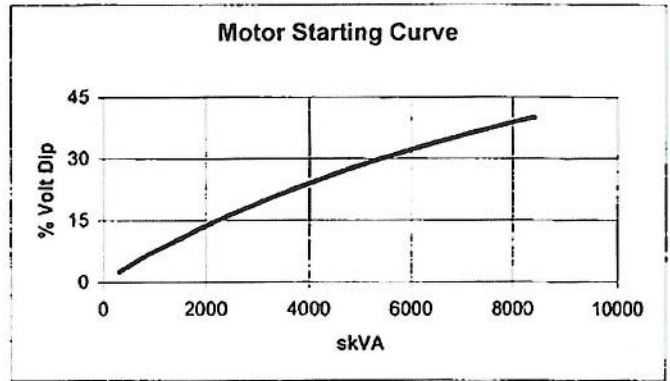
Voltage regulation	< ±0.5%
Voltage gain	Adjustable
Wave form	< 5% deviation
TIF	< 50
THD	< 3%
Enclosure	IP 22
Amperage	2743.6

Time Constants

	Seconds
T'do	6.6330
T'd	0.4643
T'do	0.0074
T'd	0.0064
T"qo	0.0057
T"q	0.0050
Ta	0.0438
Te	0.2225

Reactance Data

	per unit	Ohms
X"d	0.1347	0.0136
X'q	0.1229	0.0124
X'd	0.2178	0.0220
Xd	2.9981	0.3028
Xq	1.4732	0.1487
X2	0.1287	0.0130
X0	0.0079	0.0008



CATERPILLAR 3516B ENGINE

V-16, 4-stroke-cycle diesel
 Bore - mm (in).....170 (6.7)
 Stroke - mm (in).....190 (7.5)
 Displacement - L (cu in).....69.0 (4210)
 Aspiration..... Turbocharged - Aftercooled
 Heater - kJ/kWh (Btu/kWh)..... 8977 (8509)

kW Rating	1825	Frequency	60
Power Factor	0.80	Insulation	H
kVA Rating	2281	Poles	4
Duty (C)	105	Excitation	PM
Frames	825	Winding Typ	Form
RPM	1800	Leads	6
Volts	480	Pitch	0.6667
Bearings	1	Phases	3
Conn.	STAR	Amperage	2633
Regulation (M)	< 0.5 %	TIF	< 50
Enclosure	IP 22	TUHF	< 3 %

DIMENSIONS & WEIGHTS

CONTAINER SHIPPING DIMENSIONS

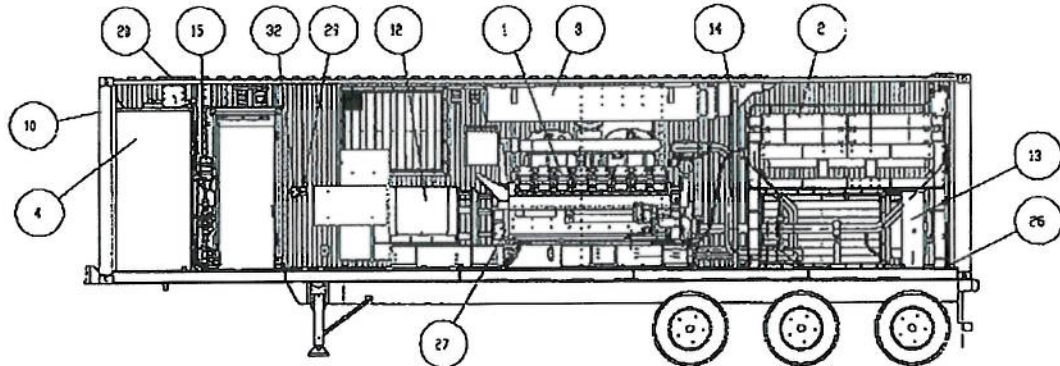
Length	12 192 mm	480 in
Width	2 438 mm	97.5 in
Height	2 896 mm	114 in

CONTAINER WEIGHT (WET):

