SAN LEANDRO UNIFIED SCHOOL DISTRICT
FACILITIES AND CONSTRUCTION – BOND DEPARTMENT

To: Facilities and Technology Committee Meeting on
Date: *11/20/19*
From: Bond Department
Date: *11/13/19*
RE: ***Barbara Lee Center Emergency Operations Center***
Project Description: **18-29 Modular Classroom Building**

Rationale: *Purchase of portable generator to supply power for the District's emergency operations center located at the Barbara Lee Center.*

Fiscal Impact: 56,383.00

Scope of work: *See proposal attached.*

Contractor Name: Energy Systems
Phone #: 209-986-7594
Email: rbear@erpowergen.com
License #: N/A
Contractor Trade (for DIR Reg.): supplier
Do we have W-9 on file? No

Proposed Start Date: 12/26/19
Date job will be completed:12/27/19

Notice to Proceed: **RGMK will send** _____ (*Large Contract)*

District will send **___X___** (*CUPCCAA & PO Contracts)*
(If District will be sending, fill in what date to be sent out)

Date to Send NTP _____

Date: July 11, 2019

Subject: Proposal for San Leandro Unified School District Portable 60KW

Attn: Oscar Louie PE

Energy Systems is pleased to offer the following proposal for the above listed project and based on the below 'Bill of Materials'.

ITEM A – **Generac Industrial Portable 60KW**

- Base Model MDG75DF4
- Duty & Power Unit Prime
- Unit Output 75kVA (60KW)
- Certifications Compliance CSA
- Certifications Compliance FT4 Emissions Compliant
- Certifications Compliance NATM
- Frequency and Speed 60 Hz
- Engine and Tier Deere F4
- Gen Type Option Standard Unit
- Fan Option Variable Speed Fan
- Voltage Regulator Option PM600 Voltage Regulator
- Voltage Regulator Option PM600 Voltage Regulator
- Voltage Selection Options 3 Position Selector Switch
- Phase Selector Switch Option 3 Position Selector Switch
- Fuel Tank Standard Run Single Wall Tank
- 10 Amp Battery Charger
- Leak Detect
- Fuel Containment Pan
- Unit Type Option Trailered Unit
- Trailer Brake Option Surge Brake
- Trailer Axle QTY Single Axle
- Trailer Hitch Option 3" Pintle Ring
- Trailer Adapter Flat 4 to Round 7 Spade
- Surge Brake
- Number of Axles SINGLE
- Rim Size 15X6J
- Tire Specs ST225/75R15(E)
- Tire Pressure (PSI) 80
- Tire Pressure (KPA) 551 kPa
- Number of Cylinders 4
- HP for Cert of Origin 97.00
- HP (KW) for Cert of Origin 72.51 KW
- Alternator RPM 1,800
- Rated Frequency 60 Hz
- Rotor Winding H Insulation Rating
- KVA Output 1Ph & 1.0 PF 60
- KVA Output 3Ph & 0.8 PF 75
- KVA Output 3Ph & 1.0 PF 60
- KW Output 1Ph & 1.0 PF 60
- KW Output 3Ph & 0.8 PF 60
- KW Output 3Ph & 1.0 PF 60
- Output Voltages 1 Ph. 1.0 PF 240
- Output Voltages 3 Ph. 1.0 PF 208/480
- Output Voltages 3 Ph. 0.8 PF 208/480

Equipment only price: **$ 54,233.00**

ITEM B –

- **Start up and Testing Per NFPA 110**
  - Safety and Component Inspection
  - Check and verify Engine Fluids
  - Terminate Communication and ATS wiring
  - Torque and Verify MCB lug connections
  - Program settings on H-Panel and ATS
  - Start up and Calibrate Meter Readings
  - Provide 2-hour load bank test
  - Commission Generator / Initiate Warranty

Startup only price: $ 2,150.00

Freight, Labor – other non-taxable items

- Freight – all items FOB Job site – off loading by others
- Field start-up and testing conducted by a factory certified technician.
- Start-up to be conducted using building load and portable load bank per NFPA 110.
- Start-up and testing is limited to (1) day on site, performed during normal business hours Monday thru Friday, excluding holidays.
- Unless specifically stated in our proposal, on-site training will be conducted the same day as start-up.
- For systems testing, we require free, clear, unimpeded access to the generator, ATS, and switchgear.
- If load bank testing is required and proposed, testing will be with a resistive load bank. Access within 50' of the generator must be provided for the load bank. Additional distance must be identified for proper cable length and cost to be supplied to the project.

