Net Energy Billing

How NEB Works

Net energy billing is a means of encouraging the use of small-scale renewable generation facilities designed primarily to serve a customer's or group of customers' own needs. It is a metering and billing practice in which a customer is billed on the basis of "net energy" over a billing period. Net energy is the difference between the kilowatt-hours (kWhs) a customer consumes and the kWhs produced by the customer's generating facility. Therefore, under net-energy billing, a customer's own generation is used to offset the customer's prior or future energy usage, as if the meter runs backwards whenever the customer's facility is generating more than the customer is consuming.[1]

NEB Programs In Other States

Net energy billing programs are common incentive mechanisms among states. As the attached map indicates, forty-three states have NEB programs, with varied specific qualification details. The eligibility limit varies greatly among the states. The other New England states have a generating facility qualification limit of 1MW or greater as part of their NEB programs. Other states have qualification limits of 100 kW or less.

Maine's NEB Program

Under the current Commission NEB rules (Chapter 313), a customer, or group of customers, of a T&D utility may elect net energy billing if the customer generates electricity through a renewable fuel or technology (as defined by Maine statute) or a small combined heat and power system. Eligible facilities located in the service territory of investor-owned T&D utilities must have an installed capacity of 660kW or less and those in consumer-owned T&D utility territories must have 100kW or less (unless the consumer-owned T&D utility elects to allow facilities with an installed capacity of up to 660 kW).

An eligible facility must be used primarily to offset part, or all, of the customer's own electricity requirement. Customers receive kWh credits that can be used to offset the full retail cost of electricity. The rule allows for the offset of all usage (kWh) charges, both T&D and generation charges, but requires the customer to pay any

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[1] The requirement for net energy billing was originally established by Commission rule in the early 1980s and was significantly modified in 1998 to adapt the rule to industry restructuring (which required electric utilities to divest their generation assets and prohibited them from providing retail electricity service). During its 2011 session, the Legislature explicitly authorized the Commission to adopt rules governing NEB. 35-A M.R.S. § 3209-A.

non-usage charges (i.e. customer charges, minimum bills or demand charges). Any generation credits in excess of the customer's usage expire after a 12-month period. The current rule is major substantive and its adoption was authorized by the Legislature during the 2009 session. Resolves 2009, ch. 20.[2] In addition to individually owned generating facilities, the rule now allows for eligible facilities that have multiple owners to qualify for the NEB program.

Costs and Benefits

Net energy billing is consistent with State policies that favor the promotion and development of renewable, diverse and indigenous electricity supply resources. However, net energy billing is essentially a transfer payment, or subsidy, that supports the development and use of small renewable systems through funds from the utility's general body of ratepayers. This is because net energy billing customers receive the value of the total retail cost of electricity (retail power, transmission, distribution and stranded costs) of approximately 13 cents/kWh for a wholesale electricity product that has a market value of around 5 cents/kWh. NEB customers do not pay for the full cost of using the T&D system to which they are interconnected when they obtain sufficient kWh credits for their generation.

By promoting the installation of distributed generation, NEB may have some ratepayer cost reduction benefit by increasing generation supply and deferring the need for distribution upgrades. Such cost reductions are likely to be small and very dependent on the particular location of the generating facility.

NEB facilities in Maine are for the most part solar and wind. Based on 2012 annual reports from the utilities – the following provides by utility the number of NEB customers and the approximate revenue loss:

Utility	Number of NEB Customers	Approximate Revenue Loss
CMP	1,007	$425,000
BHE	196	$65,500
MPS	67	$47,000

Recognizing the subsidy inherent with net energy billing, the Commission's NEB rules contain a requirement that net energy billing programs be reviewed if the cumulative capacity of net energy billing facilities within a utility's service territory reaches 1% of the utility's peak demand. This provision

[2] In its Order Adopting Provisional Rule, Docket No. 2008-00410 (Jan. 8, 2009), the Commission proposed that the eligibility limit be raised from 100 kilowatts to 500 kilowatts. The Legislature directed that the provisional rule be modified to increase the eligibility limit to 660 kilowatts for investor-owned utility service territories.

was included in response to concerns that the cost of NEB (in terms of utility revenue loss) could become significant over time.

Issues

- Proximity requirement
- Ownership requirement

- Current rate design case with CMP may implicate the economics of NEB

Related Bills

LD 795 – An Act to Amend the NEB Program to Allow Participation by Certain Municipal Entities (Concept Draft)

- Would allow a municipal or quasi-municipal entity with a renewable energy facility that generates no more than 800 kilowatts to participate in the program

- Increasing the eligibility limit for municipal and quasi-municipal entities appears consistent with State policies in favor of small renewable resource development, but could result in some incremental revenue losses that would ultimately be paid for by ratepayers (precise amount would be difficult to predict, but is likely to be small relative to the utilities total annual revenue)

LD 1146 – An Act to Encourage the Use of Renewable Energy

- Would increase the capacity limit of eligible facilities from 660 kW to 2 MW (increase would result in some incremental revenue losses that would ultimately be paid for by ratepayers)

- The cost of NEB has been relatively modest

- Would eliminate the requirement that unused NEB credits expire after a 12-month period and allow such excess credits to be sold to unrelated third parties who could then offset their utility bills with the credits – this would greatly expand NEB to include facilities intentionally sized above a customer's own needs so that the facility owner perpetually obtains excess kWh credits that it can sell to entities unrelated to the generating facility. Such entities would then be able to use those credits to lower their utility bills resulting in a further loss of revenue that will ultimately be paid for by the general body of ratepayers.

