Interconnection Process Simplification Webinar

The slides for today’s presentation can be downloaded/printed at www.pge.com/solareducation
Agenda

- Overview of PG&E’s NEM interconnection process
- What you need to know about NEM interconnections
- Why systems over 30 kW need to be identified
- Helpful resources to reduce Interconnection turnaround time
- Q&A
## PG&E and our Business

**What we do:**
Deliver safe, reliable, and environmentally responsible gas and electricity to approximately 15 million Californians

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Electric and gas distribution customers</td>
<td>5.1 MM electric</td>
</tr>
<tr>
<td></td>
<td>4.2 MM gas</td>
</tr>
<tr>
<td>Electric transmission circuits</td>
<td>18,610 miles</td>
</tr>
<tr>
<td>Gas transmission backbone</td>
<td>6,136 miles</td>
</tr>
<tr>
<td>Electric generation capacity</td>
<td>6,000 MW</td>
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Generation Interconnection Services (GIS)

Point of contact for customer (or authorized agent) to interconnect any generation.

- **Standard NEM:** A solar and wind energy program for customers whose generator size is 30 kilowatts or less.

- **Expanded NEM:** A solar and wind energy program for Agricultural and Demand Rate customers whose generator is of any size and for Residential and Small Commercial rate customers whose generator capacity is over 30 kilowatts.

Coordinates interconnection activities, including engineering reviews, metering, access issues, and customer contracts. Issues Permission To Operate.
How to apply

Standard NEM

- Agreement Form 79-1101

Expanded NEM

- 3 Forms: Application 79-974, Supplemental Application 79-998 and Interconnection Agreement Form 79-978

Required documentation:

- Single Line Diagram
- Signed off Building Permit
- Copy of recent electric bill for project site
- Payment for meter fee, if applicable
- For Expanded NEM only:
  - Declarations Page of Home Owner Insurance
  - Third Party Authorization Form
The Interconnection Application is a separate, but parallel process to CSI Application.

Equipment submitted with the CSI application and the Interconnection Application must match.

CSI Incentive will not be paid until PTO is issued.
Net Energy Metering Support for Solar

Provides for two main types of solar interconnections: NEM and non-NEM options for the customer.

Initiates NEM Billing Process through the interconnection process.

- Allows exports to utility grid which are credited at retail electricity rate

No standby charges

No interconnection study fees

Exemption from Nonbypassable Charges

NEM projects

- Over 96% of systems are interconnected within 12 business days upon receipt of all required paperwork and project passes first inspection.
Field Inspection

Check system to ensure built as designed on Single Line Diagram (SLD) (Expanded NEM Projects only).

Verify that meter location/disconnect is safe for PG&E personnel access (free from unrestrained animals, locked gates, etc...).

Verify installation of AC disconnect and appropriate signage, if applicable (Expanded NEM).

Install bi-directional meter (NEM customers).

Install Net Gen Output Meter (NGOM) for PBI, if requested.
Timeline and commonly missed items

What can slow an application down?

• Project size over 30 KW submitted for Standard NEM and does not qualify.

• Meter/Service ID number on application does not match that which is tied to account or bill.

• Name on application does not match PG&E Bill account name. Call: 1-800-743-5000 to add/change name on acct.

• Application has no rate schedule selected.

• Final building permit (BP) does not match application address.

• Single Line Drawing (SLD) has no equipment information: make, model, rating, or... how many PV modules are connected to each inverter.

• Reprogram cost of $228 for Time of Use (TOU) not included.
Items that slow down the process

Disconnect Access

- Customer’s bi-directional meter must be installed in a safe, 24/7 PG&E-accessible location, unobstructed by locked gates or pets.

- Meter access must be maintained at all times for reading/system maintenance.

- Any animals owned by the customer, including pet dogs, should not have access to these areas to avoid hindering PG&E service personnel from completing their work.
Systems over 30 kW (Expanded NEM)

All PV systems require an engineering review

Systems over 30 kW or multiple homes may impact the local electric circuit operations; requiring PG&E equipment changes

Infrastructure changes may require long lead items or construction

Advise PG&E of planned installation time and get system in the queue
Cumulative PG&E Solar Interconnections

Over 30,000 grid tied solar installations more interconnections of grid tied systems in US than any other utility.

*as of February 2009*
Total Monthly PG&E Solar Interconnections

![Graph showing Total Monthly PG&E Solar Interconnections from January to December for the years 2006, 2007, 2008, and 2009. The graph displays the number of interconnections for each month, with each year represented by a different color.]
PG&E GIS Acronyms

NEM: Net Energy Metering

NGOM: Net Generation Output Meter

PTO: Permission To Operate

SCSC: Solar Customer Service Center

BP: Signed Off Building Permit

POI: Proof of Insurance

AC Disc: Alternating Current Generator Disconnect (Not DC or Inverter Disconnect)

SLD: Single Line Drawing

TOU: Time of Use Rate or Meter

ESP: Energy Service Provider

OAS: Otherwise Applicable (rate) Schedule
PG&E Resources

Standard NEM:  http://www.pge.com/standardnem/
Expanded NEM:  http://www.pge.com/expandednem/
GIS Hotline: Email: gen@pge.com, or (415) 972-5676
CSI Website:  http://www.pge.com/csi
CSI Hotline: Email: solar@pge.com or (415) 973-3480
Solar Customer Service Center (SCSC): (877) 743-4112
PG&E Solar Website: www.pge.com/solar
Questions or Comments?

Thank you for joining us today.

Please take a moment to provide us your feedback on today’s webinar.