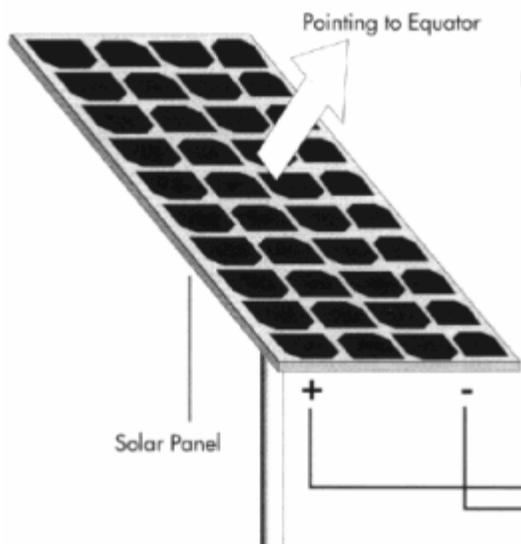


AB 2466

Renewable Energy Credits for Local Governments



Joint Utility (PG&E, SCE and SDG&E)
Presentation by Thomas Diaz

January 8, 2009

AB 2466 Background



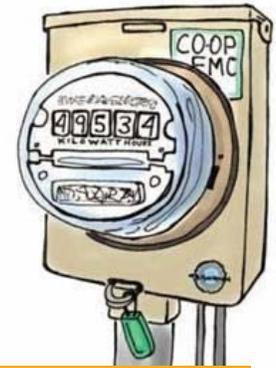
- ◆ **Assembly Bill 2466** – Introduced in Feb. 21, 2008 as the Local Govt. Renewable Energy Self-Generation Program.
- ◆ Signed into law by the Governor on September 28, 2008 and codified as Section 2830 of the Public Utilities Code. [http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_2451-2500/ab_2466_bill_20080928_chaptered.html]
- ◆ AB 2466 requires an investor owned utility (IOU) to file a tariff within 30 days of an eligible customer requesting service as provided under AB 2466. [rephrased per: PU Code 2830(f)]
- ◆ The CPUC must then approve or modify tariff within 30 days. [rephrased per: PU Code 2830(f)]
- ◆ The IOU is no longer required to participate once the statewide capacity of 250 MW is reached or until the IOU reaches its proportionate share of the 250 MW. [rephrased per: PU Code 2830(h)]
- ◆ The new law becomes effective January 1, 2009.

What does AB 2466 do?



Allows an eligible customer to apply excess renewable power produced from a customer account (“**Generating Account**”) [defined term per: PU Code 2830(a)(4)] as energy credits against charges for power delivered to one or more of its other accounts (“**Benefitting Accounts**”) [defined term per: PU Code 2830(a)(1)] . [topic rephrased from definition of “bill credit” in 2830(a)(2)]

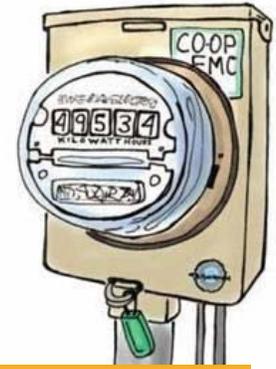
AB 2466 applies to Local Governments



- ◆ **AB 2466 applies to local governments such as:**
 - Cities or counties,
 - Special districts,
 - School districts,
 - Political subdivisions, or
 - Other local public agencies, if authorized by law to generate electricity
 - [Rephrased from PU Code 2830(a)(5), definition of “Local Government”]

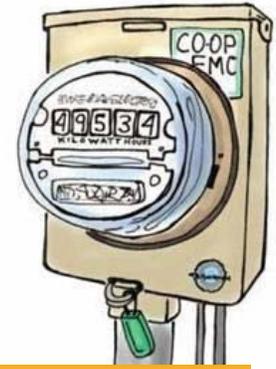
- ◆ **AB 2466 does not include within the local government definition:**
 - The State of California,
 - Any agency or department of the State, or
 - A joint powers authority
 - [Rephrased from PU Code 2830(a)(5), definition of “Local Government”]

What type of power is eligible under AB 2466?



