



## **The IREC *Connecting to the Grid* Newsletter**

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## **NEWS FROM THE STATES**

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### **(1) ARIZONA - Recommended Order in APS Rate Case Disappoints**

The Arizona Corporation Commission's (ACC) chief administrative law judge has issued a recommended [order and opinion](#) on the current rate case for APS, an investor-owned electric utility operating in the state. The recommendations call for a pilot net-metering program for renewable-energy systems up to 100 kilowatts (kW) in capacity, and allow APS to recover "lost revenues" associated with net metering.

Renewable-energy advocates supported net metering for systems up to two megawatts (MW) in capacity, with no allowance for the recovery of "lost revenue," whereas APS supported net metering for systems up to 10 kW. Renewable-energy advocates noted that no other state has allowed the recovery of "lost revenues" using the proposed mechanism, adding that APS's calculations considered only the cost and none of the system benefits of renewable-energy generation.

Parties may file exceptions to the judge's recommended order and opinion on or before May 15, 2007. The ACC will vote on the recommendations and could accept, amend or deny any portion. This case is designated E-01345A-05-0816.

## **(2) CALIFORNIA - FERC Removes Regulatory Obstacles to Renewables**

The Federal Energy Regulatory Commission (FERC) has approved the California Independent System Operator's (CAISO) proposed mechanism for financing facilities to interconnect location-constrained renewable resources to the operator's transmission grid. FERC found that the CAISO's proposal strikes a reasonable balance that addresses barriers impeding the development of location-constrained resources, while at the same time including appropriate ratepayer protections to ensure that rates are just and reasonable and not unduly discriminatory. Electric-generation resources become location-constrained because of location (obviously), relative size and immobility of their fuel source.

"This order will encourage greater fuel diversity in our electricity supply and help California meet its renewable-energy targets," said FERC Chairman Joseph Kelliher. "We recognize unique characteristics of renewable-energy projects, but have been careful not to grant an undue preference. Our action today is fully consistent with both federal and state policy."

The American Wind Energy Association (AWEA) applauded FERC's decision (Docket No. EL07-33-000). This policy, which the U.S. wind-energy industry has worked to develop and support, aims to address the "chicken or egg" problem that has bedeviled wind-power development where no wind farms are built unless there is transmission, and no transmission is built unless there are wind farms already in place. FERC's ruling in effect states that, in windy areas where there is no transmission, transmission should be financed and built first as long as it is clear that there is a large energy resource to be tapped and that there is some financial commitment on the part of generating companies to eventually develop projects in the area, according to AWEA.

"This decision is great news," said AWEA Policy Director Rob Gramlich. "Several hundred gigawatts of cost-effective, inexhaustible, 100% clean wind power are now a step closer to being tapped for the benefit of the nation's economy, environment, and energy security."

The CAISO proposal would initially roll in the costs of interconnection facilities for location-constrained resources to all users of the system through the transmission-revenue requirement of the Participating Transmission Owner that constructs the facility, as reflected in the CAISO Transmission Access Charge. Each generator that interconnects would be responsible for paying its pro rata share of the going-forward costs of the line. All users of the transmission grid would pay the costs of any unsubscribed portion of the line through their inclusion in the Transmission Access Charge until the line is fully subscribed. To be eligible for this rate treatment, the interconnection facility must be approved in the CAISO's transmission-planning process as providing needed system benefits. Once the facility is constructed, generators of any fuel type would be eligible to interconnect and contract for unsubscribed capacity, consistent with the FERC's open-access requirements.

"The difficulties faced by generation developers seeking to interconnect location-constrained resources are real, are distinguishable from those faced by other generation developers, and such impediments can thwart the efficient development of infrastructure," FERC stated in its order. "In this regard, we find that the CAISO's proposal is an appropriate mechanism to accommodate the unique characteristics of location-constrained resources and that doing so does not constitute undue discrimination against other generators."

FERC said its current interconnection policy focuses on generators who have the ability to choose where to interconnect, allowing costs associated with the interconnection to be minimized. The interconnection policy was established before recent developments in the area of renewable resources and, according to the commission, the CAISO needs flexibility when accommodating renewable resources. There is evidence that insufficient interconnection capacity may be preventing the development of location-constrained resources. The CAISO's proposal is intended to overcome this hurdle. FERC also found that the CAISO's proposal includes several mechanisms that protect ratepayers. These include a rate impact cap and a requirement that before a facility could be constructed, the sponsoring Participating Transmission Owner must demonstrate a sufficient level of interest from location-constrained generators in the facility's capacity.

### **(3) CALIFORNIA - CEC Publishes DG, CHP Roadmap**

The California Energy Commission (CEC) has published a [report](#) defining a policy vision for distributed generation (DG) and combined heat and power (CHP) in the state in 2020. The 43-page report, titled *Distributed Generation and Cogeneration Policy Roadmap for California*, defines megawatt-penetration targets for different DG technologies and CHP. The publication also describes long-term strategies, pathways and milestones the state must take to achieve the 2020 vision and the DG and CHP-capacity targets.

### **(4) FLORIDA - Lakeland Allows Net Metering for 500-kW Commercial PV Systems**

Lakeland Electric, one of the largest municipal utilities in Florida, has increased the maximum capacity of commercial photovoltaic (PV) systems eligible for net metering from 10 kilowatts (kW) to 500 kW. The capacity limit on individual residential PV systems remains 10 kW. There is no limit on the aggregate capacity of net-metered systems in Lakeland's service territory. For more information about Lakeland Electric's net-metering program, see [www.dsireusa.org](http://www.dsireusa.org).

### **(5) GEORGIA - PSC Adjusts Schedule in Georgia Power Proceeding**

The Georgia Public Service Commission (PSC) has amended its procedural schedule for hearings pertaining to the integrated resource plan (IRP) recently filed by Georgia Power, an investor-owned electric utility. Hearings will be held May 11, 2007, and May 15-17, 2007. The PSC announced previously that it will consider the federal standards for interconnection and net metering contained in the federal Energy Policy Act of 2005 (EPAAct 2005) in Georgia Power's IRP proceeding.

The hearing process in this proceeding (Docket No. 24505-U) will last about six months, and the PSC has stated that it anticipates making a decision in this case in July 2007. All intervening parties will have an opportunity to file comments and make recommendations regarding the two standards.

In December 2006, the Georgia Environmental Facilities Authority (GEFA) issued a new, comprehensive [state energy strategy](#) that called for the development of "statewide interconnection standards that are consistent with best-of-class national standards." The energy strategy also recommended enhancing the state's existing net-metering law in order to ramp up the development of renewables in the state.

EPAAct 2005 requires state public utility commissions and certain "nonregulated" utilities to consider standards for net metering and interconnection. (In general, "nonregulated" utilities are those that are not subject to state regulatory jurisdiction and that have annual retail sales exceeding 500 million kilowatt-hours.) Section 1251 of EPAAct requires states and "nonregulated" utilities to commence consideration of a net-metering standard on or before August 8, 2007, and to make a determination regarding this standard on or before August 8, 2008. Section 1254 of EPAAct requires states and "nonregulated" utilities to commence consideration of an interconnection standard based on the IEEE 1547 standard on or before August 8, 2006, and to make a determination regarding this standard on or before August 8, 2007.

