The ISO received comments on the Imperial County Transmission Consultation, July 14, 2014 Stakeholder Meeting from the following:

1. Bay Area Municipal Transmission group (BAMx)
2. Boston Energy Trading and Marketing
3. California Consumers Alliance
4. California Department of Water Resources – State Water Project
5. California Public Utilities Commissions
6. Calpine
7. Center for Energy Efficiency and Renewable Technologies
8. Duke America Transmission Company
9. EnergySource LLC
10. Imperial Irrigation District
11. Independent Energy Producers
12. Nature Conservancy
13. Nevada Hydro
14. Office of Ratepayers Advocates of the CPUC
15. Pacific Gas & Electric
16. Pinnacle West
17. San Diego Gas & Electric
18. Sempra US Gas and Power
19. Sierra Club, Audubon, Defenders of Wildlife, NRDC
20. Six Cities
21. Southern California Edison
22. SouthWestern Power Group
23. ZGlobal and Regenerate Power, LLC

Copies of the comments submitted are located on the *2014-2015 Transmission planning process* page at: http://www.caiso.com/planning/Pages/TransmissionPlanning/2014-2015TransmissionPlanningProcess.aspx under the *Phase 2* heading.

The following are the ISO's responses to the comments.

| No | Comment Submitted | CAISO Response |
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| **1** | **Bay Area Municipal Transmission group (BAMx)**<br>**Submitted by: Barry Flynn** | |
| **1a** | 1. BAMx applauds the CAISO for bringing forth these issues at this time. Although the results of any studies would need to be incorporated into the CAISO 2014-15 planning process, this meeting and description of issues allows for a broad stakeholder input before the CAISO develops its position. Such early stakeholder engagement facilitates a much more in-depth understanding of the issue rather than waiting until the draft transmission plan, which gives stakeholders a short period of time to understand, analyze, and comment. We commend the CAISO for having this discussion now and encourage the CAISO to expand on this type of pre-draft report activity. | The ISO agrees that it is important to provide the opportunity for stakeholder input on the issues presented in this consultation effort. Additional stakeholder meetings will be scheduled on an as-needed basis until the consultation is completed near the end of this year. |
| **1b** | 2. The CAISO and some stakeholders recognize that the issue at hand is deliverability for resources that allow buyers of renewable projects' output to count the generators' dependable capacity toward their Resource Adequacy (RA) needs. However, there continues to be a perception held by some stakeholders that major transmission needs to be constructed in order to obtain the energy from resources in the Imperial Valley to meet California's 33% Renewable Portfolio Standard (RPS) requirement based goal. From comments in the stakeholder meeting, it appears that the CAISO is in agreement that that the congestion risk is low from the energy produced by the renewable resources in the CPUC-specified RPS portfolios. If so, the CAISO needs to be clear on this point. If this is not the CAISO's position, or if the congestion risk is unclear, then the scope of the work under this initiative should be expanded sufficiently to address this important parallel issue. It is imperative that stakeholders understand the distinction and the nature of the limitations on this section of the transmission system that imports resources from Imperial Valley. Congestion and deliverability are two very distinct concepts. | The ISO considers that the portfolios provided by the CPUC to the ISO on February 27 2014 for the 2014/2015 transmission planning process make the needs clear at this time. A base portfolio with a more limited amount of generation in the Imperial area was provided, as well as a sensitivity increasing the amount of Imperial area generation but correspondingly decreasing other development. |
| **1c** | 3. The CAISO noted at the Stakeholder meeting that much of the Full Capacity Deliverability Service (FCDS) for the Imperial County has already been allocated to generators in the CAISO interconnection queue. The CAISO should provide a summary table with the amount of resources with the current system FCDS as well as the FCDS with the currently approved transmission | The ISO interconnection queue is on the ISO website and the following information is from that list. The amount of active FCDS generation in the queue at Imperial Valley and East County substations is approximately 1900 MW. The amount of completed FCDS generation at Imperial Valley Substation and on the Sunrise Powerlink is |

