Shell Energy North America (US), L.P.

Comments to CAISO Aliso Canyon Gas-Electric Coordination Straw Proposal, April 15, 2016

Mike Evans, Shell Energy, michael.evans@shell.com, 858-526-2103

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Shell Energy provides these comments to the Straw Proposal in addition to the previous comments provided in response to the Issue Paper.

Section 4.2 – Real-time commitments and dispatch might need to be constrained to reflect gas balancing limitations. – The ISO has accurately indicated the difficulty of managing short start (peaker) units with the proposed OFO balancing limitations. The ISO should make the IFM binding for short start resources to allow for gas procurement and scheduling to meet the ISO's forecasted peak electric load needs. If a generator can reduce its schedule, it can notify the ISO through a decremental energy bid. A unit may not appear economic to the ISO in the RT market, when it may actually be economic, if the gas penalties and gas put-back costs are factored in. Thus, the ISO would need to dispatch the unit, pay BCR, and then, if that energy is not needed in SP, it would be exported out of SP north to NP or east to PV/Mead. Shell Energy believes that the concept of making IFM schedules mandatory for peakers must be an interim measure, until SoCalGas can relax the interim OFO requirements back to pre-Aliso Canyon failure OFO procedures. Further, the ISO should evaluate its operational practice to ramp a fast start peaker to a "Pmin", and when that peaker can be dispatched in 10-minutes, that the ISO dispatch systems should allow a Pmin of zero, and that the unit would then be able to come on line from zero to the dispatch instruction when it was actually needed for system reliability. Currently, the ISO will dispatch a peaker, and run it at a minimum load (typically almost at Pmax due to emissions limitations), thus expending gas and GHG emissions, just in case the ISO may want to ramp up the few remaining MWhrs from Pmin to Pmax. A review and updating of peaker dispatch would likely result in a more economic outcome for California consumers.

Section 4.3 – Commitment cost bid cap and mitigated energy bids may not reflect real-time market gas prices. – The ISO states that "the ISO is concerned by not…compensating resources for higher costs." Shell Energy supports the ISO's proposal to allow generators to provide commodity and transportation costs for start-up and minimum load, and for use in the Default Energy Bid cap. Shell Energy encourages the ISO to provide guidance, or to schedule a stakeholder meeting to discuss criteria for how these costs could be verified should the ISO screening tests indicate further review, and should the ISO request back up documentation on price data.

Section 5.1 – Gas availability constraint. – The ISO has explained its policy for curtailments in an affected area and provided an overview of OP 4120. The ISO should be explicit that RA unavailability charges (RAAIM charges) would not be applicable when a Nature of Work outage card notifying the ISO of gas limitations (in which the generator only has sufficient gas to operate at its DA plus ADS dispatch for the

remainder of the gas day) is submitted, during the interim period in which Aliso Canyon is out of service. RA deliverability studies were conducted and NQC was established prior to the Aliso Canyon failure, and this RA has been sold/procured by LSE's, generally for the remainder of the year, although filings are due monthly. An action such as the Aliso Canyon failure, which is beyond the control of the generator, would not be a valid reason to impose penalties on generators that have sold RA. It is also reasonable and expected that much of this RA has been sold in future years. If the ISO anticipates changing NQC for facilities in its annual June posting of NQC capacity, then it should inform the market as soon as possible.

Section 5.2 – Reserve internal transfer capability. – The ISO has two conditions which it must manage, a peak day gas/power demand and daily balancing of renewables. For peak day gas consumption, Shell Energy encourages the ISO to work with SoCalGas to explore options to increase the availability of gas, including re-scheduling outages on the gas pipeline network, re-scheduling outages at gas compression facilities, and procurement of gas at Otay Mesa (potentially through the procurement of LNG as a peaking gas supply). Further, use of electric demand response and energy storage should be utilized and maximized. For daily balancing, it is reasonable that the ISO will procure supply in SP in the IFM to a net load forecast (net of renewables), and then generally over-procure due to limitations of decrementing units, thus exporting energy out of SP, while maintaining gas schedules per generator nominations, as required under the gas tariff during the interim loss of the Aliso Canyon gas storage facility. Shell Energy supports a balance between "over procurement in SP" and "reserving Path 26 transfer capability", and encourages the ISO to provide transparency in its daily reservation of Path 26 capacity. Shell Energy suggests a follow up stakeholder meeting to discuss how capacity would be reserved on Path 26 and how LMP prices would be set in SP with some units mitigated. Further, the ISO should maximize and ensure the supply of all imports, including the PDCI.