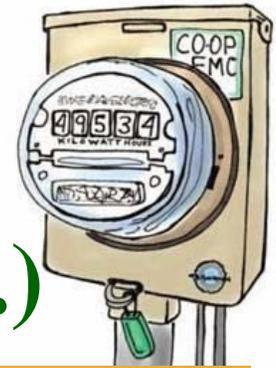
1. The net power delivered to the grid from a generating facility consisting of generators whose nameplate ratings do not collectively exceed 1 MW. [based on PU Code 2830(a)(3)]
2. The generating facility is located within the geographical boundary of, and is owned, operated, or on property under the control of, the customer. [per: PU Code 2830(b)(3)]
3. The generating facility is sized to offset all or part of the electrical load of the Benefiting Account(s). [based on PU Code 2830(a)(3)]
4. The generating facility is an eligible renewable resource under the Renewables Portfolio Standard Program (i.e. PU Code §§ 399.11) [based on definition in PU Code 2830(a)(3)]
 - a. The facility uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current [based on PU Code 399.12(b) which refers to Public Resources Code Section 25741(b)(1)]
 - b. The facility (or incremental generation) commenced operation after January 1, 2005. * [misquoted and not applicable to AB 2466 but was originally based on Public Resources Code Section 25741(b)(2)(C)]

How are the energy credits calculated and applied?



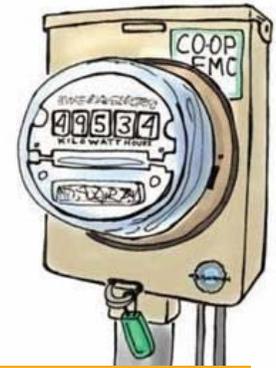
1. Both the Generating Account and Benefiting Account(s) must be on a Time-of-Use (TOU) rate. [based on PU Code 2830(a)(4), (b)(2) & (b)(4)]
2. Customer usage and excess generation at the Generating Account are metered separately. [based on PU Code 2830(a)(4) and (b)(4)]
3. Energy credits (known as “**Bill credits**”) are calculated by multiplying the Utility’s TOU generation usage component of the Generating Account by the amount of energy exported to the grid during the corresponding time period. [defined in and based on PU Code 2830(a)(2)]
4. The customer selects one or more of its accounts (known as a “**Benefiting Account(s)**”) to which the Bill credits will be applied. [defined in and based on PU Code 2830(a)(1)]
5. The Bill credits are used to offset the TOU generation component costs of the Generating Account and the Benefiting Account(s). [based on PU Code 2830(a)(3) and (c)(2)]

How are the energy credits calculated and applied? (cont.)



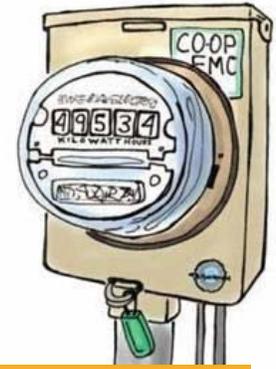
5. Remaining Bill Credits are carried over to the following month. [per on PU Code 2830(c)(4)]
6. A 12-month period is established whereby at the end of 12 months, any unused Bill Credits are set to zero and a new 12-month period begins. [based on PU Code 2830(a)(5)]
7. A customer may elect to change the Benefiting Account(s) entitled to receive Bill Credits within a 12-month period with at least 60 days notice to Utility. [based on PU Code 2830(e)]

Miscellaneous Tariff Provisions



1. Bill credits apply only to generation usage components of the Benefiting Account(s). [based on PU Code 2830(c)(2)]
2. Both the Benefiting Account and Generating Account must be located within the geographical boundaries of the customer of the serving Utility. [based on PU Code 2830(a)(1) and (a)(2)]
3. Bill Credits will first be applied to the Generating Account which is included as a Benefiting Account. [not in statute]
4. Sufficient metering must be in place to identify eligible net generation delivered into grid. [based on PU Code 2830(a)(2), (b)(4)]
5. Costs associated with the metering requirements for both types of accounts are the responsibility of the customer. [rephrased based on PU Code 2830(b)(5)]

Miscellaneous Tariff Provisions (cont.)



