



Agenda Item Executive Summary

Item Name Public Works 25 KW Portable Generator Committee
Purchase or Board Board

BUDGET IMPACT

Amount:	\$30,282.10	Budgeted	\$30,000
List what fund	Sewer (Machinery & Equipment)		

EXECUTIVE SUMMARY

Sourcewell, formerly NJPA, a Cooperative Purchasing organization for Educational, Governmental and Non-profits groups, has awarded contract # 120617-KOH for the purchase of a 25 Kw Towable generator to Steiner Electric, located in Elk Grove Village, IL.

This Generator would be purchased as part of our Capital Outlay Budget. The price includes start up service and freight, delivered to the PW Facility. This generator is used primarily for the Village's lift stations emergency power for the ones that do not have a permanent generator on site, along with other emergency power situations.

The FY 2020-21 budget provides \$30,000.00 for the purchase of a new portable generator that replaces the 1995 generator. The generator is slightly above budget, but is still within the overall Machinery & Equipment budget.

RECOMMENDATION

Staff recommends approval of the purchase of the new 25 KW Portable Generator.

ATTACHMENTS (PLEASE LIST)

Memo
Exhibit

ACTION REQUESTED

For Discussion Only
Resolution
Ordinance

- ✓ Motion: **MOVE TO APPROVE THE PURCHASE OF ONE NEW 25 KW PORTABLE GENERATOR KOHLER MODEL 35REOZT4 TOWABLE GENERATOR**

Staff: Dan Dinges, Director of Public Works Date: 12/28/2020

Memo

To: Paula Schumacher, Village Administrator
From: Dan Dinges, Director of Public Works
Subject: **Public Works 25 KW Portable Generator Purchase**
Date: December 28, 2020

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Staff recommends approval of the purchase of the new 25 KW Portable Generator.

MOTION

MOTION TO APPROVE THE PURCHASE OF ONE NEW 25 KW PORTABLE GENERATOR KOHLER MODEL 35REOZT4 TOWABLE GENERATOR

Steiner Power Systems® Power Systems Sales, Service & Rental

Division of Steiner Electric Company

STEINER

To:	Village of Bartlett	QUOTE #	RL201207-002A
Attn:	John Pullia	Date:	
Job Name:	Towable 25 KW Generator Sourcewell RFQ Member #120617		

Thank you for the opportunity to provide our quotation for the following Kohler Power System:

QTY	Equipment Per Kohler SAP # 26703772,3/3	Quoted Price
1	<p>Kohler Model 35REOZT4 Towable Generator, EPA Tier 4 Final, Reconnectable Voltages, 28KW/35 KVA at 277/480v 3Ph. 4-wire. Prime Power Rating.</p> <p>Includes:</p> <ul style="list-style-type: none"> • Alternator 4D5.6 • HD Air Cleaner with Restriction Indicator • Battery Disconnect • Steel Enclosure 67dBa @23' • Single Point Lifting Eye • Dec 3500 Generator Controller • Adjustable Trip Main Output Breaker • Remote Start Capability • Shore Power Connections • Battery Charger • Block Heater • Sub-base Fuel Tank 77 Gal. 24 Hrs. • Voltage Selector Switch: 277/480-3ph, 120/208-3ph, 120/240-1ph • Cam Lock Load Connections and receptacles • Trailer W/DOT Lighting, 2/5/16" Ball Hitch, Front Tong Jack • Axle Single 4995 lb. Rated • Spare Tire • Tool Box & Fire Extinguisher • Wheel Chocks 	<p>Estimated Lead Time per the factory: 15-16 weeks</p> <p>Final ETA is Contingent upon:</p> <ol style="list-style-type: none"> 1. Signed Release 2. Approved Submittals 3. Credit Release by Steiner Electric <p>(3) Year Warranty On generator and (1) Year Warranty on Trailer</p> <p>Includes Startup Mon. - Fri. Non-Holiday</p> <p>See Pricing on Page 2 of this quotation</p> <p>Freight invoiced separately</p> <p>Fuel Not Included Tax Not Included</p>

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STEINER

KOHLER Awarded Contract: 120617-KOH		KOHLER Contract Maturity Date: 01/29/2022				
Model	Kohler List Price (Each)	Sourcewell Member Discount (% = \$)			Sourcewell Member Total Price FOB Factory	Qty.
35REOZT4	\$ 38,403.00	30	%	\$ 11,520.90	\$ 26,882.10	1

NOTE: "Open Market Items" at a 5% discount from Distributor List:

- Start-up Service by Factory trained Technician.
- Job Site Testing with available site loads.
- Owner's Operational Instruction.

