

CONNECTING TO THE GRID

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The *Connecting to the Grid* newsletter is published electronically every month by the Interstate Renewable Energy Council (IREC) and the North Carolina Solar Center at North Carolina State University. This is a free publication. Click [here](#) to subscribe.

FORMAT

While customer-sited net metering and interconnection policies and regulations are primarily state issues, they are also becoming important on a regional basis. This newsletter has been designed to provide state-level policy updates and capture emerging regional trends. The state news is presented in geographic categories, primarily because the standard NERC and/or RTO/ISO regions do not always align with state boundaries. Please direct comments and questions about the newsletter to Laurel Varnado at lavarnad@ncsu.edu.

ACRONYMS

DG = Distributed Generation
EPA = Energy Policy Act of 2005
FERC = Federal Energy Regulatory Commission
GHG = Greenhouse Gas
IC = Interconnection
IOU = Investor Owned Utility
ISO = Independent System Operator
kVA = Kilovolt-ampere (essentially a kW)
NM = Net Metering
NEG = Net Excess Generation
NERC = North American Electric Reliability Corporation
PPA = Power Purchase Agreement
PSC = Public Service Commission
PUC = Public Utilities Commission
PURPA = Public Utilities Regulatory Policies Act
PV = Photovoltaic
REC = Renewable Energy Credit
RPS = Renewable Portfolio Standard
RTO = Regional Transmission Organization

WHAT'S NEW AS OF NOVEMBER 2009?

[Note from the Editor](#): Supermodels of Renewable Energy Policy

State News in Detail:

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Massachusetts DPU announced deployment of 5 MW of utility solar installations

New York DPS seeks to evaluate the permitting process for interconnecting generators

[Mid-Atlantic States](#)

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Maryland PSC will hold rule-making session on the state's RPS modifications

New Jersey BPU issues solicitation for grid-connected wind and biomass projects

[Midwestern States](#)

Michigan PSC launches renewable energy tracking system

Missouri PSC closes net metering docket

Wisconsin PSC holds technical conference on Advanced Renewables Tariff

[Southern States](#)

North Carolina Commission issues RFP for the development of a REC tracking system

South Carolina utilities file net metering tariffs with the PSC

[Western States](#)

California PUC releases report on CSI program

Colorado re-issues interconnection rules

Nevada PUC opens an investigation of Feed-in Tariffs

Oregon PUC issues draft rule for pilot solar feed-in tariff

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Alaska RCA approves net metering modifications

Hawaii Governor links with China for renewable energy partnership

[Miscellaneous News](#)

Solar Advocates Applaud PG&E Commitment to Expand Net Metering Program in California

DOE and NREL Announce Open PV Mapping Project

Super Hub Planned to Move Renewable Energy

[Conferences and Events](#)

QF = Qualifying Facility (under PURPA regulations)

**Note from the Editor:
Supermodels of Renewable Energy Policy**

As President Barack Obama declared October [National Energy Awareness Month](#), I thought it was fitting that IREC released several useful documents last month. These reports should be of special interest to the readers of *Connecting to the Grid* because all of them touch upon net metering and interconnection and include: [The Connecting to the Grid Guide, 6th Edition](#), [Net Metering](#) and [Interconnection Model Procedures](#), and the [2009 Updates and Trends Annual Report](#).

As many of you are aware, IREC strives to promote best practices in renewable energy policy. The net metering and interconnection models provide a detailed picture of what IREC considers best practices in these arenas. They provide a useful means for anyone interested in learning more about these tools, including policy makers, regulators, utilities, industry representatives and the general public. The following is a summary of some of the main provisions in each of the models:

Net metering

- No hard cap on system size, instead systems are limited to the service entrance capacity
- Indefinite rollover of net metering credits (this helps to prevent over-sizing of systems)
- No aggregate limit on participation in net metering programs
- No explicit prohibition of 3rd party ownership of net metered systems
- Customer retains Renewable Energy Credits associated with production.
- The aggregation of multiple meters is allowed on a customer-generator's property or contiguous properties (i.e. one system may off-set multiple meters, regardless of rate schedule).

Interconnection

- Four levels of technical review for interconnection applications: 1) facilities which are inverter-based, 25 kW and under, 2) facilities 2 MW and under, 3) non-exporting facilities up to 10 MW, and 4) all other facilities
- Incorporates standard form agreements, to ensure continuity
- Timelines are shorter than FERC's SGIP timelines.¹ They allow a reasonable time limit for utilities to work with customers in a timely fashion, to avoid unnecessarily prolonging the interconnection process.
- Reasonable application fees for each tier: (level 1: \$20 fee, level 2 and 3: \$50 plus \$1 per kW, level 4: \$100 plus \$1 per kW)
- Customers can submit applications online
- Interconnection to spot and area networks is allowed, so long as the facility uses a minimum import relay or other protective device to ensure that power imported from the utility to the network remains above one percent of the network's maximum load over the past year

If you have any questions or suggestions for future model revisions, please let us know.

Thanks to everyone who filled out our questionnaire last month. Certainly you, the readers of *Connecting to the Grid* are a great source of information so please feel free to continue sharing your questions, comments and news. Also, thanks for the great suggestions on content inclusion. As a result we have some new ideas for future stories that will be of interest to readers.

Regards,
Laurel Varnado

¹ There are several timelines to be met throughout the interconnection process including, determining whether screens have been met, time to execute an agreement, inspection of the facility, etc...



State News in Detail

NORTHEASTERN STATES

CONNECTICUT – *Status quo. No significant net metering/interconnection news.*

Background: On December 1, 2008 the Connecticut Department of Public Utility Control (DPUC) issued a letter directing The Connecticut Light and Power Company (CL&P) to resubmit tariffs in order to establish separate net energy billing service riders for Class I renewable projects and non-Class I projects. Class I renewable-energy resources include solar, wind, landfill gas, fuel cells, sustainable biomass, ocean-thermal power, wave or tidal power, low-emission advanced renewable-energy conversion technologies, and hydropower facilities up to two MW in capacity. Non-Class I Renewable projects include those up to 500 kW, and qualifying facilities up to 50 kW. The DPUC reviewed CL&P's tariff filing, found them to be in compliance, and approved them on January 6, 2009.

In August 2009, the Connecticut Department of Public Utility Control acknowledged receipt of a letter from Connecticut's two investor-owned utilities – Connecticut Light and Power Company (CL&P) and United Illuminating Company (UI) – in which they informed the DPUC that they intend to suspend the practice of tracking the insurance requirement for small generator interconnections of 10 kW or less.

MAINE – On November 3, the Maine Public Utilities Commission issued a rulemaking procedure and proposed rules for a Community-Based Renewable Energy Pilot Program. The proposed rules can be found on the [MPUC website](#), by searching under Case ID 2009363. This proceeding is a result of [L.D. 1075](#), passed in June 2009.

According to the act, community projects must be “locally owned electricity generating facilities,” which means that 51% or more of the facility must be owned by “qualifying local owners.” Once qualified as a community-based

renewable energy project, the facility has the option to elect one of two incentive mechanisms: 1) a long-term contract for the output of the facility with a transmission and distribution (T&D) utility; or 2) a renewable energy credit (REC) multiplier (in which the value of the REC is 150% of the amount of the produced electricity). The PUC is also authorized to incorporate energy from community-based renewable energy projects into the standard offer supply.

The act specifies a total installed capacity limit of 50 MW as well as a capacity limit of 10 MW for each individual qualifying project. It additionally requires that 10 MW of the total 50 MW limit be reserved at the outset of the program for systems less than 100 kW or qualified generation in the service territory of consumer-owned Transmission & Distribution utilities.

The proposal set a contract price for both solar and wind energy. The price may vary over the course of a year, but the average price, weighted on the expected output of the facility, may not exceed \$0.10/kWh for both solar and wind projects. The PUC will set prices for other types of generation systems at the request of a project generator. It is important to note that the proposed rule does not require small generators to sell capacity or RECs to the utility. The PUC is seeking comments on whether the rule should allow for utilities to obtain the value of capacity or RECs for ratepayers through some type of aggregation process when the program participant is not otherwise obtaining any value.

The PUC will hold a hearing on December 4, 2009, to discuss the matter further.

Background: In April 2008, Governor John Baldacci signed Resolve #183, L.D. 2149, which required the Maine Public Utilities Commission (PUC) to review and make recommendations about: increasing the size of generators eligible for net billing from 100 kW to 5 MW; the value of the credits, including separating out the energy-only value from the Transmission & Distribution value; developing statewide standards for the interconnection of distributed generation; distributing time-of-use meters to all consumers by October 1, 2010; and, authorizing utilities to charge time-of-use pricing. All of these proposals were due to the legislature by January 15, 2009.

In April 2009, Governor John Baldacci of Maine signed a significant reform bill ([LD 336](#)) on net billing to allow for shared ownership, an increase in eligible system size to 660 kW, and to expand the eligible technology to include micro-CHP with any technology and any fuel. The amendment also allows wind turbines and other facilities up to 660 kW to have shared ownership similar to those in Europe.

