

Application for Connection of Very Small Generators
(For Use with Generators with Net Output Under 1 MW)

An applicant (Generator Owner) makes application to [Distribution Utility] to install and operate a generating facility with a net output of less than 1 MW interconnected with the Metropolitan Electricity Authority (MEA)/ Provincial Electricity Authority (PEA) utility system.

Comment : Generators less than 30 kW are not required to fill in the shaded area.

Section 1: Applicant Information

Name: _____

Mailing Address: _____

Facility Location (if different from above): _____

Telephone : _____

Section 2: Generator Qualifications

Is Generator powered from renewable energy sources: Yes No

Type of renewable energy: Solar Wind Hydro
 Biogas Geothermal
 By Products Other: _____

Other energy source: Natural Gas Fuel Oil Other: _____

Will excess power be exported to [Distribution Utility]? Yes No

Site Load: _____ kW (Typical) Maximum Export: _____ kW.

Section 3: Generator Technical Information

3.1 Type of Generator:

- Synchronous Number of unit (s) : _____
- Induction Number of unit (s) : _____
- DC Generator or Solar with Inverter
 - Inverter (Self-Commutated) Number of unit (s) : _____
 - Inverter (Line-Commutated) Number of unit (s) : _____

3.2 Detail of Generator

Generator Manufacturer, Model Name & Number: _____

Output Power Rating in kW: _____

Inverter Manufacturer, Model Name & Number (if used): _____

Rating in kW: _____

If you have more than one Generator, please provide details of all Generators in attachments to this Application.

3.3 Characteristics of Generator (for Synchronous and Induction Generators):

Direct Axis Synchronous Reactance, X_d : _____ P.U. Negative Sequence Reactance: _____ P.U.
Direct Axis Transient Reactance, X'_d : _____ P.U. Zero Sequence Reactance: _____ P.U.
Direct Axis Subtransient Reactance, X''_d : _____ P.U. KVA Base: _____

Section 4: Interconnecting Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection? Yes No

Transformer Data: (Enclose a copy of transformer Nameplate.)

Size: _____ KVA . Transformer Primary: _____ V Number of Tabs: _____ Delta Wye-grounded
Transformer Secondary: _____ V Number of Tabs: _____ Delta Wye-grounded

Transformer Impedance: _____ % at Tab No. _____ on _____ KVA Base
_____ % at Tab No. _____ on _____ KVA Base
_____ % at Tab No. _____ on _____ KVA Base
_____ % at Tab No. _____ on _____ KVA Base
_____ % at Tab No. _____ on _____ KVA Base

Transformer Fuse Data: (Enclose a copy of Manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____ Size: _____ A Speed: _____ V

Interconnecting Circuit Breaker: (Enclose a copy of Circuit Breaker manual)

Manufacturer: _____ Type: _____ Load Rating: _____ A Interrupting Rating: _____ kA
Trip Speed: _____ V

Circuit Breaker Protective Relays: (Enclose a copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____

Current Transformer Data: (Enclose a copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: _____ Type: Measuring Protection Size: _____ VA
Accuracy Class: _____ Proposed Ratio Connection: _____
Manufacturer: _____ Type: Measuring Protection Size: _____ VA
Accuracy Class: _____ Proposed Ratio Connection: _____

Generator Disconnect Switch:

A disconnect device, accessible to MEA/PEA

Manufacturer: _____ Type: _____ Catalog No.: _____ Rated Volts: _____ Rated Amps: _____
Single or 3 Phase: _____ Mounting Location: _____

Section 5: General Technical Information

Enclose a copy of site Single Line Diagram showing configuration and interconnection of all equipment, current and potential circuits and protection and control schemes. Is One-Line Diagram Enclosed?: Yes

Enclose a copy of documentation that describes and details the operation of the protection and control schemes. Is Documentation Enclosed?: Yes

Enclose a copy of the list of electrical appliances used within the premise. Is Documentation Enclosed?: Yes

Enclose copies of schematic drawings that show installations of electrical equipment within the premise (only for existing MEA/PEA customers) Are Schematic Drawings Enclosed? Yes

Section 6: Installation Details

Generating System will be installed by: Owner Licensed Electrician
Installing Electrician: _____ Firm: _____ License No.: _____
Address: _____
Telephone: _____
Installation Date: _____ Interconnection Date: _____

Certification of Installation and Standards of Equipment

Engineer: _____
Type of professional permit: _____ Permit No: _____ Date: _____

Section 7: Generator/Equipment Certification

Inverter-based generating systems must be compliant with IEEE 929, Underwriters Lab. UL 1741, IEC 1727, Japanese or other standards, or equivalent Thai standards. Generating systems that use a rotating machine must be compliant with the *Regulations for Synchronization of Generators with Net Output Under 1 MW to the Distribution Utility System*.

By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signed (Applicant): _____ Date: _____

Section 8: Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct.

Signature of Applicant: _____ Date: _____

Send the completed application to the appropriate Distribution Utility
(Inside Bangkok Metropolitan Area) Metropolitan Electricity Authority (MEA)
(insert appropriate address here)
(Outside Bangkok Metropolitan Area) Provincial Electricity Authority PEA
(insert appropriate address here)

Note: Any amendments to the application form shall be made only with the approval of the Sub-committee for the Coordination of the Power Utilities' Future Operation.