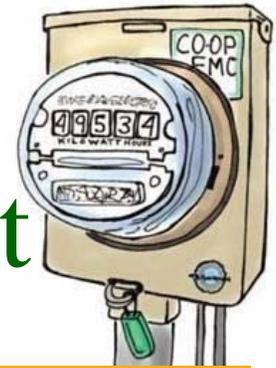
6. A customer may terminate service under this program by providing the Utility a minimum of 60 days' notice. [based on PU Code 2830(g)]
7. Generating Account must receive Bundled Service. [not in statute]
8. Benefiting Account(s) must receive Bundled Service. [not in statute]
9. A Generating Account under AB 2466 would not be eligible to participate on Net Energy Metering (NEM) [not in statute]
10. The CPUC is required to ensure that the costs to transfer the Bill credit to a Benefiting account does not result in a shifting of costs to bundled service customers. [based on PU Code 2830(d)]

Miscellaneous Tariff Provisions (cont.)

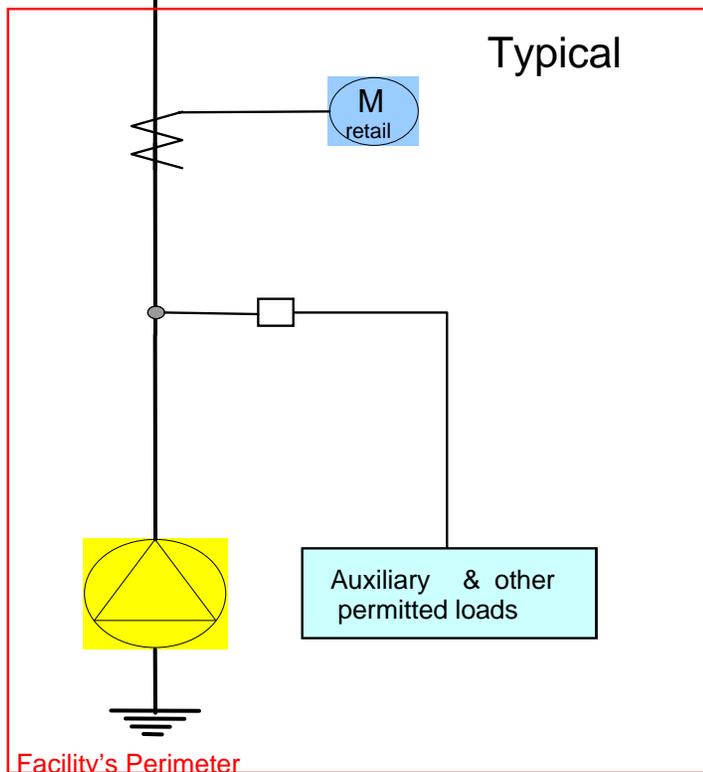


11. A local government shall provide the Utility to which the eligible renewable generating facility will be interconnected with not less than 60 days' notice prior to the eligible renewable generating facility becoming operational. [based on PU Code 2830(e)]

Typical Generating Account



Utility Grid



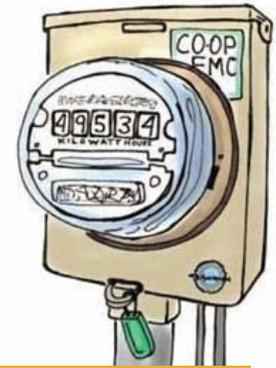
Customer Retail Bill

Based on customer's usage metered at M_{retail} [based on PU Code 2830(a)(4) and (c)(1)]

Customer Bill Credits

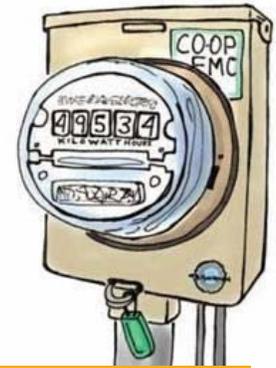
Based on net power (kWh) to the grid times TOU generation component of the usage charge of the Generating Account [based on PU₁ Code 2830(a)(2) and (c)(2)]

Costs



- ◆ The customer is responsible for all interconnection costs [based on PU Code 2830(b)(6)]
- ◆ If the customer does not have the metering necessary to bill on this tariff, it is responsible for all meter related costs [based on PU Code 2830(b)(5)]
- ◆ Billing - The transfer of a Bill Credit to Benefiting Accounts should not result in a shifting of costs to bundled service customers. [based on PU Code 2830(d)] The costs associated with the transfer of a Bill Credit shall include all billing-related expenses:
 - a. Implementation Cost Recovery Mechanism - memorandum account or direct charge to participating customers?
 - b. Ongoing incremental monthly crediting – monthly customer charge? [interpretation based on cost shift language in PU Code 2830(d)]