### **(6) ILLINOIS - Interconnection Hearing Rescheduled**

A hearing scheduled for June 5, 2007, by the Illinois Commerce Commission (ICC) in its ongoing consideration of interconnection standards for distributed generation (DG) has been continued to June 13, 2007. The ICC is currently investigating an interconnection standard based on the IEEE 1547 standard, pursuant to Section 1254 of the federal Energy Policy Act of 2005 (EPAAct 2005). In recent months the commission has held workshops addressing technical screens, standardized fees, dispute resolution, insurance issues and implementation. ICC staff will file a report by May 23, 2007, summarizing

the parties' positions. A trial date has been set for July 10, 2007. Contact the ICC or details regarding these workshops or for more information on other matters related to this proceeding (Docket No. 06-0525).

#### **(7) IOWA - IUB Invites Comment on Draft Interconnection Standard**

The Iowa Utilities Board (IUB) has issued an [order](#) inviting comments on preliminary conclusions and preliminary model interconnection procedures for regulated utilities. These conclusions were developed as a result of comments submitted by stakeholders following the IUB's initiation of this inquiry (NOI-06-4) in June 2006, pursuant to the federal Energy Policy Act of 2005 (EPAAct 2005). The comments addressed uniformity of utility interconnection standards, tiered requirements, model codes, export, contracts and capacity limits.

In its most recent order, issued April 25, 2007, the IUB determined that it would not extend interconnection to "all" forms of distributed generation (DG) because the board does not want to encourage fossil-fuel-based customer-sited systems. In addition, the IUB concluded that it has already adopted the IEEE 1547 standard for the interconnection of "qualifying facilities." Third, the IUB determined that it will not adopt the interconnection model developed by the National Association of Regulatory Utility Commissioners (NARUC) because this model is now obsolete.

As a result, the IUB has developed "Preliminary Model Interconnection Procedures for Rate-Regulated Utilities" and invited public comment on this model. The model, which provides for three levels of interconnection, borrows heavily from Indiana's interconnection standards, with modifications to reflect, among other things, the board's preliminary conclusions on various issues. The model is attached as Appendix A to the IUB's April 25, 2007 order

Inquiry participants and others may file responses and comments on or before June 15, 2007. Reply comments may be filed on or before July 3, 2007. After receipt and review of the comments, the IUB will determine what additional procedures are necessary to complete the inquiry. Work sessions may be scheduled or additional comments on specific questions. Contact John Pearce of the IUB at [john.pearce@iub.state.ia.us](mailto:john.pearce@iub.state.ia.us) or 515.281.5679 for more information regarding this inquiry.

#### **(8) KENTUCKY - PSC Rejects EPAAct Net-Metering Standard**

The Kentucky Public Service Commission (PSC) has rejected the standard for net metering contained in Section 1251 of the federal Energy Policy Act of 2005 (EPAAct 2005). The PSC staff has determined that prior state actions absolve the commission from addressing the federal standard, and the PSC has adopted the staff's position. The PSC rejected the EPAAct interconnection standard in 2006.

EPAAct 2005 requires state public utility commissions and certain "nonregulated" utilities to consider standards for net metering and interconnection. ("Nonregulated" utilities are those that are not subject to state regulatory jurisdiction and that have annual retail sales exceeding 500 million kilowatt-hours.) Section 1251 of EPAAct requires states and "nonregulated" utilities to commence consideration of a net-metering standard on or before August 8, 2007, and to make a determination regarding this standard on or before August 8, 2008. Section 1254 of EPAAct requires states and "nonregulated" utilities to commence consideration of an interconnection standard based on the IEEE 1547 standard on or before August 8, 2006, and to make a determination regarding this standard on or before August 8, 2007.

#### **(9) LOUISIANA - PSC Finds Existing Standards Comply with EPAAct**

The Louisiana Public Service Commission (PSC) has declined to revise its existing rules for net metering and interconnection after determining that the rules comply with the requirements of the federal Energy

Policy Act of 2005 (EPAAct 2005). The PSC noted that it invited comments on the two standards as part of an investigation into smart metering (Docket R-29213), but that response was minimal.

EPAAct 2005 requires state public utility commissions and certain "nonregulated" utilities to consider standards for net metering and interconnection. (In general, "nonregulated" utilities generally are defined as distribution utilities that are not subject to state regulatory jurisdiction and that have annual retail sales exceeding 500 million kilowatt-hours.) Section 1251 of EPAAct requires states and "nonregulated" utilities to commence consideration of a net-metering standard on or before August 8, 2007, and to make a determination regarding this standard on or before August 8, 2008. Section 1254 of EPAAct requires states and "nonregulated" utilities to commence consideration of an interconnection standard based on the IEEE 1547 standard on or before August 8, 2006, and to make a determination regarding this standard on or before August 8, 2007.

#### **(10) MARYLAND - Net Metering Raised to 2 MW; Interconnection Standards in Flux**

Maryland has become the fourth U.S. state to raise its net-metering limit to two megawatts (MW) for renewable-energy generators. [S.B. 595](#), enacted April 24, 2007, also implements a more aggressive renewable portfolio standard, requiring a 2% solar set-aside by 2022. As a result of these policies, Maryland is projected to add 1,500 megawatts (MW) of solar capacity by 2022.

In addition to raising the maximum capacity of individual net-metered systems, S.B. 595 included several other significant revisions to Maryland's net-metering law:

- Net metering is now available statewide until the aggregate capacity of all net-metered systems reaches 1,500 MW. (The previous aggregate limit on net metering was 34.7 MW.)
- The new law clarified that net excess generation (NEG) is carried over at the utility's retail rate to the customer's next bill for 12 months. Any NEG remaining in a customer's account after a 12-month period is granted to the utility with no compensation for the customer.
- For customers with facilities sized to produce energy in excess of the customer's consumption, the Maryland Public Service Commission (PSC) must consider the capacity of a customer's system when determining whether to require a customer to install a dual meter. (A dual meter may be required only if a customer sizes a system to generate electricity in excess of the customer's consumption.)
- Customers own and have title to all renewable-energy credits (REC) associated with electricity generation by net-metered systems.
- The PSC must file with the Maryland General Assembly detailed annual reports describing the status of the state's net-metering program.

In addition, S.B. 595 requires the PSC to form a small generator interconnection working group to develop interconnection standards and procedures that are "consistent with nationally adopted interconnection standards and procedures," and to revise the state's interconnection standards and procedures on or before November 1, 2007. It is unclear how the development of interconnection standards in Maryland will play out. The PSC is currently approaching the finish line in the development of interconnection standards for distributed generation (DG). These standards, which the PSC has not yet adopted, are based on the Mid-Atlantic Distributed Resources Initiative (MADRI) interconnection model. The MADRI model, developed using a preponderance of utility input, is generally unfavorable to small generators.

#### **(11) MICHIGAN - PSC Crafting Simplified Interconnection, Net-Metering Procedures**

Separate workgroups established by the Michigan Public Service Commission (PSC) have been developing simplified interconnection procedures and net-metering provisions for systems up to 10 kilowatts (kW) in capacity. The PSC plans to consolidate the two groups into a single workgroup to address both issues. As part of this proceeding (Case No. U-15113), PSC staff have developed draft

interconnection procedures, draft interconnection-standards revisions, and a draft net-metering proposal. Comments have been submitted on these [drafts](#). The PSC held a net-metering workshop May 2, 2007. A listserv has been developed for email related to the workgroup. Contact Julie Baldwin at 517.241.6115 or [baldwinj2@michigan.gov](mailto:baldwinj2@michigan.gov), or Brain Mills at 517.241.6076 or [millsb2@michigan.gov](mailto:millsb2@michigan.gov), of the PSC for more information.

