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# **New York State Net Metering Legislative Changes**

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*NYS Department of Public Service*

*September 2009*

# *What is net metering?*

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- ❑ **Customer operates onsite electric generator displacing load (service) that would otherwise be delivered by local utility.**
  - Customer avoids paying utility full std tariff per kWh delivery and supply charges for all onsite kWh loads displaced by the onsite generator.
  - The credits received by customers avoiding tariff volumetric delivery charges, however, are not offset by concomitant utility avoidance of delivery service costs; consequently, other electric customers are responsible for uncollected delivery service charges.
  
- ❑ **When onsite electricity produced (kWh) exceeds onsite load**
  - Renewable technologies generally incapable of following customer onsite loads, result in the real time onsite production of excess energy that feeds back through utility grid, effectively displacing other proximate customer electric loads.
    - Reduces utility's need to procure energy to serve other customers.
    - Such excess generation delivered offsite has a value equivalent to the retail market price of supply otherwise procured by the utility to serve other customer loads.
  
- ❑ **When onsite generator capacity (kW) exceeds the customer's peak load**
  - Production of more energy than can be consumed onsite, in real time, is a given.
  - Overproduction of energy in real time imposes additional demands on the capacity (kW) of both the customer's existing interconnection and potentially the utility's underlying local distribution system.
    - *This is **much less of concern** if the onsite capacity installed is matched to the customer's peak demand.*

# ***NYS Net Metering Background***

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- ❑ **1997** – Initial net metering for small (10 kW) residential solar (PV) generators
- ❑ **2002** – added anaerobic digester (farm waste) electric generators up to 400 kW.
- ❑ **2004** - added wind generators up to 25 kW for residential and 125 kW for residential/farm customers.
- ❑ **2008** – increased residential solar to 25kW, added nonresidential solar and wind up to the lesser of 2 MW or customer's recent historic peak billing demand, and increased farm waste digesters and residential/farm wind generators to 500 kW.
- ❑ **2009** – added residential micro-turbine CHP and fuel cell installations up to 10 kW; implementing tariffs pending.

# *2008 Net Metering Changes*

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- ❑ **Expanded to include commercial solar and wind**
  - Solar - the lesser of most recent 12-month peak load or 2 MW
  - Wind - the lesser of most recent 12-month peak load or 2 MW
  - Net demand charges assessed (as-used) per billing period (no ratchets)
  
- ❑ **Residential PV installations increased from 10kW to 25kW**
  
- ❑ **Residential farm wind installations increased from 125 kW to 500 kW**
  
- ❑ **Farm anaerobic digester installations increased from 400 to 500kW**
  - Waste percentage of fuel burned reduced from 75% to 50%
  
- ❑ **Installed system wide capacity allowance increased**
  - Solar & anaerobic – up from 0.1% of 1996 to 1.0% of 2005 utility system peak (~ 300 MW statewide);
  - Wind – 0.3% of 2005 utility system peak

# *2008 Net Metering Changes (continued)*

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## □ What's Next?

- **Implementation problems with 2008 changes.**
  - Size limitations for small non-demand metered and larger demand metered commercial customers.
  - Objections voiced regarding individual installed capacity limit linked to customer's recent historic peak billing demand.
  - Because renewable technologies (solar & wind) tend to produce less energy per kW installed, capping customer installation sizes at historic peak billing demands limits the amount of customer's energy requirements displaced by the installation.
- **Legislative proposals that simply remove the net metering size (kW) restrictions up to 2 MW for all nonresidential installations have been developed.**
- **Relaxing or lifting current installed capacity cap introduces other concerns, which also need to be addressed in proposed legislation.**
  - Interconnection requirements and costs
  - Entitlements to full retail (delivery+supply) rate credits

# *Current Net Metering Provisions*

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- Residential Solar, Wind, Micro-Turbine CHP, Fuel Cells
  - Solar & Wind – up to 25 kW;
    - *Maximum interconnection charges \$350-solar, \$750-wind;*
    - *Energy (kWh) produced within billing period displace billable kWh of utility service, excess kWh produced carried forward as kWh credit in subsequent billing periods.*
    - *Following 12 consecutive billing periods, any residual excess kWh cashed out and credited to customer at utility's avoided retail per kWh supply cost.*
  - (New) MTCHP & Fuel Cells – up to 10 kW;
    - *\$350 maximum interconnection charge;*
    - *Energy (kWh) produced within billing period displace billable kWh of utility service, excess kWh produced in billing period converted to \$\$ credit at utility's avoided retail supply (per kWh) cost and credited or applied against residual utility bill charges for that billing period.*