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| | expansion plan. Also included in the table should be the RPS portfolio amounts for this area. This would allow stakeholders to have a better quantitative understanding of the existing gap. A further enhancement would be information on the amount of resources that are in the RPS portfolios with executed PPAs. Lastly, such a table should also include the likely additional development of legislatively mandated geothermal procurement. | approximately 500 MW.<br><br>PPA information is confidential. |
| **1d** | 4. The state has a surplus of system RA capacity to meet its 33% goal, even after accounting for the San Onofre Nuclear Generating Station (SONGS) shutdown and the retirement of some once-through cooling (OTC) plants. The planning reserve margin is 115% in 2029 and 114% in 2030 under the Trajectory Scenario. These numbers do not account for the fact that even though there is excess system RA capacity, the state will be adding resources for local capacity and flexible capacity needs that count towards system RA purposes, which will add to the excess. The CPUC Scoping memo dated March 26, 2014, that contained the above planning reserve margins stated: "In the 2012 LTPP proceeding (R.13-014), the Commission found that there is no need to procure additional system capacity. Thus, this ruling seeks parties' feedback on whether, to be consistent with that determination, the IOUs' should assume in their LCBF methodologies that system capacity in the context of resource adequacy requirements has zero value and whether they should evaluate bids accordingly." This statement by the CPUC highlights the need to bifurcate the Imperial County transmission constraints into a congestion issue, if any, and the RA capacity counting issue ("deliverability"). | The ISO's policy driven transmission analysis and the associated renewable portfolios are part of a framework that includes ISO Generation Interconnection and Deliverability Allocation Process (GIDAP). Since virtually all generation in the GIDAP process and therefore all generation procured to meet the 33% goal are specified as deliverable generation, the ISO policy driven transmission analysis has the objective of ensuring that the generation in the portfolios will be deliverable. The ISO economic analysis is then performed sequentially and includes the identified policy driven upgrades. In past plans, the policy driven upgrades have been incremental in nature and did not merit additional sensitivity studies. However, if there are major policy driven upgrades identified in the sensitivity portfolios beyond those assumed in the development of the portfolios, the ISO can consider performing sensitivity analysis in the economic studies with and without major upgrades identified as needed in the sensitivity portfolio. This work would be aligned with the CPUC and CEC request for the ISO to consider a sensitivity portfolio. |
| **1e** | 5. If new transmission is needed to provide deliverability, then that transmission should not be funded as Policy-Driven projects paid for by all ratepayers, as there is no State policy to obtain RA from renewable resources. The proposed state laws requiring contracting for geothermal output do not require obtaining RA capacity from the resources. The CAISO has commented previously that its focus on FCDS is due to requests from generators for such service. Generator requests for FCDS flows from how the CPUC determines that utilities should value RA, it does not mean that generators should be shielded from the price signals associated with such a request by designating Area Delivery Network Upgrades as Policy-Driven and including them in the transmission plan. To be | The ISO has not asserted that it is state policy that renewable resources be deliverable. As the ISO has indicated on previous occasions, however, the requirement for renewable resources to receive full capacity delivery status has been a consistent requirement of interconnecting generators, and a provision approved in PPAs by the CPUC. Further, consideration of the associated transmission costs provided by the ISO is one of the inputs taken into account in developing the portfolios by the CPUC for use in the ISO planning process. |

