Q&A

KYMEA SUPPLY OF RECIPROCATING INTERNAL COMBUSTION ENGINE-GENERATOR SETS, OUTDOOR ENCLOSURES, SWITCHGEAR, CONTROLS, AND AUXILIARIES

RFP No. 2026-1
Revised October 7, 2026

1. SECTION 1: NET DEPENDABLE OUTPUT & ELECTRICAL INTEGRATION

1.1 Ambient Conditions for Net Dependable Output

- Please confirm the exact ambient conditions required for net dependable output calculations:
- Maximum ambient temperature
- Design humidity
- Enclosure installed or free-air rating
- Any required safety margin above 95°F

The net dependable output shall be provided at 95°F, at 764 feet elevation, and a design humidity of 60%. KYMEA will seek information from the proposers for degradation and performance of the unit up to a maximum ambient temperature of 102°F and reserves the right to have the units designed accordingly. The output basis is the complete installed outdoor enclosure/package, with all required auxiliaries and electrical losses deducted at the 12.47 kV point of interconnection.

1.2 Generator Terminal Voltage

Please confirm KYMEA's preferred generator terminal voltage:

- Low-voltage generator + step-up transformer OR
- Medium-voltage generator winding (e.g., 12.47 kV)

If a transformer is required, please provide:

- Required impedance
- Basic Insulation Level (BIL) rating
- Grounding configuration
- Protection requirements

KYMEA prefers a medium-voltage generator winding (e.g., 12.47 kV) with an isolation transformer between the generator and utility system. Transformer impedance shall conform to IEEE recommendations, with the appropriate short-circuit studies performed. Basic Insulation Level (BIL) shall be 110 kV Grounding configuration shall consist of wye delta grounding provisions. Best practices utilizing transformer differential protection (SEL) shall be included by the proposers for its selected electrical configuration and coordinated during final design. Final protection will be coordinated by KYMEA, with contractor, Olive Hill, and AEP.

1.3 Neutral Grounding Requirements

Please confirm the final grounding philosophy:

- Solid grounding
- High-resistance grounding
- Reactance grounding

Please clarify whether neutral grounding equipment is:

- Supplier-furnished
- Contractor-furnished
- KYMEA-furnished

Proposers will be required to furnish high-resistance grounding.

2. SECTION 2: COOLING SYSTEM & ENCLOSURE HEAT BALANCE

2.1 Enclosure Cooling Requirements

Please confirm:

- Maximum ambient temperature for enclosure heat-balance design
- Whether integral radiators inside the enclosure are acceptable
- Whether remote radiators are allowed or preferred
- Required airflow discharge direction (side/top/rear)

The maximum ambient temperature for enclosure heat-balance design should be 102°F. Integral radiators are preferred. A remote-radiator configuration may be submitted as a clearly identified alternate or exception with complete scope, performance, auxiliary-load, footprint, acoustic, controls, and pricing impacts. KYMEA prefers airflow discharge direction to flow front-to-back.

2.2 Auxiliary Load Treatment

Should radiator fan power and enclosure ventilation loads be included in:

- Net dependable output deduction
- Auxiliary load reporting

Yes. Radiator-fan power, enclosure-ventilation power, and any other auxiliary loads required for normal operation shall be included in the auxiliary-load schedule and deducted in calculating net dependable output at the facility point of interconnection.

3. SECTION 3: NATURAL GAS FUEL SYSTEM & BLACK START

3.1 Gas Pressure, Flow, and Quality

Please confirm:

- Expected pipeline pressure at the site after utility regulation
- Minimum methane number
- Expected heating value range
- Whether KYMEA will provide gas-quality data from the utility

A 4-inch natural-gas pipeline operating at approximately 100 psig is located within several hundred feet of the site. Details regarding the gas quality can be found at the following link.

https://pipeline2.kindermorgan.com/GasQuality/RepMainLinePoints.aspx and the attached instructions. The gas quality information should be considered preliminary and is not the guaranteed pressure at the engine inlet or after utility regulation. Final pressure, flow capacity, gas quality, utility metering requirements, service conditions, and point of delivery remain subject to coordination with the serving natural-gas utility. Proposers shall state required minimum, normal, and maximum pressure; flow; heating-value range; methane number; and other gas-quality limits.