# *Current Net Metering Provisions (continued)*

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## □ Farm Anaerobic Digester & Wind

- Up to 500 kW;
- \$5,000 maximum interconnection charge, unless generator capacity exceeds 20% of the utility's local feeder capacity (kW); utility may require customer to comply with reasonable measures to ensure safety of local feeder line.
- Energy (kWh) produced within billing period displace billable kWh of utility service, excess kWh converted to \$\$ credit at full tariff (delivery+supply) per kWh tariff rate and credited against other residual components customer's current utility bill (i.e. demand and customer charges). Unclaimed \$\$ credits re-converted to kWh and carried forward as kWh credits in subsequent billing periods.
- Following twelve consecutive billing periods (1-year), residual excess kWh credits cashed out at utility's avoided retail supply cost.

# *Current Net Metering Provisions (continued)*

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## □ Nonresidential Solar & Wind

- The lesser of 2 MW or the customer's peak demand within past twelve most recent billing periods.
- Interconnection cost "to be determined by department pursuant to standards established thereby." \* If installed kW exceeds 20% of the utility's local feeder capacity (kW), utility may require customer to comply with reasonable measures to ensure safety of local feeder line.
  - **Wind** generators with rated capacity >25 kW responsible for one-half the cost of interconnection (only for wind generators in current Statute)
- Energy (kWh) produced within billing period displace billable kWh of utility service, excess kWh converted to \$\$ credit at full tariff (delivery+supply) per kWh rate and credited against other residual components of current utility bill (i.e. demand and customer charges). Unclaimed \$\$ credits re-converted to kWh and carried forward as kWh credits in subsequent billing periods. (*same as Farm waste generators*)
- Unclaimed kWh carried forward in perpetuity; No cash outs.

\* Current SIR specifies \$5,000 cap based on kW installations no larger than customer's historic peak billing demand.

# *Proposed Net Metering Changes*

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- ❑ Address new installed capacity limits for nonresidential demand and non-demand metered customers.
  - Reasonable and appropriate interconnection provisions needed to address additional costs imposed by potentially larger capacity (kW) installations.
  - Modify billing and administrative provisions in response to increased potential to generate excess energy (kWh) relative to onsite kWh loads.
- ❑ Consider making changes to streamline and standardize existing net metering billing and interconnection rules among the various qualifying technologies.
  - Current statute represents an evolution of provisions over the past 12 years that are now overlapping, confusing, and in some cases conflicting.

# *Proposed Net Metering Changes (continued)*

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## □ Specific Recommendations:

- **Residential** – update current maximum interconnection charge for solar, micro turbine CHP and fuel cells to be consistent with current residential provision for wind generators. **No other changes for residential installations suggested at this time.**
  - Current \$350 maximum has been in place since the inception of net metering in 1997.
- **Farm** –**No changes for Farm installations suggested at this time.**

# *Proposed Net Metering Changes (continued)*

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## □ Specific Recommendations (continued):

### ▪ **Nonresidential**

- Up to 25 kW installations permitted under the same rules and provisions currently in effect for residential service, as revised above.
- Demand-metered customers installing capacity greater than 25 kW shall be responsible for any incremental interconnection costs incurred by the electric corporation in order to electrically accommodate and safely operate the generator in parallel with its local distribution system. Such costs will be determined on a case-by-case basis by the electric corporation, with disputes resolved by the department of public service.
- For solar and wind installations exceeding 25 kW, the customer shall receive full retail delivery service per kWh credits for energy (kWh) produced up to the level of the customer's billable kWh during twelve consecutive billing periods (1-year). All excess energy (kWh) produced by generator shall be credited at the utility's avoided per kWh retail supply cost.
- All net metering kWh delivery service credits and charges shall be completely reconciled and zeroed-out at the end of twelve consecutive billing periods, with no residual kWh delivery service credits carried forward from year to year.

# *Contact Information*

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