COON RAPIDS MUNICIPAL UTILITIES
Application for Operation of Customer-Owned Generation
Application No._____

This application and the appropriate application fee should be completed and returned to Coon Rapids Municipal Utilities in order to begin processing the request. See _Customer Guidelines for Electric Power Generator Installation and Interconnection_ for additional information.

INFORMATION: *This application is used by Coon Rapids Municipal Utilities to determine the required equipment configuration for the Customer interface. Every effort should be made to supply as much information as possible.*

PART 1
OWNER/APPLICANT INFORMATION

Owner/Customer

Name:_____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email Address:_____ Fax Number:_____

PROJECT DESIGN/ENGINEERING (ARCHITECT) (as applicable)

Company:_____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email Address:_____ Fax Number:_____

ELECTRICAL CONTRACTOR (as applicable)

Company:_____

Mailing Address:_____

City:_____County:_____State:_____Zip Code:_____

Phone Number:_____Representative:_____

Email Address:_____ Fax Number:_____

TYPE OF GENERATOR (as applicable)

Photovoltaic _____ Wind _____ Microturbine _____

Diesel Engine _____ Gas Engine _____ Combustion Turbine _____

Other _____

ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION

The following information is necessary to help properly design the Utility customer interconnection.
This information is not intended as a commitment or contract for billing purposes.

Total Site Load _____ (kW)

Residential _____   Commercial _____   Industrial _____

Generator Rating _____ (kW)   Annual Estimated Generation _____ (kWh)

Mode of Operation

Isolated _____   Paralleling _____   Power Export _____

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including a detailed description of its planned location, the date you plan to operate the generator, the frequency with which you plan to operate it and whether you plan to operate it during on or off-peak hours.

_____

_____

_____

_____

_____

_____

_____

_____

_____

PART 2

(Complete all applicable items. Copy this page as required for additional generators)

SYNCHRONOUS GENERATOR DATA

Unit Number: _____Total number of units with listed specifications on site: _____

Manufacturer: _____

Type: _____Date of manufacture: _____

Serial Number (each):_____

Phases: Single   Three   R.P.M.: _____   Frequency (Hz): _____

Rated Output (for one unit): _____Kilowatt _____Kilovolt-Ampere

Rated Power Factor (%): _____Rated Voltage (Volts): _____Rated Amperes: _____

Field Volts: _____ Field Amps: _____ Motoring power (kW): _____

Synchronous Reactance (X_d): _____% on _____KVA base

Transient Reactance (X'_d): _____% on _____KVA base

Subtransient Reactance (X'_d); _____% on _____KVA base

Negative Sequence Reactance (X_s): _____% on _____KVA base

Zero Sequence Reactance (X_o): _____% on _____KVA base

Neutral Grounding Resistor (if applicable):_____
_____

I_2^2t or K (heating time constant): _____

Additional information: _____
_____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr):_____ ohms   Stator Resistance (Rs): _____ ohms
Rotor Reactance (Xr):_____ ohms   Stator Reactance (Xs): _____ ohms
Magnetizing Reactance (Xm):_____ ohms   Short Circuit Reactance (Xd"): _____ ohms
Design letter:_____   Frame Size: _____
Exciting Current:_____   Temp Rise (deg C°): _____
Reactive Power Required:_____ Vars (no load), _____Vars (full load)
Additional information:_____
_____

PRIME MOVER (Complete all applicable items)

Unit Number: _____ Type: _____
Manufacturer: _____
Serial Number:_____ Date of manufacture: _____
H.P. Rated: _____ H.P. Max.: _____Inertia Constant: _____ lb.-ft.^{2}
Energy Source (hydro, steam, wind, etc.) _____
_____
_____

GENERATOR TRANSFORMER (Complete all applicable items)
TRANSFORMER (between generator and utility system)
Generator unit number: _____ Date of manufacturer: _____
Manufacturer: _____
Serial Number: _____
High Voltage: _____KV, Connection: delta   wye, Neutral solidly grounded?_____
Low Voltage: _____KV, Connection: delta   wye, Neutral solidly g rounded? _____
Transformer Impedance(Z): _____% on _____ KVA base.
Transformer Resistance (R): _____% on _____ KVA base.
Transformer Reactance (X): _____% on _____ KVA base.
Neutral Grounding Resistor (if applicable): _____
_____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____
Rated Power Factor (%): _____Rated Voltage (Volts): _____ Rated Amperes: _____
Inverter Type (ferroresonant, step, pulse-width modulation, etc): _____

Type commutation: forced   line
Harmonic Distortion: Maximum Single Harmonic (%) _____
                     Maximum Total Harmonic (%) _____
Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

POWER CIRCUIT BREAKER (if applicable)

Manufacturer: _____Model: _____
Rated Voltage (*kilovolts*): _____Rated ampacity *(Amperes)*_____
Interrupting rating (Amperes): _____BIL Rating: _____
Interrupting medium / insulating medium (ex. Vacuum, gas, oil) _____ / _____
Control Voltage (Closing): _____ (Volts)   AC   DC
Control Voltage (Tripping): _____ (Volts)   AC   DC   Battery   Charged Capacitor
Close energy: Spring   Motor   Hydraulic   Pneumatic   Other: _____
Trip energy: Spring   Motor   Hydraulic   Pneumatic   Other: _____
Bushing Current Transformers: _____ (Max. ratio) Relay Accuracy Class: _____
Multi ratio?   No   Yes: (Available taps) _____

ADDITIONAL INFORMATION – <mark>REQUIRED ONE-LINE DIAGRAM</mark>

In addition to the items listed above, a <mark>detailed one-line diagram of the proposed facility MUST BE ATTACHED</mark> with all applicable elementary diagrams, major equipment, (generators, transformers, inverters, batteries, circuit breakers, protective relays, etc.) specifications, test reports, etc., and any other applicable drawings or documents necessary for the proper design of the interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.), and its address or grid coordinates.

END OF PART 2

SIGN OFF AREA

The customer agrees to provide Coon Rapids Municipal Utilities with any additional information required to complete the interconnection. The customer shall operate his equipment within the guidelines set forth by CRMU.

_____   _____
Applicant   Date

COON RAPIDS MUNICIPAL UTILITIES CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Contact:	Coon Rapids Municipal Utilities
Title:	Attn: General Manager
Address:	123 3rd Avenue S
	PO Box 207
	Coon Rapids, IA 50058
Phone:	712-999-2225
Email:	info@crmu.net