

## Residential Solar Panel Coverage Issues

Author: Mike Edwards

**Q.** “During a recent discussion in the office, the subject of solar panels came up. Do you think solar panels are a plain-vanilla Coverage A or Coverage B issue, or is there more to it than that?”

**A.** I think that issues related to Coverage A or Coverage B will resolve a large portion of the coverage questions. However, there are a few other topics which need to be discussed.

One important distinction to be made is that solar panels for residential use can be used for one or two purposes: to heat water, or generate electricity. Here’s how I see the coverage issues for each, based on ISO forms.

### Solar panels to heat water

Coverage. Solar water heaters can be used to heat water for household use, or for swimming pools, hot tubs, spas, etc. Therefore, depending on use, the panels might be attached to the roof of the home (Coverage A), the roof of a detached structure such as a pool house (Coverage B), or affixed to the ground as a separate structure (Coverage B).

Perils. Since these solar panels would be used to heat water, they would be subject to any provisions related to household plumbing – such as the freezing exclusion.

Valuation. Solar panels attached to the home or to a detached building would be valued at replacement cost at time of covered loss. However, solar panels which are attached to a non-building structure (gazebo, etc.) or to the ground as a detached structure themselves, are subject to ACV. The ISO endorsement which converts the valuation basis from ACV to RC for certain “non-building structures” (HO 04 43 – Replacement Cost Loss Settlement for Certain Non-Building Structures On the Residence Premises) applies only to “reinforced-masonry walls, metal or fiberglass fences, fences made of plastic/resin materials such as polyvinylchloride, patios, walks (not made of wood or wood products), and driveways.”

Non-ISO Coverage Forms. Given the diversity of coverage forms in today’s homeowners market, each should be reviewed to determine any differences in terms and conditions for solar panels, compared to the standard ISO homeowners coverage form. As one example, some proprietary forms contain the following for Section I:

*Exclusions.*

12. *Windstorm or Hail Loss to:*

*(1) Solar water heating systems including solar panels, pipes supplying and returning water to solar panels, and equipment or devices controlling solar water heating systems.*

### Solar panels to generate electricity

Coverage. Same as for solar panels used to heat water.

Perils. Coverage A and B perils apply.

Valuation. Same as for solar panels used to heat water.

Non-ISO Coverage Forms. Perhaps because electrical generation is a less frequent use of solar panels at present than the heating of water, many non-ISO coverage forms I have seen, which have limitations for solar water heating systems (see above), do not have similar limitations for those used for electricity. But each proprietary form is unique, so it’s unwise to generalize about them as a group. Be sure to review each coverage form which the agency may be using.

Other Issues – “Net Metering.” With the rapidly growing interest in the many forms of “renewable energy,” an arrangement call “net metering” has become available to homeowners who generate electricity at their homes in sufficient quantities to occasionally send their excess capacity back into the grid. Therefore, their monthly power bill is computed as follows: *Power used minus power produced*. This is determined by the meter at the homeowner’s residence. Newer types of home electric power meter have the capacity to calculate the flow of electrical current in both directions, thus at the end of the month, the *net amount* of power consumed is billed to the homeowner, thus the term “net metering.” The power industry refers to this as NEG – Net Excess Generation.

Net metering has its origins in the Public Utility Regulatory Policies Act (PURPA) in 1978, as part of the federal effort to improve energy efficiency. It provided a framework for utility companies to purchase electricity from “co-generators” such as utility customers who produced more power than they needed. In 1981, Minnesota was the first state to implement net metering following the adoption of PURPA. Louisiana passed the Louisiana Renewable Energy Development Act in 2003 (Act 653 - designated as 51:3061 et.seq.), which specifically authorized net metering.

Net metering gained traction under the Energy Policy Act of 2005 (Public Law 109-58), under Section 1251, as follows:

**1251. Net metering and additional standards.**

*(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:*

*“(11) NET METERING.—Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term ‘net metering service’ means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.*

According to the federal Department of Energy, as of December 2011, 43 states have adopted a net metering policy.