The relevant cases for net metering and interconnection can be found at the [MPUC website](#): 2008-186, 2008-196, and 2008-410.

MASSACHUSETTS –On October 26, the Department of Public Utilities (DPU) announced that it approved National Grid’s plans to construct and deploy approximately 5 MW of solar photovoltaic power at five utility-owned sites, marking the DPU’s second approval of utility company ownership and operation of solar installations under the Green Communities Act of 2008. The Green Communities Act gave utility companies the ability to own and operate solar installations which are recouped through ratepayer revenues. A utility is limited to owning up to 25 MW of solar generation facilities before January 1, 2009, and up to 50 MW after January 1, 2010. Refer to the Massachusetts DPU website for more information.

Background: In July 2008, Massachusetts enacted a comprehensive energy bill ([S.B. 2768](#), the Green Communities Act), that aimed to promote renewables and improve net metering. This legislation established three separate categories of net-metering facilities. "Class I" facilities are generally defined as systems up to 60 kW in capacity. "Class II" facilities are defined as systems greater than 60 kW and up to one megawatt (MW) in capacity that generate electricity from agricultural products, solar energy or wind energy. "Class III" facilities are defined as systems greater than 1 MW and up to 2 MW in capacity that generate electricity from agricultural products, solar energy or wind energy. Among other things, this act specifies that a customer-generator should be allowed to produce more energy than is needed on-site and allocate excess generation to other customers of the same distribution company.

On March 6, 2009, the DPU issued an [order](#) to initiate a rulemaking proceeding for net

metering, in compliance with the SB 2768. The DPU issued [proposed rules](#) for net metering and revised rules for [Qualifying Facilities/On Site Generating Facilities](#) and [Electric Industry Restructuring](#). Massachusetts utilities jointly filed a proposed model net metering tariff and subsequently a revised proposed net metering tariff, incorporating changes required by the Green Communities Act. In June, the DPU issued an [order](#) establishing new rules for net metering as a result of this rulemaking. The order specifies that all net metered systems, including neighborhood net metered systems, must be behind a customer meter. However, there needs to be only some minimal amount of load located on-site. Additionally, all net metered systems, including neighborhood net metered systems, may over-generate relative to on-site load. Regular net metered customers may either rollover credits in perpetuity, or allocate excess generation credits to other customers of the same distribution utility.

In August 2009, the Massachusetts Department of Public Utilities [adopted](#) the slightly modified [model net metering tariff](#) and [model interconnection tariff](#). For more information please refer to docket 08-75 on the DPU [website](#).

NEW HAMPSHIRE – *Status quo. No significant net metering/interconnection news.*

Background: In November 2008, the PUC opened a net metering docket ([DRM 08-148](#)). The Commission adopted existing rules as interim rules while they consider changes. On April 22, 2009 the PUC Staff issued a [draft proposal](#) for a net metering rule revision. A [proposed rule](#) was then issued to replace the previous version of PUC 900. As noted in the May *Connecting to the Grid*, the proposed rule allows for the interconnection of facilities producing up to 100 kW (as opposed to the previous 25 kW), broadens eligible net metering technologies from solar, wind and hydro to all renewables, and increases the aggregate capacity from .05% to 1.0% of the annual peak energy demand distributed by each utility. This proposal also removed the external disconnect switch requirement. In July, 2009, the PUC [adopted](#) these rules for net metering, which were [certified](#) and effective on July 18.

NEW YORK– On October 20, the New York PSC issued an order requiring New York State Electric and Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E) to file documents that clearly define their methods for performing economic deliverability studies for interconnecting generators. Specifically the DPS asked for a detailed look at the process and scope for Generator Energy Deliverability Studies so that they might consider whether to approve a study methodology not only for use by NYSEG and RG&E but also for use by developers proposing renewable generation projects in other parts of the state. The Commission hopes to evaluate the information for the following purposes:

- To assist in determining the expected operating impacts of a proposed renewable generation project as part of the decision whether to grant a certificate of public convenience and necessity (CPCN);
- To obtain information as to where congestion is likely to develop in the future to help direct requests for transmission studies; and
- To consider incorporating the study results into the evaluation of projects for renewable portfolio standard (RPS) payments in the event of a new auction.

For more information search for Case 09-E-0497 on the PSC [docket search website](#).

Background: In August 2008, two net metering bills were enacted by Governor David Paterson. The first bill ([S7171-B](#) / [A11146](#)) permits net metering for residential solar systems up to 25 kW, non-residential solar systems up to the lesser of 2 MW or the customer's peak load for the prior 12 months, and farm systems (agricultural waste) up to the lesser of 1 MW or the customer's peak load for the prior 12 months. Each DG system must also have an external disconnect switch. The second bill ([S8481](#) / [A11582](#)) provides net metering for wind systems as follows: residential up to 25 kW; farms up to 500 kW; and, non-residential up to 2 MW.

In February 2009, the PSC issued an [order](#) adopting changes to the state's Standard Interconnection Requirements (SIR). The incorporated changes, as required by energy bills passed in 2008, provide for an expedited

application process, an update to UL 1741 (November 2005 revision), and elimination of the external disconnect switch for systems 25 kW and under.

In August 2009, Governor Patterson signed [AB 2442](#) into law. This bill adds residential micro-CHP systems and fuel cells to the list of current eligible technologies that can be net metered.

RHODE ISLAND – *Status quo. No significant net metering/interconnection news.*

Background: In July 2008 [H.B. 7809](#) became effective without Governor Donald Carcieri's signature. This bill increased the maximum allowable renewable distributed energy capacity eligible for net metering to 1.65 MW from 1 MW. For cities and towns, the max capacity will be 2.25 MW if they develop, but do not own, such a system for their own use; or, 3.5 MW if they actually own the system. This bill also increases the aggregate amount of net metering to a maximum of 2 percent of peak load, providing that at least 1 MW is reserved for projects less than 25 kW. Credits can be carried forward for a 12-month period, but excess credits go into a renewable energy low income fund to reduce the electricity bills of customers in the low-income rate class. In late December, 2008, the Rhode Island Public Utilities Commission (PUC) approved National Grid's [amendment](#) to the Qualifying Facilities Purchase Power Rate for effect January 1, 2009. The amendment expands the system size and aggregate capacity allowance and brings National Grid's tariffs into alignment with H.B. 7809. On March 11, 2009 the Rhode Island PUC issued [Order 19590](#), effectively approving National Grid's Qualifying Facilities Power Purchase Rate, No. 2010-A. See [docket #3999](#) for more information.

In July 2009, Governor Don Carcieri signed legislation ([HB 5461A](#)) permitting certain types of net metering customers to get a credit on up to 10 utility accounts or get a cash refund when their renewable energy systems send surplus energy back into the power grid.

In August 2009, National Grid [submitted](#) an amended Qualifying Facilities Power Purchase Rate 2010-A (QF Rate) based on recent changes to R.I.G.L. [§39-26-2](#) (the Renewable Energy Standard statute). The amendments

change two of the defined terms contained in that section.

VERMONT – *Status quo. No significant net metering/interconnection news.*

Background: The Vermont legislature enacted [S.B. 209](#) in March, 2008, and in April 2009, the corresponding [proposed amendments](#) to net metering rule 5.100 became effective. These rules increased the system capacity limit to 250 kW and included micro-CHP systems up to 20 kW as an eligible system type. Amendments also revised existing rules for Group net metering and removed all references to ‘farm’ systems. Previously only farm systems were allowed to net meter facilities up to 150 kW but now that net metering is allowed for systems up to 250 kW, this distinction is apparently no longer necessary. The rule defines “Group” net metering as “a group of customers, or a single customer with multiple electric meters, located within the same electric company service territory, where the customers have elected to combine meters as a single billing entity in order to offset that billing against a net metered system.”

The Vermont Energy Act, ([H.B. 446](#)) which was passed in May 2009 without Governor Douglas’ signature, included a provision for a Feed-in Tariff (FIT). The bill requires all Vermont retail electricity providers to purchase electricity generated by eligible renewable energy facilities through the [Sustainably Priced Energy Enterprise Development \(SPEED\) Program](#) via long-term contracts with fixed standard offer rates. The long-term contracts should be between 10-25 years for solar and 10-20 years for all other technologies. The proposed rates for the FIT are as follows: \$0.30 for Solar; \$0.20 for wind with rated capacity of 15 kW or less; \$0.12 for methane derived from landfill or agricultural operation; and the Average Residential Retail Rate for Wind with capacity greater than 15 kW, hydropower, and biomass (except methane from landfill or agricultural operation). These rates are subject to change. The Public Service Board’s investigation into this issue can be found at this [website](#).