## **(12) MICHIGAN - PSC Launches "Smart Grid" Collaborative**

The Michigan Public Service Commission (PSC) has directed its staff to convene a statewide collaborative on smart-grid infrastructure to improve the state's electric grid. A smart grid would feature developments such as advanced metering; monitors and sensors throughout to help control power flows; self-monitoring; automated restoration when disruptions occur; and price information provided to customers. The collaborative will emphasize reviewing and adopting technologies that make the grid flexible and efficient, enable distributed technologies, and preserve reliability. This investigation, designated Case No. U-15278, was initiated by a PSC [order](#) issued April 24, 2007.

"Michigan's economy demands that its electric grid feature state-of-the-art technologies to power it throughout this century," said MPSC Chairman J. Peter Lark. "From advanced meters that can communicate directly with the utility, to a grid that accommodates a variety of generation technologies -- including wind and solar -- a smart grid is essential to ensuring a reliable electric system. A smart grid also reduces the need for additional electric generation because it more efficiently manages congestion on the grid, and it reduces electrical losses."

To ensure that Michigan makes use of these emerging technologies, the PSC staff will monitor national smart-power-grid infrastructure developments. When options appear cost-effective and practical to implement, the PSC staff has been directed to establish evaluation criteria and standards that would trigger pilot programs or broader deployment in Michigan. The PSC staff must submit to the commission annual reports of its progress.

All regulated electric distribution companies in Michigan are required to participate in the collaborative. Other interested parties are invited to participate. Public comments in this case should be submitted via email to [mpacefilecases@michigan.gov](mailto:mpacefilecases@michigan.gov). (Residential customers also have the option of submitting written comments; these comments should be mailed to the Executive Secretary, Michigan Public Service Commission, P.O. Box 30221, Lansing, MI 48909.) All comments on smart-grid infrastructure developments should reference Case No. U-15278.

## **(13) NEW JERSEY - Reports Detail PV, SREC Markets; BPU Explores PV Financing**

The New Jersey Clean Energy Program (NJCEP) publishes quarterly [reports](#) on photovoltaic (PV) installations and the state market for solar renewable-energy certificates (SRECs) market. These reports review the monthly and cumulative market activity, identify ongoing trends, and provide market price information. The most recent report shows that while the number of new PV installations has remained relatively constant during the past four quarters, the installed capacity of new PV systems in the fourth quarter 2006 -- 7.3 megawatts (MW) -- was approximately double that of the capacity installed during each of the previous three quarters.

A total of 989 PV systems, with an aggregate capacity of 17.8 MW, were installed in New Jersey in 2006, compared to 493 systems (5.5 MW) in 2005, 282 systems (2.1 MW) in 2004, 56 systems (756 kilowatts) in 2003, 42 systems (764 kW) in 2002 and six systems (9 kilowatts) in 2001. At the end of 2006, a total of 1,868 PV systems with an aggregate capacity of 27 MW had been installed in New Jersey.

In related news, the New Jersey Board of Public Utilities (BPU) recently completed a series of solar-transition discussions at Monmouth University, New Jersey Institute of Technology and Thomas Edison State College. [Presentations](#) focused on educating vendors and consumers about alternative solar-

financing models under consideration and New Jersey's current pilot program which is exploring the transition from rebates to renewable energy certificates (RECs).

#### **(14) NEW MEXICO - Status Report Details Progress of Interconnection Work Group**

The New Mexico Public Regulation Commission (PRC) staff has issued a status report regarding the commission's proceeding to develop interconnection standards for customer-owned generation facilities (Case No. 07-00014-UT). Three workshops have been held since the case was initiated, in January 2007, and a second draft of a strawman proposal is in the process of being modified. The status report states that "much more work remains to be done," but that "thorough discussion between utilities and industry is likely to produce an interconnection standards document that is acceptable to all."

Further work will include the completion of the first-round review of all sections of the proposal, recognition of the 10-megawatt (MW) size limitation of the IEEE 1547 standard and providing standards for systems greater than 10 MW in capacity, addressing wide variation in peak loading of line circuits and voltage considerations, non-export protected interconnections, insurance, location and details associated with an external disconnect switch and the adequacy of pulling the meter as a substitute means of deactivating a system; study time periods allowed, conversion of standards into the New Mexico Administrative Code, streamlining definitions, consistency in the usage of words and expressions, and identification of changes to be made to existing rules.

The work group believes that at least three more workshops are necessary to complete discussions on salient issues and to prepare the document for word-by-word for consistency. In addition, two more workshops may be necessary to finalize any proposed new rule and modifications to existing rules. The PRC has indicated that it would like to adopt interconnection rules, if appropriate, by mid-July 2007.

#### **(15) NEW YORK - PSC Seeks to Promote Renewables, DG via Revenue Decoupling**

The New York Public Service Commission (PSC) has issued an order requiring electric utilities to file proposals for revenue-decoupling mechanisms. The order is part of a proceeding (Case 03-E-0640) instituted by the PSC in 2003 to examine potential delivery-rate disincentives against the utilities' promotion of energy efficiency, renewable energy and distributed generation. Under terms of the order, issued April 18, 2007, utilities must develop and implement mechanisms that true-up forecast and actual delivery-service revenues and, as a result, significantly reduce or eliminate any disincentives caused by the recovery of utility fixed delivery costs via volumetric rates or marginal consumption blocks. Utilities must file their proposals in ongoing and new rate cases.

#### **(16) NEW YORK - NYISO Report Identifies Grid Improvements, Concerns**

The New York Independent System Operator (NYISO) has issued *Power Trends 2007*, an annual publication that addresses and assesses the state's bulk electricity grid and its competitive wholesale electricity markets. The 32-page [report](#) describes "significant gains" made in opening access to the bulk electricity grid for competition and to innovative and renewable-power sources, including wind energy. In addition, the report details the growth of Demand Response programs to meet New York's growing energy needs, and discusses the Comprehensive Reliability Planning Process, the NYISO's annual evaluation of system resource adequacy over a 10-year period. The study also confirms that there are sufficient supplies of electricity to meet this summer's expected peak electrical demands.

*Power Trends 2007* finds that generation and transmission resources on the bulk electricity grid are expected to be adequate through 2010. However, potential resource deficiencies may occur in the state's southeastern region by 2011, particularly in New York City and on Long Island. If left unaddressed, these deficiencies would become acute by 2016. These deficiencies were outlined in the *Reliability Needs Assessment*, a NYISO companion study to *Power Trends* issued in March 2007. Solutions to longer-term

bulk electricity grid needs identified in the RNA have been solicited by the NYISO and will be addressed in the NYISO's *Comprehensive Reliability Plan*, which will be published this summer.

