Net Metering in Retreat as Utilities Seek to Protect Their Interests

Avoided Cost, Wholesale, and Value-Based Rates Likely to Replace NEM

Industry Insight

Between 2010 and 2016, residential net metering (NEM) capacity grew by 873% and commercial NEM capacity by 690% nationwide, latest data from EIA show. At the end of 2016, **more than 1.3 million residential customer-generators** exported power to the grid via NEM contracts.
Facing pressure from the utilities about grid use charges to NEM customers, **policymakers have started actively seeking alternatives to NEM**. Responses vary from **new demand charges in Massachusetts and ending NEM in Michigan** to **New York's new Value Stack pricing mechanism** for distributed generation (DG). While some states have grandfathered existing NEM customers, the **overall future of NEM looks increasingly murky** as policymakers seek new approaches where **utilities recover their fixed costs, DG customers receive a fair price, non-DG customers do not unfairly subsidize DG customers, and system efficiency improves.**

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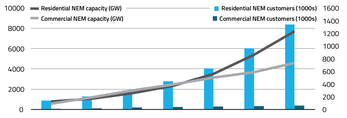
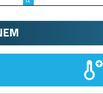
Exponential Increase in NEM



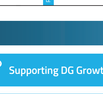
Retail vs Wholesale Rates: Question of Fairness

The typical electric bill consists of three parts: generation, transmission, and distribution. Together, they make the retail rate of energy.

At retail NEM rates, consumer-generators receive the retail rate but do not pay for the delivery of the energy generated



At wholesale NEM rates, consumer-generators receive the same rate as other generators



Recent Actions on NEM

Supporting DG Growth

NY PSC Doubles Size of Renewables Eligible for DG Program — NY — 15-E-0751 — February 22, 2018

The NY PSC will accept (15-E-0751) **renewable projects with up to 5 MW in its Value of Distributed Energy Resources (VDER) compensation program**, up from the previous limit of 2 MW, according to the agency's Feb. 22 order. The move reflects the benefits of harnessing economies of scale of larger projects to stimulate new developers, while also lowering costs to consumers. The NY PSC created the VDER method to transition beyond NEM and to value customer-sited generation in a more granular manner.

NY PSC Waives Limit for Community Net Metering — NY — 15-E-0082 — April 20, 2018

On April 20, the NY PSC granted (15-E-0082) petitions to **waive the 10-member minimum requirement for each community DG project** and **the 40 percent consumption limit of credits generated by a project that serves farm operations**. The commission rejected the request to create a special farm distribution program finding it was not consistent with the state's policy goals. Last year, Vanguard Renewables, Dairy Farmers of America, and Agri-Mark Inc. asked the commission to modify the community net metering order to incorporate a separate program designed for anaerobic digesters.

CA PUC Proposes Renewable Programs in Low-Income Communities — CA — R1407002 — April 16, 2018

On April 16, the CA PUC proposed (R1407002) **multiple programs to spur the installation of renewables on low income houses, including up-front financial incentives towards the installation of solar panels and a "green tariff" that provides a 20% rate discount on current tariffs** to provide clean energy options to low-income consumers without the need to own their home and install their own distributed renewable energy generation systems. The programs are part of 2013 legislation that required specific affirmative benefits for renewable adoption among residential customers in disadvantaged communities.

CA PUC Streamlines Credits for Solar-Plus-Storage — CA — R1407002 — February 15, 2018

On February 15, the CA PUC granted a request (R1407002) by the state's major utilities to modify the method for calculating credits for customers with on-site generation paired with energy storage. The new rules allow the utilities to **estimate bill credits for such residents by using a single per-kilowatt profile for each climate zone**, in place of the customer-specific estimation, which was deemed too burdensome and costly.

UT PSC Includes Aggregation in NEM Transition Program — UT — 14-035-114 — January 11, 2018

On January 11, the Utah Public Service Commission approved (14-035-114) **changes to the NEM transition program filed by Rocky Mountain Power**, to take effect on January 16 following clarification regarding meter aggregation requirements.

UT PSC Extends NEM Application Deadline for Rocky Mountain Power — UT — 14-035-114 — March 21, 2018

On March 21, Rocky Mountain Power received (14-035-114) a **30-day extension for the deadline to process applications for connecting more complex customer-sited generation, like rooftop solar panels, to the grid, for a six month period**. The utility reports an uptick in applications as the state is shifting its compensation to export credit rates from the old net metering regime.

Great Plains Energy Will Collect More Details from Net Metering — KS — 18-KCPE-373-TAR — April 17, 2018

On April 17, the KS SCC approved (18-KCPE-373-TAR) a request by Kansas City Power & Light Company, a subsidiary of Great Plains Energy Inc., to require new customer-generators applying for the company's NEM program **to provide the direct current rating of their generating systems in addition to the alternative current rating that is already required under the current tariff**. The company said that the additional information will reduce uncertainty in system design and help in its ongoing evaluation of the impact of DG on the distribution system.