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MID-ATLANTIC STATES

DELAWARE – *Status quo. No significant net metering/interconnection news.*

Background: In September 2008 the PSC issued a [final order](#) regarding net metering rules, which were posted to the [October 2008 Register](#) (pg. 518). These rules were in keeping with legislative bills [S.B. 8](#) of 2007 and [S.B. 193](#) of 2008. Senate Bill 8 increased the net-metering capacity limit for non-residential facilities to 2 MW for Delmarva Power and Light, 500 kW for Delaware Electric Coop (DEC), and 500 kW for municipal utilities. The rules also allow all net-metering customers to carry over excess energy credits monthly, for up to a year, at which point all unused credits will be forfeited to utilities. Utilities will be required to put any unused credits toward funding for low-income energy assistance programs. The rules also indicated that generation should be sized to meet existing customer demand. Interestingly, the PSC rules do not apply to DEC or to municipal utilities; however the provisions in S.B. 8 apply to all utilities in the state, including DEC and munis. These rules became effective October 10, 2008.

In July, Governor Markell signed several bills related to renewable energy including [SB 85](#) which allows for indefinite rollover of Net Excess Generation (NEG) for net metering systems and increases the aggregate participation cap for net metering to 5% of utilities’ peak demand. The governor also signed [SB 153](#) in September 2009. This bill allows electric customers with one or more grid-integrated electric vehicles to be credited in kilowatt-hours for energy discharged to the grid from the vehicle’s battery at the same kWh rate that customer pays to charge the battery from the grid.

DISTRICT OF COLUMBIA – On October 2, the D.C. Public Service Commission issued a [Notice of Proposed Rulemaking](#) for net metering. This Notice of Proposed Rulemaking (NOPR) replaces the prior NOPR for the proposed rules, which were published in the D.C. Register on April 3, 2009. These rules are in accordance with the Clean and Affordable Energy Act of 2008, which specified that net metering must be available to customer-generators with systems up to 1 MW in size.

The NOPR specifies that customers with systems up to 100 kW, whether they receive a standard offer service (SOS) or obtain energy from a competitive electricity supplier, may receive full retail credit for excess kWhs supplied to the grid, with indefinite rollover of those credits. Systems between 100 kW and 1 MW are also eligible for net metering although it appears the value of net metering credits may somewhat be negotiated between utility and customer-generator.

Background: In June 2008, the District of Columbia PSC issued [Order 14840](#) (Docket FC 945-E-1881) which finalized proposed rules for net metering. This rule provided small distributed generators with a net metering credit equal to the full retail rate, and permitted excess credits to be carried forward indefinitely. In September, 2008, the District's [Clean and Affordable Energy Act of 2008](#) was passed, increasing D.C.'s net metering limit from 100 kW to 1MW. In January 2009, Pepco filed a [revised net metering tariff](#) to comply with a Public Service Commission [order](#) in December, 2008. This tariff increases the allowable system size limit to 1 MW, as required by the Clean and Affordable Energy Act of 2008. In April 2009, the District PSC issued a Notice of Proposed Rulemaking to amend D.C.'s net metering regulations in accordance with this act. To see the proposed rules, search for case FC (Formal Case) 945 in the PSC's [E-docket System](#).

In February 2009, the PSC, adopted modifications to the "District of Columbia Small Generator Interconnection Rules" (DCSGIR). The DCSGIR rules are similar to [MADRI Model Small Generator Interconnection Procedures](#) and apply to renewable facilities less than or equal to 10 MW in capacity which are not subject to interconnection requirements of PJM Interconnection. See PSC [Case # 1050](#) for the order. The rules became effective in February 2009.

MARYLAND – The Maryland Public Service Commission [announced](#) that it will conduct a rule-making session on December 15, 2009, to consider whether to publish the proposed revisions to the Renewable Energy Portfolio Standard Program. Comments and suggested revisions to the proposed regulations are due by November 24 and commission staff will file analysis of the comments by December 8. For

more information on the state's RPS, refer to the program [website](#).

Background: In March 2008, the Maryland Public Service Commission adopted its proposed small generator interconnection standards. The finalization was confirmed by a notice in the April 11, 2008 [Maryland Register](#). These rules were developed in compliance with state legislation ([SB 595](#)) enacted in April 2007, which required the PSC to develop interconnection standards consistent with the federal standard. Highlights include: generator capacity can be up to 10 MW; an external disconnect switch is required; and, the application process falls into one of four categories depending on the unit's capacity.

In May, 2009, Governor O'Malley signed [SB 981](#) into law, altering the definition of 'eligible customer-generator' for the purposes of net metering. This bill effectively allows customers contracting with third-parties to participate in net metering. The bill also expanded the definition of a customer's premises by allowing a customer's renewable energy facility to be located on their property OR a contiguous property. On the same day the governor also signed [HB 1057](#) which specifies the same changes as SB 981 but additionally expands eligible net metering facilities to include Micro CHP systems up to 30 kW.

NEW JERSEY – The New Jersey Clean Energy Office announced a [solicitation](#) for grid-connected onshore wind or biomass renewable energy projects to facilitate the development of Class I renewable energy projects in the state. See the [DSIRE record](#) or the above link for more information.

Background: In January 2008, Governor Jon Corzine enacted [S.B. 2936](#), which revised the state's net metering law so that:

- Large industrial and commercial customers, in addition to residential and small commercial customers, can receive net metering for all Class I type renewable generators;
- The DG owner has the option to execute a bi-lateral supply agreement with the relevant utility for the sale and purchase

of the DG's excess generation, credited on a real-time basis;

- The BPU has the option of limiting the state-wide allowable capacity for net metering to 2.5 percent of the state's peak demand (this was increased from 0.1 percent).

In September 2008, the BPU published [proposed amendments](#) to its net metering rules. In January 2009, the New Jersey Board of Public Utilities (BPU) adopted the proposed amendments and the official version of the rules was published in the March 2, 2009 edition of the New Jersey Register. The revision allows net metered customers to choose their annualized billing period. The Renewable Energy Committee of the New Jersey Office of Clean Energy (OCE) is also engaged in a discussion of community-based net metering.

In June 2009 the BPU submitted a [request for comments](#) on its proposal for the creation of a Community Renewable Pilot Program.

PENNSYLVANIA – Status quo. No significant net metering/interconnection news.

Background: In early August 2008, the Pennsylvania PUC's final net metering rules were posted to the Pennsylvania Bulletin. The [final order](#) can be viewed in [Docket L-00050174](#), in a postdated entry marked May 22, 2008. This order expands the eligible capacity of non-residential net metered systems from 1 MW to 3 MW, while maintaining the residential limit at 50 kW. The net metering payment is to be credited at the full retail rate, with excess credits remaining at the end of each annualized period to be paid out at the utility's weighted average annual "price-to-compare" (which includes only the generation and transmission components of the retail rate.) The weighted average rates will reflect the rates in effect when the customer-owned generator delivered power to the grid. This action is in compliance with the state's Alternative Energy Portfolio Standards Act ([HB 1203](#), Act 35 of July 2007.)

Additionally, the [August 2, 2008 Pennsylvania Bulletin](#) contained the PUC's proposed rule regarding the application fees for four levels of distributed generation interconnection requests. (also see PUC [Docket M-00051865](#), however,

please note that this docket is not easily searchable). With a few minor exceptions, these rules follow what is currently being used in New Jersey.

On November 6, 2008 the Independent Regulatory Review Commission (IRRC) issued an [order](#) with its determination that the Public Utility Commission's final rules for net metering were consistent with the statutory authority of the PUC and the intention of the General Assembly. The PUC's final rules for net metering became effective on November 29, upon publication of the IRRC's order in the [PA Bulletin](#).

VIRGINIA – Status quo. No significant net metering/interconnection news.

Background: In August, 2008, the SCC issued a final net metering order in [Docket PUE-2008-00008](#), as required by the 2007 Virginia Electric Utility Restructuring Act. The law required that the total aggregate net metering capacity for each utility to be increased from 0.1 percent to 1.0 percent of its prior year peak load; and, that the SCC determine the amount of payments for net excess generation, unless the utility and the DG owner agree to a higher rate.

In April 2009, Governor Kaine signed [HB 2155](#) which retains system size caps for net metering but adds a clause to allow utilities to approve a higher capacity limit if they choose to do so.

On May 8, Virginia's State Corporation Commission adopted significant improvements to the state's interconnection procedures. The procedures specify a three-tiered rule set covering all utilities, all eligible technologies and systems up to 20 MW, including those interconnecting to both the distribution grid and the transmission grid (if an interconnection is subject to state jurisdiction). The three tiers apply as follows: **Level 1** - Small generating facilities no larger than 500 kW; **Level 2** - Certified facilities no larger than 2 MW that do not qualify for the Level 1 process; and **Level 3** - Facilities no larger than 20 MW not qualifying for the Level 1 or Level 2 process.

Refer to [Docket PUE-2008-00004](#) for the order and more information.