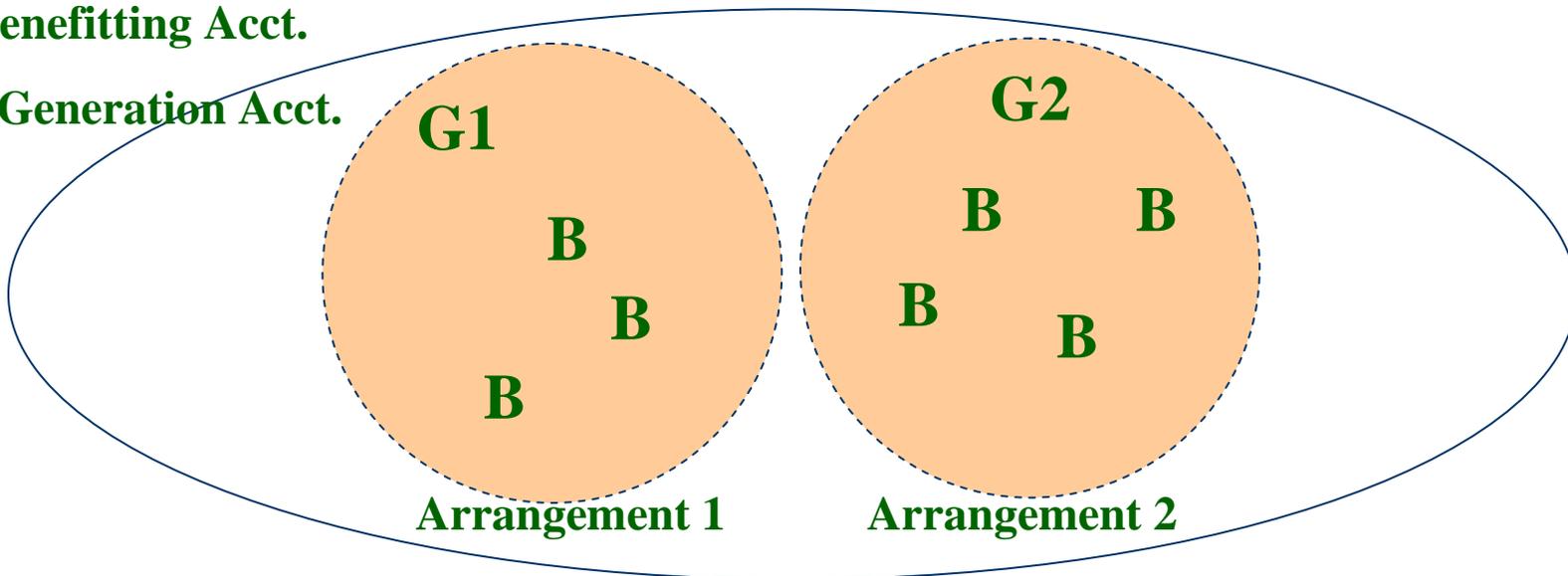
Local Government Arrangements



All of a Local Government Accounts

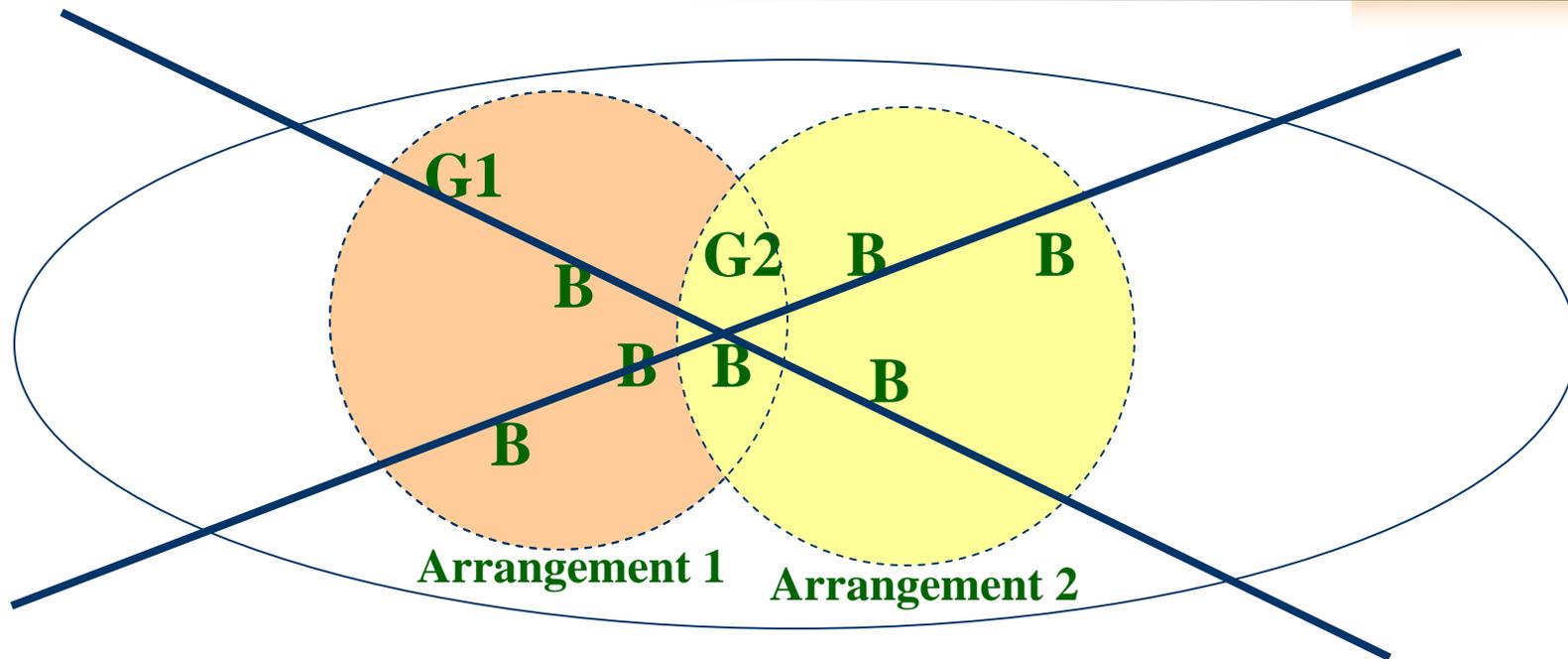
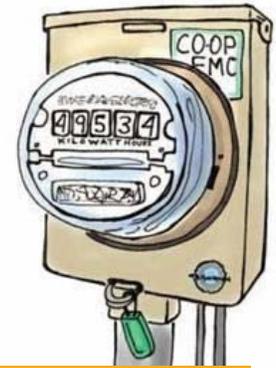
B = Benefitting Acct.

G# = Generation Acct.



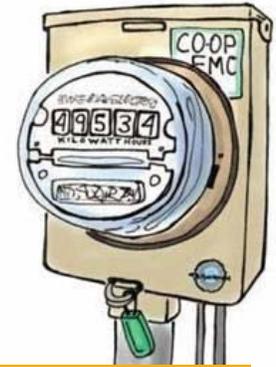
- ◆ A customer can have more than one “Arrangement.” [not in statute]
- ◆ The 1 MW generation limit applies to G1 and G2 independently. [interpretation based on PU Code 2830(a)(3)]

Arrangements (continued)



Benefitting Accounts and Generator Accounts cannot be shared between different Arrangements. [not in statute]

Credit Process



- ◆ The "Bill Credit" is based on the TOU generation component usage charge of the Generating Account, multiplied by the net kWh generation exported to the grid during the corresponding time period. [based on PU Code 2830(a)(2)]
- ◆ The Bill Credit is subtracted from the Benefitting Account's generation component usage charge. [based on PU Code 2830(c)(2)]
- ◆ If, during the billing cycle, the Bill Credit exceeds the generation component usage charges, **the difference shall be carried forward as a Bill Credit** to the next billing cycle. [based on PU Code 2830(c)(4)]
- ◆ Following “the last billing cycle of a 12-month period, **any remaining credit resulting from the application of [AB 2466] shall be reset to zero.**” P.U. Code § 2830 (c)(5). [based on PU Code 2830(c)(5)]

