Linda Roberman

From: Chris Johnson <chris@kwru.com>
Sent: Friday, October 06, 2017 11:24 PM

To: 'Ed Castle'

Cc:chriskw@bellsouth.net; greg@kwru.comSubject:FW: Generator KW Resort Utilities

Attachments: KW Resort Utilities (C27, 750kW).pdf; 750kW.pdf; SKMBT_28317100518490.pdf

Ed,

Hope things are going better.

The Generator pad is a rectangle slab of 17' 4" by 11' 2". Take a look at the enclosure, which I think is necessary to protect the generator in high wind and rain. Can we cantilever a 4 foot deck off of the concrete pad to provide a platform for the enclosure and this will provide something to anchor the enclosure to. See picture. Would this be doable also how bad do you think it would it worsen the pinch point as far as access goes.



Christopher A. Johnson President 6630 Front Street Key West, FL 33040 (305) 295-3301 www.kwru.com

From: Chris Johnson [mailto:chris@kwru.com]
Sent: Wednesday, October 04, 2017 3:43 PM
To: 'Bart Smith' <bart@smithoropeza.com>
Cc: chriskw@bellsouth.net; greg@kwru.com
Subject: FW: Generator KW Resort Utilities

Bart,

Attached is what a new generator will cost. NOTE lead time is 12-16 weeks.

Rental is in the next email I send you. Need to plan on 18 to maybe 20 weeks rental to facilitate delivery and hookup activities.



Christopher A. Johnson President 6630 Front Street Key West, FL 33040 (305) 295-3301 www.kwru.com

From: Rolando Coll [mailto:Rolando Coll@pantropic.com]

Sent: Wednesday, October 04, 2017 3:33 PM

To: Chris Johnson < chris@kwru.com; Greg Wright < greg@kwru.com>

Subject: RE: Generator KW Resort Utilities

Good afternoon, Chris / Greg.

The attached is the generator set quotation and spec sheet as per request.

Quotation includes a 750kW w/ one (1) circuit breaker and one (1) automatic transfer switch.

If you have any questions or if I could be of further assistance, please do not hesitate to contact me.

Regards,
Rolando Coll
Sales Engineer
O: 786-209-0986
rolando coll@pantropic.com
www.pantropic.com



The "Pantropic Power Promise" is to provide an exceptional customer experience. Please share your *Feedback* with us!

From: Chris Johnson [mailto:chris@kwru.com]
Sent: Friday, September 29, 2017 2:42 PM

To: Rolando Coll < Rolando Coll@pantropic.com >

Cc: greg@kwru.com; chriskw@bellsouth.net; robert@kwru.com; chris@kwru.com

Subject: Generator KW Resort Utilities

Rolando,

What follows are some comments regarding the generator purchase.

- 750kW (which we have now) would be fine if we can't size a 650KW
- Extra tank volume would be good, and a belly tank won't take any extra space.
- We need an outdoor cover and we would like some kind of sound attenuation so the employees can work around the yard. We don't need critical sound attenuation but we need some form of sound attenuation.
- We would need a new ATS which will be situated on the adjacent platform above 100 year flood elevation. We will need a new ATS with modern functionality for the existing plants. We would like the same as the one from the expansion (new plant) if it suits our needs. Then we have two exactly the same. Generator will need to be set up for two ATSs.

Greg Wright is out of the office you may contact me with any questions. The land line situation is not too good so please call me on my cell at 305-522-0052. Thank you - Chris



Christopher A. Johnson President 6630 Front Street Key West, FL 33040 (305) 295-3301 www.kwru.com

Cat® C27

Diesel Generator Sets





Image shown	may	not reflect	actual	configuration

Bore – mm (in)	137.2 (5.4)
Stroke – mm (in)	152.4 (6.0)
Displacement – L (in³)	27.03 (1649.47)
Compression Ratio	16.5:1
Aspiration	TA
Fuel System	MEUI
Governor Type	ADEM™ A4

Standby 60 Hz ekW (kVA)	Prime 60 Hz ekW (kVA)	Standby 60 Hz ekW (kVA)	Prime 60 Hz ekW (kVA)	Emissions Performance
750 (937)	680 (850)	800 (1000)	725 (906)	U.S. EPA Emergency Stationary Use Only (Tier 2)

