

12.02.09

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

 <p><i>PG&E's Service Area in California</i></p>	Electric and gas distribution customers	5.1 MM electric 4.2 MM gas
	Electric transmission circuits	18,610 miles
	Gas transmission backbone	6,136 miles
	Electric generation capacity	6,000 MW



Generation Interconnection Services (GIS)

4

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

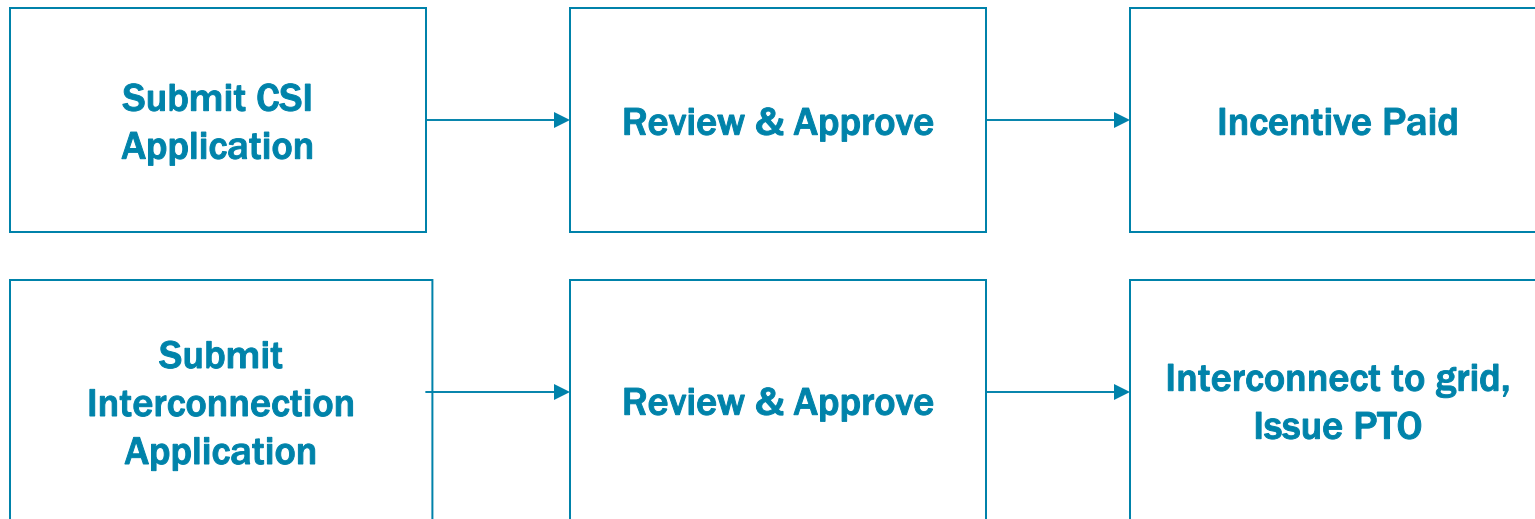
Required documentation:

- 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



Interconnection Application vs. CSI Application

6



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

7

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

8

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

9

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

10

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)

11

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

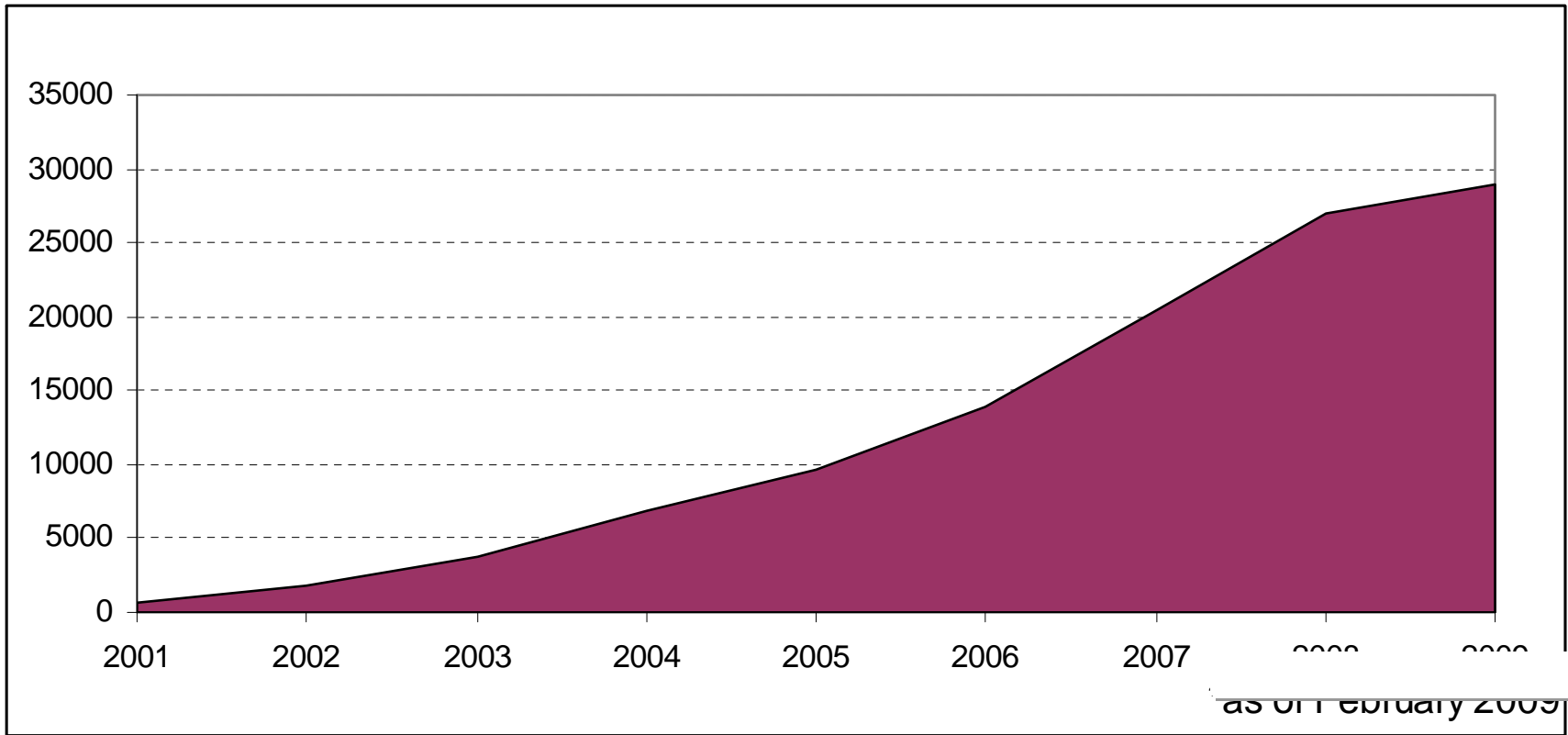
Infrastructure changes may require long lead items or construction