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| | an approved project in the transmission plan (TPP) there must be a clear connection to a specific policy objective, which in the case of the 33% RPS requirement, is an energy objective. Stated differently, "deliverability at any cost" is not a public policy objective. | |
| **1f** | 6. It is clear from the Aspen study that most of the projects being proposed as Group 2 and 3 projects in the presentation will have major adverse environments impacts and be very difficult to site. Any proposed solution that includes building a major new transmission line must have significant and clear public benefits that cannot be reasonably met through alternative means. | The ISO's planning process focuses first on establishing the need for reinforcement, and then selecting the best overall means to meeting the identified need. Those needs can be driven by reliability, policy, and/or economic considerations. |
| **1g** | 7. If the transmission capacity needed to obtain additional RA from the Imperial Valley resources can be accomplished without expensive transmission upgrades, those mechanisms should be pursued. We support the concept of re-allocating Max Import Capacity (MIC) expected to be unused to interties where there is an expectation of use, such as those interconnecting to the Imperial Irrigation District (IID). That said, such a transfer should not occur unless the transferred MIC actually gets utilized to meet the state's RA needs. Therefore, it is important to investigate timing issues for any MIC transfer. The CAISO and other stakeholders appear to be aligned in supporting this concept. If Tariff changes are required to accomplish this goal, we suggest that a separate stakeholder process be started as soon as possible. A decision on the details of such a re-allocation scheme should not need to occur before such a process is started. We do not have any detailed recommendations on needed Tariff changes at this time, but we would like to point out that this is one of many reasons, in addition to reviewing the requested information above, to hold a second stakeholder meeting on Imperial County Deliverability. An additional meeting should help the CAISO develop a starting proposal for the separate Stakeholder process. | The ISO agrees that all tariff details do not need to be refined at this point to establish if re-allocating MIC is viable – however, the purpose of starting this consultation now is to identify the issues that would need to be considered, to determine if this is a viable option that should receive further development effort. |

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| **2** | **Boston Energy Trading and Marketing**<br>**Submitted by: Michael Kramek** | |
| **2a** | Merchant Transmission Solutions Should be Considered as Potential Solutions<br>As a general comment to both the draft discussion paper and the technical addendum, Boston Energy urges the CAISO to consider all options for addressing concerns regarding import capability needs into the CAISO Balancing Authority. Specifically, Boston Energy urges the ISO to consider Merchant Transmission upgrades as a potential solution for addressing deliverability concerns out of IID into the CAISO, or any external interface with for that matter. Merchant Transmission upgrades are a proven option for increasing transfer capability in the CAISO and other ISO/RTO markets, and shouldn't be excluded from consideration because of the potential for increasing transfer capability into the ISO, rather than strictly from within the ISO boundaries. | The ISO agrees that all options need to be considered. However, more information from Boston Energy Trading and Marketing would be helpful regarding several of the comments; we are not aware of merchant transmission (as defined in the ISO tariff) proceeding inside California. Merchant transmission funded by independent developers and who receive Congestion Revenue Rights (CRR's) can be brought forward by developers if they so choose, but to be eligible for CRR's through the ISO, those facilities must be placed under ISO operational control. |