Standard Features

Cat® Diesel Engine

- Meets U.S. EPA Emergency Stationary Use Only (Tier 2) emission standards
- Reliable performance proven in thousands of applications worldwide

Generator Set Package

- Accepts 100% block load in one step and meets other NFPA 110 loading requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators

- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat diesel engines

Cooling System

- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

EMCP 4 Control Panels

- · User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

Warranty

- 24 months/1000-hour warranty for standby and mission critical ratings
- 12 months/unlimited hour warranty for prime and continuous ratings
- Extended service protection is available to provide extended coverage options

Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region



Optional Equipment

Engine	Power Termination	Charging
Air Cleaner ☐ Single element ☐ Dual element ☐ Heavy duty	Type □ Bus bar □ Circuit breaker □ 400A □ 800A	□ Battery charger – 10A□ Battery charger – 20A□ Battery charger – 30A
Muffler	□ 1200A □ 1600A	Vibration Isolators
☐ Residential grade (25 dB) Starting ☐ Standard batteries	□ 2000A □ 2500A □ 3000A □ UL □ IEC □ 3-pole □ 4-pole	□ Rubber□ Spring□ Seismic rated
☐ Oversized batteries	☐ Manually operated	Cat Connect
☐ Standard electric starter(s)☐ Jacket water	☐ Electrically operated Trip Unit	Connectivity ☐ Ethernet
Alternator	□ LSI □ LSI-G □ LSIG-P	□ Cellular□ Satellite
Output voltage ☐ 208V	Factory Enclosure	Extended Service Options
□ 240V	☐ Sound attenuated	Terms
□ 480V □ 600V	Attachments	☐ 2 year (prime)
Temperature Rise	☐ Cold weather bundle	□ 3 year □ 5 year
(over 40°C ambient)	□ DC lighting package□ Motorized louvers	☐ 10 year
□ 150°C □ 125°C	Fuel Tank	Coverage
□ 105°C □ 80°C	☐ 1000 gal (3785 L)	☐ Silver ☐ Gold
Winding type	□ 2000 gal (7571 L)	☐ Platinum
☐ Random wound	□ 3600 gal (13627 L)	☐ Platinum Plus
Excitation	Control System	Ancillary Equipment
☐ Internal excitation (IE) Attachments ☐ Anti-condensation heater ☐ Stator and bearing temperature monitoring and protection	Controller □ EMCP 4.2B □ EMCP 4.3 □ EMCP 4.4 Attachments □ Local annunciator module	 □ Automatic transfer switch (ATS) □ Uninterruptible power supply (UPS) □ Paralleling switchgear □ Paralleling controls
	☐ Remote annunciator module	Certifications
	☐ Expansion I/O module ☐ Remote monitoring software	 □ UL2200 □ IBC seismic certification □ OSHPD pre-approval □ EU Certification of Conformance (CE) □ EEC Declaration of Conformity

Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

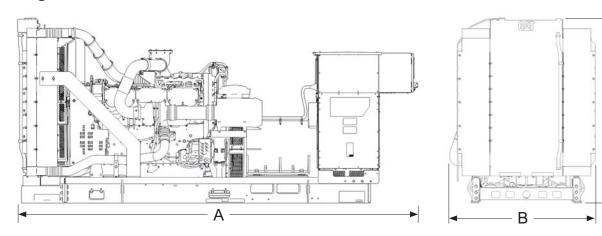


Package Performance

Performance	Sta	ndby	Pr	ime	Sta	ndby	Pri	ime
Frequency	60	Hz	60	Hz	60 Hz		60	Hz
Gen set power rating with fan	750	ekW	680	ekW	800 ekW		725	ekW
Gen set power rating with fan @ 0.8 power factor	937	kVA	850	kVA	1000) kVA	906 kVA	
Emissions	EPA ES	E (Tier 2)	EPA ES	E (Tier 2)	EPA ES	E (Tier 2)	EPA ESE (Tier 2)	
Performance number	DM90	071-03	DM90	073-02	DM76	696-02	DM90	069-02
Fuel Consumption								
100% load with fan – L/hr (gal/hr)	202.9	(53.6)	187.4	(49.5)	216.9	(57.3)	199.6	(52.7)
75% load with fan – L/hr (gal/hr)	162.4	(42.9)	149.6	(39.5)	171.7	(45.4)	157.8	(41.7)
50% load with fan – L/hr (gal/hr)	116.2	(30.7)	107.0	(28.3)	122.3	(32.3)	112.5	(29.7)
25% load with fan – L/hr (gal/hr)	70.6	(18.7)	66.0	(17.4)	73.9	(19.5)	69.0	(18.2)
Cooling System								
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)
Radiator air flow - m³/min (cfm)	1200	(42377)	1200	(42377)	1200	(42377)	1200	(42377)
Engine coolant capacity – L (gal)	55.0	(14.5)	55.0	(14.5)	55.0	(14.5)	55.0	(14.5)
Radiator coolant capacity – L (gal)	41.0	(10.0)	41.0	(10.0)	41.0	(10.0)	41.0	(10.0)
Total coolant capacity - L (gal)	96	(24.5)	96	(24.5)	96	(24.5)	96	(24.5)
Inlet Air								
Combustion air inlet flow rate – m³/min (cfm)	58.7	(2073.6)	56.0	(1977.7)	62.8	(2216.4)	60.3	(2129.4)
Exhaust System								
Exhaust stack gas temperature – °C (°F)	509.3	(948.7)	502.5	(936.5)	511.4	(952.5)	500.6	(933.0)
Exhaust gas flow rate - m³/min (cfm)	158.9	(5610.2)	149.7	(5285.5)	170.3	(6011.7)	160.7	(5674.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
Heat Rejection								
Heat rejection to jacket water – kW (Btu/min)	324	(18441)	307	(17433)	330	(18785)	320	(18191)
Heat rejection to exhaust (total) – kW (Btu/min)	738	(41994)	693	(39387)	796	(45257)	741	(42135)
Heat rejection to aftercooler – kW (Btu/min)	139	(7898)	123	(6970)	162	(9235)	146	(8320)
Heat rejection to atmosphere from engine – kW (Btu/min)	110	(6249)	92	(5238)	110	(6240)	89	(5074)
Heat rejection from alternator – kW (Btu/min)	53	(3014)	47	(2644)	40	(2292)	37	(2081)
Emissions (Nominal)								
NOx mg/Nm³ (g/hp-h)	2637.1	(5.25)	2330.9	(4.68)	2580.0	(5.18)	2283.7	(4.61)
CO mg/Nm³ (g/hp-h)	123.9	(0.25)	147.4	(0.29)	115.1	(0.23)	135.6	(0.27)
HC mg/Nm³ (g/hp-h)	11.2	(0.03)	10.9	(0.02)	12.5	(0.03)	12.2	(0.03)
PM mg/Nm³ (g/hp-h)	8.8	(0.02)	8.8	(0.02)	9.7	(0.02)	9.0	(0.02)



Weights and Dimensions



Dim "A"	Dim "B"	Dim "C"	Dry Weight
mm (in)	mm (in)	mm (in)	kg (lb)
4674 (184.0)	1723 (67.8)	2162 (85.1)	6622 (14,600)

Note: For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.

Ratings Definitions

Standby

Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Prime

Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

Applicable Codes and Standards

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU.

Note: Codes may not be available in all model configurations. Please consult your local Cat dealer for availability.

Data Center Applications

Tier III/Tier IV compliant per Uptime Institute requirements. ANSI/TIA-942 compliant for Rated-1 through Rated-4 data centers.

Fuel Rates

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.)

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Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.



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Rolando Coll - EPG Sales 8205 N.W. 58 St. Miami, Fl. 33166 P: 305.592.4944/ F: 305.477.1943

