

Proposal by

Date: October 23, 2024



Proposal No. EPG2024MWR428

8050 County Road 101 East  
Shakopee, MN 55379  
952.887-4599

To: New Prague Utilities Commission  
118 Central Avenue N  
New Prague, MN 56071

Re: Furnishing Diesel Generating Equipment  
New Prague Utilities Commission  
New Prague, MN 56071

Attn: Bruce Reimers – General Manager

DGR Project No. 417209

*WE PROPOSE TO FURNISH IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, TERMS AND CONDITIONS*

QUANTITY: Four (4) New CATERPILLAR Diesel Generator sets, Indoor Packages  
MODEL: C175-16 TA, EPA Tier 4 Final  
RATING: 3100 kW Standby, 2825 kW Prime Rating Power  
VOLTAGE: 12,470 volt, 3 phase, 4 wire, 60 HZ, 1800 RPM  
EMMISSIONS: Tier 4 After treatment system including SCR, dosing cabinet  
COOLING: Remote radiators  
WARRANTY: Two (2) Year Caterpillar Warranty

**TOTAL PRICE: See bid form\***

- \* Please refer to the attached Bill of Material.
- \* Price does not include state or local sales and/or use tax.
- \* Delivery Jobsite on owner supplied pad - included in final billing

**APPROXIMATE SHIPPING DATE:** See Bid Form

**F.O.B:** Ziegler

**TERMS:** 70% upon shipment from Factory, 20% at delivery and 10% after final completion

***THIS PROPOSAL SUBJECT TO ALL PROVISIONS OF THE CONTRACT AND WARRANTY ON REVERSE SIDE***

**ACCEPTED:**

*Respectfully submitted,*  
**ZIEGLER INC.**

By \_\_\_\_\_

Mark Reuter, Sales Engineer

By \_\_\_\_\_

Subject to approval by

APPROVED:

**ZIEGLER INC.**

Its \_\_\_\_\_

By \_\_\_\_\_

**BILL OF MATERIAL**  
**EPG2024MWR428**

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**PACKAGED GENERATOR SET**

Caterpillar heavy-duty diesel  
CAT Model C175-16  
Direct injected, turbocharged-air to air after cooled  
V16 cylinder configurations  
EPA Tier 4 Final Certified

**AIR INLET SYSTEM**

Air cleaner, regular duty, with service indicators  
After-cooler core, copper nickel construction  
Turbochargers, single stage

**CONTROLS AND INSTRUMENTATION, EMCP 4.3**

Enclosure interior mounted control panel  
Emergency stop pushbutton.  
EMCP 4.3 controller including:  
24-volt DC operation.  
Environmental sealed front face.  
Text alarm/event descriptions.  
Warning/shutdown with common LED indication.  
Of shutdowns with indicating lights for:  
Low oil pressure.  
High coolant temperature.  
Overspeed.  
Emergency stop.  
Failure to start (overcrank).  
Low coolant level  
Generator mounted - rear facing.  
Controls:  
Speed adjust.  
Auto/start/stop control.  
Engine cool-down timer.  
Engine cycle crank.  
Alarm acknowledge.  
Lamp test.  
True RMS AC metering, 3-phase, +/-0.25% accuracy.  
Digital indication for:  
RPM  
DC volts  
Operating hours  
Oil pressure (psi, kPa or bar)  
Coolant temperature  
Volts (L-L & L-N), frequency (Hz)  
Amps (per phase & average)  
- 12 programmable digital inputs.  
- 16 programmable digital outputs.  
- 3 programmable analog inputs.  
- 3 programmable analog outputs.  
- 2 programmable PWM outputs

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**CONTROLS AND INSTRUMENTATION EMCP 4.3, cont.**

Power metering  
Protective relaying  
Enhanced engine monitoring  
Modbus Communications

**COOLING SYSTEM**

Low noise remote radiator, designed for 75dba @ 7 meters  
Fan, blower type, fan guards  
Drive type: belt  
Motor speed: 1800 rpm  
VFD panel for motors  
Estimated Dimensions: 29'L x 11'W x 14'H, 26,000lbs.  
Ladder and maintenance platform  
Surge tank with sight glass and level switches  
Vibration switch, one per motor  
Core guard  
VFD control panel for remote radiator fan motors  
Thermostats and housing  
Jacket water pump, gear driven, centrifugal  
Jacket water heater  
    One (1) 9 kW heater  
    480 volt, 1 phase  
    High-pressure hose with isolation valves

**EXHAUST SYSTEM**

Insulated CEM (Clean Emissions Module)  
CEM Dosing Module  
CEM Dosing Module features:  
    Air Filter  
    DEF filter  
    120VAC  
    Freeze Protection  
    DEF Line Purge  
    External Relay  
    Harness from Dosing Module to CEM  
    Air and heated DEF lines from Dosing Module to CEM  
Dry exhaust manifold  
Exhaust piping from turbo outlet to CEM inlet included and provided by Caterpillar  
Flanged faced inlets at CEM inlet (16") and single outlet (20")  
Exhaust CEM support stand  
304 S/S dosing lines  
Piping, insulation and heat tracing between DEF tank and dosing cabinet  
**Option:** 22" Hospital grade Exhaust silencer, side in end out.  
    Stand-offs for cladding  
    Top Flange Gussets for stack support