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| **3** | **California Consumers Alliance**<br>**Submitted by: Ron Dickerson** | |
| **3a** | **The CAISO asks the following:**<br>**"There are major 500 kV AC or HVDC transmission options from Imperial County to the ISO. Are there other options to consider?"**<br>The following clarifications by the CAISO would assist stakeholder understanding and would allow for a more informed comments and useful participation:<br><br>1) It is not clear from slide 10 of the CPUC's July 14, 2014 presentation why the CAISO used the study assumptions from the CPUC 2012 Long Term Procurement Plan (LTPP) Track 4 Scoping Memo, rather than those assumptions plus the CPUC's procurement authorizations which were issued in connection with Track 4 of the 2012 LTPP. Please explain.<br>2) It is not clear from the CAISO's presentation what the San Diego /LA basis Local Capacity Requirements (LCRs) are, and the year(s) the LCRs are applicable. Please clarify.<br>3) It is not clear from the CAISO's presentation what the impacts of the proposed group II and group III transmission projects on the IID MIC are, if any. Please provide an estimate of these impacts on the IID MIC.<br><br>The CCA believes until the above issues are clarified a comparison of the group II and group III alternatives is premature. | 1) We assume the reference was to Slide 11 (not 10) of the CAISO's July 14 presentation (not the CPUC's). The ISO's 2013-2014 analysis was undertaken long before a CPUC decision on the LTPP Track 4 proceeding was received. The ISO notes that the assumptions it used and referenced on the ISO's Slide 11 aligned well with the final CPUC decision.<br>2) The latest long-term LCR study can be found at: http://www.caiso.com/Documents/Final2019Long-termLocalCapacityTechnicalStudyReportApr30_2014.pdf . However its results have no meaning relative to the deliverability methodology and therefore will not influence any of the MIC calculations or allocations among interties.<br>3) The ISO is updating its technical analysis of the Imperial County area as part of its 2014-2015 transmission planning process and as such, additional information will be documented in 2014-2015 transmission plan. The Imperial County consultation effort is focusing on specific issues as set out in Slide 5 of the ISO's presentation and is not intended to replace the technical analysis underway in the 2014-2015 transmission planning process. |
| **3b** | **The CAISO asks the following: "Considering the information documented in the existing Aspen environmental feasibility analysis of potential corridor designations in southern California, what additional information could be provided to Aspen to supplement their study?"**<br>It is clear from the Aspen study and the CAISO's presentation that most of the Group II and III transmission projects will have major adverse environmental impacts, are very difficult to site, and have very high costs. Any proposed solution that includes building a major new transmission line must have significant and clear reliability and/or public policy benefits | Aspen's efforts are guided by the CEC's work authorization which directs environmental assessment to proposed transmission facilities which does not include specific resources such as distributed generation, energy efficiency, and/or demand response. Further, the ISO considers such resources to most likely be environmentally neutral where such analysis is |

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| | that cannot be reasonably met through alternative means. Aspen should be asked to evaluate the comparative environmental feasibility of adding distributed generation, energy efficiency and/or demand response in the LCR areas. | unnecessary. In fact, such resources are usually considered as an offset to load which is inconsistent with the intent of this consultation where renewable generation is seeking deliverability to the ISO. |
| 3c | **The CAISO asks the following:**<br>**"Is the reallocation of Maximum Import Capability from the transmission path from Arizona to the transmission paths from Imperial County a viable option? If so, what approaches should be considered by the ISO to implement this proposal?"**<br>The following clarifications by the CAISO would assist stakeholder understanding and allow for more informed comment and useful participation:<br>1) It is not clear how many MW of renewable or non-renewable energy and dependable RA capacity are assumed exported out of the IID balancing authority into the CAISO balancing authority and by what date. Please provide clarifying data.<br>2) It is not clear if the CAISO's existing deliverability mechanism allows for an adjustment to the historical-based MIC when new intertie transmission goes into service. If it does allow for adjustment, how is historically-based MIC is adjusted to accommodate the system changes? Please explain.<br><br>The CCA makes the following assumptions:<br><br>1) The main driver behind the need to increase the deliverability from IID to the CAISO is that the three IOUs would purchase 500 MW of new geothermal generation built within the IID balancing authority area (including these generators' Resource Adequacy (RA) counting rights).<br>2) 500 MW would need to be "deliverable" from the IID balancing authority to the CAISO balancing authority.<br>3) There are currently zero megawatts of available deliverability out of the IID balancing authority, even including the approved second tie between the IID balancing authority and the CAISO balancing authority near Imperial Valley substation.<br>4) According to the CAISO's presentation the reallocation of the currently- | 1) Information related to the amount of dependable RA capacity that can be assumed exported out of the Imperial County area is documented in an ISO technical addendum which can be found here: http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br><br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target.<br><br>2) The historical MIC methodology described in the Reliability Requirements BPM does not address an adjustment to MIC when new intertie transmission goes into service. This would require changes in the ISO's Reliability Requirements Business Practice Manual. A possible approach might be to test the deliverability of the MIC adjustment based on the new intertie transmission, and if it passes the ISO deliverability test then it could be considered.<br><br>1) The potential development of renewable generation in the IID area to be potentially purchased by other California load serving entities is the main driver to increase deliverability from Imperial County to the |

