

Attachment BDI-1

Table 1. Key Examples of Jurisdictions Studying and Investigating Net Metering (“NEM”)

State (Utility)	NEM Studies	Recent NEM Dockets	NEM Outcome(s)
Arizona (Arizona Public Service)	<p>Distributed Renewable Energy Operating Impacts and Valuation Study (2009)¹</p> <p>The Benefits and Costs of Solar Distributed Generation for Arizona Public Service (2013², 2016³)</p>	<p>E-01345A-13-0248 (2013 APS Lost Fixed Cost Recovery Charge)</p> <p>E-00000J-14-0023 (2014 Investigation into the Value of DG)</p> <p>E-01345A-16-0036 (2016 APS Rate Case)</p> <p>RE-00000A-17-0260 (2017 NEM Rulemaking)</p>	<p>Retail rate net metering retained, with a small monthly fee on APS net metering customers, through 2017.</p> <p>The Arizona Corporation Commission adopted a net billing policy for APS beginning in 2017. The export rate under APS’s net billing is \$0.1045/kWh through September 30, 2021.</p>
California	<p>The Impact of Rate Design and Net Metering on the Bill Savings from Distributed PV for Residential Customers in California (2010)⁴</p> <p>Evaluating the Benefits and Costs of Net Energy Metering in California (2013)⁵</p> <p>Net-Energy Metering 2.0 Look-Back Study (2021)⁶</p>	<p>R.14-07-002 (2014 NEM “2.0” rulemaking)</p> <p>R.20-08-020 (2020 NEM successor tariff rulemaking)</p>	<p>Retail rate net metering (NEM 1.0) retained through 2017.</p> <p>NEM 2.0 in effect from 2017-2022 (est.). NEM 2.0 includes mandatory service under a TOD rate and retail rate credits minus non-bypassable charges.</p> <p>A new NEM Successor Tariff is now being developed in R.20-08-020 to take effect in 2022 (est.).</p>
Colorado	<p>Costs and Benefits of Distributed Solar Generation on the Public Service Company of Colorado System (2013)⁷</p>	<p>14M-0235E (2014 DG Cost Benefit Investigation)</p> <p>16AL-0048E, 16A-0139E, 16A-0055E (2016 Cases Resulting in NEM Settlement)</p> <p>18AL-0097E (2018 Roll-over Provisions to Xcel’s NEM Agreed to in Rate Case)</p> <p>19R-0096E (2019 Electric Rule Changes)</p>	<p>Retail rate NEM retained.</p> <p>A 2016 proposal by Xcel Energy to implement a Grid Usage Charge of up to \$44.79 on residential customers was withdrawn as part of a settlement, resulting in NEM customers retaining retail-rate crediting.</p>

¹ <https://appsrv.pace.edu/VOSCOE/?do=DownloadFile&res=J8PAM033116121012>

² <https://www.seia.org/sites/default/files/resources/AZ-Distributed-Generation.pdf>

³ <https://images.edocket.azcc.gov/docketpdf/0000168554.pdf>

⁴ <https://emp.lbl.gov/publications/impact-rate-design-and-net-metering>

⁵ <https://www.growsolar.org/wp-content/uploads/2012/06/Crossborder-Energy-CA-Net-Metering-Cost-Benefit-Jan-2013-final.pdf>

⁶ <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442467448>

⁷ <https://bit.ly/2Zlhfet>

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Connecticut	Value of Distributed Energy Resources (2020, Draft) ⁸	15-09-03 (2015 Investigation into NEM kWh Banking) 18-06-15 (2018 DG Tariff Development re Public Act 18-50) 19-06-29 (2019 Value of Distributed Energy Resources Study) 20-07-01 (2020 Development of Tariffs for Residential Renewable Energy re Public Act 19-35)	Retail rate NEM retained after multiple proceedings and despite legislation allowing for NEM changes. A 2018 law would have ended NEM but was revoked through a 2019 law. In February 2021, the Public Utilities Regulatory Authority (“PURA”) retained retail rate net metering under a new “Netting Tariff” option. (A Buy-All, Sell-All option was also created.) PURA determined monthly netting was appropriate, even though Public Act 19-35 granted PURA discretion to impose other intervals, including instantaneous netting. NEM systems allowed to be “oversized” relative to historic usage to accommodate future load growth from EV and electric heating adoption.
Iowa	PV Valuation Methodology (2016) ⁹	NOI-2014-0001 (2014 DG investigation) TF-2016-0321, TF-2016-0323 (2016 Alliant and MidAmerican NEM pilots) TF-2020-0235, TF-2020-0237 (2020 Alliant and MidAmerican DG Tariffs)	A 2014 DG investigation retained and expanded retail rate NEM, establishing utility NEM “pilots” for IOUs to study impacts of retail rate NEM over several years. SF 583 (2020) maintained NEM through 2027, after which a value of solar methodology will be used to determine compensation for exports.
Maryland	Value of Solar Report (2017) ¹⁰ Benefits and Cost of Utility Scale and Behind the Meter Solar Resources in Maryland (2018) ¹¹	RM 41 (2011 NEM Rulemaking) PC 40 (2015 Public Conference on Small DG Deployment) PC 44 (2016 Transforming Maryland's Distribution Systems) PC 48 (2017 Investigation re Costs and Benefits of DG for Electric Cooperatives)	Retail rate NEM retained after multiple proceedings and studies. 2018 Study found NEM benefits exceed costs.

⁸ <https://bit.ly/3aQTbMS>

⁹ <https://www.growsolar.org/wp-content/uploads/2016/03/PV-Valuation-in-Iowa.pdf>

¹⁰ <https://bit.ly/3aJXsS8>

¹¹ <https://cleantechnica.com/files/2018/11/MDVoSReportFinal11-2-2018.pdf>

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Massachusetts	Value of Distributed Generation: Solar PV in Massachusetts (2015) ¹² Massachusetts Net Metering and Solar Task Force Final Report to the Legislature (2015) ¹³	16-64 (2016 Transition to "Market Rate" NEM and a Minimum Monthly Reliability Contribution ("MMRC")) 16-151 (2016 IOUs' Petition re Revised Model NEM Tariff) 17-105; 17-146 (2017 Storage NEM Eligibility) 18-150 (2018 National Grid Rate Case Proposing MMRC) 19-24 (2019 IOUs' Revised Model NEM Tariff)	Near-retail rate NEM retained for residential customers. A reduced credit rate applies to certain other categories of customers. IOU proposals to implement a demand-charge or fixed-charge based MMRC have been denied by regulators or overruled through subsequent legislative changes. (2016 legislation allowed utilities to propose an MMRC, and 2018 legislation amended those provisions.)
New Hampshire	Value of Distributed Energy Resources Study (Anticipated Q1 2022) ¹⁴	DE 16-576 (2016 Investigation on Alternative NEM Tariff Development) DE 16-873, DE 16-864 (2016 Liberty Utilities Large NEM Methodology) DE 18-029 (2018 Unitol Alternative NEM Tariff) DRM 19-158 (2019 NEM Rulemaking) DE 20-136 (2020 Eversource NEM Cost Recovery)	Retail rate NEM retained for customers <100 kW, with reduction to the credit rate for monthly net excess generation. Non-bypassable charges assessed on gross grid consumption during a month and excluded from the monthly credit. Value of DER Study is ongoing and will provide detailed information regarding costs avoided by NEM under general conditions, as well as at specific times and at particular locations.
New York	An Analysis of the Benefits and Costs of Increasing Generation From Photovoltaic Devices in New York (2012) ¹⁵	14-M-0101 (2014 Reforming the Energy Vision) 15-E-0703 (2015 NEM Cost-Benefit Study) 15-E-0751 (2015 NEM Successor and Value of DER Phase I) 15-E-0751 (2017 NEM Successor and Value of DER Phase II) 17-01276 (2017 VDER Phase 2 Value Stack Working Group) 17-01277 (2017 VDER Phase 2 Rate Design Working Group)	Retail rate NEM retained for residential, small commercial, and behind-the-meter systems. In 2022, a \$0.69/kW to \$1.09/kW customer benefit contribution charge will apply as a means of ensuring funding for public benefit programs, but retail-rate NEM will continue. Value of DER (VDER) implemented for other customers. Gross exports accrue as a monetary credit at a utility-specific VDER rates composed of energy, generation capacity, distribution capacity (including possible local adder) and environmental value. System distribution capacity locked in for 3 years, local distribution capacity for 10 years, and environmental value for 25 years.

¹² <https://acadiacenter.org/resource/value-of-solar-massachusetts/>

¹³ <https://www.mass.gov/doc/final-net-metering-and-solar-task-force-report/download>

¹⁴ See New Hampshire Public Utilities Commission, Docket No. DE 16-576.

¹⁵ <https://www.nyserda.ny.gov/About/Publications/Solar-Study>

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Utah	Value of Solar in Utah (2014) ¹⁶	<p>14-035-114 (2014 RMP Net Metering Cost-Benefit Investigation)</p> <p>16-035-T14 (2016 RMP Temporary NEM Tariff)</p> <p>17-035-61 (2017 Credit Rate for DG Customer Energy Exports)</p>	<p>In 2015, the Utah Public Service Commission rejected Rocky Mountain Power's (RMP) proposal that net metering customers be converted into a separate customer class but directed RMP to file a cost-of-service study on net metering customers in its next rate case.</p> <p>In September 2017, the PSC adopted a NEM "Transition Program" as a result of a settlement agreement. DG customers were compensated at fixed rates, which varied by rate schedule, and were equal to 90% of the average energy rate for residential customers and 92.5% for other customers, for any net kWh exports at the end of 15-minute increments, capped at 170 MW for residential customers and 70 MW for other customers.</p> <p>In October 2020, the PSC approved RMP's request to lower the export credit rate from \$0.092/kWh to \$0.05969/kWh in summer and \$0.05630/kWh in winter.</p>

Table 2. Comparison of Attributes of Modified Net Metering Policies in Selected States

State (Utility)	Mandatory TOD	Special Solar Rate	Incremental Fixed Charge	Minimum Bill	Capacity Fee	Excess Generation Credit	Legacy Rights Term
Arizona (APS)	Yes	No	No	No	\$0.93/kW (avoid with demand rate)	Monetary export rate for all exports (10% limit on annual decline and 10-year rate lock-in)	10-year term
Arizona (TEP)	No	No	No	No	No	Monetary export rate for all exports (10% limit on annual decline and 10-year rate lock-in)	10-year term
California	Yes	No	No	No	No	Retail rate by TOU period	20-year term
Connecticut <i>“Netting Tariff” described here. Buy-all, sell-all option also will be offered.</i>	No	No	No	No	No	Monetary export rate set at retail rate	20-year term
Hawaii	No	No	No	No	No	Monetary export rate for all exports	Export rate fixed through 2022
Massachusetts	No	No	No	TBD	No	Retail less public purpose charges	N/A
New Hampshire	No	No	No	No	No	Retail less 75% of distribution rate	Up to 23 years (through 2040)
New York	No	No	No	No	\$0.69 - \$1.09/kW (public purpose)	Retail rate for residential, small commercial, and BTM	N/A
Nevada	No	No	No	No	No	For residential customers, retail rate during the month. Monthly excess credited based on a declining schedule based on installed capacity; currently, 75% of retail rate for monthly excess (the lowest of the four compensation tiers)	20-year term
South Carolina (DEC/DEP) <i>Proposed memorandum of understanding on Solar Choice Net Metering</i>	Yes	No	No	\$30	\$3.95-\$5.86/kW (15 kW or larger)	Imports and exports netted within each TOD pricing period; net exports credited at avoided cost	10-year term

Texas (EPE)	No	No	No	\$30 (Standard); \$26.50 (TOD)	No	Monthly credit avoided costs	10-year or 25-year term
Vermont	No	No	No	No	No	Average retail + adders	10-year term