

# SDG&E 2016 Preferred Resources

## LCR RFO

Questions & Answers / FAQs

### Evaluation Questions

1. **The NMV calculation is a quantification of the value of an offer when compared to a set of price benchmarks for capacity, electrical energy, ancillary services, natural gas, and Green House Gas ("GHG") compliance. The price benchmarks are derived from current broker quotes, recent RFO offers, historical prices, recently executed transactions, and price curves extrapolated from that data to extend into future years where market data is unavailable. The NMV shows the value of an offer relative to purchasing the same product(s) from wholesale markets at current market prices. A higher NMV would result in a higher bid ranking."**
  - I. Can SDG&E provide values or references for the metrics listed above?
  - II. Can SDG&E provide an example of a NMV calculation with an explanation of the values in the equation?
    - I. No
    - II. See illustrative example as part of the bidder's conference presentation
  
2. **How is the NPV calculation used to compare a site activated in 2018 to one activated years later? We note that depending on what market services are included in the evaluation and how they are priced, the storage project may show a negative value. We further note that if the market calculation by the evaluator shows an identical negative value for both the early and late projects (prior to their adjustment for start date), applying a discount rate (via NPV) to these identical valuations to get Present Value will favor the later project. That is simply a characteristic of the NPV method.**

All projects will be NPV'd back to January 1, 2018.

There are a lot of other things that can change when a project date changes; however, assuming all other variables are held constant and just the cash flows are moved later, you are correct that mathematically if the NMV is negative a later online date would make the NMV less negative, thereby relatively more attractive to SDGE's ratepayers. The converse is also true that if the NMV is positive, an earlier online date would make the NMV larger, thereby more attractive to SDGE's ratepayers. The math reflects the reality that if the NMV is negative, it is seen as undesirable economically and so the best solution is to push off the cash flows in the future. If the NMV is positive, SDGE would like to capture those economic benefits sooner for our ratepayers.
  
3. **In 4.0 Evaluation Criteria; Qualitative Evaluation C. Loading Order Ranking it refers to: Preferred Resources are defined in the Energy Action Plan - as updated in the Energy Action Plan II and 2008 update to the Energy Action Plan II in the loading order as follows: "The loading order identifies energy efficiency and demand response as the State's preferred means of meeting growing energy needs. After cost-effective efficiency and demand response, we rely on renewable sources of power and distributed generation, such as combined heat and power applications. To the extent efficiency, demand response, renewable resources, and distributed generation are unable to satisfy increasing energy and capacity needs, we support clean and efficient fossil-fired generation." - See the Energy Action Plan II, p.2 at: [http://www.energy.ca.gov/energy\\_action\\_plan/2005-09-21\\_EAP2\\_FINAL.PDF](http://www.energy.ca.gov/energy_action_plan/2005-09-21_EAP2_FINAL.PDF)**

**Does this imply energy efficiency and demand response are ranked as both preferred? Or does one program have a higher ranking than the other?**

EE and DR are at the top of the loading order. The loading order ranking will only be evaluated only as a qualitative aspect of the offer.

4. Please give more details on “incremental”?

See General FAQ #18

5. Can you share the discount rate you are using for evaluating offers in this RFO?

7.79%

6. The answer to 1.II is hereby updated to see below (NMV example):

**Net Market Value Calculation (NMV) Example**

Example Inputs (these are illustrative only and DO NOT reflect SDG&E’s actual price benchmarks):

- 1MW of Fully Dispatchable Storage Capacity priced at \$110/kW-yr with 50 annual cycles, no A/S, term = 1 year
- VOM = \$5/MWh
- Interconnection Costs = \$10,000
- \$100/kW-yr Capacity Benchmark
- \$90/MWh Energy Benchmark(at optimal generation hours)
- \$45/MWh Energy Benchmark(at optimal charge hours)
- The Energy Dispatch model shows an optimal dispatch of 50MWh of generation (round-trip efficiency assumed to be 100% to simplify the example) over the year.