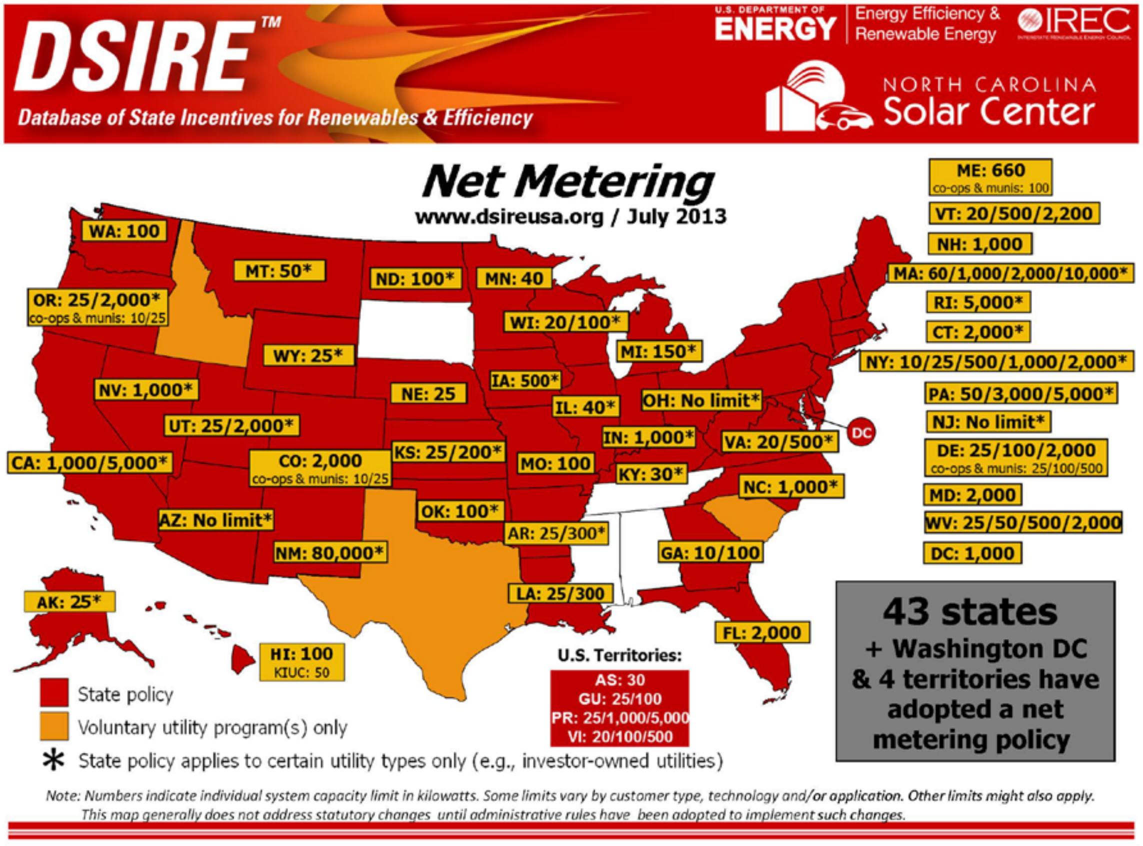
- Would remove any limit on the number of customer meters that may be net billed against an eligible generating facility. The current limit is ten meters and was established to limit the administrative costs to utilities in implementing the NEB program.

<u>LD 1403</u> - <u>Resolve, To Require the PUC to Amend Its Rules Regarding NEB</u>

- Would increase the capacity limit of eligible facilities from 660 kW to 1 MW

- Would remove the requirement that the NEB customers have an ownership or legal interest in the eligible generating facility

- A third party owner of an eligible facility can provide electricity to NEB customers without being a CEP (NEB has been a means to promote the installation of small renewable facilities to serve customers own electricity needs. The removal of an ownership or legal interest requirement would fundamentally change the nature of NEB and substantially expand the eligibility of the program and the resulting ratepayer costs beyond facilities developed to serve customers' own needs to include what are now considered retail arrangements)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Database of State Incentives for Renewables & Efficiency
U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy
IREC
NORTH CAROLINA Solar Center
Net Metering
www.dsireusa.org / July 2013
WA: 100
OR: 25/2,000*
co-ops & munis: 10/25
MT: 50*
ND: 100*
MN: 40
WI: 20/100*
MI: 150*
WY: 25*
NV: 1,000*
NE: 25
IA: 500*
IL: 40*
OH: No limit*
UT: 25/2,000*
CA: 1,000/5,000*
CO: 2,000
co-ops & munis: 10/25
KS: 25/200*
MO: 100
IN: 1,000*
VA: 20/500*
KY: 30*
NC: 1,000*
AZ: No limit*
OK: 100*
AR: 25/300*
NM: 80,000*
GA: 10/100
LA: 25/300
FL: 2,000
AK: 25*
HI: 100
KIUC: 50
DC
ME: 660
co-ops & munis: 100
VT: 20/500/2,200
NH: 1,000
MA: 60/1,000/2,000/10,000*
RI: 5,000*
CT: 2,000*
NY: 10/25/500/1,000/2,000*
PA: 50/3,000/5,000*
NJ: No limit*
DE: 25/100/2,000
co-ops & munis: 25/100/500
MD: 2,000
WV: 25/50/500/2,000
DC: 1,000
U.S. Territories:
AS: 30
GU: 25/100
PR: 25/1,000/5,000
VI: 20/100/500
43 states
+ Washington DC
& 4 territories have
adopted a net
metering policy
State policy
Voluntary utility program(s) only
* State policy applies to certain utility types only (e.g., investor-owned utilities)
Note: Numbers indicate individual system capacity limit in kilowatts. Some limits vary by customer type, technology and/or application. Other limits might also apply.
This map generally does not address statutory changes until administrative rules have been adopted to implement such changes.