3.2 Black-Start Fuel System Requirements

Please confirm:

- Whether gas compression or heating is expected
- Whether KYMEA requires DC-powered compression/heating
- Whether battery-backed AC systems are acceptable
- Whether propane backup is acceptable for black-start fuel availability

A 4-inch natural-gas pipeline operating at approximately 100 psig is located within several hundred feet of the site. If the pressure is not sufficient, proposers shall include gas compressors that can operate in a black-start event in their proposals. KYMEA does not anticipate gas heating will be required. The complete natural-gas fuel system must support black start without normal external AC service. KYMEA does not require a specifically DC-powered solution; a battery-backed AC or other stored-energy arrangement may be proposed if the proposer demonstrates that it supports the complete black-start sequence and required auxiliaries. Propane backup is not an alternative.

4. SECTION 4: EXHAUST SYSTEM, AFTERTREATMENT & EMISSIONS

4.1 Required Emissions Controls

Please confirm:

- Applicable Kentucky air-permit limits for NOx, CO, VOC, PM
- Whether oxidation catalyst or SCR is required for natural gas engines
- Whether KYMEA will provide expected annual operating hours for emissions modeling

Final Kentucky air-permit emission limits have not yet been established. KYMEA or its environmental consultant will prepare the permit application, and the selected proposer shall provide complete certified emissions and potential-to-emit data and furnish a non-emergency stationary engine configuration and any aftertreatment needed to comply with applicable federal requirements, Kentucky permitting requirements, and final permit conditions. The proposal shall identify whether oxidation catalyst, SCR, or other controls are required and the applicable operating limits. If the unit is not tier 4 compliant, KYMEA requests additional pricing to achieve tier 4 compliance. For proposal emissions modeling, use approximately 2,000 operating hours per year for natural-gas units.

4.2 Stack Requirements

Please clarify:

- Required stack height
- Dispersion modeling assumptions
- Seismic requirements for stack supports
- Maximum allowable backpressure for the installed system

Final stack height and dispersion assumptions will be established through air permitting and dispersion analysis. The proposer shall design and furnish the stack and supports and shall identify the seismic design basis used. Maximum allowable backpressure shall be the limit guaranteed by the proposer/OEM for the proposed engine and aftertreatment configuration. The proposer shall provide a certified backpressure calculation for the complete installed exhaust system, including fouling allowance.

5. SECTION 5: CONTROLS, NO-EXPORT, ISLANDING & SCADA

5.1 No-Export Control Requirements

Please confirm:

- Meter type and communication protocol at the Olive Hill/AEP billing point
- Required import margin (kW)
- Maximum allowable runback response time
- Required behavior during meter-failure or communications-failure

KYMEA Standard Meter setup of a Schneider ION 8700 meter. The protocol would be either ION protocol or DNP 3.0 based. KYMEA's goal is to serve a minimum of 98% of Olive Hill's real-time load with a margin of 2%. Communications would be a dual path of Cellular and local ISP connection.

5.2 ISLANDING & RESYNCHRONIZATION

Please clarify:

- Whether Cat ECS can serve as the master plant controller
- Expected island load profile (motor starting, step loads)
- Required resynchronization permissive from AEP

Cat ECS may serve as the master plant controller if the proposed system satisfies all RFP requirements for two-unit and optional three-unit control, no-export operation, islanding (tbd), black start, SCADA integration, and resynchronization (tbd). Islanding operation is yet to be determined and may be discussed with the proposer. Final resynchronization permissives, island boundary, breaker authority, transfer-trip requirements, and AEP interfaces remain to be established during final design.

6. SECTION 6: ACOUSTICS

6.1 Acoustic Modeling Requirements

Please confirm:

- Exact distance for dBA measurement (industrial standard is 7M)
- Will KYMEA accept larger enclosures or remote radiators to meet dBA standard

The governing proposal criterion is not a 7-meter equipment measurement. The preliminary limit is 65 dBA at the nearest off-site property line, which is approximately 165 feet. KYMEA will accept larger enclosures as a clearly identified alternate or exception if the configuration meets all performance, site, maintenance, auxiliary-load, and acoustic requirements.