Date: 10-04-17

Reference: KW Resort Utilities (C27, 750kW) Quote#: 30353431-01

Specification Name	Specification Section	Pages	

Drawings	Date

General Scope of Supply

Qty	I/L	Description	Cost
Qty 1	I/L L	One (1) New Caterpillar Model C-27 <u>Diesel</u> Engine Generator set, UL 2200 Listed, rated @ 750kW Standby Power, 277/480VAC, 3 Phase, 60 Hz., 1800 rpm <u>Diesel</u> Engine Generator Set with the following accessories: • EPA Stationary Emergency • Isochronous electronic governor • Air Inlet system - Air intake filter / silencer • Auto-start Control Panel EMCP 4.2– NFPA 110 - Speed adjust - Emergency stop push button - Voltage adjust - Local alarm annunciator - Panel illumination lights • Permanent Magnet Excited Generator System - Anti-condensation heater (space heater) thermostatically controlled - Class H insulation - Two – thirds pitch - Random wound - Generator terminal bus-bars (generator load cable terminations shall be made	Cost \$214,638.00
		 Generator terminal bus-bars (generator load cable terminations shall be made directly to bus-bars located on the inside of the generator housing). One (1) 1200 amp, 3 pole, Thermal Magnetic Circuit Breaker with 24VDC shunt trip and auxiliary contacts. 	



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Starting System

- Two (2) heavy duty nickel cadmium engine starting batteries
- Battery cables
- Battery disconnect switch
- Battery Charger; 24VDC, 10 Amp output. 120 VAC, 1 Phase Input, Nema 1 enclosure, wall mountable
- 45amp battery charging alternator
- Jacket Water Heater

Engine Cooling system

- Radiator duct flange
- Coolant drain line with manual valve terminated at edge of base
- Fan and belt guards
- Coolant level sight gauge
- Caterpillar Extended life coolant

Fuel system

- Primary fuel filter with integral water separator
- Secondary fuel filters
- Fuel priming pump
- Engine fuel transfer pump
- Flexible fuel lines
- Engine fuel transfer pump
- Fuel cooler

Exhaust System

- Dry exhaust manifold
- Flanged faced outlets
- One (1) Critical Grade Silencer, Carbon Steel
- One (1) Engine Exhaust Flex Connector

Lube

- Lubricating oil and filter
- Oil drain line with valve
- Fumes disposal
- Gear type lube oil pump

Mounting

- Linear vibration isolators between base and engine-generator
- Formed Steel Base



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1	L •	Generator Set Subbase Tank	Included
		 One (1) 4400 gallon, UL listed 142, FDEP approved, subbase diesel fuel tank Approximate Dimensions: 264"L x 102"W x 48"H Capacity based on 72 hours @ 53.6gph (100% Load) 3,860 Usable Gallons. Interstitial Space with FDEP Approved Leak Detection Switch (Madison M-7000 EQ#682). Mechanical Fuel Level Gauge (Visible at Fill Point). Supply and Return Connections. 2" Fill with Lockable Cap with FDEP Spill Containment. Normal and Emergency Vent Fittings Installed Per UL-142. Low Level Fuel Alarm Switch (Madison M-7000 EQ#682) Set @ 40% Remaining Capacity Wired to Control Panel Terminal Strip. High Level Fuel Alarm Switch (Madison M-7000 EQ#682) Set @ 90% Tank Capacity Wired to Control Panel Terminal Strip. Cable Stub Up Opening Under Circuit Breaker. 	
1	L •	 Generator Set Enclosure Approximate Dimensions: 21' L x 8'-6" W x 9' H (plus Base) Enclosure Exterior to be of .090",5052-H32 Aluminum, Formed, Panel Construction, Painted Finish (Standard Color White). Air Intake: Sound Attenuated Intake Scoops with Punched Bird Screen. Air Discharge: Sound Attenuated Discharge Hood with Gravity Dampers and Bird Screen. 3" Sound Attenuating Fire Blanket in Walls, Doors, Hoods and Ceilings. Insulation Retained with .032" Perforated Aluminum Liner. Enclosure is Designed to Reduce Source SPL by 25 dB (A) ¶ Im in a Free-Field Environment. Four (4) Single, Access Doors with Padlocking Provisions and Corrosion Resistant Hardware. Enclosure External Fasteners to be Stainless Steel. Silencer Supports for Interior Mounted, Internally Insulated, Critical Grade Silencer. Exhaust Discharge Elbow and Rain Cap. Exhaust Flex Connectors, Exhaust Gaskets and Bolt Kits. Rain Collar and Rain Shield at Exhaust Penetration in Roof. Enclosure Suitable for 170 MPH Wind Loading (PE Certificates are Available at an Additional Charge) 	Included



