



Imperial County Transmission Consultation

Current Resource Deliverability Capabilities from Imperial Valley

**Technical Addendum to the July 2, 2014 Imperial County
Transmission Consultation Draft Discussion Paper**

July 30, 2014

Background

The California ISO is conducting a stakeholder consultation on options to address renewable generation deliverability out of Imperial County to the San Diego and LA Basin areas in support of the California ISO's transmission planning process. This consultation effort will provide opportunities for stakeholder input on a range of issues that will inform the California ISO's 2014-2015 transmission planning process, which is currently underway. This effort was initiated in July by the release of a draft discussion paper¹ on July 2 followed by a stakeholder meeting on July 14. During the July 14 stakeholder meeting, it became evident that there was a need for greater clarity regarding the current deliverability capability for the Imperial county area. This brief paper provides additional details and clarifications regarding the current state of resource deliverability in the Imperial county area (a.k.a. the Imperial zone).

Summary

1. As part of the resource adequacy program, the ISO was required to determine how much import capacity (deliveries from outside the ISO balancing authority area) could be relied upon to meet the needs of ISO consumers during peak load conditions. To accomplish this goal, the ISO established the Maximum Import Capability (MIC) process to assess the import capacity based on historical high flows of energy being delivered into the ISO. Since the IID system is its own balancing authority area, the ISO has established MIC values for each import path from IID.
2. IID currently has 462 MW of deliverability (MIC) to the ISO on Path 42.
3. The ISO previously targeted increasing the MIC from IID to a total of 1,400 MW (462 MW existing + 938 MW additional). This objective was established in the CPUC renewable generation portfolios that set amounts for the Imperial zone at 1,700 MW. Importantly, the 1,700 MW RPS target for the Imperial zone is incremental to the existing 462 MW IID MIC and did not distinguish between whether the resources would be connecting to the ISO grid directly or to the IID system. Previous transmission plans indicated this target was achievable with the approved transmission development that was already underway. Specifically, prior transmission plans indicated there was sufficient transmission approved to support a potential incremental 938 MW of IID MIC needed to reach the 1,400 MW IID MIC target as well as support a potential additional 762 MW of Imperial zone generation connecting directly to the ISO system for a total of 1,700 MW.

¹ <http://www.caiso.com/planning/Pages/TransmissionPlanning/2014-2015TransmissionPlanningProcess.aspx>

	<u>IID MIC</u>	2012-2013 Imperial Zone New Generation <u>Portfolio Amount</u>
Existing IID MIC	462 MW	
Additional targeted future IID MIC	938 MW	→ 938 MW
Additional ISO-connected renewables		762 MW
Total	1400 MW	1700 MW

4. With the early retirement of SONGS, the ISO’s forecast for additional deliverability from the Imperial zone above the existing 462 MW IID MIC was reduced from 1700 MW to zero MW. In light of this, the ISO assessed the impact approved upgrades in the 2013-2014 ISO transmission plan had in supporting future generation deliverability for the Imperial zone.
5. The transmission additions approved in the 2013-2014 transmission planning cycle restored the future additional amount of deliverability for the overall Imperial zone to up to 1,000 MW.² Based on a recent review of CPUC approved power purchase agreements conducted since the July 14 stakeholder meeting, the ISO has determined that all of the 1,000 MW is expected to be used by generation that is already moving forward and connecting directly to the ISO grid. (Estimates at the time of the July 14 meeting indicated that some small amount of capacity could still be available for increasing the MIC from IID – a review of confidential CPUC approved contract information recently obtained has since revealed that generation connecting directly to the ISO grid is expected to fully utilize the transmission capacity, however.)
6. The ISO is further re-examining the deliverability limits from the Imperial zone in the 2014-2015 planning cycle as well as exploring options to increase deliverability from this area. Specifically, the ISO will be assessing options for meeting two renewable development scenarios provided by the CPUC for the 2014-2015 planning cycle. A base case scenario that includes 1,000 MW of additional renewable generation in the Imperial zone³, which as noted in #5 above was found to be supported in the 2013-2014 transmission plan but is nonetheless being reassessed in the 2014-2015 planning cycle

² The recently approved major transmission projects that are needed to improve the deliverability generation out of the Imperial Zone are the Imperial Substation Phase Shifter (expected in-service 2017), and the Delaney-Colorado River 500 kV line (expected in-service 2020). Approved in earlier transmission planning cycles, the Sycamore-Penasquitos 230 kV line (expected in-service 2017) and the Bay Blvd Substation (expected in-service 2017) are also needed to ensure the delivery of renewable generation from the Imperial zone.

³ The Imperial zone includes both IID and ISO connected new generation in Imperial County.

along with the rest of the updated RPS portfolio amounts provided by the CPUC, and a second “sensitivity” scenario that includes an increase of 2,500 MW in that zone.⁴

7. Another option for increasing MIC without transmission upgrades is the re-purposing of import capability from Arizona. While not expected to be a 1-for-1 trade-off, this option considers reducing MIC from Arizona import paths to increase the MIC from IID. Other options being examined in the 2014-2015 planning cycle include relatively low cost transmission operation changes that could potentially provide several hundred MW of additional deliverability from the Imperial zone.

In summary

- The ISO 2013-14 TPP currently supports:
 - The existing IID MIC of 462 MW
 - An additional 1,000 MW of deliverability from the Imperial zone – all of which is being utilized by projects connecting directly to the ISO grid.
- The ISO 2014-15 TPP is exploring achieving additional deliverability from the Imperial zone through:
 - Updating the base case study assumptions (i.e., recalculating baseline of what level IID MIC can be supported absent further action, based on expected CPUC procurement)
 - Re-purposing import capability from Arizona to increasing the IID MIC
 - Transmission upgrades or operational modifications

Next Steps

The overall schedule provided in the July 2 draft discussion paper is shown in Table 1. The ISO is currently reviewing written comments received on July 28 and plans to post a final draft discussion paper on August 14, followed by an in-person stakeholder meeting on August 28.

⁴ <http://www.caiso.com/Documents/2014-2015RenewablePortfoliosTransmittalLetter.pdf>

Table 1
Proposed Stakeholder Consultation Schedule

Date	Action
July 2	Post draft discussion paper
July 14	Stakeholder meeting (in person)
July 28	Stakeholder comments due by 5:00 p.m.
August 14	Post final draft discussion paper
August 28	Stakeholder meeting or call (if needed)
September 11	Stakeholder comments due by 5:00 p.m.
September 24-25	Stakeholder meeting #2 of the 2014-2015 transmission planning process
November 19-20	Stakeholder meeting #3 of the 2014-2015 transmission planning process
January 2015	California ISO posts draft transmission plan