Total: \$2,500.00

Freight: \$900.00 (No Mark Up Passed Through)

+ \$2500.00
~~(Freight) 900.00~~
 \$3400.00
 30,282.10

TERMS (order is non-changeable, non-cancelable and non-returnable)

This quote is valid for 60 days, subject to Steiner Electric Company's standard Terms and Conditions. Payment terms are Net 30 days, contingent upon account approval.

FREIGHT - Equipment is delivered F.O.B. Factory. Freight is **prepaid** to first customer destination or tailgate to jobsite. **Unloading and craning/rigging/hoisting is the responsibility of the customer.** Any additional time the driver must wait for offloading equipment is subject to additional billing. There is an extra charge for re-delivery and freight storage costs.

DELIVERY - Estimate 15-16 weeks after written release to Steiner Electric Company. Approval drawings are issued about 1 week after ordering for submittal and signed approval of release.

Actual delivery lead time will be determined when the factory order is placed

WARRANTY - ATS, Generator Three / Trailer One Year parts, labor and mileage to jobsite in Steiner Electric Company's service area. The generator must be started up within 365 days of factory shipment. Extended warranties are available depending on class and manufacturer of equipment. **NOTE: Additional warranty excludes starting batteries and block heater 365 days after startup. Warranty will commence upon completion of the generator startup. No extensions beyond this date are permitted by the manufacture regardless of specification requirements or project conditions.**

QUOTATION INCLUDES

- Steiner Power Systems startup during normal business hours M - F, 8 am - 4 pm non-Holidays. **Startup requires 10 business days minimum notice to schedule.**
- Engine oil and coolant in accordance to Kohler specifications.

QUOTATION EXCLUDES TAXES AND EXCLUDES THE FOLLOWING:

- Installation or installation material of any kind is not furnished unless specified in writing on the quotation.
- **Startup testing will be by manufacturer's recommended test procedures for startup and NFPA 110. Any additional testing such as Oscilloscope recording, Infrared Scanning, Sound Level, Insulation & Contact Resistance, Vibration / Harmonics, Exhaust Emissions testing are not**

Steiner Electric Company

1275 Touhy Avenue • Elk Grove Village, Illinois 60007 • Phone: 847.956.3098 • Fax: 847.956.5013

included; to be provided by others. No representation of compliance to NETA or NIST is made. Kohler battery chargers have digital monitoring, not analog meters. Rigging Diagram will be furnished on paper only not metal plate.

- It is the responsibility of others to ensure the complete installation meets all applicable codes and standards.
- **Others to ensure diesel tank is filled with proper fuel prior to the scheduled arrival of the startup tech.**

COMMENTS & CLARIFICATIONS:

- No formal specification was provided.
- This quote is prepared to the best understanding of the specification provided. The unit(s) offered is configured with Kohler standard production options and may differ from the letter of the specification which is in many cases brand specific. It is the responsibility of the customer considering this quote to review the comments and exceptions and verify its compliance with the project requirements.
- Steiner Power Systems is not responsible for any fuel, labor or material charges by others associated with the startup and installation of this equipment unless previously agreed upon.
- Steiner Power Systems is not responsible for any consequential, special, indirect or liquidated damages hereunder, nor for any manufacturer delay, or other delays beyond Steiner Power Systems control.

Steiner Power Systems®

Division of Steiner Electric Company

Quote Prepared by:

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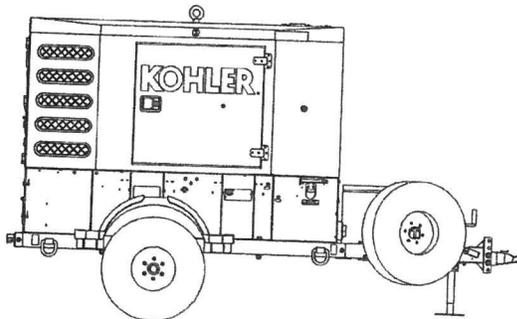
NATIONALLY REGISTERED

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**Tier 4 Final
EPA-Certified for
Nonroad Applications**

Ratings Range

		60 Hz
Standby:	kW	24-30
	kVA	24-37.5
Prime:	kW	22-28
	kVA	22-35
Continuous:	kW	22-28
	kVA	22-35



Standard Skid Model with Available Options

Mobile Generator Set

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- A three-year, 3000-hour limited warranty covers all generator set systems and components. The trailer has a one-year limited warranty.