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| | available MIC from the Palo Verde tie to IID, along with the reallocation of the additional MIC provided by the approved Delany-Colorado River line, would provide an additional 500 MW of MIC from the IID balancing authority into the CAISO balancing authority.<br><br>Please verify that the above assumptions are accurate. Given the above assumptions, the CCA believes the reallocation of unused MIC from the Arizona tie to the IID would be a least cost and environmentally superior option for achieving an additional 500 MW of deliverability from the IID balancing authority.<br><br>The CCA believes that in the long-run a better approach for accommodate MIC needs at different tie points between the CAISO balancing authority and neighboring balancing authorities would be to replace the historically-based method with a forward-looking study-based approach. A separate stakeholder initiative should be started to discuss this change.<br><br>The CCA believes that the state has surplus of system RA capacity though 2029 even after accounting for the San Onofre Nuclear Generating Station (SONGS) shutdown and the retirement of some once-through cooling (OTC) plants.1 The state also has no shortage of renewable resources to meet its 33% RPS goal. These numbers do not account for the fact that, the state will be adding resources for local capacity and flexible capacity need that may also count towards system RA purposes. These additions will add to the projected surplus.<br><br>If additional deliverability beyond 500 MW from the IID balancing authority discussed above is required to accommodate the full deliverability of new generation into the CAISO balancing authority the additional new transmission should be funded by the benefitting generators, rather than as a Policy-Driven projects paid for by all ratepayers. This would provide an important price signal to guide generators in location decisions and would help to minimize the overall delivered cost of power. The CCA believes that "deliverability at any cost" is not prudent public policy. | ISO.<br>2) The amount needed to be deliverable depends on the amount of renewable generation expected to be developed and purchased.<br>3) Please see http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br><br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target.<br><br>4) At this point it is important to note that. In the context of today's MIC methodology the term "unused MIC" does not have meaning. Technically, all MIC identified at the CAISO import ties is allocated to LSEs which, in theory, implies that all MIC is used. However, after TORs, ETC, pre-RA contracts, and CPUC procurement, any remaining MIC is referred to as Remaining Import Capability (RIC). As stated in the presentation, there is about 433 MW of RIC that could theoretically be reallocated to the two IID ties by reducing the Palo Verde MIC by about 866 MW (remember, two MWs at Palo Verde is equivalent to one MW at the IID import tie). This reallocation would provide roughly 433 MW of increased IID MIC.<br><br>These comments will be considered in the CAISO's future consideration of reallocating MIC from one import tie to another import tie. |

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| **4** | **California Department of Water Resources – State Water Project**<br>**Submitted by: John Yarbrough and Aseem Bhatia** | |
| **4a** | CDWR-SWP believes that re-directing the transmission for Imperial County through the CAISO control area could change congestion patterns. Therefore, CDWR-SWP recommends that prior to making a decision on re-directing, CAISO perform congestion tests and inform the Market Participants of the expected changes in congestion patterns that would occur.<br><br>Additionally, CDWR-SWP recommends that the CAISO not change the current Maximum Import Capability (MIC) allocation method that allows Existing Transmission Contracts, Transmission Ownership Rights, and old contracts (Pre-RA Import commitments) to be allocated a part of MIC. | It is unclear what it meant by "re-directing the transmission for Imperial County through the CAISO" as the CAISO's proposal does not advocate material changes in the transmission network. The CAISO does however, advocate for an option to reassign MIC from the Arizona import tie to Imperial County with a resultant increase in the amount of renewable export out of Imperial County to the CAISO system than otherwise would be allowed. The CAISO does not believe that congestion patterns would change significantly as the flow into the CAISO's system would be similar whether generation is located in Arizona or Imperial County. Nor does the CAISO believe that the reallocation of MIC for RA purposes will affect real time market-based flows.<br><br>The input will be considered in the ISO's next steps. |

