Stakeholder Comments

# Commitment Cost Enhancements Phase 2, Straw Proposal Issued October 29, 2014

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SDG&E appreciates the opportunity to comment on CAISO's Commitment Cost Enhancements Phase 2 Straw Proposal. Resource Adequacy (RA) comments are included below and will also be submitted to the rsa email address as requested by Carrie Bentley during her presentation.

Commitment Cost Enhancements Phase 2 (CCE2) aims to expand Phase 1 and continue refining cost elements so a unit's generation costs may be more accurately reflected in an energy bid. SDG&E agrees the proxy cost option provides a better ability to account for fluctuations in variable cost inputs, such as natural gas prices and possible greenhouse gas (GHG) adder swings. But, the changes proposed bring new levels of complexity. The new use-limited definition effects not only the need to include a never before modeled 'opportunity cost' to some units while properly modeling daily use limitations of others. But, the proposal is intertwined with Resource Adequacy and bidding rules adding levels of complexity. This should be assessed and addressed in further detail to mitigate any negative consequences to the process and unit dispatch.

More analysis and supporting data is needed to ensure the robustness of the CAISO model to properly account for the additions of CCE2. The new narrower definition of a 'use limited resource' (ULR) places additional weight on the CAISO model and systems to produce the optimal outcome. This proposal is including a new cost element for some limitations, an opportunity cost added on top of start-up and min load costs, while leaving other limitations to be operational constraints accounted for in the model. In theory, an objective function, such as optimal market dispatch, can be solved as the market continues to add inputs and constraints. However, levels of complexity requiring the model to account for limitations, expressed through two different manners (cost adder or master file constraint), should be validated more thoroughly.

SDG&E believes some form of a futures gas price should be used to simulate the energy prices for the opportunity cost model. Perhaps an average of a few futures prices indices? The model is trying to simulate future market conditions as a best effort to derive the opportunity cost of a future limitation (one less start or one less MWh to run). The best proxy of future gas prices is the futures gas price. And, thus, what should be applied to the past year implied heat rate information to model the month or year ahead node prices. CAISO is considering the average natural gas prices of the preceding month, the average of daily futures prices over a month or the average of historical prices (3 year average). SDG&E does not support using a 3 year average of natural gas prices due to the fracking glut which caused a dramatic shift in prices. Also, historical prices are not a good predictor of the future due to past trends which might not hold to the future such as congestion (as mentioned by CAISO in the draft proposal), changes in the load shape due to renewables and overall weather conditions which change from one year to the next.

Many of the concerns outlined with historical gas prices are concerns of using the implied market heat rates from the previous year to model the following year for the opportunity cost model. Will there be any accounting for a changing market due to continued renewable integration? How will historical data account for the changing load shape which stands to affect market prices? Perhaps some predictive data for future production costs? CAISO provides 2013 pricing data modeled from 2012 implied heat rates and measures the results against 2013 actual node prices. CAISO finds a 'reasonable' distribution. SDG&E would like to request clarification as to what CAISO defines as 'reasonable'. Also, SDG&E is concerned 2012 to 2013 is not a robust study timeframe because the system did not start seeing major solar production come online until the end of 2013 and in to 2014.

SDG&E would like to see more supporting documentation and data from the CAISO prototype model used to calculate the actual opportunity cost adder for a unit. CAISO proposes using the 'calculated profit (or gross margin) that is foregone in some future interval if one less start, one less operating hour, and/or one less MWh is available, as appropriate.' But, does the profit from the max-use minus one-unit truly capture the opportunity cost? Perhaps, if the relationship between price fluctuations is linear. CAISO also proposes taking an average over more runs constrained (an example of 3 runs used in the straw proposal) and SDG&E believes this to be worth exploring further. CAISO should study more constraint runs and provide supporting information as to if an average of runs makes sense. And, if so, how many runs and why? This should be applied to both the start-up limitation and the run hour limitation.

CAISO proposes to update the model quarterly. Specifically, what elements of the model are planned to be updated?

If a scheduling coordinator (SC) felt the opportunity cost was set too high for a resource over a given month and notices the unit was not getting dispatched, how would the unit adjust the proxy cost to capture some value from the market over the month? As an example, see draft proposal Table 5 scenario 1D months June, July and September where the unit is not dispatched once. And, per the scenario, the resource only had monthly limitations, not annual. In this instance, it seems the opportunity cost was overstated effectively keeping the unit out of the market altogether for 3 months out of the year. The draft proposal alludes to flexibility in adjusting/reducing bids, but, it isn't entirely clear how that is supposed to happen. Since the opportunity cost adder is not proposed to be changed over the month, CAISO mentions resources adjust/lower start-up and min-load costs to affect awards. Is this the best approach? Should the SC be tweaking fixed start-up cost and minimum load cost inputs? It seems logical the opportunity cost adder would be the variable input option to the proxy cost equation. We understand the need for a cap. But, perhaps there should also be an option to reduce the opportunity cost added?

Transition costs and start-ups are still a bit unclear. SDG&E requests clarity in definitions and what's included in both the start-up cost and transition cost. SDG&E would like to make sure a major maintenance adder (MMA) is included in all starts and transitions up to a new configuration. When address MSG units, both CTs and duct-fire starts require inclusion of a (MMA) because each component will require major maintenance after a certain amount of starts or run time. And, cost of major maintenance on a duct-fire is not included in the start-up of the corresponding CT.

SDG&E agrees that, should GHG costs not be included in natural gas price indices, the GHG cost should be included as an element of commitment costs for thermal resources that have not reached the 25,000 MT CO2e threshold. SDG&E requests detail on how CAISO will manage thermal resources which fluctuate around 25,000 MT CO2e. There must be a mechanism to ensure such resources don't end up with a double count GHG adder. Or, conversely, transition from covered entity to non-covered entity and result with no adder.

<u>Resource Adequacy specific comments</u>

For consideration, as an LSE we contract resources to meet our RA obligations. Variably, there are contractual obligations which set limitations on resource usage, be it run hours until a major maintenance or contractual limitations on starts or run hours over a year. We make monthly, annual and future planning decisions, especially with respect to our RA portfolio, in the best interests of our consumers. However, contract limitations expose rate payers in the event the market does not allow an LSE to properly manage portfolio resources. As an extreme example, what if multi-year contracts were used up before the tenure of the contract? Thus,

contractual limitations and the ability to account for them in the market needs to be addressed somewhere, either in CCE2 or in the upcoming bidding rules initiative.

SDG&E believes bid insertion for RA resources is still necessary under the new availability incentive mechanism. SDG&E does not believe there is enough incentive beyond bid insertion and believes doing away with bid insertion leaves room for units to manipulate the market by withholding bids.

CCE2's narrowed use-limited definition for resources eliminates many intermittent resources, specifically wind and solar, from the use-limited category, and, thus, use-limited bidding rules if these resources are committed as RA resources. SDG&E believes specific rules should be constructed such that wind and solar resources committed as RA resources be exempt from generated bid requirement and the corresponding RUC market.

SIBR mechanics and RA rules should be detailed as the CCE2 proposal progresses. CAISO should consider flags, corresponding bid insertion rules and how resources will be required to bid in to the market if they are committed at RA resources.

The straw proposal notes RA obligated resources should manage their bidding such that they do not hit a monthly, annual or other use-limitation prematurely. As mentioned above, the ability to manage bidding (by increasing or decreasing proxy costs) is not completely clear. Also, should bids be able to be managed on a daily basis, is their value in accounting for the RA tradeoff of profitability versus risk of replacement in the opportunity cost model?