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



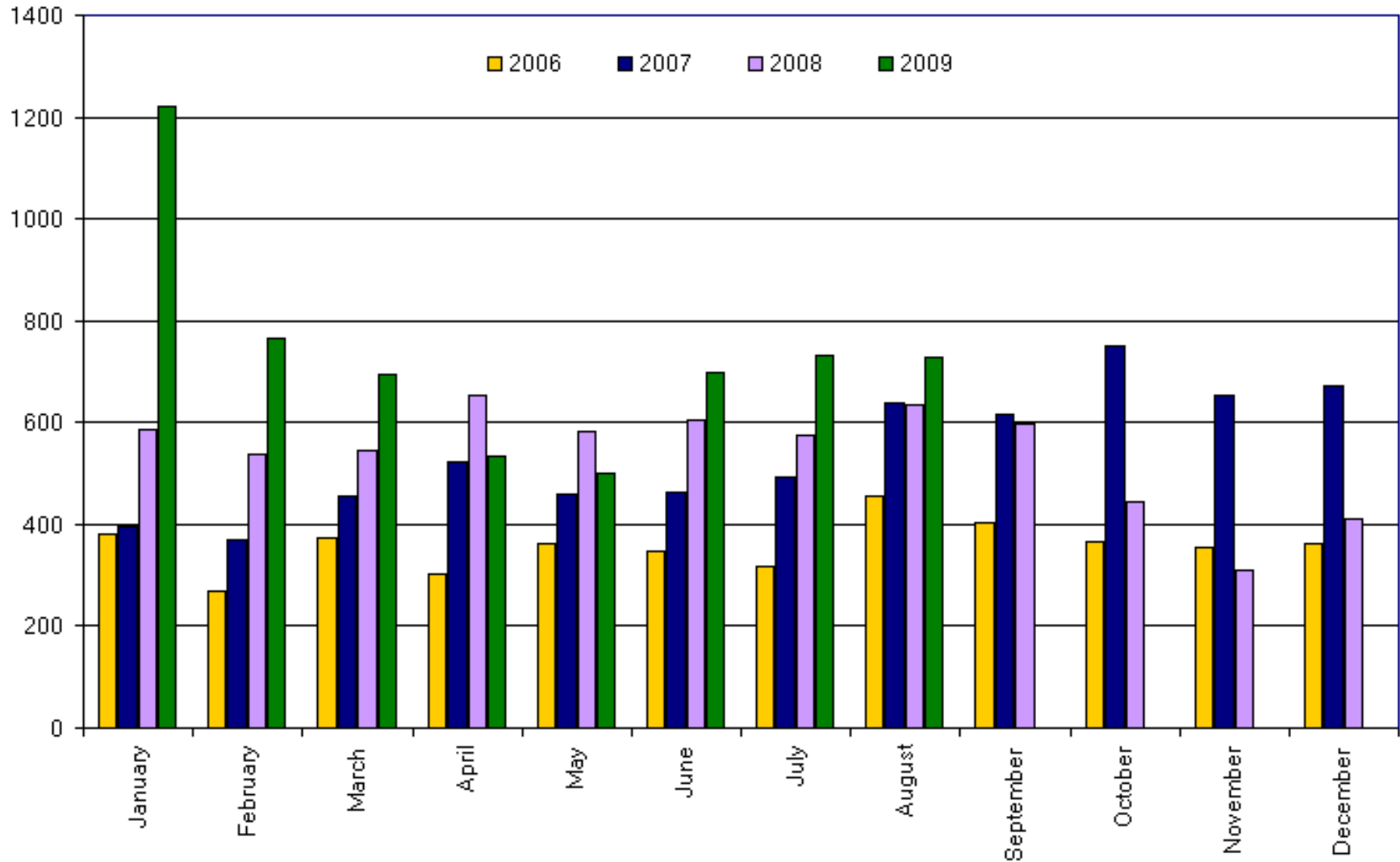
Cumulative PG&E Solar Interconnections

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





Total Monthly PG&E Solar Interconnections





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.