7. SECTION 7: DIVISION OF RESPONSIBILITIES (DOR) CLARIFICATIONS

7.1 Gas Receiving Station

Please clarify:

- Whether gas heating is supplier or contractor scope
- Who provides hazardous-area classification
- Who provides gas detection and ventilation for the receiving station

Gas heating is not required for the proposed engines. Proposers shall provide fuel-system P&IDs, hazardous-area classifications, ventilation requirements, gas-detection requirements, shutdown interfaces, and applicable OEM/code criteria. The Installation Contractor will be responsible for design and furnishing of the common natural-gas receiving station and site distribution piping, incorporating the proposer's requirements. Proposer-furnished engine-package gas detection and ventilation controls remain within the proposer's scope.

7.2 Electrical Cabling & Ground Grid

Please confirm:

- Required CT ratios, accuracy classes, and cable sizes
- Whether KYMEA or contractor provides grounding grid design

Final CT ratios, accuracy classes, cable sizes, and termination requirements have not yet been established. The proposer shall coordinate these items with KYMEA and provide the package-side terminal and sensing equipment. Metering CTs will be revenue class and assigned for efficient and accurate readings during light and full load. The Installation Contractor shall design, furnish, install, connect, and test the external cables, raceways, and site grounding grid. KYMEA will review and approve the final design.

8. SECTION 8: MAINTENANCE, SERVICEABILITY & WARRANTY

8.1 Operating Hours & Maintenance Planning

Please confirm:

- Expected annual operating hours for natural gas units (2,000 hrs/yr assumed)

- Whether KYMEA requires extended service agreements or availability guarantees
- Whether remote diagnostics beyond Cat Connect are required

Use approximately 2,000 operating hours per year for the natural-gas operating scenario; this estimate does not guarantee minimum operating hours. An extended service agreement or LTSA is not mandatory as part of the Base Proposal, but proposers shall separately price the extended-warranty and LTSA options requested in RFP Form 3. KYMEA prefers, but does not require, a contractual availability guarantee. Remote diagnostics beyond Cat Connect are not required.

8.4 Optional Propane Backup

Please confirm:

- If propane capability is truly required, any gas engine designed to operate on both natural gas and propane would likely experience a significant derate. As a result, additional generator sets may be needed to achieve the required output.

Propane capability is optional and is not required for responsiveness. If the proposed natural-gas engine is not capable of propane operation, enter "Not Available" and explain the limitation. If propane capability is offered, identify all output derating, storage requirements, fuel-switching method, heat-rate change, emissions impacts, maintenance impacts, operational limitations, and any additional generating capacity required.

9. SECTION 9: SITE LAYOUT, FOUNDATIONS, & CIVIL

9.1 Foundation Designs

Please confirm:

- Whether vibration isolation mounts are required

Proposers shall provide the common base, coupling, guards, vibration isolation, fastening hardware, alignment requirements, certified static and dynamic loads, anchor requirements, and installation tolerances appropriate for the proposed equipment. The Installation Contractor will design and construct the foundations and install the proposer-furnished isolation and anchorage components. Therefore, vibration isolation mounts shall be provided if required by the proposer/OEM design.

10. SECTION 10: BID SUBMISSION & EXCEPTIONS

10.1 Exceptions Format

Please confirm:

- Whether conditional exceptions are acceptable (dependent on final gas pressure, etc.)

- Whether alternate configurations (remote radiator) may be submitted as alternates

Yes. Conditional exceptions and assumptions may be submitted, but each must be clearly identified in RFP Form 4 or an attached exception schedule, including the condition, technical and commercial impact, and any resulting price or schedule adjustment. KYMEA may accept, evaluate, negotiate, or reject nonconforming proposals in its discretion. Alternate configurations, including remote radiators, may be submitted as separately identified and priced alternates with complete performance and scope information. The Base Proposal should remain compliant unless the departure is expressly identified.