**FLYWHEEL AND FLYWHEEL HOUSING**

Flywheel, SAE No. 00  
Flywheel housing, SAE No. 00  
SAE standard rotation

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**FUEL SYSTEM**

Primary fuel/water separator  
Secondary fuel filters  
Fuel priming pump  
Fuel transfer pump  
Fuel check valve on supply line  
Fuel consumption reading available in generator control panel  
Fuel lines, flexible and braided high pressure  
Fuel cooler, remote for installation by others  
One (1) Fuel day tank  
    Day tank controller  
    600 gallon capacity  
    Rupture basin 150% capacity  
    Fuel in basin switch  
    4" emergency and 2" normal vents

**GENERATOR AND GENERATOR ATTACHMENTS**

Form wound, 3042 frame, 12,470 volt  
3 phase brushless, salient pole, 4 lead.  
Permanent Magnet excitation  
Anti-condensation space heater  
Class H insulation, 105 deg C rise at 40C ambient  
Right side extension terminal box, bus bar connections, top  
    mounted, bottom cable entry  
Caterpillar Voltage Regulator (CDVR)  
    CDVR includes reactive droop capability, 3-phase voltage sensing,  
    KVAR/PF modes, RFI suppression, min/max exciter  
VAR/P.F control and sharing needs to be part of the control scheme (BY OTHERS).  
Differential CT installed in generator junction box, CT supplied by others.

**GOVERNING SYSTEM**

CAT Electronic Governor (ADEM A4)

**LUBE SYSTEM**

Lubricating oil (CJ-4)  
Gear type lube oil pump  
Integral lube oil cooler  
Oil filter, filler and dipstick  
Oil drain lines and valve  
Pre lube oil system, factory installed  
Caterpillar Closed Crankcase Ventilation (CCV)

**MOUNTING SYSTEM**

Rail base, engine-generator-radiator length  
Linear vibration isolators between base frame and engine generator

**PROTECTION SYSTEM**

Safety shutoff protection, energized to shut off

**BILL OF MATERIAL  
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**STARTING SYSTEM**

Starter motors, dual 24 VDC  
Alternator, 24 volt, 45 amp  
Batteries, lead acid, (6) 8D  
Battery rack, corrosion resistant  
Battery cables  
Battery charger, float/equalize type, 35 ampere  
DC ammeter, voltmeter  
Float and equalize potentiometers  
Alarm contacts wired to EMCP 4.3, Charger Failure, and Low/Hi DC Volts

**GENERAL**

Submittal drawings  
Technical data, engine, generator, radiator, switchgear, ancillary equipment  
Drawings, schematics, wiring diagrams  
Testing  
Prototype testing  
Production, factory testing  
Start up and field-testing  
Factory Testing, Test Reports  
Two (2) year warranty standard, optional Caterpillar five (5) year available  
Deliver to jobsite on truck, crane and rigging on customer supplied pad  
Operation and Maintenance manuals  
Personnel training  
24-hour parts and emergency service  
Spare parts per specification

**NOTES/COMMENTS/CLARIFICATIONS**

Ziegler limits the scope of supply for this quotation to the equipment and services listed. It is assumed that equipment not listed is to be provided by others.  
Ziegler cannot provide air emission permits for customers.  
Ziegler will provide emission information on the Caterpillar engine to aid in the permitting process.  
Orders are subject to re-stocking charges if cancelled after release for production.  
Coordination study and protective relay settings by others.  
DEF fluid provided by others.  
Installation and terminations are by others.  
Engine generator enclosure package rigging is included in our pricing.  
Warranty is 2-years on all equipment provided, Extended 5 year warranty is for the engine and generator set only.  
On 10/9/24 Ziegler submitted to DGR an electronic copy of our mark-ups regarding the Bidding Documents prior to bid date for engineer and owner review. Additional copies submitted with bid.

**OPTIONS**

Provide Caterpillar standard IVR voltage regulator in lieu of Caterpillar specified CDVR

**DEDUCT: \$7,500.00/engine**

**BILL OF MATERIAL  
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**LIMITATIONS OF LIABILITY AND PATENT LANGUAGE**

*IN NO EVENT WILL SELLER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, ENCHANCED, INDIRECT, OR PUNITIVE DAMAGES, LOST PROFITS OR REVENUES, OR DIMINUTION OF VALUE, ARISING OUT OF OR RELATING TO THIS AGREEMENT OR PRODUCTS OR SERVICES, REGARDLESS OF: (A) WHETHER THE DAMAGES WERE FORESEEABLE; (B) WHETHER OR NOT SELLER WAS ADVISED OF THE POSSIBILITY OF DAMAGES; OR (C) THE LEGAL OR EQUITABLE THEORY (CONTRACT, TORT, OR OTHERWISE) ON WHICH THE CLAIM IS BASED. IN NO EVENT SHALL SELLER'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT OR PRODUCTS OR SERVICES, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT, OR OTHERWISE, EXCEED \$500,000 OR THE TOTAL OF THE AMOUNTS PAID TO SELLER UNDER THIS AGREEMENT, WHICHEVER IS LESS. THE FOREGOING LIMITATIONS APPLY EVEN IF PURCHASER'S REMEDIES UNDER THIS AGREEMENT FAIL THEIR ESSENTIAL PURPOSE.*