#### **(17) SOUTH DAKOTA - PUC Pondering Next Step for Interconnection**

The South Dakota Public Utilities Commission (PUC) met May 8, 2007, to discuss what additional steps to take in its ongoing interconnection proceeding (Docket EL06-018), following an interconnection [workshop](#) held one week beforehand. The PUC is considering an interconnection standard based on the IEEE 1547 standard, pursuant to the federal Energy Policy Act of 2005 (EPAc 2005). The PUC has already rejected the federal standard for net metering contained in EPAc 2005, having determined that prior state actions exempt the commission from considering the standard. South Dakota does not have statewide interconnection standards for distributed generation (DG), and it is one of only nine U.S. states without any known net-metering opportunities for consumers.

EPAc 2005 requires state public utility commissions and certain "nonregulated" utilities to consider standards for net metering and interconnection. (In general, "nonregulated" utilities are those that are not subject to state regulatory jurisdiction and that have annual retail sales exceeding 500 million kilowatt-hours.) Section 1251 of EPAc requires states and "nonregulated" utilities to commence consideration of a net-metering standard on or before August 8, 2007, and to make a determination regarding this standard on or before August 8, 2008. Section 1254 of EPAc requires states and "nonregulated" utilities to commence consideration of an interconnection standard based on the IEEE 1547 standard on or before August 8, 2006, and to make a determination regarding this standard on or before August 8, 2007.

#### **(18) VIRGIN ISLANDS - PSC Approves Net-Metering Pilot Program**

The U.S. Virgin Islands Public Services Commission (PSC) has approved a pilot net-metering program for residential and commercial photovoltaic (PV) and wind-energy systems up to 10 kilowatts (kW) in capacity. The pilot program, adopted in February 2007, was inspired in part by the federal Energy Policy Act of 2005 (EPAc 2005).

The pilot net-metering program will run for a one-year trial period. During this time, data will be collected to determine how to improve or modify the program beyond the trial period, or potentially to terminate the program. Any net excess generation (NEG) produced by a customer will be credited at the utility's full retail rate and carried forward to the customer's next monthly bill. At the end of a 12-month period, any remaining NEG is granted to the utility.

The aggregate capacity limit of all net-metered systems is five megawatts (MW) on St. Croix, and 10 MW on St. Thomas, St. John, Water Island and other territorial islands. These limits are equal to 10% of the peak load of the Virgin Islands Water and Power Authority's (WAPA) electric system.

As for interconnection, all installations must comply with the IEEE 1547 standard, the UL 1741 standard, the National Electric Code, and the Uniform Building Code. The utility will furnish, install, own and maintain all metering equipment, including a meter capable of measuring customer generation. An external disconnect switch is required at the customer's expense, and customers must indemnify the utility from and against liability for loss and damage.

EPAc 2005 requires state public utility commissions and certain "nonregulated" utilities to consider standards for net metering and interconnection. ("Nonregulated" utilities are those that are not subject to state regulatory jurisdiction and that have annual retail sales exceeding 500 million kilowatt-hours.) Section 1251 of EPAc requires states and "nonregulated" utilities to commence consideration of a net-metering standard on or before August 8, 2007, and to make a determination regarding this standard on or before August 8, 2008. Section 1254 of EPAc requires states and "nonregulated" utilities to commence consideration of an interconnection standard based on the IEEE 1547 standard on or before August 8, 2006, and to make a determination regarding this standard on or before August 8, 2007.

### **(19) VIRGINIA - Net-Metering Law Revised by Two Separate Bills**

Virginia has amended its net-metering statute for the fourth time in four years upon enacting two separate bills (2006 VA S.B. 1416 and 2006 VA H.B. 2708) in April 2007. S.B. 1416 raised the aggregate limit on net-metered capacity from 0.1% to 1% of each utility's adjusted Virginia peak-load forecast for the previous year. H.B. 2708 will make it easier for net-metered customers to enter into power purchase agreements with default electric-service providers. As a result of H.B. 2708, utilities are required to enter into power purchase agreements with net-metered customers at a customer's request. This agreement obligates a utility to purchase customer net excess generation (NEG) at a rate approved by the Virginia State Corporation Commission (SCC).

Virginia's original net-metering law was enacted in 1999. Net metering is available to residential customers with renewable-energy systems up to 10 kilowatts (kW) in capacity and non-residential customers with systems up to 500 kW in capacity. See [www.dsireusa.org](http://www.dsireusa.org) for more information about net metering in Virginia.

### **(20) WASHINGTON - UTC Eyes FERC Interconnection Model; Comment Invited**

The Washington Utilities and Transportation Commission (UTC) has completed a [second discussion draft](#) of amended regulations to govern the interconnection of distributed generation (DG) up to 300 kilowatts (kW) in capacity. The second discussion draft was developed to:

- Clarify that the rule does not cover interconnection related to sales and purchases of power pursuant to PURPA.
- Clarify that the rule does not cover standby and emergency generators.
- Clarify that the rule does not apply to interconnections that fall under the jurisdiction of the Federal Energy Regulatory Commission (FERC).
- Emphasize that dispute resolution under WAC 480-07 is available to interconnection customers.
- Establish timetables for review and processing of interconnection applications consistent with requirements contained in FERC's interconnection standards for small generators, promulgated in Order 2006.
- Allow interconnection to distribution "grid" networks if approved by the utility.
- Allow utilities to share the cost of interconnection studies or facilities and upgrades if the utility demonstrates that an interconnection will benefit its other customers.
- Set limits on the size of deposits the utility may require from interconnection customers for the cost of studies.
- Require utilities to file interconnection tariffs for facilities larger than 300 kW but not larger than 20 megawatts (MW) that are consistent in all procedural and technical respects with FERC's interconnection standards for small generators.
- Allow a utility's interconnection tariff for facilities larger than 300 kW but not larger than 20 MW to vary from the FERC regulations if the company shows that the FERC rules do not address the circumstances of its system and if an alternative to the FERC rules meets specific requirements.
- Include numerous editorial amendments to improve clarity and readability.

The UTC has invited written comments on the second draft amended rule by May 25, 2007. After reviewing comments submitted, the UTC anticipates moving expeditiously to file a proposed rule amendment (CR-102) with the Office of the Code Reviser. For more information on this proceeding, contact Dick Byers of the UTC at [dbyers@wutc.wa.gov](mailto:dbyers@wutc.wa.gov) or 360.664.1209.

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## NATIONAL NEWS

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### **(21) EPA Proposes to Redefine "Cogeneration" in Clean-Air Rules**

The U.S. Environmental Protection Agency (EPA) has proposed to amend the definition of "cogeneration" in the Clean Air Interstate Rule (CAIR), the CAIR model cap-and-trade rules, the CAIR Federal Implementation Plan (FIP), the Clean Air Mercury Rule (CAMR), the CAMR model cap-and-trade rule, and the proposed CAMR Federal Plan. All four rules include an exemption for certain cogeneration units, also known as combined-heat-and-power (CHP) units. The EPA's action comes in light of information concerning existing biomass-fired cogeneration units that may not qualify for the exemption. Specifically, EPA is proposing "to revise the efficiency standard in the cogeneration unit definition so that the standard would apply, with regard to certain units, only to the fossil fuel portion of a unit's energy input."

For more information about the EPA's proposed amendment, see the [announcement](#) in the April 25, 2007 edition of the *Federal Register*.

### **(22) DOE Invites Public Comment on Fuel-Cell Market Development**

The U.S. Department of Energy's Hydrogen Program has issued a [Request for Information](#) (RFI) on hydrogen and fuel-cell early markets. As part of the program's effort to facilitate market transformation, this RFI focuses on opportunities for the early adoption of hydrogen and fuel-cell technologies and supporting activities. Specifically, the RFI seeks public comment on three main topics: (1) Early Market Financial Assistance, (2) Fuel-Cell Performance Testing and (3) Community Partnerships. The deadline for responses is June 30, 2007.

### **(23) DOE Issues Draft National Interest Electric Transmission Corridors**

The U.S. Department of Energy (DOE) has announced the selection of two draft National Interest Electric Transmission Corridor designations, based on the findings of the department's *National Electric Transmission Congestion Study*. Although not required by statute, DOE is issuing draft designations in order to allow additional opportunities for review and comment by affected states, regional entities, and the general public.

These draft national corridors are comprised of two geographic areas where consumers are currently adversely affected by transmission capacity constraints or congestion. The proposed Mid-Atlantic Area National Corridor includes counties in Ohio, West Virginia, Pennsylvania, New York, Maryland, Virginia, and all of New Jersey, Delaware, and the District of Columbia. The proposed Southwest Area National Corridor includes counties in California, Arizona, and Nevada.

Within a national corridor, transmission proposals could potentially be reviewed by the Federal Energy Regulatory Commission (FERC), which would have siting authority supplementing existing state authority. Under this arrangement, if an applicant does not receive approval from a state to site a proposed new transmission project within a national corridor, the FERC may consider whether to issue a permit and to authorize construction. In the event of a FERC siting proceeding, the FERC must conduct a review under the National Environmental Policy Act, which would include analysis of alternative routes for that project, including route realignments necessary to avoid adverse effects on the environment, landowners and local communities. A federal permit could empower the permit holder to exercise the right of eminent domain to acquire necessary property rights to build a transmission project. That authority could only be exercised if the developer could not acquire the property by negotiation, and even then, the authority would not apply to property owned by the United States or a state, such as national or state parks.

A 60-day comment period will begin the day draft national corridor designations are published in the *Federal Register*. During the comment period, DOE will confer with affected states and will hold public meetings in the DC metro area on May 15, 2007; in San Diego on May 17, 2007; and in New York City on May 23, 2007. Additional information and a copy of the *Federal Register* notice are available at the *National Interest Electric Transmission Corridors and Congestion Study* [web site](#).

#### **(24) NRC Report Calls for Government Guidance on Wind-Energy Development**

Although the use of wind energy to generate electricity is increasing rapidly in the United States, government guidance to help communities and developers evaluate and plan proposed wind-energy projects is lacking, says a new congressionally mandated [report](#) from the National Research Council (NRC). To inform the development of guidelines, the 346-page report offers an analysis of the environmental benefits and drawbacks of wind energy, along with an evaluation guide to aid decision-making about projects. As a case study, the committee that wrote the report looked at the mid-Atlantic highlands, a mountainous area that spans parts of West Virginia, Virginia, Maryland, and Pennsylvania. The report, titled *Environmental Impacts of Wind-Energy Projects*, does not examine the impact of offshore wind-energy projects.

Currently, federal regulation of wind projects on private land is minimal, the report observes. And although some states have developed guidelines, wind energy is such a recent addition to the energy mix in most areas -- the nation's wind-energy capacity more than quadrupled between 2000 and 2006 -- that most states are relatively inexperienced at planning and regulation. Despite the growth in its use, wind energy still generates less than 1% of the nation's electricity. Some national-level policies to enhance the benefits of wind energy and minimize its harms would help guide state and local regulatory efforts, the report says.

A primary benefit of using wind to generate electricity is that it produces no carbon dioxide (CO<sub>2</sub>), a major greenhouse gas, or any other air pollutant. Based on U.S. Department of Energy projections for wind-energy development in the United States, the committee estimated that by 2020, wind energy will offset approximately 4.5% of the carbon dioxide that would otherwise be emitted by other electricity sources. In 2005, electricity generation accounted for 39% of the nation's total CO<sub>2</sub> emissions.

The committee concluded that use of wind energy to generate electricity probably would not significantly reduce emissions of two other pollutants, sulfur dioxide and nitrogen oxides, because current and expected regulations of these are largely based on cap-and-trade programs. The degree to which emissions would be further reduced through special provisions to encourage wind-energy use -- such as set-asides, in which a percentage of emissions allowed under the cap are retired to the extent they can be offset by wind energy -- is uncertain, the committee added.

Governments at the state and local levels should provide developers and the public with guidance to help them plan for wind-energy development, including guidance on procedures and information needs for assessing projects, the report says. It also recommends that regulatory agencies adopt an evaluation guide to review proposed projects, and that governments work with each other and with organizations and developers to create guidelines for weighing projects' costs and benefits at scales ranging from local to national.

The report was sponsored by the White House Council on Environmental Quality. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and NRC make up the National Academies. They are private, nonprofit institutions that provide science, technology, and health policy advice under a congressional charter. The NRC is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering.

## **(25) Edison International Calls for Massive Grid Upgrades**

In testimony before a U.S. House of Representatives Energy and Commerce Subcommittee on May 3, 2007, the chairman of Edison International -- the parent company of Southern California Edison -- stated that "a high-tech world can no longer afford a low-tech electricity grid." Calling some current U.S. grid components "dinosaurs," John Bryson urged legislators to support substantial new utility investments in "smarter" transmission and distribution technologies. He connected the technology transformation occurring within the electricity sector with the national effort to reduce emissions and protect the environment, and reported smart grid technologies will help reduce peak consumption and power generation, make it easier for utilities to integrate intermittent renewable-energy sources such as wind and solar, and support the emergence of cleaner electric transportation fuel, reducing the nation's petroleum consumption.

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## **INTERNATIONAL NEWS**

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## **(26) CANADA - Ontario Publishes Data on Production Incentive Payments**

The Ontario Power Authority (OPA) has published its seminal [quarterly report](#) detailing the status of its Renewable Energy Standard Offer Program (RESOP), which took effect November 22, 2006. In the first three months of 2007, the OPA made 47 contract offers, 36 of which have been executed, for a total of 36 RESOP contracts executed to date. There are another 81 applications in process.

For the period starting from date of the program launch and ending on April 30, 2007, all eligible generators, except PV generators, will be paid a base rate of C\$0.11 per kilowatt-hour (kWh) for electricity delivered under the contract. In subsequent years, 20% of the base rate will be indexed for inflation according to the year-over-year change in the Consumer Price Index. Projects that can reliably operate during on-peak hours will be eligible for an additional C\$0.0352 per kWh for electricity delivered during on-peak hours. PV projects will be paid C\$0.4242.0 per kWh but will not be eligible for inflation indexation or the peak-hour premium.

## **(27) GERMANY - National Study to Examine 30% RPS**

The German Energy Agency -- Deutsche Energie-Agentur GmbH (dena) -- is coordinating a grid study to determine how the percentage of renewable energy contributing to the national electricity supply can be increased to 30% between 2020 and 2025. This study builds on a [previous study](#), published in spring 2005, that described how renewables could provide 20% of Germany's electricity by 2015. The current project will address the following questions:

- What impact will an increase in the input of wind energy have on the extra-high-voltage grid?
- How can wind-powered electricity be brought from the North Sea and Baltic Sea to land and then transported to high-demand centers further inland?
- How can the systems be optimized?
- Which electricity-storage systems are most effective?