32 688 Kg	72,000 lb
-----------	-----------

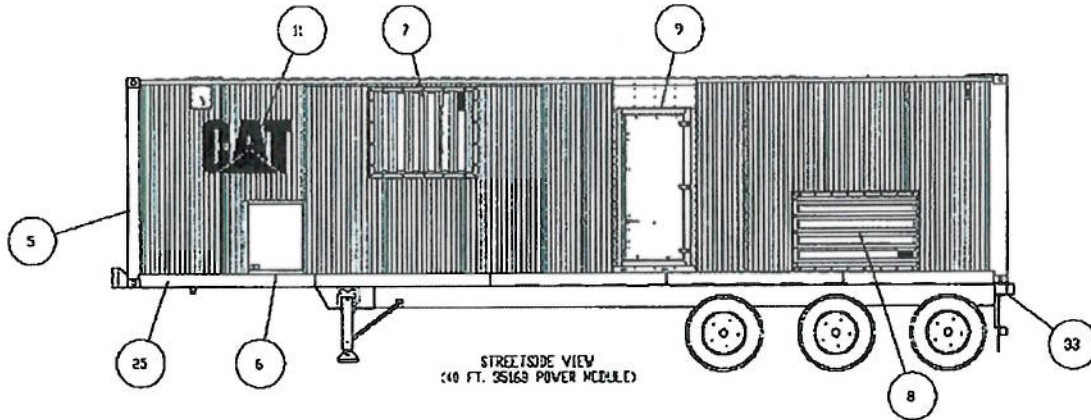
CONTAINER VIEWS:

Right side view
(Right side wall removed to show interior components)



STREETSIDE VIEW (INTERIOR LAYOUT)
(40 FT. 35163 POWER MODULE)

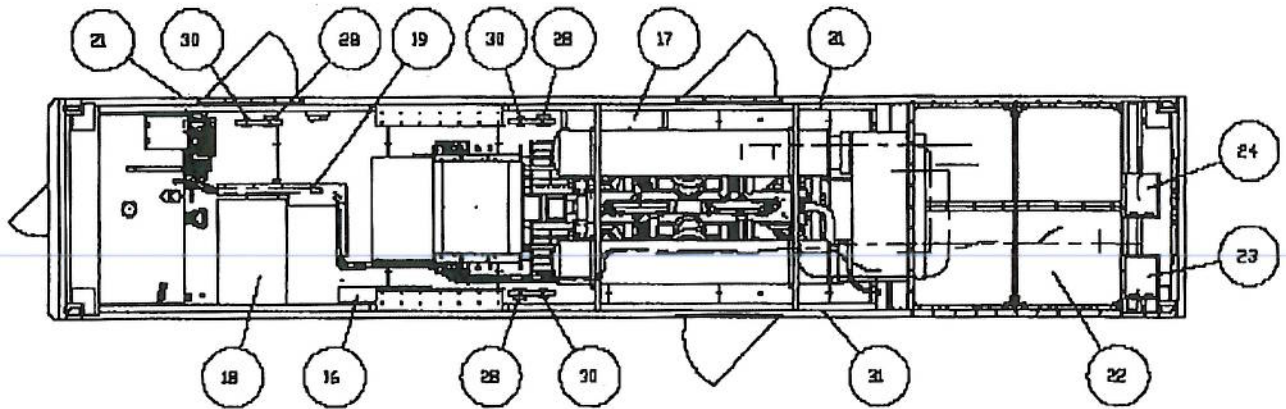
Right side view



STREETSIDE VIEW
(40 FT. 35163 POWER MODULE)

DIMENSIONS & WEIGHTS (Continued)

Top view
(Roof removed to show interior components)



