

Overview of Energy Project Performance Insurance (PPI)

Project Performance Insurance (PPI) policies are written to reduce the risk that the Return on Investment (ROI) promised by a Contractor Developer Team (CDT) to a building owner or financier investing in an energy-efficiency or renewable energy project (an Energy Conservation Measure or ECM), fails to materialize or doesn't live up to expectations.

By agreeing to pay for any performance shortfalls over the policy term, a PPI insurer mitigates the two principal barriers to investments in energy projects: (1) the risk of underperformance; and (2) disputes over project performance.

Highlights & Benefits

- PPI policies cover performance shortfalls that result from: improper ECM design; improper ECM installation; improper baseline energy consumption calculations; and improper “savings” (or “output”) calculations. They can be tailored to fit a wide variety of technologies and complex projects with different performance metrics (e.g. kWhs, Gals, therms, BTU’s etc.). “Soft savings” (e.g. reduced maintenance costs, renewable energy credits, etc.) may also be included within the limits.
- The PPI underwriting process is about validating and bulletproofing a project’s internal economics, from an engineering and financial perspective. It forces the criteria for defining baseline energy-use levels and the amounts of “savings” (or “output”) to be transparent and explicit for all of the stakeholders in the project, and provides important third-party review of: the engineering design, the consistency and accuracy of energy data and projections, and the methodologies and protocols for ongoing Measurement and Verification of the energy “savings” (or “output”).
- PPI policies typically run for terms of five (5) to ten (10) years. Premiums are 3.0%-6.0% of the total amount of energy “savings” (or “output”) to be insured during the policy period. Rates will vary for each project, depending upon: the experience level and performance history of the CDT; the types of ECM’s to be installed; the *insured amount vs. the total expected amount* of energy “savings” (or “output”) for the project; and the policy structure (i.e. the level of Self-Insured Retention or SIR, deductible, coinsurance percentage, etc.).

Claims Process and Policy Exclusions

- PPI carriers employ engineering experts to analyze the actual energy performance data (through Measurement and Verification) during the covered performance period in order to pre-empt and remediate any claims that may arise.
- Typically, the project's performance is "trued-up" on an annual basis, and potential claims are reviewed to determine the actual cause(s) of loss and if such loss is covered under the PPI policy.
- Measured performance may be subject to adjustments for excluded events that may have caused or contributed to reduced levels of "savings" (or "output"), such as: changes in weather or commodity pricing, physical damage to ECM's or building systems, improper maintenance, changes in building occupancies or operations, etc.

Underwriting and Marketing Considerations

- PPI carriers provide important screening and validation of CDT's. Their underwriting process is similar to qualifying for a conventional Construction Bonding line.
- Once a CDT has been fully qualified by a PPI carrier, it is in a position to market investment-grade "Guaranteed Outcomes" and "Insured Services" to its customers, while transferring most of the liabilities for such guarantees to the insurer.
- CDT's should attempt to limit the amount of performance that they are willing to guarantee to customers to the amount (or some fraction of the amount) that the PPI carrier is willing to insure. This both reduces the CDT's exposure, and also helps to set the customer's expectations as to what levels of performance should be considered "realistic", "achievable", and "safe".
- With a PPI policy in place, a CDT does not have to engage outside counsel or engineers to defend itself against real or perceived claims from a customer for disputed energy performance.
- PPI policy costs are usually minimal as compared to a project's total return over the life-cycle of the ECM's. If a CDT properly prices all of the PPI policy costs into the project's economics, then it is the customer that will ultimately be paying for the coverage to backstop the project's income projections.

Using PPI to Enhance Project Development

Sample Solar Lease Project:

Equipment life-expectancy of 25 yrs.; 10-yr. “Simple Payback”; Estimated “output” of 25 yrs. @ \$172k/yr. = \$4.3M. [This assumes that panel degradation and utility rate increases more or less offset each other.]

7 yrs. lease payments @ \$164k/yr., then 3 yrs. buyout @ \$150k/yr. (\$1.6M in total cash outlays over 10-yrs.). Project cash-flow is positive from day one; large savings to begin in 11th year. Net gain is \$2.5M+ over the 25-yr. system life. Annual Return of 15%+.

Customer needs a production guarantee to cover all cash outlays. A PPI policy was structured to backstop 10-yrs. of “output” @ \$1.6M. This project’s internal economics support the \$65k PPI policy premiums and/or a reserve fund to cover SIRs/deductibles. The CDT’s SIR exposures under the PPI policy could range from zero to \$160k, as negotiated between the parties.

Sample LED Project:

Cash Price \$105k; equipment life-expectancy of 10 yrs. 3-yr. “Simple Payback”; Estimated “savings” of 10 yrs. @ \$37k/yr. = \$374k;

- Funding Option 1: Cash (Self-funded): The net gain to customer over 10 yrs. = \$270k. Annual Return of 25%+;
- Funding Option 2: Debt (Loan or Leasing): Depending upon interest rates, net gain to customer over 10 yrs. = \$230k to \$250k; Annual Return of 15% - 20%;
- Funding Option 3: ESA (Shared-Savings): Customer pays \$26k/yr. (or 70% of the annual “savings”) to an investor for 7 yrs. (total of \$182k). Net gain to customer over the life cycle of the system is \$150k to \$175k, plus free lighting for 10 yrs., off-balance sheet, and no up-front capital outlay.

Attaching an investment-grade performance guarantee to the project adds important security in all of the above funding situations. A PPI policy can be written to cover:

- a) 10-yr. total “savings” of \$374k for a premium of \$12k; or
- b) “savings” of \$120k to \$140k during repayment of a loan or lease, for a premium of \$6k; or
- c) “savings” of \$105k over the “Simple Payback” period, for a premium of \$4k.

This project’s internal economics support the PPI premiums and/or a reserve fund to cover SIRs/deductibles. The CDT’s SIR exposures under the PPI policy could range from zero to \$37k, as negotiated between the parties.