

# Memorandum

**To:** ISO Board of Governors  
**From:** Karen Edson – Vice President, Policy & Client Services  
**Date:** August 18, 2011  
**Re:** **Decision on Valley Electric Association Transition**

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*This memorandum requires Board action.*

## EXECUTIVE SUMMARY

Valley Electric Association, a member-owned electric cooperative based in Nevada, and the California Independent System Operator Corporation have taken the first step towards a long-term relationship, setting the stage for Valley Electric to become a participating transmission owner, utility distribution company and load-serving entity in the ISO balancing authority area effective January 1, 2013. The first step is the memorandum of understanding (MOU) executed between ISO Management and Valley Electric that outlines the activities necessary to prepare for the January 2013 transition. The memorandum of understanding is provided as Attachment 1.

With Valley Electric as part of the ISO balancing authority, the ISO will be able to achieve efficiencies in providing renewable resources to California and enhance the transmission grid regionally. Specifically, Valley Electric's interconnection rights at the Mead substation and a new interconnection planned at the Eldorado substation will increase the ISO's ability to access renewable resources to meet California's renewable objectives. The additional transmission capacity will also be available generally to the ISO market.

Valley Electric's shift to participating transmission owner status on January 1, 2013 is based on their rights at the Mead substation. These rights exceed Valley Electric's load, but must be supplemented to provide the capability to move the large volume of renewable energy from Valley Electric into California. Valley Electric's interconnection at the Eldorado substation, planned for 2015, is vital for California's access to the renewable resources that will be built in Valley Electric's territory.

The MOU addresses three key areas to facilitate the transition of Valley Electric, each requiring action by the ISO and Valley Electric, and approval by FERC by the end of 2011.

- Merger of the generator interconnection processes of Valley Electric and the ISO;
- Recognition of Valley Electric's import rights to satisfy its resource adequacy obligations; and
- Issuance of congestion revenue rights for Valley Electric to hedge costs to serve its load.

The ISO and Valley Electric currently conduct their own interconnection queue and study processes. Once Valley Electric becomes an ISO participating transmission owner, interconnection customers currently in Valley Electric's queue that achieve commercial operation will become ISO-connected generators. As a result, the MOU specifies steps in advance of the transition that allow Valley Electric's interconnection customers to obtain full capacity deliverability status as of the transition date of January 1, 2013.

Additionally, Valley Electric must meet the resource adequacy requirements of the ISO tariff upon its transition to the ISO balancing authority area. Valley Electric serves its load via imports over the Mead interconnection using its interconnection rights with the Western Area Power Administration – Desert Southwest Region. As a result, the MOU contemplates that Valley Electric will receive an appropriate share of the import allocation on the Mead intertie for resource adequacy purposes.

Valley Electric also will be eligible for an allocation of congestion revenue rights based on historical load data and forecast data for each monthly congestion revenue rights process. For California load serving entities, the ISO obtains load forecasts from the California Energy Commission, but Valley Electric may not be part of the California Energy Commission forecast process because it is not a California load serving entity. Accordingly, the parties will work together to develop a mutually acceptable method for forecasting Valley Electric's load as needed for both the allocation of congestion revenue rights and the resource adequacy process discussed above.

The next step in this process is for Valley Electric and the ISO to enter into a transition agreement based on the MOU. The agreement will include mechanisms to resolve any tariff issues, such as those associated with aligning Valley Electric's interconnection queue with the ISO's queue. Management seeks authorization to enter into such an agreement with Valley Electric, file the agreement with the FERC, and to submit any other appropriate filings with FERC, including any tariff amendments or temporary waivers.

Management recommends approval of the following motion:

***Moved, that the ISO Board of Governors authorizes Management to enter into a transition agreement with Valley Electric Association consistent with the parties' Memorandum of Understanding dated August 1, 2011, and to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the transition agreement, as described in the memorandum dated August 18, 2011.***

## **BACKGROUND**

Valley Electric is a member-owned electric cooperative based in Pahrump, Nevada, with a service territory that borders California and extends into a small portion of California. Valley Electric's service territory contains approximately 120 MW of load currently served through imports into their system over the Mead interconnection. A map of Valley Electric's service area is provided as Attachment 2. Several large solar projects have applied to the Valley Electric interconnection queue, and over half of these projects have submitted projects into the ISO interconnection queue. At least one of these projects will be located in California.