Generator set features:

- Unit-mounted radiator with 50°C (122°F) ambient air capability at the prime rating.
- Kohler's wound field excitation system with its unique PowerBoost™ design delivers great voltage response and short-circuit capability.
- The brushless, rotating-field alternator has broadrange reconnectability when ordered without a selector switch.

Engine features:

- Heavy-duty air cleaner with air restrictor indicator.
- The generator set engine is certified by the Environmental Protection Agency (EPA) to conform to Tier 4 Final nonroad emissions regulations.
- Uses cooled Exhaust Gas Regeneration (EGR) and Diesel Oxidation Catalyst (DOC) to meet Tier 4 Final without a Diesel Particulate Filter (DPF).
- Lockable battery disconnect switch.

Enclosure/tank features:

- Durable steel, sound-attenuating housing with quiet operation of 67 dB(A) log average @ 7 m (23 ft.) with full load at the prime rating.
- Stainless steel hinges and lockable latches on doors.
- 125% environmental containment basin for oil and coolant.
- 110% secondary containment tank for fuel.
- Single-point lifting eye and four-point tie down system.
- Subbase fuel tank for 24-hour run time with full load at prime rating (minimum).

Customer connection panel features:

- Decision-Maker® 3500 controller with potted circuitry for protection from vibration and debris.
- Externally mounted, recessed emergency stop switch.
- Adjustable trip main line circuit breaker.
- 1 load lug per phase #6-350MCM, 400 amp.
- Remote start/stop capabilities.
- Shore power connection points to front of junction box for block heater, battery charger, and battery heater.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	150°C Rise		125°C Rise		125°C Rise		Ordering Options*
				Standby Rating	Prime Rating	Continuous Rating	Ordering Options*			
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps	
4D5.6	120/208	3	60	30/37.5	104	28/35	97	28/35	97	A
	120/240	3	60	30/37.5	90	28/35	84	28/35	84	B
	120/240	1	60	24/24	100	22/22	92	22/22	92	A
	277/480	3	60	30/37.5	45	28/35	42	28/35	42	A
	347/600	3	60	30/37.5	36	28/35	34	28/35	34	C

* Ordering Options: A- Reconnectable or selector switch, B- Reconnectable, C- Stand alone

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. Standby Ratings: The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Prime Power Ratings: At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Continuous Ratings: At constant or nonvarying load, the number of generator set operating hours is unlimited. There is no overload capability for this rating. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Wound-Field
Leads: quantity, type	12, Reconnectable
Voltage regulator	6, 600 Volt
Insulation:	Solid State, Volts/Hz
Material	NEMA MG1
Temperature rise	Class H
Bearing: quantity, type	150°C, Standby
Coupling	1, Sealed
Amortisseur windings	Flexible Disc
Voltage regulation, no-load to full-load	Full
One-step load acceptance	±0.5%
Unbalanced load capability	100% of Rating
Peak motor starting kVA:	100% of Rated Standby
480 V	Current
4D5.6 (12 lead)	(35% dip for voltages below)
	76

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Capable of sustained line-to-neutral short-circuit current of up to 300% of the rated current for up to 2 seconds. (IEC 60092-301 short-circuit performance.)
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.

Application Data

Engine

Engine Specifications	
Manufacturer	Kohler Diesel
Engine: model, type	KDI 1903 TCR
Cylinder arrangement	4-Cycle, Turbocharged
Displacement, L (cu. in.)	3 Inline
Bore and stroke, mm (in.)	1.9 (115.9)
Compression ratio	88 x 102 (3.46 x 4.01)
Piston speed, m/min. (ft./min.)	17.0:1
Rated rpm	275 (905)
Max. power at rated rpm, kW (HP)	1800
Valve (exhaust) material	37 (49)
Governor type	Stainless Steel
Frequency regulation, no-load to full-load	Electronic
Frequency regulation, steady state	Isochronous
Air cleaner type, all models	±0.28%
	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m ³ /min. (cfm)	6.7 (238)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	382 (720)
Allowable back pressure, kPa (in. Hg)	7-12 (2.1-3.5)
Back pressure available after losses due to exhaust aftertreatment system, kPa (in. Hg)	6.7 (2.0)