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| **5** | **California Public Utilities Commission**<br>**Submitted by: Keith White** | |
| **5a** | **1. Reallocating MIC to Imperial County Is of Unclear Value, and Requires More Comprehensive Evaluation and Stakeholder Consultation of MIC Intertie Allocation Choices. The Initiatives Should Compare Historical Scheduling-Based Allocation Versus Proactive Flow-Based Approaches to MIC, With a Goal of Avoiding Unnecessary Limitation of Deliverability from an Area and Preserving Resources' RA Values Where Possible.**<br>Reallocating MIC to Imperial County may create unintended consequences that the CPUC Staff does not yet fully understand. In light of the fact that there will be winners and losers if this approach is pursued, and further, because recently approved transmission elements may change the IV deliverability assessments, it is premature to change the MIC Intertie allocation without further review and analysis.<br>It is important that the CAISO clarify and discuss with stakeholders the range of options and implications for the suggested MIC reallocation, including how this fits into the overall process for MIC allocation. This includes the role of the extended (forward-looking) MIC allocation process that may apply for access to areas containing substantial new preferred resources. This clarification and discussion deserves a separate initiative or other sustained interaction with stakeholders. Some of the issues and questions that should be pursued include the following:<br>a) The options for suggested MIC reallocation and their implications should be identified and discussed, such as:<br>• The amount of reallocation (MW added and removed);<br>• The value of a stable MIC reallocation method versus readjustments ;<br>• The fate of a reallocation if a subsequent infrastructure upgrade occurs or if the "extended MIC" approach is subsequently applied to one or more of the affected interties or resource areas; and<br>• The role of Transmission Ownership Rights, Existing Contracts and Pre-RA | 5a1 & 5a1a: The CAISO acknowledges the complexities of implementing a reallocation methodology; in fact, this is why this Imperial County Consultation was considered necessary. The CAISO will consider these comments in the development of our 2014-2015 transmission plan. |

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| | Import Commitments.<br><br>b) Using effectiveness factors to guide MIC reallocation among interties implies that a physically limiting constraint exists, which may be jointly, though not necessarily equally, impacted by flows on the different interties. However, historically based MIC reflects historical scheduled flows that may in fact leave significant headroom to increase import flows without violating reliability requirements or overloading lines. Therefore, the CAISO should fully explain and discuss whether increased MIC allocation to the Imperial County area (or any intertie/area) actually means that a MIC reduction for other interties/areas is physically (electrically) necessary to ensure that imports at the various interties' MIC levels can be simultaneously reliably maintained.<br><br>c) It is one thing to be conservative about conferring import RA value (i.e., MIC) for planning purposes when it is unclear if resources will be available to fill a given intertie above some historically observed level. However, it is another thing to use such historically based limits to limit RA deliverability for known new resources that would utilize interties above historical levels on a forward-looking basis. Based on the CAISO presentation at the workshop, this dichotomy appears to underlie the rationale for the extended MIC methodology. However, it represents a disconnect between the historically based method and the expanded MIC method, especially when applied to the same or interacting ties. Before deciding whether to pursue a suggested MIC reallocation that would reduce the MIC for other ties when increasing the MIC for the IV area, there should be consideration of first applying the "extended MIC" approach to see if the IV MIC could be increased (first without upgrades, then with upgrades as necessary), while preserving MIC levels for other interties in a physically reliable manner.<br><br>d) The CAISO should discuss with stakeholders the range of possible scenarios for MIC at other interties if transmission upgrades are added to increase IV deliverability. Should the MIC at other ties remain unchanged even as the IV MIC is no longer determined by "maximum aggregate historical schedules," or if grid | 5a1b: The analysis conducted by the CAISO in the 2013-2014 trnasmission planning cycle addressed this issue specifically for the Imperial area – reductions were necessary to the Arizona MIC to stay below physical limits.<br><br>5a1c: The CAISO has considered the "extended MIC" methodology on all previous transmission plans and it will do so again in the development of our 2014-2015 transmission plan<br><br>5a1d: The existing MIC methodology will reflect impact on other import interties on a historical basis. It is unclear how the CAISO could conceivably look at impacts at other locations given the import |