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		Enclosure to Bear the Insignia of the Florida Department of Business and Professional Regulation to Document Compliance with the 2014 Florida Building Code.	
1	L	Automatic Tranfer Switch One (1) 1200 amp, 3 pole, 3 phase, 277/480VAC, NEMA 1 Enclosure, Non Service Entrance Rated, Non Bypass Isolation, Open Transition Automatic Transfer Switch	Included
1	L	 Additional items One (1) Nema 3R remote break-glass station (shipped loose) One (1) remote 16 light annunciator panel (shipped loose) Spring type vibration isolators (to be placed between generator and tank) Two (2) O&M Manuals Factory load bank testing of the unit at 0.8pf report Two (2) Year Caterpillar Factory Warranty 	Included
1	L	 Start –up and Training Start-Up of generator set by a factory trained technician (two (2) days of labor included during normal business hours of 8:00am to 5:00pm) Resistive load – bank test on-site after start-up of unit is completed four (4) hour test at 100% load using utilizing a resistive load bank. (during normal business hours of 8:00am to 5:00pm) One (1) day of instructional training on the generator set and transfer switch (during normal business hours of 8:00am to 5:00pm) 	Included

F.O.B. Miami (freight prepaid to jobsite)......\$214,638.00 (sales tax not included).

Adder:

1. OSHA Compliant Stairs and Walkways:

- (2) Set of OSHA Compliant Stairs with Railings and 48" Wide Walkway with Railings
- Railings to be Constructed of 1 ½" Schedule 40 Aluminum Tube
- Steps and Walkways Constructed of Extruded Aluminum
- Stainless Steel Leveling Pads
- Stairs Set to be Shipped Loose and Assembled on Site by Others......\$7,375.00 (sales tax not included)

Miami 8205 NW 58 Street Miami, FL 33166 305.592.4944 tel 305.477.1943 fax **Fort Lauderdale** 2501 State Road 84 Ft. Lauderdale, FL 33312 954.797.7972 tel 954.791.7719 fax West Palm Beach 5460 Okeechobee Boulevard West Palm Beach, FL 33417 561.640.0818 tel 561.640.7894 fax **Stuart**272 N. Flagler Avenue
Stuart, FL 34994
772.692.3442 tel
772.692.9757 fax

Fort Myers 2471 Rockfill Road Fort Myers, FL 33916 239.337.4222 tel 239.337.4211 fax



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2. Ship under Vacuum (Option):

- Tank sealed and shipped under vacuum per Florida Administrative Code Chapter 62-762 and NFPA30.
- Tank Vacuum to be Verified and Documented per NFPA-30 Immediately upon receipt and placement

Exceptions / Notes:

- Specification and one line electrical riser diagram were not available at the time of this quotation.
- Quotation providing the listed items only.

Important: Quote does not include the following (unless otherwise specifically noted above in the General Scope of Supply):

- **Fuel, Fuel Piping, Fuel Venting**
- **Fuel Equipment Installation**
- **Exhaust Equipment Installation**
- **Exhaust Pipe & Insulation**
- **Electrical Equip. Installation**
- **Cables, Wires and Conduits**
- **All Equipment Installation**
- **Engineering & Design**
- **Engineering Drawings**
- **Installation Permitting & Fees**
- **Foundation Concrete Pad**
- **Equipment Unloading**
- **Equipment Storing**
- **Equipment Rental**
- **Equipment Anchoring**

TERMS: 90% payment due 30 days from date of invoice; Balance payment due prior to start up or 180 days after invoice, whichever occurs. Sales tax has not been included in this quotation. CONDITIONS: Terms of this sale are subject to credit approval @ Pantropic Power. Cancellations will not be accepted except on terms that will indemnify Pantropic Power against any loss. Cancellation charges will apply to orders cancelled after Pantropic's receipt of written release for production from Customer. Prices are valid for 30 days from quote date. The conditions of this quotation become a part of any order resulting hereforth and any purchase order submitted in response to this quotation, modifying, altering, or adding to these conditions shall not be binding unless accepted by us in writing. There are no agreements, understandings, or stipulations relative to this quotation other than those expressed herein. Quotation is subject to Standard Pantropic Power Products, Inc. Standard Terms & Condition on reverse side.

Thank you for allowing us the opportunity to propose the above-described equipment.

PANTROPIC POWER PRODUCTS, INC.

Rolando Coll (305) 592-4944 (305) 477-1943 Fax

