Net Metering Systems: Interconnection, Liability, and Indemnification

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During the March Energy and Telecommunications Interim Committee meeting, Chairman Regier requested additional information concerning liability issues and distributed generation. A report prepared by staff in September 2015 provided information on interconnection requirements in Montana and information about the use of smart inverters. This report builds from the interconnection report and includes details on liability insurance requirements and indemnification related to distributed generation.

Some utilities require customer generators to maintain liability insurance to protect them from liability for net metered systems that they don't own or control. The insurance is intended to protect a utility from the risk of personal injury or property damage associated with a net metering system malfunctioning.

The risk of property damage is related to power being delivered onto utility lines from a net metered system that doesn't match utility requirements for voltage, frequency, synchronization, or other power quality standards. Personal injury issues stem from concerns about the potential failure of a net metered customer to stop feeding power to the grid in the event of a power failure.

Owners of distributed generation, however, argue in response to liability requirements that existing legal mechanisms, like mutual indemnification, address the issue. They also say that the insurance requirements often only serve to discourage distributed generation by increasing the costs of projects. Complying with liability insurance requirements can increase the costs of net metering projects, particularly smaller projects, to such an extent they no longer offset the energy benefits, according to some.[1]

Renewable energy advocates also find that technology standards for net metered projects, specifically requirements that inverters meet reliability standards and utility power quality standards, largely eliminate risks. Those standards include safety and engineering standards from the Institute of Electrical and Electronic Engineers (IEEE) and Underwriters Laboratories (UL). In Montana, interconnection rules adopted by the Montana Public Service Commission and applicable to both NorthWestern Energy and Montana Dakota-Utilities include interconnection equipment to be evaluated by the nationally recognized testing laboratory in accordance with the following standards:

- IEEE 1547-2003 (Including IEEE 1547.1-2005 testing protocols); and
- UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems.

[1] Thomas J. Starrs, Kelso Starrs & Associations LLC, and Robert K. Harmon, Evergreen Energy, LLC, "Allocating Risks: An Analysis of Insurance Requirements for Small-Scale PV Systems," Annual Conference of the American Solar Energy Society, Madison, WI, June 2000.

Beyond the standards and procedures, interconnection policies used in various states and by various utilities for net metering vary – sometimes greatly – in how those standards and procedures are applied to customer generators.

Some utilities mandate liability insurance, legal indemnification, or both. However, some public utility commissions and state legislatures have determined that liability insurance requirements are burdensome. Nevada's net metering statute specifically prohibits utilities from requiring additional liability insurance if a customer-generator meets applicable national and industry standards. The Idaho Power Company, on the other hand, initially requested $1 million in liability insurance from customer generators. The Idaho regulatory commission, however, reduced the requirement to $100,000.

"California, Delaware, Maryland, Nevada have explicitly prohibited additional insurance requirements in their net metering statutes or regulations."[2] Additional states also may have enacted prohibitions, but the most recent reporting is from the early 2000s. For example, the state of Washington outlines power quality and interconnection requirements for customer-generators. The law, updated in 2006, states that an electric utility may not require a customer-generator whose net metering system meets specific standards to comply with additional safety or performance standards, perform or pay for additional tests, or purchase additional liability insurance. "However, an electric utility shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a net metering system, or for the acts or omissions of the customer-generator that cause loss or injury, including death, to any third party."[3]

A recent study in California found that several utilities require customer generators to carry general liability insurance because of potential personal injury and property liability. However, the study finds that the liability requirement is more of an issue in cases where excessive insurance is required, undermining the cost effectiveness of net-metered systems. The study says that three California utilities have found a balance by not requiring additional insurance for non-inverter-based systems under 50 kW or inverter-based systems under 1 MW.

The California study also finds that all utilities in California "appear to indemnify themselves against damage caused by an interconnected customer and expressly waive liability for any damage to a customer's system. This shifts monetary liability, damage, and risk to the interconnecting customer-generator."[4]

In Montana, the customer-generator interconnection agreement used by NorthWestern Energy does not address liability or insurance requirements. To comply with Public Service Commission (PSC) rules, NorthWestern Energy, however, is in the process of updating its interconnection agreement. Rules adopted by the PSC state that, "all agreements, forms, fees, and rates must be filed with and approved

[2] Thomas J. Starrs, Kelso Starrs & Associations LLC, and Robert K. Harmon, Evergreen Energy, LLC, "Allocating Risks: An Analysis of Insurance Requirements for Small-Scale PV Systems," Annual Conference of the American Solar Energy Society, Madison, WI, June 2000.
[3] 80.60.040, RCW.
[4] "Best Practices for Interconnection Standards", Southern California Rooftop Solar Challenge, prepared for the California Center for Sustainable Energy & The Energy Policy Initiatives Center, University of San Diego School of Law, Feb. 2013.

by the commission after public notice and opportunity for comment."[5] An updated interconnection agreement, which is expected to go before the PSC this year, will address indemnification, liability, and insurance, according to NorthWestern. Montana-Dakota Utilities also is updating its interconnection agreement and will file the updated interconnection agreement with the PSC before the end of the year. Based on the existing rules, the PSC will make the final decision on the interconnection agreements and any liability or insurance requirements contained in the agreements, as there is no guidance currently in Montana's net metering laws regarding interconnection beyond general safety requirements.

Rural electric cooperatives in Montana have adopted a uniform net metering policy with interconnection guidelines; although individual cooperatives may choose to modify the policy. In terms of insurance and indemnification, requirements vary between cooperatives across the state. Sun River Electric Cooperative's interconnection application requires members to obtain and maintain insurance against personal injury and property damage arising from the installation, interconnection, and operation of the generation facilities. A dollar amount for the requirement, however, is not included. For Park Electric, 10 kW generators are required to carry $300,000 in insurance coverage. Generators over 25 kW are required to have $2 million in coverage. Glacier Electric requires no less than $1 million in liability insurance on 10 kW, 25 kW, and 50 kW generators. Glacier allows the insurance requirement to be an addendum to a homeowner's policy. Beartooth Electric and Fergus Electric do not have insurance requirements.

[5] 38.5.8404 ARM.