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| | infrastructure has been upgraded for IV in a manner that may enhance the physical ability to reliably support flows on other interties? | capability is determined on a simultaneous basis. This is why the historical "method" was developed. |
| | e) The CAISO should clarify and discuss with stakeholders how MIC may be impacted differently depending on whether new resources seeking RA deliverability are interconnecting outside of the CAISO area and would be imported across interties, or interconnecting downstream of the interties, for example at the new collector substation near the IV substation, and thus are not designated as imports. | 5a1e: The deliverability methodology is the same for both imports and internal resources and the interaction between the two is given by their respective effectiveness factor to constraints found in the transmission system. |
| | f) The CAISO should clarify if MIC reallocation from PV to IV avoids transmission upgrades, and if so which upgrades that are already approved or planned for the future. | 5a1f: The ISO is considering the reallocation process in the context of potentially providing incremental MIC to an area that has use for additional MIC beyond the capabilities of the planned system. |
| **5b** | **2. Delivery Capability Out of the Imperial Valley (IV) Area Should be Assessed and Discussed with Stakeholders in Conjunction with the 2014-2015 TPP, Considering MIC Methodology Issues, CAISO- and IID-Interconnected Resources, and Reliability Benefits for Coastal Load Centers.**<br>CPUC staff appreciate and support the CAISO's stated intent1 to assess, within the 2014-2015 TPP, deliverability from the IV area, including the most efficient solutions to achieve previously targeted deliverability levels and to deliver a higher level of Imperial County renewable resources as specified in a sensitivity portfolio provided by the CPUC for 2014-2015 TPP studies. These studies of deliverability should:<br>a) Identify and explain the baseline level of deliverability with approved transmission infrastructure additions, excluding the Delaney-Colorado River project. The baseline level of deliverability should be reported and explained under: (i) the current MIC allocations, (ii) the suggested MIC re-allocation, and (iii) the maximum physically reliable IV deliverability levels assuming imports at current MIC levels at other interties.<br>b) Study the parameters identified in (a) but assuming the Delaney-Colorado River project to be in service. | The CAISO will consider these comments in the development of our 2014-2015 transmission plan and in the development of a reallocation process if it is found to be necessary to develop that process. |

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| | c) The CAISO should identify and explain the IV deliverability achieved by specific yet-to-be-approved infrastructure additions, where such additions would aim to achieve the previously targeted IV deliverability level and separately deliver resources in the sensitivity portfolio being studied in the 2014-2015 TPP. This should be done with and without the Delaney-Colorado River project, and with and without setting flows at current MIC levels on other interties.<br>d) The CAISO should explain if and how, under the above scenarios, the IV area deliverability level and its interaction with MIC levels on other interties vary depending on whether the IV resources in question are assumed to interconnect directly to the CAISO-controlled grid versus to the IID grid.<br>e) For any options identified and studied for enhancing deliverability from the IV area, the CAISO should explain the amount of benefits (or lack of benefits) for electric reliability in the Los Angeles Basin and San Diego local areas.<br>f) The CAISO should assess infrastructure options to address IV deliverability that are less likely to encounter serious environmental permitting and siting obstacles. | |
| 5c | **3. The CAISO's Assessment of Southern California Bulk System Reliability in the 2014-2015 TPP Should Account for Recently Authorized Resource and Transmission Additions and Should Give High Priority to Illuminating Transmission Options for Which Severe Environmental Obstacles Have Not Been Identified.**<br>Substantial resource and transmission additions have been authorized by the CPUC and CAISO respectively since the Southern California bulk system reliability studies in the 2013-2014 TPP. The updated 2014-2015 TPP studies should account for this changed baseline when assessing potential further infrastructure additions supporting bulk system reliability in this area.<br>Furthermore, as indicated by Aspen's environmental feasibility analysis conducted for the California Energy Commission,2 major Southern California bulk system transmission options identified and preliminarily assessed by the CAISO in the 2013-2014 TPP generally face significant, daunting environmental siting and permitting obstacles.<br>Thus, it is essential that the CAISO's 2014-2015 TPP studies of any transmission options to support Southern California bulk system reliability provide information and analysis on options that: | The ISO will consider these comments in the development of our 2014-2015 transmission plan. |