Net metering has obvious advantages, and is gaining in use around the US and other countries. The insurance industry has been reviewing and deliberating what, if any, impact net metering might have on homeowners policies. This is part of a larger effort by the insurance industry to develop coverage form language, rules and rates for “green energy” projects of all types and sizes, in both commercial lines and personal lines. (The windstorm/hail exclusion for solar water heating systems discussed above is but one example.)

At present, a lively debate is taking place over whether or not net metering falls within the “business” exclusion in a homeowners policy. One of the main reasons this has come up is that many of the news media reports about net metering often describe the process as allowing homeowners to “sell” their excess power back to the utility company. In addition, some reports include comments from homeowners about the “thousands of dollars they have made” by using net metering. Keep in mind that the homeowners exclusion is actually broader than just a “business” exclusion. Excerpt from ISO’s HO-2000 edition:

**Definitions**

3. “Business” means:

- a. A trade, profession or occupation engaged in on a full-time, part-time or occasional basis; or
- b. Any other activity engaged in for money or other compensation, except the following:

*(1) One or more activities, not described in (2) through (4) below, for which no “insured” receives more than \$2,000 in total compensation for the 12 months before the beginning of the policy period;*

*(2) Volunteer activities for which no money is received other than payment for expenses incurred to perform the activity;*

*(3) Providing home day care services for which no compensation is received, other than the mutual exchange of such services; or*

*(4) The rendering of home day care services to a relative of an “insured”.*

However, a closer examination of exactly how net metering works should lead the industry to rethink the application of the business exclusion, in my view. Under net metering, the utility does not “pay” the customer any money for power he or she generates and feeds back into the grid. The excess power generated is simply applied against the amount of power the customer uses during the billing period (usually a month). Below are two excerpts from utility companies on this issue. The first one is from a city-owned utility outside Louisiana:

**1. Does the City ever write a check to the customer for excess power production?**

*No. It's a system of kWh credits. The credits are banked by the meter. Credits carry over month to month, but not year to year. The year-end in this case is marked according to the net metering anniversary date.*

**2. If the City bills me for "net" metered kWh's, how do I know how much energy was used in my home, how much my PV system produced, and how much was sent back to the City's grid?**

*The City's metering doesn't answer those questions. The City's net meter only registers the "net" energy amount. Your PV system's inverter probably displays the running total of kWh (alternating current) production since system installation - you can determine monthly PV production by reading the inverter monthly and recording the production totals (subtract the earlier month's total from the later to get a monthly production amount in kWh).*

My comments: Note that this utility company's bill does not reflect the amount of electricity generated by the customer. Therefore, there is no way to determine if the customer/homeowner insured has exceeded the \$2,000 limit over a 12-month period, as described in the “business” exclusion discussed above. Also, FYI, “PV” in Question 2 above refers to Photovoltaic, since solar energy is produced by using PV cells in the solar panels. “PV” is commonly used in articles on solar production.

This second excerpt is from the net metering guidelines developed by the Louisiana Public Service Commission (Entergy New Orleans also follows these guidelines):

*Net Metering Program Overview:*

*Net excess generation is credited to customer's next bill at retail rate; carries over indefinitely.*

While researching the issue of whether or not net metering was a “business,” I ran this question by a friend who is a CPA:

**Q. Is net metering considered a form of taxable income under IRS?**

**A. No, it is not taxable income. It would be a reduction of utility expense which is not deductible for tax purposes for homeowners. Homeowners that use their home for business purposes would apply their net business % to their net utility bill (reduced by the credit). There are a lot of "Energy Tax Credits" out there and the word "solar" indicates some of these may be available to this activity. Louisiana also allows credit for certain energy saving activities.**

Further, a memo from the North Carolina Department of Revenue dated February 15, 2011 states that if the homeowner is “receiving credits from their utility company through a net metering arrangement, the property is considered non-business personal property and is excluded from [state income] taxation...”