WEST VIRGINIA – *Status quo. No significant net metering/interconnection news.*

Background: In March 2007, when the state's utilities filed tariffs to reflect the state's [consensus agreement](#) on interconnection and net metering. The approved consensus for net metering applied to residential and commercial systems up to 25 kilowatts (kW) in capacity that generate electricity using PV, wind, biomass, landfill gas, hydropower or fuel cells. NEG will be carried over to a customer-generator's next bill, for up to 12 months, as a kilowatt-hour (kWh) credit. Although the consensus provisions do not include an aggregate cap on net-metered systems, each utility's tariff limits the aggregate capacity to 0.1% of the utility's total load participation.

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MIDWESTERN STATES

ILLINOIS – *Status quo. No significant net metering/interconnection news.*

Background: In May, 2008, the Illinois Commerce Commission (ICC) issued a net metering order that requires each investor-owned utility, after March 31, 2009 to offer net metering up to 1 percent of their previous year's peak demand. Generators of 40 kW or less will receive a one-to-one retail rate credit for their excess generation while generators larger than 40 kW will receive a credit equal to the utility's avoided cost of generation, with credits carried over month-to-month (expiring at the end of the annual period). See [Case # 07-0483](#), Final Order and Appendix.

In August, 2008, the Illinois Commerce Commission issued its [final order](#) regarding the state's new interconnection rules (see Case [06-0525](#), Final Order Appendix). In this Docket, the Commission adopted a significant and comprehensive set of rules for interconnection for generators of 10 MVA and under. There are four levels of application review, depending on generator size and systems sized 1 MVA or above must carry liability coverage of \$2 million for each occurrence and aggregate coverage of not less than \$4 million.

The ICC continues to work toward developing interconnection standards for large renewable generators. On January 9, 2009 the ICC Energy Division issued a [Staff Report](#) and [Proposed Rules](#) in which they recommended that Commission issue stand-alone rules covering only interconnections of distributed generation exceeding 10 MVA. On April 22, the ICC issued a [Second Notice Order](#) for the proceeding regarding large generator interconnection for systems over 10 MVA. More details can be found in ICC Case [08-0481](#).

INDIANA – *Status quo. No significant net metering/interconnection news.*

Background: The Indiana Utilities Regulatory Commission (IURC) determined in fall 2006 that its current IC/NM rules satisfy the federal requirement. The IURC adopted net-metering rules in September 2004, requiring the state's IOUs to offer net metering to residential customers and K-12 schools. The rules apply to solar, wind and hydroelectric projects with a maximum capacity of 10 kW.

IOWA – Within the past month several parties have filed comments in the Iowa Utilities Board rulemaking [RMU-2009-0008](#) to adopt interconnection procedures.

Background: On December 31, 2008, the IUB [solicited comments](#) on a joint filing by the Environmental Law and Policy Center, MidAmerican Energy Company, and the Consumer Advocate Division of the Department of Justice, issued on December 24, 2008. The joint filing advocates the use of interconnection rules adopted by the Illinois Commerce Commission in August 2008 as a starting point for revising the IUB's generator interconnection rules, rather than the draft model interconnection procedures issued by the Board for comment in its April 25, 2007 order. The joint comments indicate similar rules are being considered in South Dakota and that adoption of similar rules by neighboring states will promote development of a regional renewable energy market. The IUB has therefore commenced a rulemaking proceeding, identified as Docket No [RMU-2009-0008](#), to consider new interconnection rules.

KANSAS – *Status quo. No significant net metering/interconnection news.*

Background: In May 2009, Kansas Governor Mark Parkinson signed [HB 2369](#), establishing a renewable portfolio standard and a state-wide net metering law. With the passage of this bill, residential systems up to 25 kW and non-residential systems up to 200 kW may be eligible for net metering, though systems should be appropriately sized so as not to exceed expected load. Net metering will be available on a first-come, first-served basis until the total rated capacity of all systems equals or exceeds 1% of the utility's peak demand for the previous year. This limit may be increased through a hearing process with the Kansas Corporation Commission (KCC). Net excess generation (NEG) may be carried forward from month to month though NEG remaining at the end of the calendar year is forfeited to the utility. HB 2369 also contains a few guiding provisions for the KCC to adopt standards for interconnection. Utilities may require an external disconnect switch though they may not require customers purchase additional insurance. The bill also directs the KCC to require simple contracts for interconnection and net metering agreements. The KCC has 12 months to promulgate rules for net metering and interconnection. The Kansas Corporation Commission has [posted](#) participants' comments regarding implementation of net metering provisions in [HB 2369](#).

KENTUCKY – *Status quo. No significant net metering/interconnection news.*

Background: In April 2008, Governor Steve Beshear enacted a new net metering law ([S.B. 83](#)). Some of the highlights of this law include:

- The maximum size of eligible generators increased from 15 kW to 30 kW
- The aggregate capacity limit increased from 0.1 % to 1 % of a retail supplier's single-hour peak load;
- Net excess generation is carried forward for the life of the account;
- The customer-generator is responsible for the cost of any upgrade to the interconnection that is required by an approved tariff; and
- PSC guidelines apply to all retail electric suppliers.

On January 8, 2009 the Kentucky Public Service Commission (PSC) issued an [order](#) for net metering and interconnection of small sources of renewable power to the electric grid ([PSC Case no. 2008-00169](#)). The guidelines were required by Senate Bill 83, which gave the PSC until mid-January 2009 to develop guidelines that would establish technical requirements and an application process.

MICHIGAN – On October 30, the Michigan Public Service Commission [announced](#) that the state's renewable energy certification system for Michigan's renewable energy standard is up and running. The tracking system, called MIRECS, is a Web-based infrastructure that will create, track and enable trading of environmental credits. This is accomplished through a traceable digital certificate issued for every megawatt-hour of qualifying energy generated by facilities registered with MIRECS or imported into MIRECS.

Public Act 295 of 2008 required the MPSC to establish both a renewable energy credit certification and tracking program. More information is available on the MIRECS Web site: [mirecs.org](#).

Background: In October 2008, Governor Granholm signed [SB 213](#) into law, which included a provision that requires utilities to allow net metering for residential or commercial customers operating renewable generation systems up to 20 kW. On March 18, 2009, the PSC issued an [order](#) approving net metering and interconnection rules in compliance with the Clean, Renewable and Efficient Energy Act and the rules were officially adopted in May 2009. The rules apply 'true' net metering to systems of 20 kW or less and 'modified' net metering to inverter-based systems from 20 kW to 150 kW and biodigesters up to 550 kW. They also specify that systems must be sized to meet the customer's electric needs. NEG is rolled over at the retail rate each billing period; there is no provision for annual true-up, so rollover is indefinite. The rules also classify interconnection projects into different categories depending on level of complexity and size: Category 1 is 20 kW or less, category 2 is greater than 20 kW to 150 kW, category 3 is greater than 150 kW to 550 kW, category 4 is greater than 550 kW to 2

MW, and category 5 is above 2 MW. Refer to [docket U-15803](#) for more information.

On August 3, Consumers Energy Company, The Detroit Edison Company, the Michigan Electric and Gas Association and the Michigan Electric Cooperative Association filed a joint application for approval of proposed interconnection procedures and forms. The proposed electric interconnection procedures and forms can be found under Case [U-15919](#) or at this [link](#).

MINNESOTA – *Status quo. No significant net metering/interconnection news.*

Background: In 2006, the PUC rejected the federal IC/NM standards, stating that the current utility tariffs are adequate. Minnesota's net-metering law, enacted in 1981, applies to all investor-owned utilities, municipal utilities and electric cooperatives. All qualifying facilities up to 40 kilowatts (kW) in capacity are eligible. There is no limit on statewide capacity.

On May 19, 2009, Governor Pawlenty signed [SB 550](#), the Omnibus Energy Policy Bill from the 2009 legislative session. The Minnesota PUC provides a [summary](#) of this lengthy bill on their website. While not directly related to net metering or interconnection, this bill allowed solar energy facilities to be eligible for inclusion in meeting the state's renewable energy standards and sets a 1% cap on the amount of solar that may be used to satisfy the RES. The bill also modifies definitions used for distributed generation projects to include equipment for storage of certain solar energy projects.

MISSOURI – On November 2, the Missouri PSC closed the net metering docket [EX-2009-0267](#) which had remained open to investigate changes to the liability insurance provision adopted in October 2008. As a result the liability insurance requirement was dropped for systems 10 kW and under. Systems over 10 kW must retain at least \$100,000 of coverage.

Background: In August 2007, the Missouri Public Service Commission (PSC) Staff approved the tariff changes made by the state's investor-owned utilities to bring them in compliance with the federal interconnection standard ([Case EO-2006-0497](#)). In October

2008, the PSC amended its existing net metering and interconnection rules, establishing guidelines for customers of investor-owned electric utilities who have the ability to generate renewable energy (see [Docket # EX-2008-0280](#)).