Note: The legislation states the monthly credit is valued at the otherwise-applicable tariff for the generating account, but does not require it to be applied to any benefiting account usage on a TOU basis - just on a dollar basis. [based on PU Code 2830(a)(2) and (c)(2)]

Bill Credits vs NEM Credits



Statutory treatment of the Bill Credits under P.U. Code § 2830 differs from NEM credits under P.U. Code § 2827

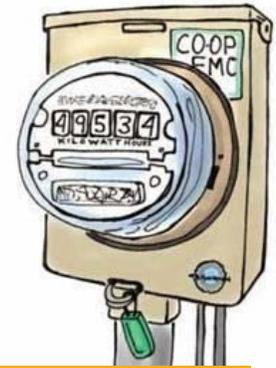
- ◆ AB 2466 - Section 2830(c)(5) states:

After the electricity usage charge ... are determined for the last billing cycle of a 12-month period, any remaining credit resulting from the application of this section shall be reset to zero.

- ◆ NEM - Section 2827(h) for residential and small commercial generators states:

The net energy metering calculation shall be made by measuring the difference between the electricity supplied to the eligible customer-generator and the electricity generated by the eligible customer-generator and fed back to the electric grid over a 12-month period.

Bill Credits vs NEM Credits (continued)



- ◆ NEM - Section 2827(i)(3) for large commercial generators states:

In any months in which the eligible customer-generator has been a net consumer of electricity ... the customer-generator shall owe to the electric service provider the balance of electricity costs and credits during that billing period. In any billing period in which the eligible customer-generator has been a net producer of electricity calculated on the basis of value determined pursuant to paragraph (2), the electric service provider shall owe to the eligible customer-generator the balance of electricity costs and credits during that billing period. Any net credit to the eligible customer-generator of electricity costs may be carried forward to subsequent billing periods, provided that an electric service provider may choose to carry the credit over as a kilowatt hour credit consistent with the provisions of any applicable tariff, including any differences attributable to the time of generation of the electricity. At the end of each 12-month period, the electric service provider may reduce any net credit due to the eligible customer-generator to zero.

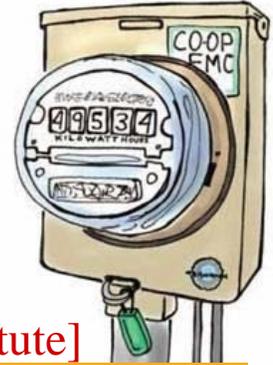
True-up with Carry Forward Credits

[example based on PU Code 2830(c) billing description]



summer start														
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12		
e charge	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125		
credit	\$ 150	\$ 140	\$ 130	\$ 120	\$ 110	\$ 100	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150		
net	\$ (25)	\$ (15)	\$ (5)	\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5	\$ (5)	\$ (15)	\$ (25)		
e payment							\$ 25	\$ 15	\$ 5				\$45	paid
xs credit	\$ 25	\$ 15	\$ 5							\$ 5	\$ 15	\$ 25	\$45	credit lost
spring start														
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12		
e charge	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125		
credit	\$ 130	\$ 140	\$ 150	\$ 150	\$ 140	\$ 130	\$ 120	\$ 110	\$ 100	\$ 100	\$ 110	\$ 120		
net	\$ (5)	\$ (15)	\$ (25)	\$ (25)	\$ (15)	\$ (5)	\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5		
e payment							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	paid
xs credit	\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5							\$ -	credit lost
fall start														
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12		
e charge	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125	\$ 125		
credit	\$ 120	\$ 110	\$ 100	\$ 100	\$ 110	\$ 120	\$ 130	\$ 140	\$ 150	\$ 150	\$ 140	\$ 130		
net	\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5	\$ (5)	\$ (15)	\$ (25)	\$ (25)	\$ (15)	\$ (5)		
e payment	\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5							\$90	paid
xs credit							\$ 5	\$ 15	\$ 25	\$ 25	\$ 15	\$ 5	\$90	credit lost