One complication to resolving this issue is that while net metering was specifically addressed and authorized in the federal Energy Policy Act of 2005 (section 1251), the details of how net metering programs are put into effect are left to states. For example, here is an excerpt from a utility company outside Louisiana:

**Q. Are the credits received from the utility company taxable?**

**A. We require a W-9 form (Request for Taxpayer Identification Number and Certification) on file for all customers that participate in our Rider 21 Net Metering Service. During the annual May 31 true-up process — when we compensate customers for any excess kilowatt-hours generated over the amount of kilowatt-hours we delivered — we are required to issue a Form 1099 if you are entitled to a refund that meets or exceeds \$600**

My comments: This excerpt is puzzling, since it differs in the tax treatment of net metering from most every other article I have read on net metering. The “credits” referred to might mean “Renewable Energy Credits” (“RECs”), also known as “Solar Renewable Energy Credits” (“SRECs”), and not actual dollars. SRECs can be bought and sold. While the vast majority of articles I’ve read state that net metering itself is not considered taxable income, several include disclaimers that “this has not been verified with the IRS.” I could find nothing on the IRS web site which dealt with net metering as a form of taxable income. However, I am certainly no expert on taxes (that’s why I use a

CPA). But before the insurance industry makes a final decision about whether or not net metering falls under the “business” exclusion in a homeowners policy, I assume this taxable income issue will be resolved.

In further research, I came across a related issue which I think may be contributing to the misunderstanding of net metering being a source of income (“business”) for homeowners. Among the numerous projects in the broad field of renewable energy is one called the “Feed-in Tariff” (“FIT”). In this arrangement, the customer generates power for the specific purpose of selling power to the utility company. This is commonly done by owners of unused tracts of land, such as farmland, but a wide variety of entities (homeowners and businesses) participate in FITs. The FIT arrangement encourages the generation of electricity from renewable sources by guaranteeing producers access to the electric grid, and specifies how much the utility will pay the producer. Contracts often run for 15 years or more. Feed-in tariffs policies are in being utilized in over 50 countries. The first provisions for feed-in tariffs in the US were included in the National Energy Act of 1978.

Feed-in tariffs are clearly established as a way of encouraging the private generation of electricity for profit. Net metering, by contrast, rewards customers who produce excess capacity for their needs with credits (reductions) to their monthly power bill.

Conclusion. Net metering is still a relatively new endeavor, and the insurance industry is actively investigating the impact on insurance coverage, rates and rules. And the landscape is changing, as our understanding grows. In an industry journal in December 2009, an article on net metering included comments that some states require net metering customers to buy liability insurance, while others do not. The article also included statements from a number of industry executives that essentially said no homeowners insurer they had heard of would write the coverage. Another article of about the same time period revealed that a number of the contracts between the utilities and net metering customers required the utility be an additional insured in the homeowners policy. Industry executives said this would force homeowners to purchase commercial liability insurance, since virtually no homeowners insurer would add a utility as an additional insured.

However, a more recent article said that many of the safety concerns surrounding a homeowner generating solar electricity has been allayed. First, the guidelines adopted by states for net metering stipulate strict compliance with various safety codes, including the National Electrical Code (NEC), the National Electrical Safety Code (NESC), and Underwriters Laboratories (UL). Second, power meters used in net metering are designed to block the flow of electricity back into the grid when the power lines are dead (“de-energized”), thus eliminating injury to utility crews through what’s known as “backfeeding.” Lastly, the installation requirements for a net metering system also specify that an external disconnect switch be included, as a backup to blocking the flow of current into de-energized lines.

The article also said that due to the push-back from the insurance industry, most contracts between the utility and the customer no longer require that the utility be an additional insured.

For details on net metering rules, regulations and policies in each of the 50 states, see <http://www.dsireusa.org/>. This is the Database of State Incentives for Renewables & Efficiency (DSIRE). For Louisiana, the site provides links to documents from the Louisiana Public Service Commission, including the Standard Interconnection Agreement for Net Metering Facilities (contract) between the utility and the net metering customer.

Lastly, by way of advising your insureds about net metering and their homeowners policy, be sure and review the coverage form, and discuss any questions with the insurer.

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