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Portfolio-adjusted Value (“PAV”) is intended to represent the value of a resource or Offer in the context of PG&E’s portfolio. This approach contrasts with Market Value, which is intended to represent the value of a resource or Offer regardless of PG&E’s portfolio. To calculate PAV, adjustments are made to Market Value calculations, components, and/or resulting values. As PG&E’s portfolio changes, different adjustments may be appropriate. Thus, the description of PAV in this document will apply for PG&E’s 2012 RPS RFO and is not intended to apply to future RPS solicitations by PG&E or other PG&E solicitations. For the 2012 RPS RFO, PAV adjustments include the following components: Location, RPS Portfolio Need, Uncertainty, Integration, Tenor, and Curtailment Hours Offered.

**1. Locational Adjustment**

PG&E has a preference for projects in its service territory. This preference is influenced by constraints in the market that may limit the amount of capacity in SP15 that PG&E can count toward its RA requirement. Capacity located closer to PG&E’s load is likely to have more value for PG&E’s bundled electric portfolio. The long-term need for new resources in PG&E’s service territory is also more likely to be mitigated by a new resource in NP15 than a new resource located in SP15. The calculation of PAV effectuates this by adjusting the value of energy and capacity for offers from resources in SP15.

Energy for offers from resources in SP15 are valued using the minimum of the SP15 energy forward price and the NP15 energy forward price, for each period value of energy is calculated. This adjustment is not intended to adjust for congestion—that is accounted for in the calculation of Net Market Value. This adjustment is intended to account for the relative value, to PG&E’s portfolio, of energy that may be used to serve PG&E’s bundled customer load.

Capacity for offers from resources in SP15 are valued using a short-run avoided cost of capacity rather than a long-run avoided cost of capacity. As a consequence of these adjustments for value of energy and capacity, offers from resources in NP15 will tend to have higher PAV than comparable offers from resources in SP15.

**2. RPS Portfolio Need**

PG&E believes it has sufficient RPS energy in its portfolio to meet RPS compliance needs until the third compliance period, and has a strong preference for offers with deliveries beginning in 2019 or later. PG&E will consider how an offer contributes to PG&E’s overall portfolio need for RPS energy. For each delivery year in which PG&E’s portfolio (augmented by the offer) is projected to be long RPS-eligible energy, the value of RPS-eligible energy from that offer will be considered as if the energy were not RPS-eligible. Thus, offers that deliver RPS energy only in periods when PG&E’s portfolio needs RPS energy will have higher PAV than comparable offers that deliver RPS energy in periods when PG&E’s portfolio does not need RPS energy.

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Energy forward prices curves are associated with firm energy. To value energy from a resource that has uncertainty in the minute-by-minute production of energy, a risk-adjusted multiplier is used in calculating PAV. The risk-adjusted multiplier takes on values between 0.8 and 1.0. A multiplier of 0.8 represents substantial reduction in value of energy from a resource because of significant uncertainty in energy production from the resource. A multiplier of 1.0 represents the energy from the resource is valued the same as firm energy. The multiplier for a wind resource will be lower than the multiplier for a solar PV resource. The multiplier for a solar PV resource will be lower than the multiplier for a solar thermal resource. A solar thermal resource without storage will have a lower multiplier than a solar thermal resource with storage. Other renewable technologies will have corresponding multipliers, with each multiplier calibrated between the multiplier for wind and the multiplier for solar thermal with storage. Energy from dispatchable resources will have energy value calculated using option-based approaches, and will typically have higher value than the value of comparable must-take, firm energy.

**4. Integration**

Integration cost is intended to account for the increased costs of dispatching additional generators and procuring sufficient ancillary services from flexible resources to integrate an increased amount of renewable generation into the grid. For the 2012 RPS solicitation, PG&E proposes to use an integration cost adder of \$7.50 per MWh in 2008 dollars (or approximately \$8.50 per MWh in 2013 dollars). This is the same value for integration cost as adopted in the 2010 LTPP proceeding. The Integration cost adder will be applied to resources that are considered intermittent, although resources with some reduced levels of intermittency may be subject to lower integration cost adders, as determined on a case by case basis.

[PG&E's comments to be filed on October 29 will be included more detailed description and justification for the integration cost adders.]

**5. Tenor**

PG&E prefers long-term transactions to match long-term RPS need. A countervailing consideration is that longer-term transactions may pose greater project risk because of uncertainty in market conditions. Tenor is the length of the delivery period of a contract. In calculating PAV, the value of an offer is adjusted for the offer's tenor using an adder. The longer the tenor, the lower the value of the tenor adder. The tenor adder takes on values between -10 and +10 dollars per MWh. The greater the value of the tenor adder, the higher the PAV for the offer, and the more valuable is the offer in the context of PG&E's portfolio.

**6. Curtailment Hours Offered**

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PG&E will consider the flexibility offered by the additional curtailment hours, as well as the cost of such curtailment offered as part of its overall project assessment. There may be aspects of curtailment associated with Market Value. That is, curtailment benefit may not be unique to PG&E and PG&E's portfolio—any potential counterparty to a PPA for a renewable resource with curtailment may see value in curtailment of that renewable resource when spot market energy prices are negative. PAV will not double-count the value of curtailment. Rather, the incremental value to PG&E's portfolio of curtailment from an offer, to the extent such value is not included in Market Value, will be included in PAV. Such incremental value may include avoiding system overgeneration or assisting with meeting system ramps; a resource's contribution to each of these effects may not be fully valued when computing the stand-alone Market Value of a resource's energy. To the extent the counterparty with a renewable resource is paid to curtail, that payment is subtracted from the curtailment benefit.