Engine Electrical

Engine Electrical System	
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	12
Ampere rating	80
Starter motor rated voltage (DC)	12
Battery, recommended cold cranking amps (CCA):	
Qty., rating for -18°C (0°F)	One, 950
Battery voltage (DC)	12

Fuel

Fuel System	
Fuel supply line, min. ID, mm (in.)	8 (0.31)
Fuel return line, min. ID, mm (in.)	6.3 (0.25)
Max. lift, fuel pump: type, m (ft.)	Mechanical, 2.5 (8.2)
Max. fuel flow, Lph (gph)	35.9 (9.3)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Manual
Fuel filter	
Primary	5 Microns @ 98% Efficiency
Water separator	Yes
Recommended fuel	ASTM D975 or EN 590 Ultra Low Sulfur Diesel (ULSD) with sulfur content <15 mg/kg (15 ppm)

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.) §	8.4 (8.9)
Oil pan capacity with filter, L (qt.) §	8.7 (9.2)
Oil filter: quantity, type §	One, Cartridge
Oil type §	API CJ-4 or ACEA E6- E9
§ Kohler recommends the use of Kohler Genuine oil and filters.	

Cooling

Radiator System	
Radiator system capacity, including engine, L (gal.)	17.2 (4.5)

Operation Requirements

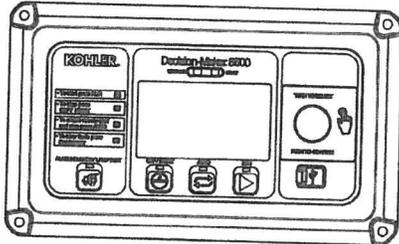
Air Requirements	
Radiator-cooled cooling air, m ³ /min. (scfm) †	96.3 (3400)
Combustion air, m ³ /min. (cfm)	2.4 (86.3)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	28 (1592)
Alternator, kW (Btu/min.)	6.5 (369)
† Air density = 1.20 kg/m ³ (0.075 lbm/ft ³)	

Fuel Consumption

Diesel, Lph (gph) at % load	Standby Ratings	Prime Ratings
100%	10.5 (2.8)	9.8 (2.6)
75%	7.8 (2.1)	7.3 (1.9)
50%	5.4 (1.4)	5.0 (1.3)
25%	3.1 (0.8)	2.9 (0.8)
0%	0.8 (0.2)	0.7 (0.2)

Note: For continuous rating fuel consumption, use the prime ratings data.

Controller



Decision-Maker® 3500 Paralleling Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Paralleling capability with bus sensing, first-on logic, synchronizer, and (isochronous, droop, and external controlled) load sharing
- Digital display with adjustable contrast and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with $\pm 0.5\%$ regulation
- Potted circuitry for protection from vibration and debris
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Fuel Tank

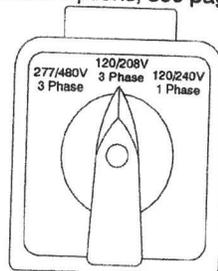
- Subbase fuel tank for 24-hour run time with full load at prime rating (minimum).
- Fuel tank includes the fuel level gauge, fuel fill with lockable cap, and an atmospheric vent.
- The secondary containment tank's construction protects against fuel leaks or ruptures. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- Both the inner and outer tanks have emergency relief vents.

Fuel Tank Specifications

Fuel tank capacity 293 L (77 gal.)

Available Voltage Selector Switch

(Available Options, see page 4)

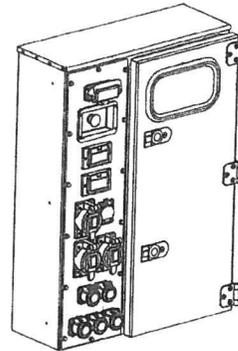


3-Position

- Voltage selector switch, 3-position lockable, wired for:
 - 120/240 volt, 1 phase
 - 120/208 volt, 3 phase
 - 277/480 volt, 3 phase

Modbus® is a registered trademark of Schneider Electric.