Early in 2011, Valley Electric approached the ISO to explore transitioning to the ISO balancing authority area and becoming a participating transmission owner. Valley Electric interconnection customers are seeking deliverability into California consistent with California state guidelines. To accommodate these projects, Valley Electric concluded that joining the ISO was the most cost-effective and efficient solution.

Valley Electric and the ISO have worked to identify potential issues that must be addressed to facilitate the transition on January 1, 2013. The proposed approaches and activities are included in the MOU that has been executed by Valley Electric and ISO Management. Because the transition activities must begin in January 2012, Management seeks board authorization now to file the transition agreement and any other appropriate filings to obtain FERC approval by the end of 2011.

## **DISCUSSION AND ANALYSIS**

There are three critical elements of the transition that require action by the ISO and Valley Electric prior to the targeted transition date of January 1, 2013. These elements were the focus of the MOU and will again be essential features of the transition agreement. Without a binding agreement and authorization from FERC, the parties would not be able to move forward in advance of the transition to address these matters. Accordingly, this section outlines the essential features in each of these three areas as described in the MOU.

### **1. Merger of the generator interconnection processes**

The tariff provides for administration of interconnection requests to the ISO controlled grid through a cluster study process. Under this process all requests within a specific "cluster window" are assessed together to determine the reliability and delivery network upgrades needed on the ISO system and each interconnection customer's cost responsibility for those upgrades. In particular, phase I study results establish a maximum cost responsibility for each interconnection customer's cost share within the same cluster.

Valley Electric administers a generator interconnection queue through a serial study process. This process currently includes approximately 2980 MWs of renewable generation, of which two interconnection customers accounting for a total of about 1620 MWs have also applied to the most recent cluster-- cluster 4 -- of the ISO's generator interconnection process. Some of this capacity is under contract with California load serving entities through power purchase agreements.

The ISO closed the application window for the cluster 4 study process, and is expecting to produce phase I study results in November 2011. The ISO expects to begin work on the phase II studies beginning in January 2012 and complete them during summer 2012. Given the need for the ISO to start the cluster 4 phase I studies almost immediately (they are now underway), as compared to the expected timing of FERC decision on the transition agreement, the ISO must perform its cluster 4 phase I studies including only the approximate 1620 MWs of Valley Electric's interconnecting generators that are already in cluster 4 to establish the maximum cost responsibility for those resources. Those interconnection customers in the Valley Electric queue that desire full capacity deliverability status on the ISO system, and have not already entered the ISO interconnection queue, are not included in the phase 1 studies.

The ISO proposed to perform the phase II studies including up to an additional 1360 MWs in Valley Electric's queue to determine the incremental transmission impacts of those resources interested in full capacity deliverability status on the ISO controlled grid. All of the approximate 2980 MWs of Valley Electric interconnection customers, if they satisfy the requirements of the ISO interconnection process and elect to participate in Valley Electric's planned cluster study process, will be eligible to obtain full capacity deliverability status when the new transmission interconnection facility and associated network upgrades are placed into service.

To address possible concerns of existing interconnection customers in the ISO queue, the MOU provides assurance that these existing customers will be protected from additional costs by holding to the cost cap provided in their phase 1 study results. If interconnection customers in the Valley Electric not already included in the ISO phase 1 study results trigger additional network upgrades in excess of this cost cap, i.e., the 1360 MW projects described above, those projects would be required to fund the amount in excess of the cost cap.

The above approach is prudent for determining the network upgrades needed on the ISO controlled grid and the associated costs to merge Valley Electric's queue into the ISO's cluster 4 process. This is true because the impacts on the current ISO controlled grid are the same irrespective of whether the generation is modeled as (a) connecting to Valley Electric's system and then delivering to the ISO controlled grid via the planned new 230 kV interconnection facility, or (b) connecting directly to the ISO controlled grid via a new generator tie line.

## **2. Recognition of Valley Electric's import rights for resource adequacy**

The second key area in the MOU involves how Valley Electric will meet its resource adequacy obligations as of the transition date. Valley Electric is unique in that its load is currently served entirely by imports into its system. It is therefore necessary and appropriate to provide a mechanism for Valley Electric to count a portion of its Mead import rights to meet its resource adequacy requirements. To do this, the ISO will establish a methodology that will count a portion of Valley Electric's existing import rights as "pre-resource adequacy commitments".