TOP VIEW (INTERIOR LAYOUT)
40 FT. 3516B POWER MODULE

Legend

1	3516B GENSET- EPA CERTIFIED
2	51 SQ FT HORIZONTAL RADIATOR
3	CRITICAL GRADE MUFFLERS
4	1250 GAL FUEL TANK W/ TRANSFER SYSTEM
5	40FT ISO CONTAINER
6	LCAD CABLE ACCESS DOOR
7	ENGINE AIR INLET LOUVER
8	RADIATOR AIR INLET LOUVER
9	PERSONNEL ENTRANCE DOOR
10	EXTERIOR FUEL FILL DOOR
11	CAT DECALS AND LOGO
12	480V, 60 HZ GENERATOR
13	LUBE OIL MAKEUP SYSTEM
14	PARTITION WALL
15	FUEL/WATER SEPARATORS
16	CABLE SOX W/ BELLOWS
17	24V BATTERIES WITH WALKOVER GRATING
18	UTILITY COMPATIBLE SWITCHGEAR
19	STAINLESS STEEL FUEL LINES
20	FUEL PROBE ACCESS DOOR
21	FUEL DRAIN (1/2" NPT)
22	VERTICAL RADIATOR DISCHARGE
23	RADIATOR FILL (JV CIRCUIT)
24	RADIATOR FILL (AC CIRCUIT)
25	CHANNEL REINFORCEMENT
26	RADIATOR DRAIN LINES (1/2" NPT, 3/4" NPT)
27	OIL DRAIN
28	24V DC LIGHTS
29	24V DC TIMER
30	120V AC LIGHTS
31	4" ACOUSTIC PANELING
32	AC SWITCH & DUPLEX RECEPTACLE
33	3-AXLE CHASSIS (STD)

**BACKUP FOR FUEL PURCHASES FOR PORTABLE
GENERATORS**

Roger S Koehler/EMAIL
07/24/2009 10:38 AM

To Tom Murphy - CFO/EMAIL@ONYX
cc Christopher J Neu/EMAIL@EMAIL, Gary
Smith/EMAIL@EMAIL, Steve S Passage/EMAIL@EMAIL,
Tom Murphy - CFO/EMAIL@EMAIL, Yoon S
bcc

Subject Re: Natural Gas at Pinellas 

Gary,

Here's the existing General Terms & Conditions we have in place with Hess which governs the Fixed Price contract. They agreed to the T&C's as marked.

The Solid Waste group uses almost all of the Fixed Price gallons - however the template would show that option if preferred (at current prices).

We typically find Marathon slightly more competitive in the Spot market - both have terminals in the Tampa area. Most of Hess's diesel in Florida is used in their retail stores - they aren't overly motivated to sell more - especially on the Gulf side. Let's see what their pricing suggests how motivated they are.



HESS Veolia FP Contract Tampa Mar 09.pdf Hess Contract w Maik-ups.doc



Marathon Fact Sheet 2008.pdf

In both cases - the fuel would be delivered by Penn Tank lines or Klemm Tank lines in batches of 7500 gallons. Any facilities for rail or barge?

We could get a load in there with Mansfield Oil by the end of the day if it's that urgent - price would be about 3 cents higher. I think Hess could be in line by Monday unless that wanted an independent credit review. If the Pinellas liability are transferring to Solid Waste - it's probably not an issue.

Let's connect via phone to outline the opportunity and steps.

Please call when available, regards,

Roger

Roger Koehler
Vice President of Purchasing, North America
Veolia Environmental Services North America Corp.
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tel: 414 778 7016 fax: 414 302 6007 cell: 414 839 2583
roger.koehler@veoliaes.com
www.VeoliaES.com

Tom Murphy - CFO/EMAIL@ONYX

**BACKUP FOR ENGINEERING IN SUPPORT OF
CONNECTING PORTABLE GENERATORS TO PLANT
POWER SYSTEM**

Russell D Waldbesser/EMAIL

07/23/2009 04:49 PM

To Christopher J Neu/EMAIL@EMAIL

cc Yoon S Chae/EMAIL@EMAIL, Ephraim J
Taylor/EMAIL@EMAIL, Giovanni Marcusa/EMAIL@EMAIL
bcc

Subject GENERATOR

History: This message has been replied to

As of this moment the approach we are taking for supplying auxiliary power to the plant will be.

- Alan Obal with ring power will supply four gen sets with aux fuel tanks
 - Alan will contact Jim Horton with MJM for a site visit for the electrical terminations and the availability of cable
 - We will rent four gen sets at 480v 3/phase. The gen sets will supply power to one step/up transformer that will step the voltage up to 13.8kv 3/phase
 - The rental transformer will supply power to the 13.8KV side of TR-104 and be protected with breaker 2252. This will also supply power to the #2 side 13.8 bus
 - The gen sets and the transformer will stage at the top of the hill at the location we staged the last generators. Cliff will need to relocate the structural steel that is in this area and we will need to make some slight modification in this area for traffic flow.
 - If we use TR-104 for the electrical termination B-103 and TG #2 will be the only units effected. We will not need a cold iron
 - Need to confirm feeder cable size for TR-104. This will determine if we will need two locations for auxiliary power
 - MJM may have an electrical engineer in house to expedite this work
- This is in the brainstorming stage. I am sure we will have changes