Cypress Creek Renewables Complains of Undue Interconnection Delays — MI — U-20151 — April 6, 2018

On April 6, Cypress Creek Renewables LLC filed (U-20151) **a complaint with the MI PSC alleging that DTE Electric Company has been delaying its generator interconnection applications**. Cypress Creek argues that the hold up in the process amounts to a violation of the agency's interconnection and NEM standards and PURPA, which requires utilities to buy power from certain non-utility generators based on the utility's avoided costs. The solar company complained that DTE violated **timelines for checking the completeness of at least 111 applications** and reversed the status of 70 applications previously deemed as complete. It said that DTE has been unreasonably demanding for engineering studies **charging exorbitant fees for those studies, and refusing to provide proper distribution system information, so as to avoid its obligation to buy the output of those projects**. DTE Electric, a subsidiary of DTE Energy Company, is a public corporation that provides electric service in Southeast Michigan.

NY PSC Denies Timeline Extension to Retain Remote NEM — NY — 14-E-0151 — April 24, 2018

On April 24, the NY PSC rejected (14-E-0151) petitions to **extend the deadlines set by a transition plan to shift to volumetric crediting for certain remote NEM projects** finding that the petitioners failed to meet the necessary milestones. The commission created the plan in 2015 finding that monetary credits for remote NEM had greater value than the volumetric credits for on-site systems and resulted in unexpected arbitrage. To shield projects developed with genuine financial expectation, the commission set a default in-service deadline of December 31, 2017 to grandfather certain categories of projects for 25 years. The petitioners are Solar Liberty Energy Systems Inc., Town of Dewitt, and Tesla Energy subsidiary SolarCity Corp.

IA UB Reconsiders Payouts to Renewable Generators — IA — TF-2016-0290 — March 23, 2018

The IA UB agreed (TF-2016-0290) to **review the rates that it determined Interstate Power and Light Company (IPL) must pay to renewable generators, amid confusion over how the payouts should be calculated**. The board found that the rates should be based on real-time hourly power prices instead of historical prices. IPL, however, argued that method wouldn't be consistent, as required, with the NEM billing rules, which also governs such payouts.

VT PUC Considers Updating NEM — VT — 18-0086-INV — January 12, 2018

On January 12, the VT PUC **opened a case (18-0086-INV) to consider revisions to the state's NEM program**, including changes to residential rates and eligibility criteria for different categories. The agency, which adopted new NEM rules last year, set a March 1 deadline for proposals to be filed.

Idaho Power Seeks to Update NEM — ID — IPC-E-17-13 — February 7, 2018

The ID PUC is considering (IPC-E-17-13) public comments about the **proposal of Idaho Power Company, a subsidiary of IDACORP Inc., to create a separate compensation scheme for NEM customers**. Customers are credited at the full retail rate, a level which Idaho Power argues is excessive because it includes compensation for maintaining and operating the distribution system, a service ratepayers don't provide. The utility argued that sophisticated rate designs are now possible with the advent of advanced meters and the number of NEM customers is poised to top 7,000 by 2021, from just 350 five years ago.

UNS Electric Seeks to Reduce NEM Payouts — AZ — E-04204A-18-0079 — March 30, 2018

UNS Electric Inc. asked (E-04204A-18-0079) for approval from the AZ CC to cut the rate used to calculate payouts for surplus generation from net metered customers to $0.025121/kWh, down from the rate of $0.026212/kWh authorized in August, according to a March 30 filing. The utility said it sought to update the rates to reflect anticipated costs and asks for a June 1 start date. UNS Electric is a subsidiary of Unisource Energy Services Inc.

Rocky Mountain Power Ends NEM in 2035 — UT — 14-035-114 — April 25, 2018

On April 25, the UT PSC approved (14-035-114) Rocky Mountain Power's update to its electric service schedule to clarify that the termination date of its net metering program is December 31, 2035. **In a settlement approved last year, retail rate net metering reached its sunset on November 15 grandfathering existing customers until 2035 and beginning a transition program that gives export credits measured in 15-minute intervals** for energy sent to the grid. Rocky Mountain Power is a division of PacifiCorp and Berkshire Hathaway Inc.

MI PSC Replaces NEM with Avoided-Cost Rates — MI — U-18383 — April 18, 2018

On April 18, the MI PSC approved (U-18383) **a new billing mechanism called "inflow/outflow" to compensate DG customers** for the surplus power sent to the grid, replacing NEM. The inflow or energy purchased by the customer from a utility will be charged at the retail rate. **The outflow or excess grid-exported energy will be credited at the utility's avoided cost**. The commission said that the new method, which stems from a 2016 law that directed the commission staff to study a replacement for NEM, ensures that customer generators are evaluated for their "fair and equitable use" of the grid. Utilities are required file the new tariff in rate cases submitted after June 1.