Valley Electric will provide sufficient historical load data to enable the ISO to perform a historic load analysis for purposes of determining the Valley Electric share of ISO system peak load. Additionally, the parties will work together to develop a mutually acceptable method for forecasting Valley Electric's load as needed for both the resource adequacy process and, as discussed below, the allocation of congestion revenue rights, which will be described in the transition agreement.

Valley Electric may or may not have local resource adequacy requirements, which ISO engineers will assess not later than six months prior to the transition date. Valley Electric may be able to estimate what its local resource adequacy requirement would be after transitioning to the ISO system, by doing its own local congestion study that follows the process to be specified by the ISO prior to the transition date.

Valley Electric, through its scheduling coordinator will need to participate in the year-ahead and month-ahead demonstrations that it has met its resource adequacy requirements. Moreover, the entities that supply resource adequacy capacity to Valley Electric will need to file supply plans with

the ISO. All resources within the Valley Electric system and included in Valley Electric's resource adequacy plan will be evaluated with respect to resource adequacy requirements under the ISO tariff.

### 3. Issuance of Congestion Revenue Rights

As a load serving entity, it will be necessary to provide a transition mechanism for Valley Electric to obtain congestion revenue rights that will be effective as of the transition date. The ISO's congestion revenue rights allocation process starts in the summer of every year and first allows entities to nominate their prior year congestion revenue rights for a priority renewal in the current year process. For the 2013 allocation process, the ISO will specify a hypothetical congestion revenue rights portfolio based on historical data that Valley Electric can nominate for renewal. This will occur during the summer of 2012, with preparations beginning in the January-February 2012 timeframe. Provisions have also been identified to make needed corrections if the congestion revenue rights allocation and auction occurs and the transition date does not occur precisely on January 1, 2013.

### ECONOMIC ESTIMATES

Valley Electric's move into the ISO provides benefits as noted above. They include enhanced access to renewable resources including some located in California and increased import capability which benefits both reliability and the ISO market. The ISO has estimated preliminary economic impacts as shown below:

	Annual cost to ISO participants (\$ millions)
January 1, 2013 – transmission revenue requirement estimate based on facilities Valley Electric turns over to ISO control	\$7.5
Valley Electric contribution to ISO transmission access charge	(\$3.0)
Transmission access charge cost recovery for the 230 kV interconnect at Eldorado (capital cost estimate \$5 - \$10 million)	\$0.5 - \$1
Valley Electric contribution to ISO grid management charge	(\$0.4)
Valley Electric contribution to market uplift charges, e.g. real-time imbalance energy offset	(\$0.3)
Total estimated initial cost to ISO ratepayers	\$4.3 - \$4.8*

\* This total will be offset to some extent by benefits associated with greater liquidity and greater access to markets.

Future development in Valley Electric's area may require additional transmission upgrades. To this end, Valley Electric has submitted an initial right-of-way request for a 62-mile, 500kv line. The ultimate need for this line depends on the progression of the fleet of projects currently in Valley Electric's interconnection queue.

## **POSITIONS OF THE PARTIES**

After the MOU execution on August 2, the ISO posted the MOU on its website and issued a market notice announcing the MOU on August 5. On August 12, the ISO hosted a call with stakeholders to explain the MOU and proposed transition process, and to answer questions.

The stakeholder discussion on August 12 was constructive and informative. The ISO answered a broad range of stakeholder questions and asked stakeholders to submit any additional questions by email. Those additional questions and ISO responses will be posted on the ISO website.

If this proposal is approved, the ISO will maintain a web page dedicated to information and Q&A regarding the Valley Electric MOU and related transition agreement. Additional stakeholder outreach will be provided as the transition agreement is being developed and finalized, before filing in mid-October.

## **MANAGEMENT RECOMMENDATION**

Management recommends approval of this proposal to develop and file the Valley Electric - ISO transition agreement with FERC as described in the memorandum. The relationship between Valley Electric and the ISO is an exciting new partnership that provides increased access to renewables and also adds new capability to the transmission system.