The flexibility of electricity generation and the improvement of wind forecasts also will be examined in the study. The research will be financed jointly by public and private entities, including the German Economics and Environment Ministries, grid operators, the wind industry, plant-engineering firms, the conventional power industry. The project partners are contributing to the research via a project control group led by dena. Initial results are expected at the end of 2008.

## **(28) INDIA - UN-Supported PV Program Poised for Expansion**

An estimated 100,000 people in rural India are now receiving several hours of reliable solar-powered lighting every night as the result of a United Nations-led pilot project that is set to expand to a number of other developing countries. To implement the program, the UN has worked with Indian bankers to finance small loans for photovoltaic (PV) systems; the new terms include lower interest rates, longer payback periods and smaller deposits. Previously, purchases were made using cash, effectively making systems too expensive for most people.

The \$1.5 million pilot, managed by the United Nations Environment Programme (UNEP), has already inspired a sister effort in Tunisia, where the market for solar water heaters has been shifted from cash to credit, with over 16,000 systems financed. Similar programs are planned for China, Indonesia, Egypt, Mexico, Ghana, Morocco and Algeria.

A report on the project will be offered at the UN [Commission for Sustainable Development](#), which opened its annual two-week session in New York City on April 30, 2007, with a focus on energy issues.

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## **INDUSTRY NEWS**

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## **(29) World Bank Report Describes \$30 Billion Carbon Market**

The seventh annual World Bank carbon-market intelligence [study](#) shows that the global carbon market tripled from \$10 billion in 2005 to \$30 billion in 2006. The market was dominated by the sale and resale of European Union Allowances (EUAs) at a value of nearly U\$25 billion, while the projects-based market in developing countries and in countries with economies in transition grew sharply to \$5 billion in 2006, more than doubling over the previous year.

According to the 52-page report, titled *State and Trends of the Carbon Market 2007*, the developing world has contracted one billion tons of greenhouse-gas-emission reductions and is on track to bring an additional billion tons to the market by 2012.

## **(30) New SMA America Inverters Include 10-Year Warranty**

SMA America has announced that it will offer a 10-year standard warranty on the company's new line of inverters, which includes the Sunny Boy SB 3000US, SB 4000US, SB 5000US, SB 6000US, and SB 7000US, as well as the Sunny Tower 36kW and 42kW commercial inverter systems. In addition, SMA's communication and control device warranties on the Sunny Web Box, Sunny Sensor Box, and Sunny Beam have been extended from two years to five years.

SMA's new inverter family is certified to the new UL 1741 and IEEE 1547 standards and has the highest efficiencies on the California Energy Commission's (CEC) "eligible equipment" list, according to the company.

## **(31) Fronius IG Inverters Meet UL, IEEE Standards**

Fronius has announced that all inverters shipped from its facilities in Brighton, Michigan, have been upgraded to comply with the new UL 1741 standard and the IEEE 1547.1 standard. The company also announced its Fronius IG inverters now include an additional 1/2" and 3/4" knock-out on the bottom and on both sides of the case for improved installer convenience.

### **(32) SatCon PV Inverters Certified to New UL Standard**

SatCon Technology has announced that it has obtained certification of its PowerGate Inverter product line for commercial photovoltaic (PV) applications to the new UL 1741 standard, which will take effect May 7, 2007. SatCon has already obtained certification under the new UL 1741 standard of its ground fault detection interrupter.

### **(33) World Bank's Clean-Energy Investment Plan Endorsed**

Ministers of development and finance from industrialized and developing countries have generally endorsed the *Action Plan* for the deployment of the Clean Energy for Development Investment Framework (CEIF). The CEIF is a platform for increasing private-sector and public-sector investments in clean energy. At a meeting held April 19, 2007, the ministers recommended mainstreaming considerations of climate variability and change into development projects, asked the Bank to continue the consultation and collaboration with the private sector, and recommended that work should continue on an action plan for strengthened collaboration with the Regional Development Banks. According to the *Action Plan*, total energy support to developing countries from all sources -- the World Bank Group, Carbon Finance and Global Environment Facility -- is expected to top \$10 billion in the three-year period since the CEIF was initiated (FY2006-08), up from \$7 billion over the previous three years.

The *Action Plan* supports the transition to a low carbon economy, especially in the "Plus 5" countries (Mexico, Brazil, China, India, and South Africa) by expanding knowledge and investment support. World Bank Group lending for low carbon projects has grown from roughly \$633 million per year in FY2003-05 to approximately \$1.7 billion in FY2006, representing, in FY2006, 37 percent of new commitments, compared to 14 percent in FY2003.

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## **PUBLICATIONS AND ANNOUNCEMENTS**

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### **(34) IREC Updates State-by-State Interconnection, Net-Metering Tables**

The Interstate Renewable Energy Council (IREC) has updated its state-by-state table of interconnection standards and its state-by-state table of net-metering rules and programs. Both tables were revised in April 2007. The state-by-state [net-metering table](#) allows users to compare state and utility rules and programs by maximum individual system capacity, maximum aggregate capacity, eligible customer classes, eligible technologies, the treatment of net excess generation (NEG), and the types of utilities affected.

The state-by-state [interconnection table](#) allows users to compare state and utility interconnection standards and guidelines for distributed generation (DG). For each state or utility, the table includes the year the standard was originally approved, the breakpoint for simplified interconnection rules, eligible DG technologies, the maximum individual system capacity, application costs, additional insurance requirements, requirement for an external disconnect switch, screening processes for interconnection studies, and network interconnection provisions.

Both tables are available to the general public. Send any feedback or comments to Rusty Haynes of the NCSU Solar Center at [rusty\\_haynes@ncsu.edu](mailto:rusty_haynes@ncsu.edu).

### **(35) PV Textbook for Electricians Published**

A new [book](#) written by Jim Dunlop, a researcher at the Florida Solar Energy Center (FSEC), provides a comprehensive guide to the fundamentals, design and installation of photovoltaic (PV) systems. The 450-page book, *Photovoltaic Systems*, was published in March 2007 by the National Joint Apprenticeship and Training Committee for the Electrical Industry.

The publication is intended to serve as a textbook for more than 300 International Brotherhood of Electrical Workers and National Electrical Contractors Association apprenticeship programs across North America. The book covers all system components and configurations in detail, with chapters on principles of solar energy, batteries, utility interconnection, economic analysis and related topics. Included with the book is a CD-ROM containing video clips, solar radiation data, and worksheets and checklists for class use.

"The tremendous growth of the PV industry means that the workforce needs to be substantially increased in the coming years," Dunlop said. "There is huge potential here for all kinds of jobs, ranging from system designers to contractors to installers, and this book will help people learn about these opportunities and better understand what the field has to offer."

### **(36) Policies, Technologies Could Greatly Reduce Global Warming, IPCC Finds**

A new [assessment](#) by the Intergovernmental Panel on Climate Change (IPCC) concludes that the world community could slow and then reduce global emissions of greenhouse gases (GHGs) over the next several decades by exploiting cost-effective policies and current and emerging technologies. Based on the most up-to-date, peer-reviewed literature on emissions modeling, economics, policies and technologies, the IPCC report describes how governments, industry and the general public could together reduce the energy and carbon intensity of the global economy despite growing incomes and population levels.