In January 2009, the PSC filed a Motion for Final Order of Rulemaking regarding liability insurance requirements that were imposed under PSC net metering rules in October 2008. See Case [EX-2009-0267](#) for the Motion. In February, the PSC filed a [Certification of Administrative Rule](#) regarding a proposed amendment that changes only aspects regarding the previously imposed liability insurance requirements. The amendment requires customer-generators with systems 10 kW or greater to carry no less than \$100,000 in liability insurance, which may be in the form of an endorsement on an existing policy. Customers with systems 10 kW and under are not required to carry liability insurance. The PSC issued an [order](#) finalizing this proposal in June 2009.

NEBRASKA – *Status quo. No significant net metering/interconnection news.*

Background: In May 2009, Governor Dave Heineman signed [LB 436](#) into law, establishing net metering statewide for all electric utilities in Nebraska. The rules apply electricity generating facilities which use solar, methane, wind, biomass, hydropower or geothermal energy, and which have a rated capacity at or below 25 kW. Electricity produced by a qualified renewable energy system during a month shall be used to offset any kilowatt hours consumed at the premises during the month.

Any excess generation produced by the system during the month will be credited at the utility's avoided cost rate for that month and carried forward to the next billing period. Any excess remaining at the end of an annualized period will be paid out to the customer. Customers retain all RECs associated with the electricity their system generates. Utilities are required to offer net metering until the aggregate generating capacity of all customer-generators equals 1% of the utility's average monthly peak demand for that year.

NORTH DAKOTA – *Status quo. No significant net metering/interconnection news.*

Background: On August 8, 2007, the North Dakota Public Utilities Commission issued an order ([Case# PU-06-290](#)) which rejected the federal IC/NM standards citing the adequacy of the state's existing rules. However, the PUC did encourage each jurisdictional utility to work toward developing, or refining, interconnection practices which incorporate the IEEE 1547 standard.

OHIO – *Status quo. No significant net metering/interconnection news.*

Background: In November 2008, the Public Utilities Commission of Ohio (PUCO) issued a net metering [order](#) regarding proposed rules to implement S.B. 221, Ohio's comprehensive energy legislation. This legislation mandates that systems eligible for net metering must be sized to meet the customer's typical load and can include solar, wind, biomass, landfill gas, hydro, fuel cells, and microturbines. The legislation also removed the 1% aggregate capacity limit on net metered systems. Under this order, Commission Staff also commented on third party ownership in that they interpreted the law to mean that it is permissible for a customer to rent or lease generating equipment but that the equipment must be installed behind the customer's meter. All reduced usage or NEG must also be reflected on the customer's bill in a leasing arrangement. Hospitals received special consideration under this ruling, in that they may dual meter without a facility size cap, but they will receive market value (essentially avoided cost) for any energy they produce. Refer to the Case Record for [06-0653-EL-ORD](#) for more information.

SOUTH DAKOTA – *Status quo. No significant net metering/interconnection news.*

Background: On May 29, 2009, the South Dakota PUC issued an [order](#) approving their proposed South Dakota Small Generation Interconnection Rules. The rules specify interconnection procedures for systems up to 10 MW, based on the following tiers:

Tier 1: Includes inverter-based systems of 10 kW or less

Tier 2: Facilities that do not qualify for tier 1 review, with a nameplate rating of two MW or less, interconnecting to a distribution line or spot network serving one customer.

Tier 3: Non-exporting facilities that do not qualify for 1 or 2, and have a nameplate capacity rating of 2 MW or less, not connecting to a transmission line.

Tier 4: Interconnection review procedures for an application that does not qualify for tier 1, 2 or 3 and for which the small generator facility has a capacity of ten MW or less.

The rules also provide for multiple meter aggregation. The choice of whether to require an external disconnect switch seems to have been left to the discretion of the utility. In August 2009 the PUC approved standard form agreements for interconnection applications. Please see docket [RM08-002](#) for more information.

WISCONSIN – The Wisconsin PSC, on October 22, was scheduled to hold a technical conference on the development of the Advanced Renewables Tariff (ART). The conference was intended to facilitate the development of a best practices model for implementing voluntary ARTS that are, to the extent practicable, uniform across the state. There is no information posted on this conference as of the publication date of this newsletter but we will post it when it becomes available.

Background: On July 24, 2008, the [Governor's Task Force on Global Warming](#) voted to adopt its [Final Report](#) regarding the development of policies and reduction targets to address global warming. As was discussed in the June 2008 *Connecting to the Grid*, the PSC has opened five cases to explore several global warming issues. However, none of these cases concern a greater facilitation of distributed generation, as was recommended by the task force. Throughout 2009 the PSC has been discussing implementation of an Advanced Renewable Tariff (ART), as was recommended by the Task Force. For more information on this case please refer to the [Notice of Investigation](#) and [memo](#) from the PSC and [Case Study](#) conducted by the University of Wisconsin.

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SOUTHERN STATES

ALABAMA – *Status quo. No significant net metering/interconnection news.*

Background: In May 2008, Governor Bob Riley enacted a bill ([H.B. 234](#)) called the Alternative and Renewable Energy Act. This bill permits, but does not require, the state's investor-owned utility, Alabama Power, a subsidiary of Southern Company, and the state's cooperatives and municipals to offer grid interconnection services to small distributed generators up to 100 kW.

In an [order](#) dated November 4, 2008 the Alabama PSC declined, for the second time, to adopt the EPAAct 05 federal net metering standard (although it "encouraged" Alabama Power to adopt net metering on its own volition). In this same order, however, the PSC decided to adopt the federal interconnection standard, despite the fact that Alabama Power claimed it offered a comparable option to the federal standard. See [Docket # 30066](#) for more information.

ARKANSAS – *Status quo. No significant net metering/interconnection news.*

Background: On December 19, 2007, the Arkansas Public Service Commission issued [Order #12](#), in Docket 06-105-U, which revises the state's net metering rules to better align the state's policies with the federal standards. The PSC took this action to be in compliance with a new state law ([HB 2334](#)). The changes include: an increase in the allowable limit of non-residential DG systems from 100kW to 300kW; a monthly carryover of NM credits, until the utility's annual accounting cycle ends; and, customer ownership of renewable energy credits.

FLORIDA – *Status quo. No significant net metering/interconnection news.*

Background: In March 2008, the Florida Public Service Commission (PSC) issued an [order](#) ratifying its new IC/NM rule ([Docket 070674-EI](#)). This rule:

- Expanded the size of eligible systems from 10 kW to 2 MW;

- Expanded the type of eligible systems from solely PV to all renewables; expedites the interconnection process;
- Required a standardized interconnection agreement;
- Eliminated the standby charge; and,
- Required IOU's to offer net metering.

Under this ruling, qualified generators are categorized into three tiers (up to 10 kW, 10kW to 100 kW, and 100 kW to 2 MW), and the smallest tier is not subject to some of the requirements such as: application fees, interconnection studies, and liability insurance. The net metering credit for excess generation is one-to-one with the utility's retail rate and carries forward for a period of twelve months, after which NEG credits are paid to the customer at the utility's average annual avoided cost of production. The renewable energy credits belong to the DG owner, but may be sold to the utility. An external disconnect switch is not required for inverter-based Tier 1 systems, but a utility may choose to install a disconnect switch for a Tier 1 system *at the utility's* expense. This rule also states that the customer-owned renewable generation must have a gross power rating that does not exceed 90% of the customer's utility distribution service rating.

In June 2008, Governor Charlie Crist enacted legislation ([HB 7135](#)) which requires each utility, including coops and munis, to develop a standardized IC/NM program for customer-owned renewable generation by July 1, 2009.

GEORGIA – *Status quo. No significant net metering/interconnection news.*

Background: On August 29, 2007, the PSC announced ([Docket 24505-U, Document 105195](#)) that all of its staff recommendations ([Docket 24505-U, Document 103617](#), July 2, 2007) regarding interconnection, net metering, and advanced metering have been adopted. The staff said that Georgia Power's existing interconnection procedures and net metering tariffs, as described in its 2007 integrated resource plan (IRP), adequately align with the federal standards.

On July 27, 2009, the Georgia PSC [approved](#) Georgia Power's new tariff, RNR-5, which extends this energy-purchase offer for small systems up to an additional 200 kW of

aggregate capacity. The new schedule was suspended for 30 days however, to “further assess the impact of the proposed revisions”. The tariff filings can be found [here](#). These schedules were revised within the tariff section “Payment for Energy” to reflect an 18.31 cents/kWh payment by Georgia Power for solar photovoltaic energy. This is in accordance with the Commission’s requirement that the RNR tariff be annually indexed to the avoided cost. Finally Georgia Power added a clarification to RNR-5 that states that customers who sell electricity to the utility under the tariff are also selling the concurrently produced renewable energy credits (RECs) and other environmental attributes. The RNR-5 went into effect on August 1, 2009.