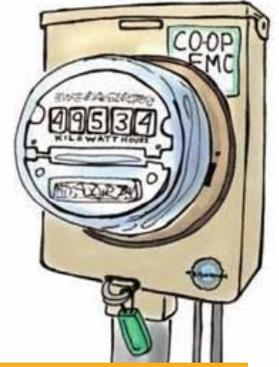
Relevant Period – How it applies to Benefiting Accts if there are different billing cycles [not described in statute]



	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Gen Acct		◆													◆
Ben Acct #1			◆												◆
Ben Acct #2			◆												◆

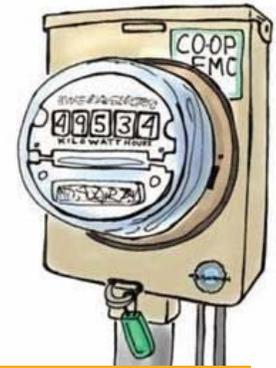
The Generator Account has to reach the end of its reconciliation period before all the Benefiting Accounts in order to be able to allocate credits going forward.

Allocation of credits



- ◆ At the time of interconnection, the Utility will ask the customer to designate the Benefiting Accounts. [based on PU Code 2830(b)(1)]
- ◆ The Utility will allocate any Bill Credits, first to the Generating Account(s) and then to the other Benefiting Accounts. [not in statute]

Challenges

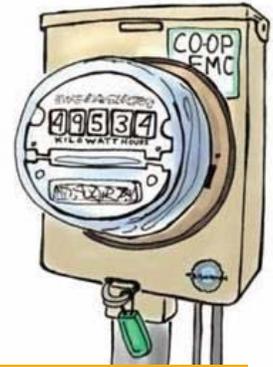


AB2466 states, 2830(a)(3) “ ‘Eligible renewable generating facility’ means a generation facility that has a generating capacity of no more than one megawatt, is an eligible renewable energy resource pursuant to the California Renewables Portfolio Standard Program,...” (emphasis added)

Referring to the California Energy Commission "Renewables Portfolio Standard Eligibility Commission Guidebook". The third edition

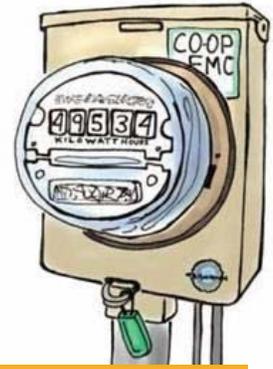
To qualify as RPS-eligible, the facility must not receive (or have received or be planning to receive) benefits from the CPUC-approved Self Generation Incentive Program or California Solar Initiative, the Energy Commission’s Emerging Renewables Program, New Solar Homes Partnership, or Pilot Performance Based Incentive Program, or any other similar ratepayer-funded program. Similarly, the facility must not receive or plan to receive benefit from net metering programs or net metering tariffs approved by the CPUC or any POU. If the facility is currently receiving benefits through net metering, it may apply for pre-certification and subsequently apply for certification once it has exited any net metering agreements.

Challenges (continued...)



- ◆ This qualification requirement is going to restrict the eligibility of some types of generating technologies. PG&E worked with the CEC to change this handbook language for AB1969 (Feed-in tariffs) and PG&E believes the same can occur here. **[interpretation]**
- ◆ The CEC guidebook also states that to be eligible the “[generating] facility must not receive or plan to receive any benefit from net energy metering programs.” PG&E prefers to interconnect under the CPUC’s Rule 21 process. However, to be exempt from the FERC’s interconnection jurisdiction if it exports, the generation facility must be interconnected either on net energy metering, or as a QF selling to the utility as a QF. If the utility calls this program “net energy metering” for the purposes of interconnection, the generating facility does not qualify according to the CEC guidebook. **[interpretation]**

Challenges (continued...)



- ◆ Additionally, SB1 requires the generator to be sized to on-site load in order to receive SGIP or CSI funding. A generating facility under AB2466 will likely be sized to meet the on-site load, as well as that of the benefitting accounts. Will incentives be allowed for full generation rating, be limited to that portion of the generation that “covers” on-site load, or not allowed at all? [based on CA Senate Bill 1 signed 8/21/2006 and CPUC Decision 06-01-204]
- ◆ **Is it possible for the CPUC to can create an exemption to the CEC guidebook for this program by issuing a ruling? Or must the CEC revise the RPS guidebook by creating an exemption for this program, in order to expeditiously address this apparent contradiction?**