The report, titled *Climate Change 2007: Mitigation of Climate Change*, addresses ways of reducing emissions from six key sectors: energy supply, buildings, transportation, industry, forests and post-consumer waste. As for the energy-supply sector, the IPCC concludes that no single economically and technologically feasible solution would on its own suffice for reducing GHG emissions. Instead, governments would need to promote a range of options.

For example, governments could encourage natural gas over more carbon-intensive fossil fuels as well as mature renewable energy technologies such as large hydro, biomass combustion and geothermal. Other renewable sources include solar-assisted air conditioning, wave power and nanotechnology solar cells, although they all still require more technological or commercial development. Yet another option could be carbon capture and storage technology. Irrespective of climate change, over \$20 trillion is expected to be invested in upgrading global energy infrastructure from now until 2030. The additional cost for altering these investments in order to reduce greenhouse gas emissions would range from negligible to an increase of 5 - 10%.

Governments can play a major role in motivating the private sector to invest in innovative technologies by providing companies with incentives that are clear, predictable, long term and robust, according to the report.

### **(37) ACORE Publishes Joint Outlook on U.S. Renewables**

If renewable energy is to reach its full potential, the United States needs coordinated, sustained federal and state policies that expand renewable-energy markets, promote and deploy new technology, and encourage renewable-energy use in all critical market sectors, according to a report coordinated by the American Council On Renewable Energy (ACORE). The report, titled *2007 Joint Outlook on Renewable*

*Energy in America*, was conducted to help communicate what renewable energy is capable of achieving with the appropriate mix of policies and market-based incentives and standards.

"Steady, long-term policy support is crucial to sustain this growth and attract investment," said Randall Swisher, executive director of the American Wind Energy Association. "A national renewable portfolio standard and a long-term extension of the renewable energy production tax credit are measures that can be adopted now and would unleash billions of dollars in new projects and manufacturing plants, create tens of thousands of jobs and generate revenue for farmers and rural communities, while jump-starting cost-effective action against global warming."

"The United States has the best solar resources in the industrialized world, but we need federal leadership to put these resources to work for all Americans," said Rhone Resch, president of the Solar Energy Industries Association.

Other nonprofit and organizations that participated in the report include the U. S. Combined Heat and Power Association, the National Hydropower Association, the Geothermal Energy Association, the Biomass Coordinating Council, the Virginia Tech Advanced Research Institute and the Ocean Energy Council, the American Solar Energy Society, The Renewable and Appropriate Energy Laboratory at the University of California at Berkeley, Union of Concerned Scientists and Worldwatch Institute.

### **(38) NREL Report Explores Carbon Regulation, Green-Power Markets**

A new [report](#) published by the National Renewable Energy Laboratory (NREL) provides a review carbon-regulation programs under development in the U.S. Northeast and California, as well as the experience in the European Union, where carbon is already regulated, and discusses the potential implications of these programs for the types of environmental claims currently made by commercial and institutional green-power purchasers. The 69-page report, titled *Implications of Carbon Regulation for Green Power Markets*, also explores the potential interaction between voluntary renewable-energy purchase markets and voluntary carbon markets, such as the Chicago Climate Exchange.

The report recommends several policy options that would enable purchasers of renewable energy to affect overall emission-reduction claims. These include a renewable-energy set-aside of allowances, an output-based allocation of allowances, the establishment of a load-based cap and potential subsequent reduction of the cap, and retiring allowances on behalf of voluntary market demand.

### **(39) IREC Announces Contest, Invites Submissions**

The Interstate Renewable Energy Council (IREC) has announced a contest to determine the best way to deplete net excess generation (NEG) accumulated by a net-metered customer. In many states with net metering, any NEG remaining in a customer's account after a 12-month period is granted to the utility. In a handful of states, NEG is granted to the utility monthly. The purpose of this contest is to identify alternatives to donating free, high-value solar electricity to utilities.

Note that IREC does not actually promote wasting electricity. However, submissions that fail to amuse the review committee will be ridiculed and promptly disposed of. Please send submissions to Rusty Haynes at [rusty\\_haynes@ncsu.edu](mailto:rusty_haynes@ncsu.edu). Graphics and other visual aids are encouraged. Winning submissions will be announced at IREC's annual conference, held September 24, 2007, in Long Beach, California. Each winner will be treated to a low-grade beer, courtesy of Chris Cook.

### **(40) Report Offers Overview of Utilities, Regulatory Issues**

The C Three Group will publish an updated [overview](#) of more than 150 investor-owned electric and gas utilities in June 2007. The publication, titled *State Regulatory Benchmarks of U.S. Investor-Owned*

*Electric and Gas Utilities*, addresses rate structures; fuel, gas or power cost-recovery mechanisms; allowed returns on equity; allowed return on investment, dates of last general rate cases; outcomes of last rate cases; pending rate cases or significant regulatory matters; and recent major state regulatory issues. The report costs \$495 if ordered by May 31, 2007.

#### **(41) RRI Updates REC-Market Report**

Research Reports International (RRI) has published the fifth edition of *The Market For Renewable Energy Certificates*, 120-page study of the international market for RECs. The [report](#) describes how RECs work, the role they can play in spurring renewable-energy development, the different models for implementing RECs, government programs supporting RECs, current offerings of REC suppliers and customer purchases of RECs. The report primarily addresses the U.S. market for RECs, but also includes a description of Canadian, European, Australian and Japanese REC programs. The report costs \$299.

#### **(42) FERC Publishes 2006 Annual Report**

The Federal Energy Regulatory Commission (FERC) has published its 2006 [annual report](#), covering the fiscal year from October 1, 2005, through September 30, 2006. This is the 86th annual report issued by FERC and its predecessor, the Federal Power Commission. The 56-page report details FERC's efforts to fulfill its primary duties -- guarding electric and gas consumers from market power abuse, and promoting development of a robust energy infrastructure.

The federal Energy Policy Act of 2005 (EPAAct 2005) marked the most significant increase in FERC's regulatory authority in 70 years. Among the most important of these tools is new authority to establish rules to prevent manipulation of electric and gas markets, with significant new penalty authority. These new regulatory tools also include authority to establish and enforce electric reliability standards and discretionary authority to provide greater price transparency in electric and gas markets. In FY 2006, FERC met all of the deadlines set by Congress. These efforts are described in the report.

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## **PEOPLE**

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#### **(43) DOE Appoints Deputy Assistant Secretaries**

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) announced the appointment of David E. Rodgers and Steven Chalk as deputy assistant secretaries, effective April 30, 2007. Rodgers is DOE's first deputy assistant secretary for energy efficiency, and Chalk is the new deputy assistant secretary for renewable energy. Together, they will oversee the technology development and deployment of the nation's applied R&D portfolio for clean, domestic and affordable technologies.