LOUISIANA – *Status quo. No significant net metering/interconnection news.*

Background: In June 2008, Governor Bobby Jindal enacted [S.B. 359](#) which follows Arkansas’ lead and expands upon the state’s existing net metering law. This law increases the eligible size of commercial and agricultural distributed generators from 100 kW to 300 kW. The eligible size for a residential system remains at 25 kW. On September 17, 2009, the New Orleans City Council adopted Resolution [09-484](#), directing Entergy to revise its net metering schedules for the city’s residents in accordance with S.B. 359.

The Louisiana PSC continues an investigation into the feasibility of implementing a Renewable Portfolio Standard for the state. There currently is not an abundance of information available on the PSC site, however a detailed case history outline can be found under Docket R-28271 on the LPSC [docket search](#) site.

MISSISSIPPI – *Status quo. No significant net metering/interconnection news.*

Background: In January 2007, the Mississippi Public Service Commission rejected the federal interconnection standard stating the adequacy of its existing utility tariffs. Entergy Mississippi and Mississippi Power, a subsidiary of Southern Company, address net metering in their tariffs. In February 2009, five proposed net metering bills up before the Mississippi legislature - four in the House and one in the Senate - died in public utilities committees.

NORTH CAROLINA – On October 19, the North Carolina Utilities Commission issued a [request for proposals](#) for the development of a Renewable Energy Tracking System (NC-RETS). As part of Senate Bill 3 (2007), the NCUC was charged with developing “procedures to track and account for Renewable Energy Certificates, including ownership of Renewable Energy Certificates [RECs] that are derived from a customer owned renewable energy facility.”

The overall purposes of NC-RETS are to track compliance relative to the State’s REPS requirements and to ensure against double-counting of RECs. NC-RETS will be required to track each individual Electric Power Supplier’s compliance against its individual statutory requirements, as well as its contribution toward the statewide aggregate requirements for swine and poultry waste resources. NC-RETS will be able to facilitate the transfer of RECs to and from the REC tracking system operated by ERCOT, the PJM-GATS system, the North American Renewables Registry and the M-RETS system. It is important to note that this is not a trading platform, only a tracking system.

Background: In June 2008 the NCUC issued a final [order](#) adopting a modified version of the FERC small generator interconnection standard. ([Docket E-100, Sub 101, see order dated 6/9/08, Appendix A.](#)) This order:

- Specifies no upper system size limit for eligible generators;
- Contains a fast track application, non-discriminatory processing of all applications, generally on a first-come-first-serve basis;
- Outlines reasonable application fees and insurance requirements, with self-insurance permitted in certain cases;
- Requires no external disconnect switch for smaller systems (under 10 kW); and
- Specifies that, while interconnection agreements are not transferable to new owners, re-application fees are nominal.

On December 16, 2008 the North Carolina Utilities Commission (NCUC) issued an [order](#) granting investor-owned utilities the right to require a utility-accessible external disconnect switch (UEDS), so long as they reimburse

customer-generators for the expense of the switch.

In March 2009, the NCUC issued an order amending the state's net metering rules. The NCUC ordered that renewable generators up to one MW may net meter with no aggregate limits on customer participation. The Commission also removed the previous requirement that net metering customers take service under Time of Use (TOU)-Demand rates, thereby allowing for full retail rate choice. According to the order however, if a customer chooses a tariff other than a TOU-Demand schedule, the customer must turn over ALL Renewable Energy Credits (RECs) to the utility. The order allows customers on TOU-Demand rates to keep all RECs, even those associated with annual excess generation. Refer to [Docket E-100, Sub 83](#) for more information.

OKLAHOMA – *Status quo. No significant net metering/interconnection news.*

Background: Net metering has been available to all customers with systems up to 100 kW since 1988, with no statewide limitation on the total net metering capacity. Oklahoma has no specific interconnection rules, but each utility was directed by the Oklahoma Corporation Commission (OCC) to develop its own procedures.

SOUTH CAROLINA – In early October two South Carolina utilities (Duke Energy and SCE&G) filed tariffs in conjunction with the recent net metering settlement that was reached in the state. These tariffs allow for net metering of systems up to 100 kW. Customers may retain ownership of Renewable Energy Credits, at least until a REC market is developed. At that time, RECs associated with net excess generation will be given to the utility when the account is settled. SCE&G's "experimental" tariff additionally specifies that net metering will be available until a cap of 0.02% of the previous year's peak load is reached.

Background: In May 2008, Governor Mark Sanford signed a joint legislative resolution (H.B. 3395 / S.B. 684 / [R.247](#)) regarding net metering. This resolution required the South Carolina Public Service Commission (PSC) staff and the State Energy Office to draft a report for the

legislature by January 1, 2009, regarding the establishment of net metering programs at all of the state's utilities.

On August 5, 2009, the South Carolina Public Service Commission issued a [directive](#) approving a net metering settlement. In June, parties involved in docket [2005-385-E](#), signed an agreement to improve the terms of net metering in the state. The [settlement](#) maintains that affected utilities will standardize the net metering program structure; modify the flat rate option for residential customers to reflect 1:1 standard retail rates for excess energy credits; eliminate stand-by charges for residential customers; and allow generators to retain ownership of Renewable Energy Credits (RECs) until a market for RECs is fully developed (after which they will be shared between utility and customer).

TENNESSEE – *Status quo. No significant net metering/interconnection news.*

Background: On August 1, 2007, the TVA adopted the federal net metering standard and a slightly modified version of the federal interconnection standard. In early 2007, the Tennessee Regulatory Authority determined that the existing interconnection and net metering standards of the Tennessee portions of both Kentucky Utilities and Entergy adequately meet federal requirements.

TEXAS – *Status quo. No significant net metering/interconnection news.*

Background: In May 2008, the Public Utility Commission of Texas PUCT adopted a rule defining net metering ([Section 25.213](#)). This rule was the first part of a two-part process to establish the rules necessary to establish metering and interconnection for distributed renewable generation less than 2 MW, as required by a 2007 law ([HB 3693](#)). Phase I of the PUCT order effectively clarified that net metering **will not** be available in areas of Texas in which retail electric competition has been introduced. On December 18, 2008, the Texas PUC [adopted](#) phase two net metering rules, which dealt with issues related to interconnection, renewable energy credits, registration and sale of out-flows for distributed renewable generation. PUCT documents on this

subject are available under [Project 34890](#) while the Electric Reliability Council of Texas (ERCOT) is addressing settlement issues for small renewable generators (<50 kW) through its [Profiling Working Group](#).

One benefit for non-competitive areas, however, is that unlike competitive areas, instantaneous excess that flows onto the grid will be valued at avoided cost as opposed to a negotiated value. In order to receive avoided cost, a customer will have to register with FERC as a QF. The commission declined to address the issue of whether third-party financing would subject a solar provider to regulation as an "electric utility." The Commission has asked a legislative committee to weigh in on that matter. The new rules were published in the [Texas Register](#) on January 9, 2009 and carry an effective date of January 8, 2009.

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WESTERN STATES

ARIZONA – *Status quo. No significant net metering/interconnection news.*

Background: In October 2008, the Arizona Corporation Commission (ACC) issued an [order](#) which finalized rules for state-wide net metering, specifying that:

- Net metering will be available to customers who generate electricity using solar, wind, hydroelectric, geothermal, biomass, biogas, combined heat and power (CHP) or fuel cell technologies.
- Systems must be sized to meet all or part of a customer's electric load in that the system may not exceed 125% of the customer's total connected load.
- There is no set aggregate cap specified for utilities; rather, individual utilities must demonstrate to the ACC why such a cap should be allowed.
- Net metering charges must be assessed on a non-discriminatory basis.

In August 2009, the Utilities Division of the ACC issued a proposed order under [Docket No. E-20690A-09-0346](#), examining the issue of third-party regulation by the ACC. In September 2009, the ACC approved an agreement between the Scottsdale Unified School District and SolarCity Corporation. SolarCity is now allowed

to collect tax credits and install and maintain solar panels at two high schools by the end of the year. The schools will receive a locked rate of 11 cents per kilowatt hour for the next 15 years, saving the school district about \$1.3 million.

CALIFORNIA – The California Public Utilities Commission's Energy Division released a Solar Initiative [progress report](#) in October. This report provides an in-depth analysis of the California Solar Initiative including programmatic goals, installation data, Multifamily Affordable Solar Housing and market analysis. The Wall Street Journal also published a short summary [article](#) about this report on October 27.

Background: In February 2009, San Diego Gas & Electric (SDG&E), Pacific Gas & Electric (PG&E) and Southern California Edison (SCE) filed virtual net metering tariffs (and related program applications and interconnection agreements) with the California Public Utilities Commission (CPUC). These filings are in compliance with an October 2008 [decision](#) which established the Multifamily Affordable Solar Housing (MASH) Program as part of the California Solar Initiative (CSI).