Total Price: FOB Jobsite without Tax $ 56,383.00

NOTES:

- Specification and drawings provided – email data given have been included only
  - Cross referenced sections not specifically provided and/or clarified in writing are not included
  - Equipment will be supplied as submitted
  - There will be variations in the equipment from the "concept" contract documents. It is not the responsibility of Energy Systems to design, engineer or to provide construction coordination with other trades.
- Submittal Request: lead-time – 2-3 weeks from receipt of "purchase order" depending on level of project complexity
  - "Hold for approval" – no equipment will be ordered without written release to proceed
  - "For record" – all equipment will be immediately ordered and released for production based on our quoted BOM
- Delivery: Delivery of equipment is on the order of 9-11 weeks from receipt of approved submittals and receipt of complete and necessary technical information; subject to factory workload at time of order
- Written release required prior to production.
- Terms and conditions described in any purchase order and/or contract are incorporated only to the extent that such are consistent with the terms and conditions attached.
- Not included: Exhaust System Backpressure Test, Exhaust Emissions Test, Infrared Scanning, NETA testing, Harmonic Testing, Concrete pad, Off-loading, Anchoring, Installation, Fuel Pipe, Fuel, Exhaust pipe, Pipe insulation, Signage and Permits
- Not included: any required stairs/ platforms required to gain access/ entry into the enclosure, nor to maintain any NEC clearances as it relates to circuit breaker handle height

- Factory witness testing is not included; but can be provided upon request.
- Generator breakers rated for maximum output of generator
- *Natural Gas or LPG Fired generation - Energy Systems' scope includes a generator mounted secondary fuel regulator. Please note that the following is not included and should be provided by the installing mechanical contractor or plumber if necessary:*

    a) *Fuel train installation, Fuel pipe, fittings, mounts, brackets, and valves from the utility source to the generator,*
    b) *External shut-off solenoid valves, Vacuum safety switches, Primary fuel regulators, Insulation*

Sincerely,

Rocky Bear
Sales Engineer
Energy Systems
(209) 986-7594 - Cell
RBear@espowergen.com
www.ESPowerGen.com

I have reviewed and accept this proposal.

_____
Rocky Bear Energy Systems

_____
Customer

Terms and Conditions

1. ES West Coast LLC - Energy Systems is a MATERIAL SUPPLIER only.
2. All prices are FOB job site. Off-loading and placement of equipment is by others.
3. Price quoted is valid for 45 days and subject to reconfirmation.
4. Energy Systems terms are payment in full prior to shipment unless credit is approved.
5. Credit is subject to approval by Energy Systems upon receipt of completed Energy Systems business credit application, prevailing signed terms and conditions, and prelim notice.
6. With approved credit all products are invoiced from date of shipment and are payable Net 30 days.
7. 1.5% per month finance charge will apply on past due accounts - annual rate of 18%.
8. Manufacturer lead time to be confirmed upon approved release for production letter and receipt of ES approved PO/ order.
9. Equipment cannot be held by Energy Systems or its suppliers without prior arrangement.
10. Any orders changed or canceled after 14 days from confirmation of order will be subject to change or cancellation fees.
11. No taxes, permits, fuel (and/or fuel for testing) or license fees are included, unless specified otherwise in this quote.
12. All other standard Energy Systems terms & conditions apply.
13. Terms and conditions described in any purchase order and/or contract are incorporated only to the extent that such are consistent with the terms and conditions hereof.

MDG75DF4 | 4.5 L | 75 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

Standby Power Rating

68 kW, 85 kVA, 60 Hz

Prime Power Rating

60 kW, 75 kVA, 60 Hz



Image used for illustration purposes only

Codes and Standards

Generac Mobile products are designed to the following standards:

CSA

NATM

TIER 4 FINAL EMISSIONS

ISO 8528-5

Power When and Where You Need It

Generac Mobile diesel generators are designed and engineered to power a variety of projects, in the most extreme environments. Gensets are configured to meet customer needs, including choice of containment, cold weather packages, trailer options, and more.

Generac Mobile diesel generators are manufactured to deliver reliable power, when and where you need it.

MDG75DF4 | 4.5 L | 75 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

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STANDARD FEATURES

ENGINE SYSTEM

- John Deere® 4045HFG04_B
- 4 cylinder
- Turbocharged
- 275 in^3 (4.5 L) displacement
- EPA Final Tier 4
- Power @ 1,800 rpm – hp (kW):
  - Prime: 97 (73)
  - Standby: 107 (80)

FUEL SYSTEM

- Fuel tank capacity – gal (L):
  - Total: 165 (625)
  - Usable: 150 (568)
- Maximum run time @ 100% load: 24 hr
- Fuel consumption @ prime – gal/hr (L/hr):
  - 25% load: 1.69 (6.37)
  - 50% load: 2.62 (10.22)
  - 75% load: 3.74 (14.18)
  - 100% load: 4.85 (18.39)
- 110% fluid containment

COOLING SYSTEM

- Capable of operating at 107 °F (41.7 °C) ambient
- Oil filter: Spin-on cartridge
- Air filter: Disposable – paper element
- Radiator and oil drains plumbed to exterior

SYSTEM OUTPUTS

- Voltage selection switch: 3-position, lockable
- Electrical power output – kW (kVA):
  - 1-phase standby: 60 (60)
  - 1-phase prime: 55 (55)
  - 3-phase standby: 68 (85)
  - 3-phase prime: 60 (75)

GENERATOR

- 60 Hz engine/generator
- Marathon Electric® 361CSL1602
  - Brushless
  - 4-pole
  - Class H insulation
- Voltage regulation ±1.0% with PM600 voltage regulator

ENCLOSURE

- Aluminum, sound attenuated enclosure
  - UV and fade resistant, high temperature cured, white polyester powder paint
  - Insulated and baffled
  - 74 dB(A) @ 23 ft (7 m) @ prime power
- Fully lockable – includes doors, fuel fill, and DEF fill
- Exterior emergency stop switch
- Central lifting point
- Multi-lingual operating and safety decals
- Document holder with owner's manual – includes AC and DC wiring diagrams

TRAILER

- DOT approved tail, side, brake, and directional lights; recessed rear lights
- Surge brakes
- Transportation tie downs
- Safety chains with spring loaded safety hooks
- 3 in (7.62 cm) ring hitch
- Single axle – 6,000 lb (2,722 kg)

WARRANTY

- 2 year limited or 2,000 hours
  - Unlimited hours covered in first year

CERTIFICATIONS

- CSA certified

SYSTEM CONTROLS

Power Zone® Controller And Display

- Backlit, 800×480 pixel resolution color display
- -40—185 °F (-40—85 °C) operating temperature range
- Automatic coarse voltage adjustment
- Integrated fine voltage adjustment
- PLC functionality

Push Buttons For Easy Operation

- Manual or Auto start
- Engine start
- Engine stop/reset
- Alarm mute
- Operator screens:
  - Home
  - Engine
  - Generator
  - Voltage adjust

Scrolling Arrows for Diagnostic Information

- Engine diagnostic display
  - Oil pressure
  - Engine temperature
  - Fuel level
  - Battery
  - After-treatment inlet/outlet temperature
  - Ash/soot levels
- Generator diagnostic display
  - System kW output display
  - Line output and frequency display
- Alarms
  - Warning
  - Shutdown
  - Electrical Trip
  - Engine
- Alarm list – warnings/shutdowns; 250 event history log – date/time stamp
  - Fuel level: warning – 15%; shutdown – 5%
  - Over speed protection: shutdown – 115%
  - Oil pressure: warning – 25 psi (172.4 kPa); shutdown – 20 psi (137.9 kPa)
  - Coolant temperature: warning – 230 °F (110 °C); shutdown – 235 °F (113 °C)
  - Battery voltage: over – 15 VDC; under – 11 VDC
  - Generator over voltage: warning – 110%; electrical trip – 125%
  - Generator under voltage: warning – 91.4%; shutdown – 70%
  - Generator over frequency: warning – 102.5%; electrical trip – 110%
  - Generator under frequency: warning – 95%; electrical trip – 90%
- Inputs/outputs
- Auto-schedule
- Status
- View controller functional parameters (configuration, firmware version, connections)