*All intellectual property rights in the Products, including patents, trademarks, internet domain names, works of authorship, expressions, designs, and design registrations, whether are not copyrightable, trade secrets, and all other intellectual property rights related to or associated with Products (collectively, "Intellectual Property") are the sole and exclusive property of manufacturer. Purchaser will not acquire any ownership interest in any Intellectual Property under this Agreement. If Purchaser acquires any Intellectual Property rights in or relating to any Products by operation of law or otherwise, these rights are deemed and are hereby irrevocably assigned to manufacturer or its licensors, as the case may be, without further action by either party.*

**EXCEPTIONS**

Ziegler Power Systems has taken exception to portions of the bid documents and has forward to DGR Engineering on 10/9/2024. Additional copies included with our bid package.

End of proposal.

**BID FORM**  
**(ADDENDUM NO. 1 VERSION)**

**FURNISHING DIESEL GENERATING EQUIPMENT**

TO: New Prague Utilities Commission  
Attn: Bruce Reimers, General Manager  
118 Central Avenue N  
New Prague, MN 56071

FROM: Bidder's Name Ziegler Inc.  
Address 901 W 94th Street  
Bloomington, MN 55420

Pursuant to and in compliance with the Advertisement for Bids and the Instructions to Bidders relating thereto, the terms of which are incorporated herein by reference thereto, the undersigned as bidder offers and agrees, if this offer is accepted, to furnish and deliver the equipment and materials in strict conformance with the Specifications forming a part of these contract documents and in accordance with following addenda for the sum indicated on the following bid schedule.

<u>Addendum Number</u>	<u>Addendum Date</u>
<u>1</u>	<u>10/11/2024</u>
<u> </u>	<u> </u>

1. The prices set forth herein do not include any sums which are or may be payable by the seller on account of taxes imposed by the State of Minnesota upon the sale, purchase or use of the equipment. If any such tax is applicable to the sale, purchase or use of the equipment, the amount thereof shall be paid by the purchaser.
2. The prices included herein are firm without regard for time of delivery, increase in cost from manufacturer, or any other factor.
3. The price of the equipment set forth herein shall include the cost of delivery to the job site in New Prague, Minnesota and off-loading and placement as detailed in the specifications.
4. Title to the equipment shall pass to the Owner upon completion of the contract and acceptance by the Owner.
5. This bid is void unless a materials contract based on this proposal is entered into by the Owner and the Supplier within 30 days after the date hereof.
6. The undersigned being familiar with all the details, conditions, and requirements hereby proposes to furnish the following material to the New Prague Utilities Commission in strict conformance with the specifications and Bidding Documents, to-wit:

**DUPLICATE THIS FORM AS NECESSARY – MULTIPLE BIDS ARE ALLOWED**

Item No.	Qty	Description	Unit Price	Extended Price
<b>BASE BID ITEM NO. 1 - ITEMS:</b>				
1A	4	New generator set, suitable for a <b>remote mounted radiator</b> , including local control panel and accessories as specified	\$ 2,179,530.00	\$ 8,718,120.00
1B	4	Remote-mounted radiator and surge tank	\$ 210,890.00	\$ 843,560.00
1C	1	New fuel oil day tank	\$ 18,163.00	\$ 18,163.00
1D	4	New set of starting batteries and cabling	\$ 7,000.00	\$ 28,000.00
1E	4	New battery charger	\$ 6,300.00	\$ 25,200.00
1F	4	Spare materials	\$ 4,500.00	\$ 18,000.00
<b>TOTAL – ITEM NO. 1:</b>				<b>\$ 9,651,043.00</b>

<b>REQUIRED OPTIONAL BID ITEMS:</b>				
	4	Extended warranty period of 5 years for one (1) genset	\$ 25,000.00	\$ 100,000.00
	4	New hospital grade exhaust silencer	\$ 52,320.00	\$ 209,280.00
	4	Generator stator and bearing temperature measurement and display	\$ 1,550.00	\$ 6,200.00
	1	Solution of extended life ethylene glycol and high-quality water	$\$31.00 \times 4,000$ EST.	\$ 84,000 /gal

<b>OPTIONAL BID ITEM:</b>				
	4	Alternate remote radiator selection	\$ 3,000.00 Add / <u>Deduct</u> [Circle one]	\$ 12,000.00 Add / <u>Deduct</u> [Circle one]

*Bid total with options \$ 9,841,243*



<b>REQUIRED INFORMATION:</b>	
*Guaranteed GVTC test output of the genset	<u>2800</u> kW*
Guaranteed delivery date	Q4, 2027
Genset manufacturer, make, model	Caterpillar C175-16 T4 Final

\* Guaranteed minimum subject to purchase price adjustment penalty after installation of new generator (see Specifications).

\*\*\* END OF BID FORM FOR BASE BID NO. 1 \*\*\*