[Assembly Bill 920](#), signed in October 2009, allows net metering customers to choose between receiving compensation of NEG after a 12 month period or indefinite rollover of net metering credits. Rates for financial compensation will be determined by the CPUC for the IOUs; rates for municipal utilities will be determined by the utilities during a public proceeding. Customers choosing financial compensation for annual NEG will surrender RECs associated with NEG to the utility. Customers who do not affirmatively request indefinite rollover or annual compensation will not be eligible for either option.

COLORADO – On October 14, the Colorado PUC issued an [order](#) adopting rules for the state's Renewable Energy Standard, including interconnection and net metering procedures. The rule made a slight modification from the previously adopted rule (in September, 2009), that extends one interconnection timeline by a day. The rules will become effective 20 days

after publication in the Colorado Register by the Office of the Secretary of State.

Background: In September 2008, the Colorado PUC issued a [Notice of Proposed Rulemaking](#) (NOPR) to reevaluate the PUC rules concerning small generator interconnection as they apply to electric cooperatives. These rules: 1. Clarify that third-party ownership is allowed for smaller systems (<10kW) and affirm that third-party developers are not public utilities; 2. Remove the system size cap for net metering and require systems to be sized at or below 120% of the customer's average annual electricity consumption; 3. Relax certain liability insurance requirements; 4. Clarify that REC transfers are not required for interconnection; 5. Specify that an external disconnect switch may be waived at QRU discretion; and 6. Expand interconnection rules to cover electric cooperatives.

On April 22, 2009, Governor Ritter signed [Senate Bill 51](#), which codifies that third-party developers are not public utilities so long as the systems they own supply no more than 120% of the customer's average annual consumption. This bill also allows a customer to make a one-time election to have indefinite rollover of excess generation rather than payment at avoided cost at the end of each calendar year. Customers who elect this option relinquish all NEG if they terminate service with the qualifying retail utility.

In August 2009, the Colorado Public Utilities Commission issued [emergency rules](#) for the state's Renewable Energy Standard, to implement changes required by SB 51. See [Docket 08R-424E](#) for more information.

IDAHO – Status quo. No significant net metering/interconnection news.

Background: On August 4, 2008, Idaho Power, a subsidiary of IDACORP, [announced](#) that it has filed a request with the Idaho PUC to deploy advanced metering infrastructure (AMI) throughout its territory over the next three years, beginning in January 2009.

Idaho Public Utilities Commission (PUC) continues to receive written responses from Idaho utilities regarding the four new Federal standards proposed by the Energy Independence and Security Act of 2007 (EISA). EISA mandated states' consideration of (1)

integrated resource planning (IRP); (2) rate design modifications to promote energy efficiency investments; (3) consideration of smart grid investments; and (4) smart grid information. The PUC issued a [Notice of Inquiry](#) in December, 2008.

MONTANA – Status quo. No significant net metering/interconnection news.

Background: It appears the Montana Public Service Commission has still not decided whether or not to accept the federal interconnection standard for small generators. A technical workshop was held on November 28, 2007, to hear various stakeholder viewpoints on this subject ([Docket N2007.10.114.](#))

NEVADA – On November 4, the Nevada Public Utilities Commission opened docket 09-11004, titled "Investigation regarding feed-in tariffs" though there are no documents yet attached to the docket. An interim legislative committee had asked the state PUC to investigate feed-in tariffs and the commission responded it would put an item on its November 19 agenda to launch the process of considering rates.

Background: In April 2008, the PUCN adopted its proposed net metering rules (see Dockets: [Commission Rulemakings and Investigations](#), Docket 07-06024, Revised Regulation, Document ID 20612). These rules were promulgated in response to legislation ([AB 178](#)), enacted in June 2007. The changes appear minor in nature (e.g., standardizing utility contracts) and did not seem to greatly enhance Nevada's existing net metering rules. This rule was posted on the [Nevada Register](#) website on April 16, 2008 (file number R032-08).

In November 2008, the Public Utilities Commission of Nevada (PUCN), following in Oregon's footsteps, adopted a draft order (See Docket [07-06024](#)) which effectively ruled that third party systems are allowed to net meter and the contractual relationship between the third party owner and the customer is beyond the reach of the PUCN. Under this ruling it was also determined that third party owners may not legally be considered utilities. In May 2009, Governor Gibbons signed [AB 186](#), which fortified the PUC decision on third party arrangements.

NEW MEXICO – *Status quo. No significant net metering/interconnection news.*

Background: In July 2008, the New Mexico PRC issued an [order \(Case 07-00422-UT\)](#) which finalizes the state's interconnection rules for small distributed generation. The order includes separate rules for generators sized 10 MW or less (see Exhibit 1-A at back of order) and generators sized above 10 MW (see Exhibit 1-B at back of order). Key points of the order include:

- Four different application processes depending on size of generator, with simplified and fast track application processes for generators of 2 MW or less;
- An external disconnect switch is required; and,
- The utility may require liability insurance for systems sized greater than 250 kW, but must petition the PRC to impose insurance requirements upon owners with systems sized 250 kW or less.

See [Case # 07-00422-UT](#), and case [Case # 07-00014-UT](#).

On January 8, 2009, the New Mexico Public Regulation Commission (PRC) issued a Notice of Inquiry (NOI) regarding, among other things, the participation of third-party providers in Distributed Generation programs. Some other issues that may be addressed in this docket include how utilities may furnish, install, and receive RECs from, small-scale PV systems; potential amendments to the net metering rule to clarify the definition of qualifying facilities for purposes of RPS compliance; the role for third-party providers in helping utilities meet their [Renewable Energy Act](#) obligations in distributed generation programs; and whether the Commission should amend the state's renewable portfolio standard so that no more than a specified percentage of RPS DG requirement can be met through one renewable facility.

In July 2009, there was a public hearing the on the PRC net metering docket regarding indefinite rollover. For the transcript and further information, search Case 09-00141-UT on the PRC's [Infoshare](#) site (Note: This site requires users to register for a password and will

generally only open case documents if you are using Internet Explorer as your web browser).

OREGON – The Oregon PUC has initiated a rulemaking ([AR 538](#)) and issued [draft rules](#) for the implementation of a pilot solar incentive program, as required by a recent law.

Key points from the draft rule include:

- Eligible systems may be owned and/or operated by third parties
- Energy payments generated from the system must be paid monthly but the consumer may elect to be paid for 100% of the energy generated by the qualifying system (buy all/sell all) or paid only for the excess energy generated above customer usage
- If the customer elects to only sell excess energy, the customer will retain RECs for energy consumed onsite, otherwise all RECs revert to the utility
- 15-year standard contracts
- System owners may not accept incentives from the Energy Trust of Oregon or Oregon state residential or business tax credits
- The aggregate capacity of the qualifying systems enrolled in all of the pilot programs may not exceed 25 MW.

The PUC will work toward establishing volumetric incentive rates to enable participation in the pilot programs by April 1, 2010.

Background: In July 2008, the Oregon Public Utilities Commission issued an [order \(Docket DR 40\)](#) granting net metering rights to third party owners of small distributed generators which are located on utility customer premises and are eligible for net metering (primarily renewables). The order also states that these providers are not considered public utilities or electric service suppliers, and that the relevant utility must still plan within its Integrated Resource Plan to serve any electricity demand of the end consumer not met by the third party owner. This case was initiated by Honeywell and Pacific Power, a subsidiary of Pacificorp/ MidAmerican, (see their [joint petition](#) filed June 6, 2008.)

On June 8, 2009, in Order No. [09-196](#), the Public Utility Commission of Oregon adopted administrative rules governing the

interconnection of small generator facilities with a nameplate capacity of 10 megawatts or less to the public utility transmission and distribution systems. In September 2009 the Oregon PUC accepted the PUC Staff's recommendation to [approve](#) the three investor-owned utilities interconnection forms and agreements. See AR 521, [Docket 14256](#) for more information.

UTAH – *Status quo. No significant net metering/interconnection news.*

Background: In February 2009, the Utah Public Service Commission (PSC) issued an order under Docket [No. 08-035-78](#), that significantly improves Rocky Mountain Power's (RMP) net metering tariff. Notably, in this order the PSC increased the net metering program cap from 0.1% to 20% of RMP's peak demand for 2007.

The Utah Public Service Commission has assigned Docket No. [09-R312-01](#) to the rulemaking process for proposed standards for interconnection of generating facilities. The proposed rules allow for: 1) The interconnection of facilities up to 20 MW, with three tiers of review criteria at 25 kW, 2 MW and 20 MW; 2) Standard forms and agreements consistent with those of FERC's SGIP; 3) Lockable utility external disconnect switch is required, except for inverter-based systems under 10 kW; 4) Additional insurance is not required for systems under 2 MW; and 5) Multiple meter aggregation is allowed for meters on or adjacent to the customer's property (all meters must be on the same rate schedule).

WASHINGTON – *Status quo. No significant net metering/interconnection news.*

Background: In September 2007, the Washington Utilities and Transportation Commission (UTC) adopted interconnection standards for distributed generation (DG) systems up to 20 megawatts (MW) in capacity. Net metering is currently available for systems up to 100 kW.