Section 6.1 – Increase access to information prior to day-ahead – "The ISO proposes to release the 2DA advisory results to its market participants to improve market participants' ability to plan." A 2DA advisory dispatch cannot be acted upon unless it is financially binding, with a 2DA MCP that would allow gas procurement. In addition, this proposal is misaligned with daily bilateral DA gas trading. Shell Energy does not believe that a 2DA "advisory" notice would improve market participants' ability to plan.

Section 6.2 – Introduce gas balancing constraint in real-time. - The ISO has proposed to set aside a quantity of gas for RT dispatch. "The constraint would limit the change in gas burn relative to day-ahead schedules burn to within a balancing range (e.g. 150 MMcf) over the day." Shell Energy supports the ISO maintaining grid reliability and supports measures to ensure that reliability. The ISO should verify that any set-aside of gas system load balancing flexibility for electric generation does not affect other noncore gas customer allocations of gas storage or flexibility, and does not increase the frequency of OFOs. The ISO should also ensure, likely through discussions with SoCalGas, that there is a mechanism to allow the gas to be moved between gas market participants, so that those market participants are not exposed to gas penalties and to ensure that the market participants are financially kept whole for the exchanged gas, consistent with the ISO's proposal. The ISO may consider pursuing discussions with SoCalGas regarding the ability for market participants to trade imbalances, either at ID3 or preferably the next day, as this re-dispatch was performed within an ISO allocated quantity of gas. The imbalance trading timeline could be performed the next day, in a timeframe that would be more easily supported

by gas trading and scheduling personnel. Some other pipelines such as AECO utilize next day or "Y-Day" imbalance trading and parties can transact on ICE.

Section 7 – Proposal for increased efficiency of real-time re-dispatch through use of real time gas price information. – Shell Energy supports the ISO proposal to allow "generators… to submit commitment cost and incremental energy offers reflective of their marginal cost." In fact, Shell Energy believes that the ISO should recognize that suppliers should be able to provide bids that reflect their costs as the generator has calculated that cost, and that a generator supply bid would typically include fuel, O&M and some fixed cost recovery. For purposes of the straw proposal, Shell Energy supports use of "1. Gas price submitted by generators reflecting marginal cost of gas." We are unaware of a published intraday gas price that the ISO could use as a proxy, thus Shell Energy supports option 1.

Section 7.1 - Shell Energy supports the ISO routinely monitoring gas prices, and believes that the ISO should clarify that a "cost based bid" is a bid based on the cost at which a generator anticipates that it will be able to procure gas, and that it includes a range, as the gas has not been procured. It would be important for the ISO to clarify the audit procedures that the ISO is contemplating, as the ISO has proposed significant penalties (200% clawback) if the ISO felt that a generator's bid was anomalous.

Section 7.2 – Shell Energy does not support a volume weighted average price.

Section 9 – Proposal to routinely use improved day-ahead gas price index. – The ISO has proposed two solutions to solve the difficulty in determining commitment costs and the problem with the new ICE price publication time to 11:30 a.m. PST. Shell Energy supports "Option 1. Gas price submitted by generators reflecting marginal cost of gas" as this option will more accurately reflect DA LMP prices and allow for more accurate cost recovery of startup and minimum load costs. Shell Energy is unaware of any ability to obtain an accurate weighted average price of intraday gas. As a result, Shell Energy does not support Option 2.

Unintended Consequences/Impact on other gas pipe systems and other electric BAs – As the ISO proceeds with interim measures to accommodate limitations on the SoCalGas system, they should anticipate that other gas pipe systems are aware of these constraints being imposed on the SoCalGas system, and are looking at minimizing impacts to their systems. The ISO should have a follow up process to periodically review impacts to neighboring electric and gas systems, and ensure that its dispatch policies still work.

Shell Energy looks forward to further stakeholder discussions regarding modifications to manage to the new gas system constraints to ensure the reliable operation of the electric grid.