

Application Checklist for Solar Net Energy Metering (NEM) for SCE

Complied by Water & Energy Consulting

PROJECT MILESTONE	SUBMISSION TIMING	DOCUMENT	NOTES						
1) Application Packet	As early as possible; at least 30+ days before scheduling the final inspection	Generating Facility Interconnection Application (Form 14-957)	<p>Application is used to request the interconnection of a Renewable Electrical Generating Facility (Generating Facility) to Southern California Edison's (SCE) Distribution System. All applications have to be made online. Note - you have to specify all components - panels and inverter by manufacturer and model. Hint - use only CEC certified components for simplest interconnection:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #4F81BD; color: white;"> <th style="text-align: left;">Equipment</th> <th style="text-align: left;">Certified Listings</th> </tr> </thead> <tbody> <tr> <td style="background-color: #D9E1F2;">Inverters</td> <td style="background-color: #D9E1F2;">Solar: http://www.csi-epbb.com/default.aspx</td> </tr> <tr> <td style="background-color: #D9E1F2;">Solar PV Modules</td> <td style="background-color: #D9E1F2;">http://www.csi-epbb.com/default.aspx</td> </tr> </tbody> </table>	Equipment	Certified Listings	Inverters	Solar: http://www.csi-epbb.com/default.aspx	Solar PV Modules	http://www.csi-epbb.com/default.aspx
Equipment	Certified Listings								
Inverters	Solar: http://www.csi-epbb.com/default.aspx								
Solar PV Modules	http://www.csi-epbb.com/default.aspx								
		Single Line Diagram	Describes generator components and shows electrical path from generator to SCE meter, clearly identifying the point of interconnection. (see next page)						
		Plot Plan (required for commercial installations)	Shows the physical relationship of the significant electrical components.						
		Net Energy Metering and Generating Facility Interconnection Agreement (Form 16-344)	Required for Interconnection						
		Load Justification Form	Determines Size of Solar Installation						
		Surplus Electricity Compensation Form (Form 14-906)	Allows sale of excess generation						
		Building Permit (required for new construction)	Submit when SCE service has not yet been established and/or when the final job card from the local jurisdictional authority does not list the jurisdiction, site address and project type.						
2 Final Inspection	As soon as it is issued	<ul style="list-style-type: none"> - Final Electrical Inspection Job Card issued by the Authority Having Jurisdiction (AHJ) - Submit photographs with the installed decals at the customer's main service panel and AC disconnect switch. - Submit meter application to buildermeterapp@sce.com, to apply for Monthly Electric Service (New Construction). 	<p>Ensure financing is in place prior to scheduling the Final Inspection to minimize the possibility for the Permission To Operate (PTO) letter being issued before financing is in place.</p> <p>If the job card does not identify the jurisdiction, site address, and the project type (e.g. photovoltaic), submit a copy of the building permit as well. All pages must be legible.</p> <p>Submit photographs with the installed decals at the customer's main service panel and AC disconnect switch (see NEM Handbook) when the final Permit Inspection is submitted to reduce technical review time frame.</p>						

<p>Additional information that may be required with Application</p>	<ul style="list-style-type: none"> - Photos of the manual, visibly open, and lockable open AC Disconnect Switch, showing visible contact separation; - Inverter Specifications; - Photos of installed SCE decals, when applicable; - Line side / supply side taps; - If the project requires an NGOM, meter socket cut-sheets of the NGOM socket; <p>; If transformers are used to interconnect the Generating Facility with SCE's Distribution System, provide the transformer nameplate information (e.g., voltages, capacity, winding arrangements, connections, impedance).</p> <ul style="list-style-type: none"> - If a transfer switch or scheme is used to interconnect the Generating Facility with SCE's Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate; - If protective relays are used to control the interconnection, please provide protection diagrams or elementary drawings showing relay wiring and connections, proposed relay settings, and a description of how the protection scheme is intended to function.
<p>Interconnection Study</p>	<ul style="list-style-type: none"> - 15% Rule: the applicant's generating facility combined with existing generation does not exceed 15% of the maximum loading of the line section. - Overloading: all distribution equipment must not be overloaded by the applicant's generating facility. - Voltage Operating Levels: the applicant's generating facility must not create a voltage drop or rise that is outside the allowable operating-voltage bandwidth specified in Rule 21 and Rule 2 . - System Upgrades: upon review by SCE, system upgrades may be required to allow the system to accommodate the interconnection of the generating facility.
<p>Inverters</p>	<p>An inverter-based generating facility must meet all required criteria specified in the CPUC's "Rule 21- Generating Facility Interconnections", IEEE 1547, UL 1741, and SCE's Interconnection Handbook (PDF). If the inverter does not meet Underwriters Laboratories Standard UL 1741 certification CSA, or Section "L" of Rule 21 (PDF), additional protection requirements and testing may be required. The California Energy Commission maintains a certified list of approved inverters at http://www.consumerenergycenter.org/erprebate/inverter.php.</p>
<p>Single Line Diagram Components</p>	<ul style="list-style-type: none"> - Site location/service address (must match address on SCE account and NEM Interconnection Application); - Detail view of the point of connection to the power grid, specifically showing whether it is on the utility or customer side of the main breaker - see below for additional requirements that apply when the point of interconnection is on the utility side of the main breaker (line-side tap); - Service Panels; - Protective devices: Circuit Breakers, Fuses, CT and PT ratings, if applicable; - Utility meter; - Net Generation Output Meter(s), of applicant, including the meter socket built-in component, CT and PT ratings, if applicable; - Generator(s) make and model; - Detailed component information (characteristics) included for each component (Voltage and phase of inverters, transformers, etc.); - Inverter setting for: Under-Voltage, Extreme Under-Voltage, Overvoltage Extreme Voltage, Overfrequency, Under-frequency; - Code and version to be used for construction, repair, inspection and testing.