Russell Waldbesser
Plant Engineer
Veolia Pinellas ES Inc
3001 110th Avenue N
ST.Petersburg FL 33716

727-572-9163 ex15
russell.waldbesser@veoliaes.com

Yoon S Chae/EMAIL
Sent by: Yoon S
Chae/OMP/ONYX


07/24/2009 08:13 AM

To steve.passage@veoliaes.com,
thomas.murphy@veoliaes.com, leo.lakowski@veoliaes.com,
Mark Novak/OMP/ONYX

cc christopher.neu@veoliaes.com, "Jay Lehr"
<jay.lehr@veoliaes.com>

bcc

Subject Diesel generator option- Status

History  This message has been replied to.

This is a quick summary of the meeting held yesterday between us, Luke Koon, Joe Cascio (and later with a vendor- CAT (Ring Power)).

- Various potential and optimum connection points were discussed. As the generating units come in 480 volt units, the voltage will have to be stepped up to 4160 V or 13.8 KV, depending on the connection points. It was determined that connection point into 480 V system is not practical as the demand on the 480 V system is not high enough.
- Both, the 4160 V or 13.8 KV connections could work, with the 13.8 KV being the most optimum. As we tie into higher voltage (13.8 KV) system, there could be concerns from the utility company. Luke will consult with the County's people to make sure this would not be in violation of the PPA.
- We later met with a local rep from Ring Power. Ring Power is a rep of Caterpillar machines. They said that their units come in 2 MW modules (including dedicated fuel tanks). They have over 10 units readily available. They also have the capability to provide engineering needed (themselves and their subs) to connect the generators to our system.
- Rough costs are as follows: Rental is approximately \$30K range/month per 2 MW unit. Fuel consumption is 130 gal/hr, therefore, based on full loading, monthly consumption is around 9,300 gals (\$160K/month @ \$1.70/gal diesel). There are other one time and repeating costs, like engineering, delivery and set up fees, monthly PM and operation assistance, etc. It appears the rough cost will be approximately \$200K/month +/- \$20K for each 2 MW module installed.
- I think we should ask for 4 units, as each 2MW unit will net around 1.7 MW. With 4 units, we can improve up to 6.7 MW export. We can always keep one or more units down if we feel there is enough cushion built up at anytime. Bulk of the costs are fuel costs.
- The facility people will get the paper work moving to get the vendor approved as well as initiate the engineering. If things go well, we could have the modules installed in less than 3 weeks from today.

Yoon Chae
Chief Operating Officer
Veolia ES Waste-to-Energy, Inc.
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"Luis Rodriguez" <Luis.Rodriguez@carastro.com> on 07/30/2009 11:04:12 AM

To: <maria.drybread@ringpower.com>, "Scott Barber" <scott.barber@mjmelect.com>, <jim.horton@mjmelect.com>
cc: "Paul Carastro" <Paul.Carastro@carastro.com>, <alan.obal@ringpower.com>

Subject: Pinellas Co. Waste-to-Energy Facility - Temporary Power Project

Maria; Alan;

Our preliminary findings are:

1- We need to protect the downstream equipment (Ring Power transf./generator); and also the upstream equipment, the plant's transformer, loads and 15kV gear. In order to accomplish this we will need a 15kV circuit breaker on the 13.8kV side of Ring Power's transformer to isolate the system during fault conditions. This will be typical for all generator/transformer modules. This circuit breaker(s) shall have as a minimum the following protection relays; 50/51, 50/51G, 32.

2- We will need to run relay coordination and short circuit study of the temporary equipment and the relationship with the existing protective relays at the plant's switchgear. We need to make must sure we will not affect plant's operations. This will be require before temporary system is energize at the plant; due to determination of relay settings.

3- I have confirm with Russ Waldbessar (Plant Engineer) that the existing 15kV switchgear does not have any spare cubicle or circuit breaker that we could use; in lieu of connecting at the existing transformer TR-104.

Finally, we cannot accomplish all of the above in two weeks. We anticipate minimum of four weeks.

Sincerely,

Luis Rodriguez, P.E.

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(813) 373-3727 cell