On May 12, 2009 [Senate Bill 6170](#) was signed by Governor Christine Gregoire. This bill

defines "community solar" projects as any group of individuals/business/nonprofits putting solar on local government property OR any utility-owned system voluntarily funded by ratepayers who get bill credits in return. According to this bill community solar projects would receive a base credit of 30 cents per kWh on top of which the in-state manufacturing credits would apply. This would amount to $\$0.30 \times 2.4 = \0.72 for modules and $\$0.30 \times 1.2$ for inverters = $\$0.36$, which, when combined, would amount to a credit of $\$1.08/\text{kWh}$.

WYOMING – *Status quo. No significant net metering/interconnection news.*

Background: On January 25, 2007, the PSC rejected the federal IC/NM standards (Final Order, [Docket 90000-95-XR-06](#)), stating the adequacy of existing state regulations and utility tariffs. Wyoming enacted legislation in February 2001 establishing statewide net metering standards. The law applies to investor-owned utilities and electric cooperatives. Eligible technologies include solar, wind, biomass and hydropower systems up to 25 kW.

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OTHER STATES

ALASKA – On October 15, the Regulatory Commission of Alaska issued a Staff Memorandum with changes to the state's proposed net metering regulations. Staff's recommended changes did not depart greatly from the original proposal but some language was modified based on participants' comments. The RCA Commissioners voted to approve this new version. The regulation will next receive a legal review by the Alaska Department of Law, and then be sent to the Lieutenant Governor for signature. The regulation is expected to become active within 90 to 120 days and will effectively permit net metering for customer-generators on the "Railbelt" utilities (ML&P, Chugach Electric, Golden Valley Electric, Matanuska Electric, Seward and Homer Electric) and a handful of other utilities across the state that exceed 5 million kilowatt hours of annual sales.

These regulations allow net metering up to 1.5% of each electric utility's average retail demand (roughly equivalent to 1% of peak demand). Systems must be owned or leased, and operated, by the consumer, and have a cumulative nameplate capacity 25 kW or less. Net metered systems must be used primarily to offset part or all of the customer's requirements for electricity and be controlled by an inverter or switchgear. No month-to-month rollover is allowed of excess credits, rather month-end excess is credited at the utility's avoided cost rate on the customer's next bill. Utilities may not assess additional charges or fees for net metering customers and must pay for the purchase and installation of any additional metering equipment that they deem necessary. For more information and to view staff's memo, please refer to rulemaking docket [R-09-1](#)

No further action has yet been taken on the interconnection procedures docket ([R-09-2](#)).

Background: In August 2008, the RCA issued an [order](#), declining to adopt any of the five standards proposed by the Energy Policy Act of 2005. RCA stated its intent to open regulation dockets to (1) address a state-specific net metering requirement in conjunction with interconnection standards for Alaska, and (2) consider renewable energy portfolio standards and regulation requiring utilities to adopt production incentives such as GVEA's [SNAP](#) program. The order also stated that RCA does not intend to limit the types of technologies eligible for net metering and will determine whether statutory authority is necessary to adopt regulations. This order came as a response to a public meeting, convened by RCA, to discuss the commentary it received regarding its tentative [decision](#) (Order #6, Docket R-06-005) to adopt the federal net metering standard. All prior net metering work and public comments can be found in docket [R-06-005](#).

The net metering proposal was largely similar to the RCA staff's draft proposal, including:

- A system size limit of 25 kW;
- Aggregate capacity limit of 1% of peak demand;
- Allowable generation types: Solar Thermal, Photovoltaic, Wind, Biomass, Hydroelectric, Geothermal, Wave, Tidal, Ocean Thermal, Landfill Gas, Anaerobic Digestion;

- Monthly reconciliation of net excess generation, paid to the customer-generator at the avoided cost rate.

HAWAII – In early November Governor Linda Lingle and DBEDT Director Ted Liu met with the Chairman of the China Academy of Engineering and a noted Chinese clean energy leader to discuss and exchange ideas on renewable energy and energy efficiency. The head of China Wind Energy Association was present and agreed to explore deployment of China's new wind turbine technology in partnership with wind project developers in Hawaii. The leaders spoke of a potential link between Hawaii and Hong Kong as mutual "test-beds" for the integration of renewable energy and achievement of high levels of energy efficiency.

Background: In June 2008, Governor Linda Lingle enacted a net metering bill ([H.B. 2550](#)), which codifies steps already taken by the Hawaii PUC. The allowable aggregate amount of net metering permitted by each utility is one-half of one percent of peak demand, however, the PUC may increase this amount (note: the PUC has already permitted HECO and Kauai Island Utility Coop (KIUC) to increase this amount to one percent); and, the PUC is permitted to define the maximum allowable capacity of customer-owned DG eligible for net metering. On March 13, 2008, the Hawaii PUC issued [Order 24089](#) (Docket 2006-0084) which permits expanded net metering programs at HECO and KIUC.

In October 2008, the Public Utilities Commission (PUC) of Hawaii issued an [order](#) opening an investigation of a Feed-in Tariff (FIT) for the Hawaiian Electric Companies (HECO).

On December 26, 2008 in Docket No. 2006-0084 the Hawaii Public Utilities Commission (PUC) approved an increase in the HELCO and MECO net energy metering limits from 1.0% to 3.0% of system peak demand. The maximum system size that qualifies for a net metering arrangement remains unchanged at 100 kW.

On July 15, 2009, [HB 591](#) became effective without Governor Lingle's signature. It allows the PUC to set preferential prices for renewable energy from agricultural lands.

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MISCELLANEOUS NEWS AND ANNOUNCEMENTS

Solar Advocates Applaud PG&E Commitment to Expand Net Metering Program in California - In late October, Governor Schwarzenegger secured a commitment from PG&E to increase the amount of solar net metering allowed in its territory from 2.5 percent to 3.5 percent of peak demand. Advocates at Vote Solar and the Solar Alliance applaud the move which will allow continued rooftop solar market growth and job creation in California.

Existing law requires California's major electric utilities to make net metering available to customers until the total program capacity exceeds 2.5 percent of the utility's peak demand. Data from the state's solar rebate program indicates that there may be enough applications to hit the 2.5 percent program cap in PG&E territory as early as the first half of 2010. [\[More\]](#)

DOE and NREL Announce Open PV Mapping Project — The National Renewable Energy Laboratory (NREL) and the U.S. Department of Energy (DOE) announced on October 26, the beta release of the [Open PV Mapping Project](#). The Open PV Mapping Project is a collaborative effort between government, industry, and the public that will develop a comprehensive database of photovoltaic (PV) installation data for the United States. The project is the largest installation database with over 50,000 entries.

The project will provide a Web-based resource for users to easily understand the current status and past progress of the PV industry from the data that show current and recent trends of the PV market. Additionally, users may add their own PV installation data, browse PV data entered by others, and view statistics. Moving forward, NREL will add additional data and use this information to drive further analysis of market growth.

The project will also help gauge the progress toward DOE's goal of reaching PV grid parity by 2015.

To access the Open PV Mapping Project, please visit the [project's Web site](#).

Super Hub Planned to Move Renewable Energy - A proposed "Tres Amigas Super Station" in Clovis, N.M., could route energy from isolated wind and solar installations to urban centers and other places that consume the most power. New Mexico Gov. Bill Richardson, who served as President Bill Clinton's energy secretary, said the transmission station would be "historic."

Tres Amigas would build a triangular pathway of underground superconductor pipelines, combined with AC/DC converters that synchronize the flow of power between the interconnections. The equipment allows electricity to be transferred from grid to grid.

Construction could begin in 2011 or 2012, and the hub could be running in 2013 or 2014, said Phil Harris, chief executive of the Santa Fe-based Tres Amigas. The pipelines, 3 feet in diameter, contain hair-thin ceramic fibers developed by Devens, Mass.-based American Superconductor and can carry enough electricity to power 2.5 million homes. [\[More\]](#)

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CONFERENCES AND EVENTS

Phase II of Renewable Energy in America National Policy Forum

Organized by: ACORE
November 19-20th, 2009
Washington, D.C.
<http://www.acorephaseii.com/>

2009 New Ideas in Educating a Workforce in Renewable Energy and Energy Efficiency

Organized by: IREC
November 18-20, 2009
Albany, NY
http://www.meetmax.com/sched/mie1109/~public/conference_home.html?event_id=3120

AWEA Wind Energy Fall Symposium

Organized by: AWEA
November 18-20, 2009
Orlando, FL
<http://www.aweafallsymposium.org/>

Renewable Energy World North America

Organized by: REW
February 23-25, 2010
Austin, TX

<http://www.renewableenergyworld-events.com/index.html>

American Solar Energy Society Conference

Organized by: ASES
May 17-22, 2010
Phoenix, AZ

<http://www.solar2010.org/>

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