MA DPU Approves Demand Charges for NEM Customers — MA — 17-05 — January 5, 2018

On January 5, the MA DPU approved (17-05) **controversial demand charges for new residential NEM customers of Eversource Energy** concluding that a cost shift exists between net metered and non-net metered customers.

Hindering DG Growth

Select Bills on NEM

MI — HB 5862
25 Apr 2018 | Introduced
Would **allow customers to credit the value of excess generation at a fair value tariff, a standard offer contract, or NEM**; would allow utilities to participate in NEM only; would establish a statewide uniform methodology to set a fair value tariff and allow distributed generation for immediate self-service without any charge to the customer; customers participating in the program would be charged the same delivery and power supply charge that is applied to similarly-situated customers that do not participate, but credit excess generation at the retail rate minus delivery charge, include value of the costs and benefits that will accrue over a period of at least 20 years, considering the location and time of generation

MI — HB 5863
25 Apr 2018 | Introduced
Would **credit customer-sited generation of up to 500 kW at the retail rate**; would allow electric providers to request for an alternative rate for NEM customers under 500 kW; would require the MI PUC to establish a distributed generation value methodology including an analysis of costs and benefits to accrue over a period at least 20 years, considering the location and time of generation

MA — S 1885
11 Apr 2018 | Introduced
Would **increase the aggregate NEM cap of municipal or public facilities to 10% and private facilities to 8.75% of the distribution company's peak load**. Would require a review every two years of aggregate NEM capacity to recommend an increase

FED — S. 2747 and H.R. 5615
25 Apr 2018 | Introduced
Would provide for the **study and evaluation of NEM**, and for other purposes

VT — H 721
26 Jan 2018 | Introduced
Would require the VT PUC to cut costs and **simplify the application to NEM solar generators up to 150 kW that have cleared the planning process**

RI — SB 2652
26 Apr 2018 | Introduced
Would include **biomass fuels in the definition of eligible NEM resources**

CT — SB 9
12 Apr 2018 | Introduced
Would introduce **one competitive auction process for long-term contract for winning bids**; would establish a fixed rate for residential programs allowing developers to cover their costs

NY — A 10474
26 Apr 2018 | Introduced
Would require the NY PSC, by June 30, 2021, **to adopt a method to establish the value of DER crediting mechanism for customer-generators**, fully and accurately accounting for the energy and capacity value of generation as well as long-term value of public benefits of grid resilience, climate security, reduced emissions, reduced price volatility, environmental justice attributes, and avoided societal and ratepayer costs from bill reductions; would require the Long Island power authority to adopt a methodology for the establishment of a value of DER crediting mechanism

NY — S 3893
03 Jan 2018 | Introduced
Would **authorize virtual NEM; would allow joint NEM** for municipalities, farmers, and businesses

VA — HB 930
13 Feb 2018 | Introduced
Would establish a program by January 1, 2019 **to enable multifamily NEM in condominiums, apartment complexes and homeowners' associations** served by a common distributed circuit

SC — H 4421
02 Apr 2018 | Introduced
Would **allow applications for interconnection from NEM customers received after December 31, 2020, or after the 2% cap is met, to proceed under the statewide NEM program**; if a utility's cap is met before the approval of a successor tariff, the utility would continue to offer the currently approved rider or tariff to new applicants for the interim period and provide these interim customer-generators a new standardized NEM agreement

NJ — A 1236
13 Feb 2018 | Introduced
Would **increase the NEM capacity threshold from 2.9 percent to 5.8 percent** of the total amount of annual kilowatt-hours sold in New Jersey

NJ — S 2422
05 Apr 2018 | Introduced
Would **expand NEM aggregation to all customers and credit NEM aggregation customers at the full retail rate**. Currently, NEM aggregation is only available to state or municipal entities, and aggregation customers are credited at the lower wholesale rate

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January 17, 2017 | Agenda: 4 Commission Meeting
Docket No. PL16-1-000 | Docket No. RM17-9-000
Docket No. RM17-11-000 | Docket No. AD17-7-000
Docket No. AD17-8-000 | Docket No. AD17-9-000
Agenda Item: E-1 | Agenda Item: E-2 | Agenda Item: E-3 | Agenda Item: E-4 | Agenda Item: E-5
Agenda Item: E-6 | Agenda Item: E-7 | Agenda Item: E-8 | Agenda Item: E-9 | Agenda Item: E-10
Agenda Item: E-11 | Agenda Item: E-12 | Agenda Item: E-13 | Agenda Item: E-14 | Agenda Item: E-15
Agenda Item: