

Service Date: August 9, 2017

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

IN THE MATTER OF Establishing Minimum) REGULATORY DIVISION
Information Requirements for NorthWestern)
Energy's Study of the Costs and Benefits of) DOCKET NO. D2017.6.49
Customer Generators

NOTICE OF COMMISSION ACTION

In April 2017, the Montana Legislature passed House Bill 219 (“HB 219”), which was signed by the Governor on May 3, 2017. HB 219 amends net metering provisions found in Title 69, Chapter 8, to require NorthWestern Energy (“NWE”) to conduct a study on the costs and benefits of customer-generators before April 1, 2018. NWE must submit the study to the Public Service Commission (“Commission”) as part of a general rate application. H.B. 219, 65th Leg., Reg. Sess. §§ 1(1)(b), 2(4) (Mont. 2017). The Commission will evaluate NWE's study and make findings regarding whether customer-generators should be classified separately from other customers for rate design purposes. *Id.* at § 2(1). Commission findings must relate to the utility system benefits of net metering and the costs of serving customer-generators. *Id.* Consistent with its findings, the Commission is authorized to establish new service classifications and sub-classifications for customer-generators, establish rates for customer-generators, or establish a net billing approach whereby a customer-generator’s energy production is metered separately from the customer’s energy consumption and the value of energy production offsets the price of the energy consumption in the billing process. *Id.* at § 2(2). The Commission is authorized to establish the minimum information to be included in NWE’s study of costs and benefits. *Id.* at § 1(3).

On May 11, 2017, the Commission decided to establish minimum information requirements for NWE's study and authorized hiring a consultant to assist the Commission in that task. On May 15, 2017, the Commission issued a limited solicitation pursuant to Mont. Code Ann. § 18-4-305 and Mont. Admin. R. 2.5.603. On May 25, 2017, the Commission received four

bids in response to its solicitation. The Commission hired Plugged In Strategies to assist with the process of developing minimum study requirements.

In order to allow NWE sufficient time to address the requirements in the study, the Commission committed to work to establish any minimum information requirements by the end of July 2017. Notice of Comm'n Action ("NCA") Docket D2017.6.49, 1 (Jun. 16, 2017). Based on a review of benefit-cost studies performed by public utility regulators and other entities in the United States, the Commission identified benefit and cost categories for potential inclusion in a set of minimum information requirements, as well as several questions relevant to benefit-cost studies that may be appropriate to address in the minimum information requirements. *Id.* at 2–3. The Commission provided an opportunity for interested persons to provide comments on the potential benefit and cost categories, and additional questions related to benefit cost studies by July 7, 2017. *Id.* at 4. The Commission received comments from the following interested persons: NWE; Montana Consumer Counsel; Montana Department of Environmental Quality; Environment Montana Research and Policy Center; Northern Plains Resource Council; joint comments of Montana Renewable Energy Association, Renewable Northwest, Montana Environmental Information Center, Northwest Energy Coalition, and Vote Solar ("Joint Parties"); and two members of the general public.

On July 26, 2017, Plugged In Strategies provided the Commission with a Memorandum that summarized and analyzed the comments of interested persons and provided recommendations for final minimum information requirements and other study parameters.

At properly noticed and open meetings on August 1 and August 8, 2017, the Commission determined that NWE's study of the costs and benefits of customer-generators must evaluate costs and benefits from both a utility system cost perspective and a ratepayer impact perspective, and must quantify, where possible, each of the benefit and cost categories in Attachment 1 of this Notice.

Because NWE's study must be submitted to the Commission for use in making decisions on whether customer-generators should be served under separate rate classifications, NWE must include the study in the cost of service/rate design section of its next electric general rate application. H.B. 219 §§ 1(1)(b), 2(4). The next electric general rate application also must include pre-filed testimony from a witness with direct knowledge of the study and its underlying methodologies. In addition, because the Commission must consider the cost to provide service to

customer-generators when deciding whether separate classifications of service should be established for customer-generators, NWE must include both embedded and marginal allocated class cost of service studies in its general rate application. Ideally, these cost of service studies should be based on customer load profile data for customer-generators and other customers obtained in concurrent time periods. If that is not possible, NWE should provide an assessment of the possible distortions in the cost of service study results.

The Commission declines to require NWE to submit a draft of its cost-benefit study prior to April 1, 2018, as recommended by the Joint Parties in their written comments. The law does not require NWE to provide the Commission a draft, and imposing Joint Parties' recommendation on NWE would require NWE to complete its study within a timeframe shorter than what the law allows. NWE must submit the final study to the Commission by April 1, 2018. *Id.* at § 1(1)(b).

The Commission declines to require the additional benefits categories recommended by the Montana Department of Environmental Quality. Excess net metering bill credits are a function of the production from a customer's generator, which is included in the benefits category of avoided energy costs. NWE's Bonneville Power Administration exchange credits are not directly affected by customer-generation.

The Commission also declines to require the additional cost categories recommended by NWE. Since the Commission is establishing minimum information requirements, NWE can include those cost categories if it chooses. The Commission observes that NWE's grid support cost category is included in the Commission's benefits category of avoided grid support services. If, as NWE suggests, net-metering imposes a net cost with respect to grid support services, that would result in a negative number in the benefits category.

Certain categories may duplicate one another. Where that occurs, NWE must document this and explain which category it is assigning certain costs and benefits to.

The Commission will not require a specific assumption for the rate of adoption of solar customer-generation. However, NWE must study a range of plausible adoption rates, after consultation with its Electric Technical Advisory Committee ("ETAC"). NWE must evaluate costs and benefits for solar customer-generators for a 25-year timeframe and provide results on a net present value basis. NWE should use scenarios which use the long-term risk-free rate and also its own marginal cost of capital as proxies for a reasonable discount rate. The Commission

will not require NWE to perform separate studies for wind and micro-hydro customer-generators.

The Commission agrees with commenters who stated that it would be reasonable to estimate avoided costs for customer-generators using the method the Commission recently approved for estimating avoided costs for PURPA qualifying facilities (“QF”) eligible for NWE’s QF-1 tariff. NWE must use that method subject to the Commission’s requirements for CO2 scenarios and the study timeframe.

An understanding of the unique locational costs and benefits of customer-generators on NWE’s system is critically important to developing just and reasonable rates for customer-generators. Although NWE may not have comprehensive information on the distributed energy resource hosting capability of all its distribution feeders, the study must address locational attributes of customer-generators. NWE must consult its ETAC for guidance on a reasonable approach to assessing locational attributes given information currently available to NWE. Additionally, NWE must describe what steps it intends to take to enable better assessments of locational costs and benefits in future studies.

NWE’s study must focus on the costs and benefits of customer-generators. The Commission declines to require NWE to assess costs and benefits for other distributed energy resource compensation approaches.

The Commission’s jurisdiction over this matter is provided at Title 69, MCA. The substantive and procedural law applicable is Title 69, MCA, ARM Title 38, Ch. 2 (PSC procedural rules), and any prior orders of the Commission which may bear on the issues presented.

BY THE MONTANA PUBLIC SERVICE COMMISSION

BRAD JOHNSON, Chairman
TRAVIS KAVULLA, Vice Chairman
ROGER KOOPMAN, Commissioner
BOB LAKE, Commissioner
TONY O’DONNELL, Commissioner

ATTACHMENT 1

Minimum Information Requirements for Categories of Benefits and Costs

Benefits Categories	Description
Avoided Energy Costs	All avoided fuel, variable operation and maintenance, and emission allowance costs and any wheeling charges associated with the marginal unit reflecting the seasonal variability of the NEM resource. NWE must use the Commission's approved method for estimating avoided energy costs for purposes of setting the standard rates in NWE's QF-1 tariff, subject to the required CO2 scenarios.
Avoided Capacity Costs	Deferred or displaced generation capacity costs, including costs for resources needed to maintain capacity reserve requirements. As part of its assessment of these values, NWE must perform an Effective Load Carrying Capability or similar assessment of the capacity contribution of solar customer-generators. NWE must hold technical discussions with ETAC regarding methodology, data needs, and other related matters. Results of these discussions must be summarized in the biannual reports filed pursuant to ¶ 38 of the Commission's Comments in Docket N2015.11.91.
Avoided Transmission and Distribution Capacity Costs	The cost of deferred or displaced transmission and distribution resources needed to serve load pockets, distant generating resources, or elsewhere. Absent detailed marginal cost information, the study must use the regression method developed by National Economic Research Associates. NWE must hold technical discussions with ETAC regarding methodology, data needs, and other related matters. Results of these discussions must be summarized in the biannual reports filed pursuant to ¶ 38 of the Commission's Comments in Docket N2015.11.91.
Avoided System Losses	The marginal cost of energy lost over the transmission and distribution lines to get from centralized generation resources to load reflecting the seasonal variability of the NEM resource.
Avoided RPS Compliance Costs	Avoided costs for compliance with Montana's renewable energy standards.
Avoided Environmental Compliance Costs	Avoided costs associated with marginal unit compliance with various existing and commonly expected environmental regulations, including potential CO2 regulations. NWE's study must evaluate two scenarios: one that includes potential CO2 regulations and one that excludes potential CO2 regulations. NWE must hold technical discussions, as necessary, with ETAC regarding how to incorporate potential CO2 regulations. Results of these discussions must be summarized in the biannual reports filed pursuant to ¶ 38 of the Commission's Comments in Docket N2015.11.91.
Market Price Suppression Effects (Fuel Hedging)	Price effect caused by the addition of new supply on energy and capacity markets.

Avoided Risk (e.g., reduced price volatility)	Reduction in risk associated with price volatility and/or project development risk. This category may be considered in tandem with the “market price suppression effects” category.
Avoided Grid Support Services Costs	Reduced or deferred costs for grid support (aka ancillary) services including voltage control and reactive supply. The assessment of this avoided cost category must incorporate the potential for advanced inverter functionality based on anticipated changes to the standards and requirements in IEEE 1547 and UL 1741, as referenced in Mont. Admin. R. 38.5.8405.
Avoided Outages Costs	Reduced costs associated with avoided power interruptions attributed to the ability of net metered systems to operate during outages. For example, Value of Lost Load. The assessment of this avoided cost category must incorporate the potential for advanced inverter functionality based on anticipated changes to the standards and requirements in IEEE 1547 and UL 1741, as referenced in Mont. Admin. R. 38.5.8405.
Non-Energy Benefits	Includes a wide range of utility system benefits not associated with energy delivery such as increased customer satisfaction and fewer service complaints. NWE must consult ETAC on this category.
Costs Categories	Descriptions
Reduced Revenue	Lost utility revenue associated with reduced sales due to net metering. This category is a proxy for the ongoing cost to provide a customer-generator distribution, transmission, and supply services not otherwise accounted for in other categories. NWE must consult with ETAC on plausible assumptions for the annual rate of change in: 1) retail T&D rates; and 2) Production rates. Assumptions for these two rate categories must be determined and justified separately. NWE should not assume for purposes of the study that fixed costs associated with utility assets a customer-generator substitutes for are necessarily costs of a customer-generator, even if they result in reduced revenue.
Administrative Costs	Costs incurred to administer net metering, including, for example, marketing, advertising, evaluation, market research, and basic administration.
Interconnection	Costs incurred to interconnect customer-generators (can apply to both utility and NEM).
Integration	Costs incurred to incorporate customer generation into the grid.