"Steven Chalk and David Rodgers have been recognized as being among the government's top executive managers, have proven records of accomplishment, and are well-respected by academia and industry," said Assistant Secretary Alexander Karsner. "Steve Chalk's recent experience in managing the President's Hydrogen Fuel Initiative, of \$1.2 billion over five years, and more recently the Solar America Initiative in our Solar Technology Program and in our Building Technologies Program makes him a proven leader in prudent management of taxpayer resources to catalyze industry, academia, and our national laboratories, for maximum utilization of clean-energy resources in a holistic way that begins with applied science R&D but also includes manufacturing, commercialization, and education."

#### **(44) California PUC Announces New Director**

Paul Clanon has become the executive director of the California Public Utilities Commission (CPUC), effective May 1, 2007. Clanon previously served as deputy executive director for administration and operations at the PUC, a position he held since January 2005, following eight years as director of the PUC's energy division. He joined the PUC in 1984.

The PUC's executive director works with commissioners, directors, staff, oversight agencies, the state legislature, the governor's office, and all external stakeholders to coordinate and facilitate timely handling of procedural matters and efficient internal operations. The executive director's office works to anticipate regulatory and agency needs in order to develop and implement appropriate strategies to meet those needs. Clanon, 47, holds a bachelor's degree in economics from the University of California at Berkeley. He replaced Steve Larson, who accepted a position as president of Woodside Natural Gas.

"Paul has extensive knowledge of the PUC's practices and procedures, both internal management and public decision-making, and I welcome him to his new position," said PUC President Michael Peevey.

#### **(45) CanSIA Welcomes New Executive Director**

Elizabeth McDonald has been appointed executive director of the Canadian Solar Industries Association (CanSIA). Previously, McDonald worked with the associations representing Canada's private broadcasters and the cable industry to ensure that the concerns of these industries were communicated to a wide range of key government departments and agencies.

"We are pleased Elizabeth is joining us in our work to ensure that the federal, provincial and municipal governments in Canada recognize at this critical time the importance and contribution the solar industries can make to Canada's industrial, environmental and social development," said Andrew van Doorn, CanSIA president.

The Canadian Solar Industries Association's mission is to develop a strong, efficient, ethical and professional Canadian solar industry, able to service an expanding domestic energy market, to provide innovative solar solutions to world.

#### **(46) NHA Announces New Directors**

Members of the National Hydrogen Association (NHA) elected three new directors to the board of directors in May 2007: Michael Smith, president and chief operating officer of Air Liquide Advanced Technologies U.S.; John Elter, chief technology officer of Plug Power; and Steve Gilchrist, vice president of government affairs for the Canadian Hydrogen Energy Company. Three other directors were re-elected to the board: Jaimie Levin, director of marketing and alternative fuels policy for AC Transit; Bruce Logan, director of the Hydrogen Energy Center at the Pennsylvania State University; and Frank Novachek, director of corporate business planning at Xcel Energy.

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## **EVENTS CALENDAR**

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### **Solar Power Project Finance & Investment Summit**

Sponsored by: Conergy; EPURON; et al.

May 9-11, 2007

San Diego, CA

[www.infocastinc.com/solar07.html](http://www.infocastinc.com/solar07.html)

**Conference and Exhibition on Renewable Energy**

Organized by: Algerian Ministry of Energy and Mines  
May 13-15, 2007  
Algiers, Algeria  
[www.ceer-algeria.com](http://www.ceer-algeria.com)

**Solar New York 2007: Conference and Exhibition**

Presented by: New York Solar Energy Industries Association (NYSEIA)  
May 14, 2007  
Albany, NY  
[www.nyseia.org](http://www.nyseia.org)

**Rule 21 Working Group Meeting**

Hosted by: California Energy Commission (CEC)  
May 15, 2007  
Sacramento, CA  
[www.rule21.ca.gov](http://www.rule21.ca.gov)

**CHP Distributed Generation Systems**

Sponsored by: N.C. State Energy Office, et al.  
May 22, 2007  
Wilmington, NC  
[www.energync.net/resources/docs/calendar/CHP%20May%202022%20and%20May%202024.pdf](http://www.energync.net/resources/docs/calendar/CHP%20May%202022%20and%20May%202024.pdf)

**CHP Distributed Generation Systems**

Sponsored by: N.C. State Energy Office, et al.  
May 23, 2007  
Charlotte, NC  
[www.energync.net/resources/docs/calendar/CHP%20May%202022%20and%20May%202024.pdf](http://www.energync.net/resources/docs/calendar/CHP%20May%202022%20and%20May%202024.pdf)

**Windpower 2007 Conference and Exhibition**

Organized by: American Wind Energy Association (AWEA)  
June 3-6, 2007  
Los Angeles, CA  
[www.awea.org](http://www.awea.org)

**Renewable Energy Finance Asia**

Organized by: Sustainable Energy Association of Singapore; World Council for Renewable Energy; et al.  
June 12-13, 2007  
Singapore  
[www.greenpowerconferences.com/renewablesmarkets/ref\\_singapore07.html](http://www.greenpowerconferences.com/renewablesmarkets/ref_singapore07.html)

**Distributed Energy Resources: Emerging Business Models for Utilities**

Presented by: Electric Utility Consultants, Inc. (EUCI)  
June 14-15, 2007  
Austin, TX  
[www.euci.com/pdf/0607-distributed-energy.pdf](http://www.euci.com/pdf/0607-distributed-energy.pdf)

**Fuel Cell 2007**

Organized by: *Fuel Cell* magazine  
June 14-15, 2007  
Rochester, NY  
[www.fuelcell-magazine.com/fc\\_2007conf\\_index.htm](http://www.fuelcell-magazine.com/fc_2007conf_index.htm)

**New York City Solar Summit 2007**

Organized by: City University of New York (CUNY)

June 21, 2007

New York, NY

[www.bcc.cuny.edu/institutionalDevelopment/cse/SaveTheDate.cfm](http://www.bcc.cuny.edu/institutionalDevelopment/cse/SaveTheDate.cfm)

**Solar 2007**

Organized by: American Solar Energy Society (ASES)

July 7-12, 2007

Cleveland, OH

[www.solar2007.org](http://www.solar2007.org)

**UWIG Annual Meeting and Technical Workshop: Wind Integration**

Organized by: Utility Wind Integration Group (UWIG)

July 23-25, 2007

Anchorage, AK

[www.uwig.org/annualmeet07Anchorage.html](http://www.uwig.org/annualmeet07Anchorage.html)

**SolWest Renewable Energy Fair**

Organized by: Eastern Oregon Renewable Energies Non-Profit

July 27-29, 2007

John Day, OR

[www.solwest.org](http://www.solwest.org)

**IREC Annual Meeting**

Organized by: Interstate Renewable Energy Council (IREC)

September 24, 2007

Long Beach, CA

[www.irecusa.org](http://www.irecusa.org)

**Solar Power 2007**

Organized by: Solar Electric Power Association (SEPA); Solar Energy Industries Association (SEIA)

September 24-27, 2007

Long Beach, CA

[www.solarpowerconference.com](http://www.solarpowerconference.com)

**POWER-GEN Renewable Energy & Fuels**

Organized by: American Council on Renewable Energy (ACORE)

February 19-21, 2008 (*please confirm with ACORE*)

Washington, DC (*please confirm with ACORE*)

[www.power-gengreen.com](http://www.power-gengreen.com)

**Washington International Renewable Energy Conference**

Hosted by: U.S. State Department

March 1-7, 2008

Washington, DC

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