Customer Connection Panel



- Viewable generator set controller with security cover
- Emergency stop switch
- Shore power connector, 120 V, 15 amp (for battery charger(s) and battery heater)
- Shore power connector, 120 V, 15 amp (for block heater)
- Remote start connection
- Mobile paralleling box connection
- Main line circuit breaker
 - Reconnectable and selector switch models: Rating 150 amps, field adjustable based on voltage selected
 - 600 volt models: Rating 60 amps, field adjustable
- Available Options, see page 4
 - Two 15-amp 120 V, 1 phase, GFCI duplex receptacles (includes circuit breakers)
 - Three 50-amp 240 V twistlock receptacles (includes circuit breakers)
 - Color-coded camlock connectors

Available Trailer

(Available Options, see page 4)

- Single-axle trailer with electric brake system and battery back-up breakaway system.
- DOT and TC (Transport Canada) compliant per current specifications published by both agencies, at the time of trailer manufacture.
- 2 5/16 in. ball hitch coupler with adaptability for an optional Lunette eye.
- Running lights with 7-wire harness and connector.
- Front tongue jack.

Trailer Specifications

Axle Rating	Single, 2266 kg (4995 lb.)
Tires	ST225/75R15 LRE with 1284 kg (2830 lb.) load rating
Wheels	Steel, 15 x 6, 6-bolt

Available Draggable Fuel Tank

(Available Options, see page 4)

- Heavy gauge steel skid with integrated drains and pull bars.

Standard Features

- Alternator Protection
- Battery, Battery Rack, and Battery Cables
- Engine Oil and Coolant Added
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain Extension
- Operation Literature

Available Options

Approvals and Listings

- CSA Certified

Controller

- 15-Relay Dry Contact

Electrical System

- Battery Charger
- Cold Weather Package
(includes block heater and battery heater)
- Voltage Selector Switch and Convenience Receptacles
(3-240 volt, 2-120 volt)
- Camlock Style Load Connectors, Color Coded

Fuel System

- Two-Way Fuel Valve
(for connection of a user-supplied external fuel tank)

Miscellaneous

- Spark Arrestor

Paralleling System

- Mobile Paralleling Box

Skid

- Fuel Tank
- Draggable Fuel Tank
(heavy gauge steel skid with integrated drains and pull bars)
- Skid, no tank (fuel tank is not included with this option)

Trailer and Options

- Trailer
- Lunette Eye (for pintle hitch tow vehicles)
- Spare Tire
- Wheel Chock Blocks
- Lockable Utility Box with Fire Extinguisher
(same common key as enclosure)

Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

Other Options

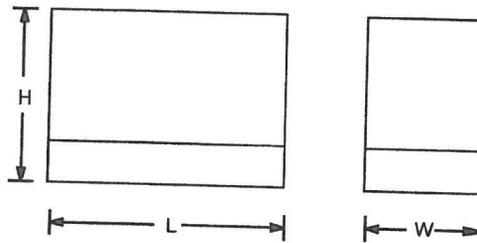
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Dimensions and Weights (Off Trailer)

Overall Size, L x W x H, mm (in.): 2184 x 1016 x 1622
 Fuel Tank (86.0 x 40.0 x 63.9)
 Weight with engine fluids and no fuel in tank kg (lb.): 1397 (3080)

Overall Size, L x W x H, mm (in.): 2489 x 1016 x 1622
 Draggable Fuel Tank (98.0 x 40.0 x 63.9)
 Weight with engine fluids and no fuel in tank kg (lb.): 1461 (3220)

Overall Size, L x W x H, mm (in.): 2184 x 1016 x 1419
 Skid (86.0 x 40.0 x 55.9)
 Weight with engine fluids and no fuel in tank kg (lb.): 998 (2200)

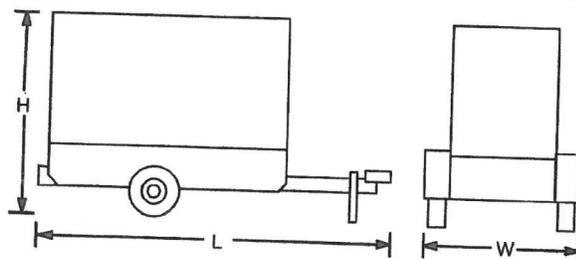


Note: This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.

Dimensions and Weights (On Trailer)

Overall Size, L x W x H, mm (in.): 3576.1 x 1867 x 2206.2
 Fuel Tank (140.8 x 73.5 x 86.9)
 Weight with engine fluids and no fuel in tank kg (lb.): 1648 (3633)

Overall Size, L x W x H, mm (in.): 3993 x 1867 x 2206
 Draggable Fuel Tank (157.2 x 73.5 x 86.9)
 Weight with engine fluids and no fuel in tank kg (lb.): 1787 (3940)



Note: This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.

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