ELECTRICAL CONTROLS

- Remote start/stop contacts in receptacle box
- Lockable control box door with diagnostics window
- Lockable lug box with safety switch
  - Trips main breaker when door is opened
  - Disables voltage regulator
- Output ground connection lug inside lug box
- 300 A main breaker with shunt trip
- Convenience receptacles with individual breakers (restricted use in high wye mode)
  - Two 120 V, 20 A, GFCI, duplex outlets (NEMA 5-20R type)
  - Three 125/250 V, 50 A, 3-pole, 4-wire, twistlock outlets (Non-NEMA 6369)
- One 12 V, 720 CCA, wet cell battery

MDG75DF4 | 4.5 L | 75 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

OPTIONS*

ENGINE SYSTEM

- Two fuel filter heaters
- Oil pan heater
- Battery heater
- CCV multi-heater system
- 60/40 coolant
- Positive air shutdown

FUEL SYSTEM

- 110% fluid containment
- Leak detection
- Extended run fuel and DEF system

TRAILER

- Full size spare tire
- Tool box/storage bin
- 2-5/16 in (5.9 cm) ball hitch
- Electric brakes
- Rear stabilizer jacks
- 2 in (5.08 cm) ball hitch
- Tandem axle

CABINET

- Control panel light
- Interior lights

CONTROL SYSTEM

- 4-position phase switch
- PMG
- Paralleling
- Buck transformer
- Battery disconnect switch
- Cam locks
- 10 A battery charger

GENERATOR SYSTEM

- SuperStart





RATING DEFINITIONS

Standby: Applies to varying emergency load for the duration of a utility power outage.

Prime: Applies to supplying power to a varying load in lieu of utility for an unlimited amount of running time.

*Consult factory for availability

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MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make (Model)	John Deere (4045HFG04_B)
EPA Emissions Compliance	Final Tier 4
After Treatment System	DOC and SCR
Cylinders – Qty	4
Type	In-line
Displacement – L	4.5
Bore – in (mm)	4.2 (106)
Stroke – in (mm)	5.0 (127)
Compression Ratio	17:1
Intake Air Method	Turbo/air-to-air, after-cooled

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	2%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Spin-on cartridge
Crankcase Capacity – qt (L)	15.9 (15)

Cooling System

Cooling System Type	Radiator and CAC
Water Pump Type	Engine-belt driven
Fan Type	Pusher
Fan Speed – rpm	Variable Visc clutch
Fan Diameter – in (mm)	23.2 (590)
Cooling System Capacity – qt (L)	22 (20.8)

Fuel System

Fuel Type	Ultra low sulfur diesel
Fuel Specifications	EN590/ASTM D975
Fuel Filtering – μ	Primary: 10 Final: 2
Fuel Inject Pump Make	Denso HP3
Fuel Pump Type	Engine driven - belt
Injector Type	Electronic
Engine Type	Direct Injection
Fuel Supply Line Diameter – in (mm)	.313 (8.0)
Fuel Return Line Diameter – in (mm)	.313 (8.0)

Engine Electrical System

System Voltage – VDC	12
Battery Charger Alternator	STD
Battery – CCA	720
Battery – V (Qty)	12 (1)
Ground Polarity	Negative (-)

ALTERNATOR SPECIFICATIONS

Make (Model)	Marathon Electric (361CSL1602)
Poles	4
Field Type	Rotating
Insulation Class – Rotor	H
Insulation Class – Stator	H
Total Harmonic Distortion	<3.5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Brushless
Bearings	Single bearing
Coupling	Direct, flex disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Analog
Quantity of Sensed Phases	1
Regulation Accuracy (Steady State)	±1%

MDG75DF4 | 4.5 L | 75 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

OPERATING DATA

POWER RATINGS

	Standby: KW/kVA (A)	Prime: KW/kVA (A)
1-phase, 120/240 VAC @ 1.0 pf	60/60 (250)	55/55 (229)
3-phase, 120/208 VAC @ 0.8 pf	68/85 (236)	60/75 (208)
3-phase, 120/240 VAC @ 0.8 pf*	68/85 (204)	60/75 (180)
3-phase, 277/480 VAC @ 0.8 pf	68/85 (102)	60/75 (90)

**Power ratings achieved through use of optional 4-position phase switch.*

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip
150 kVa
25%

FUEL AND DEF CONSUMPTION RATES

Load	Fuel Consumption Rate: gal/hr (L/hr)		DEF: gal/hr (L/hr)	
	@ Standby	@ Prime	@ Standby	@ Prime
25%	1.74 (6.61)	1.69 (6.37)	TBD	TBD
50%	2.85 (10.82)	2.62 (10.22)	TBD	TBD
75%	4.06 (15.38)	3.74 (14.18)	TBD	TBD
100%	5.33 (20.19)	4.85 (18.39)	TBD	0.22 (0.98)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.
Please consult a Generac Mobile Products Authorized Service Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, ISO8665, ISO3046, SAE J1228, SAE J1995, and DIN6271 standards.

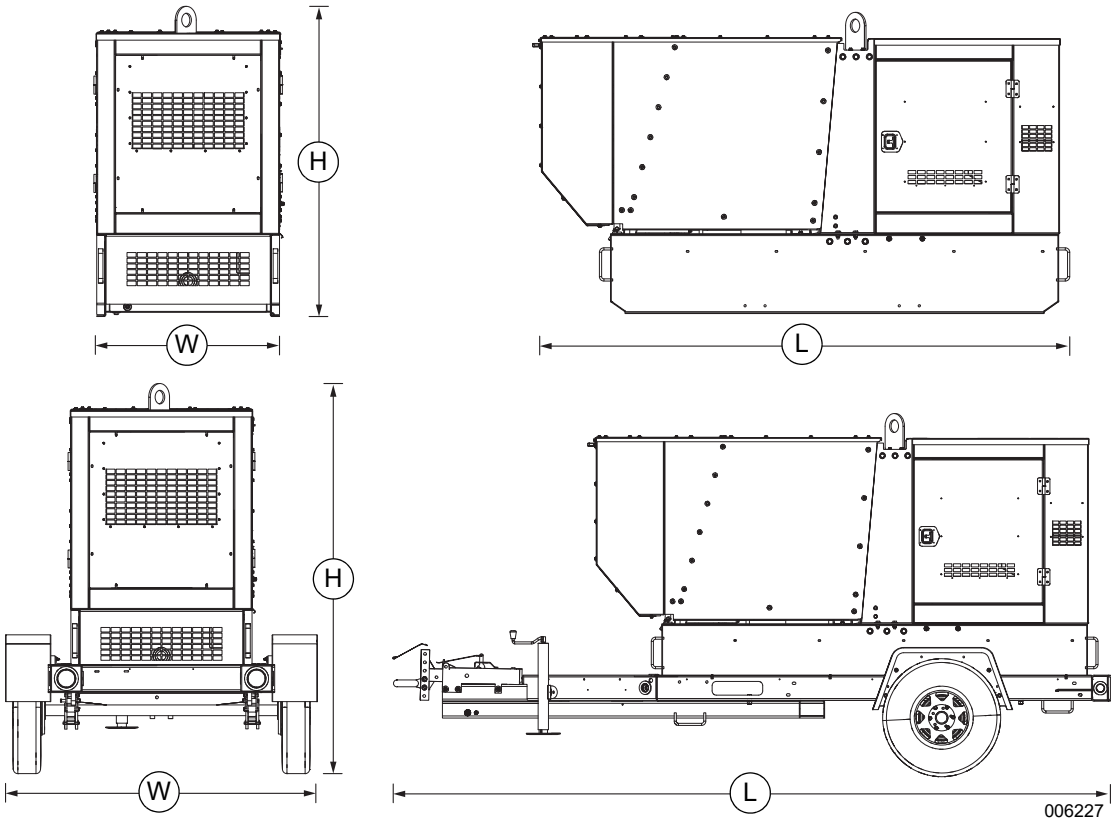
MDG75DF4 | 4.5 L | 75 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Final Tier 4

GENERAC® | MOBILE

DIMENSIONS AND WEIGHTS*



	Run Time: hr	Usable Fuel Capacity: gal (L)	Dimensions – L×W×H: in (m)	Weight: lb (kg)	
Skid	26	146 (551.8)	119×40×62 (3.02×1.02×1.57)	Dry: Operating:	3,830 (1,740) 4,790 (2,170)
Trailer	26	146 (551.8)	170×69×80 (4.31×1.75×2.03)	Dry: Operating:	4,530 (2055) 5,490 (2,490)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC MOBILE PRODUCTS DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Mobile Products Authorized Service Dealer for detailed installation drawings.

SPEC SHEET

Generac Mobile Products, LLC. | 215 Power Drive | Berlin, WI 54923
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