Benefits:

Benefits = Capacity Benefits + Energy Benefits + Ancillary Services Benefits + Renewable Energy Credit Benefits

$$\text{Benefits} = (\$100/\text{kW-yr} * 1000 \text{ kW}) + (\$90/\text{MWh} * 50 \text{ MWh}) + (0) + (0)$$

$$\text{Benefits} = (\$100,000) + (\$4500)$$

$$\text{Benefits} = \$104,500$$

Costs:

Costs = Capacity and/or Energy Payment + Variable Costs + Interconnection Costs + Renewable Integration Adder

$$\text{Costs} = (\$110/\text{kW-yr} * 1000 \text{ kW}) + [ (\$5/\text{MWh} * 50 \text{ MWh}) + (\$45/\text{MWh} * 50\text{MWh}) ] + (\$10,000) + (0)$$

$$\text{Costs} = (\$110,000) + [ (\$250) + (\$2,250) ] + (\$10,000)$$

$$\text{Costs} = (\$110,000) + [\$2,500] + (\$10,000)$$

$$\text{Costs} = \$122,500$$

NMV:

$$\text{NMV} = (\text{Benefits}) - (\text{Costs})$$

$$\text{NMV} = \$104,500 - \$122,500$$

$$\text{NMV} = -\$18,000$$

The NMV would then be discounted back to January 1, 2018 to be compared to all other offers as of a common date.

**7. Are there any locational benefits being considered? Will my project get extra benefits if it is connected to a congested node?**

There are no locational benefits or congestion considerations being considered in the quantitative evaluation of this RFO. SDG&E will consider these elements on a qualitative basis.

**8. Will SDG&E place any value on firming intermittent resources in the NMV calculation?**

No, not in this RFO.

**9. In the ESPPTA Pro Forma Agreement, Article 9.4 specifies that bidders can include a “Start-Up Costs” (\$[XXX] per start-up) amount in their offers. However, there does not appear to be a field in the Energy Storage Products Offer Form for bidders to enter this amount. Where in the offer form should bidders include start-up costs? Will start-up costs be used in SDG&E’s quantitative evaluation of the offer?**

Start-Up costs and any other offer price details not specified in an input field can be entered into the large box entitled, “Additional Pricing Details”, located at the bottom of the “ESSPPTA Cap-Price” tab of the ES Offer Form. All of these costs will be considered in the quantitative evaluation.

**10. The offer form linked in the SDG&E 2016 Preferred Resources LCR RFO index has all cells under the “Bid Details” section protected. How can we go about unprotecting those cells?**

Please try opening the file on a machine running Windows.

**11. Which sections of the “Program Description Form” in the DR offer form are considered in the LCBF rank-ordering? Do certain sections have more weight than others?**

The quantitative aspects of the project are used in the NMV calculation; constrained by any limitations entered. The program description response will be used as part of the qualitative evaluation.

**12. Can SDG&E explain whether its NMV calculation depends on resource type? Suppose, for example, that SDG&E receives two offers that are identical in all respects (including zero interconnection costs, etc), except one is for a storage resource and the other a demand response resource.**

**a. Will these offers have the same NMV? If not, how and why will the NMVs differ?**

**b. If the offers do not have the same NMV, which components of the NMV calculation are sensitive to resource type (e.g. Price Forecasts, Resource Constraints, etc.)?**

All projects, regardless of resource type, are compared against the same price benchmarks. It is possible for projects from different resource types to have the same NMV, but that depends on the details of the offers. NMV is not the only criteria used to determine our shortlist. SDG&E also uses qualitative factors to determine which projects are in the best interest of our ratepayers, which may differ slightly by product type.

**13. The energy storage offer spreadsheet that is posted on the website (2016 SDGE PrefRes RFO ES Offer Form Rev1.xlsx) no longer includes the second tab 5 (5.ESSUOG Cap-Price). Can you tell us when this was posted and if you want us to use this version of the spreadsheet, and if so, how we should convey the Revenue Requirement and Variable Cost information? Also, it appears that updates to the other RFO documents have typically been noted in the “Latest News & Update” section of the RFO website. Is there a reason that the revision to the Excel spreadsheet was not noted there?**

Shortly after the Pref Res RFO was launched, the Storage offer form was modified to remove the UOG pricing tab. Since there is only one bidding party that needs that tab, the SDG&E cost development team, the intention was to avoid confusion for all other energy storage bidders. To clarify, ONLY THE SDG&E COST DEVELOPMENT TEAM MAY fill out the tab of the offer spreadsheet that has to do with utility owned energy storage projects. Additionally, a revised form is posted on the BOT and EPC Poweradvocate pages and a similar form is posted on the RFO website.