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| | a) are appropriate in magnitude and location for reliability issues that exist after fully accounting for benefits of recently authorized resource and transmission additions, and<br>b) do not entail extremely challenging environmental obstacles.<br><br>Finally, the CAISO's Southern California bulk system reliability studies and its policy-driven studies should clearly identify and assess synergies and interactions between reliability and policy, such as accessing preferred resources.. Specific infrastructure additions might provide both reliability and access to preferred resources, or infrastructure identified for one purpose could reduce the need for investments for other purposes. For example, investments to support long-term access to IV resources might simultaneously reduce the need for and value of transmission investments aimed at supporting coastal load center reliability, or vice versa. | |

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| **6** | **Calpine Corporation**<br>**Submitted by: Mark J Smith** | |
| **6a** | Section 3.3 of the Discussion Paper highlights the possibility of a reallocation of Maximum Import Capability between intertie locations. Specifically, the ISO posits a reallocation of import "counting" rights from Arizona interties to Imperial County interties ("Imperial Reallocation"). In this discussion and during the conference call, the CAISO asks stakeholders to identify areas that may need to be addressed if this possibility becomes a straw proposal.<br><br>First, Calpine suggests that the ISO maintain the constraint of simultaneity. That is, the current MIC process was designed to ensure that the level of imports "counted" as RA be limited to an amount that can be simultaneously delivered at peak conditions. This constraint is necessary because we know that the non-simultaneous import capacity is significantly larger than that which can flow instantaneously, for example, due to stability or transfer limits.<br><br>Since this simultaneous limit is very difficult to model prospectively, the CASIO tariff and BPMs create a mechanism which uses historic flows to establish the maximum simultaneous import capability. Any Imperial Reallocation Straw Proposal should clearly specify how the simultaneity constraint will be satisfied. The Discussion Paper suggests the use of effectiveness factors for reallocations, a useful concept that should be further explained.<br><br>Second, the ISO should evaluate the effects of reallocating RA "counting" rights on exiting multi-year RA import contracts. That is, RA contracts with terms greater than one year (to the extent that such exists) could be significantly harmed by a temporary or permanent "reallocation" of RA counting rights.<br><br>Finally, and most controversially, the Independent System Operator should identify and evaluate any potential claims of undue preference or discrimination created by a reallocation of import capacity which has the clear intention of favoring one form and location of renewable energy over all others. | The "constraint of simultaneity" is a well-founded principle that reflects the actual use of the system and the ISO agrees that it must be maintained. The "expanded MIC" methodology has introduced additional import capability required to meet state and federal policy needs and it is currently studied simultaneously with the rest of the MIC as well as all ISO internal resources with PD or FC deliverability status to assure aggregate deliverability.<br><br>Reallocating RA "counting" rights on existing multi-year RA import contracts may be alleviated by the introduction of actual "use" by LSEs of their MIC allocations into the equation.<br><br>If agreed upon RA reallocation may be done in a non-discriminatory fashion equally to all interties and it will be driven by the available MIC at the interties where state and federal policy goals cannot be satisfied otherwise. |

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| **7** | **Center of Energy Efficiency and Renewable Technologies**<br>**Submitted by: Jim Caldwell** | |
| **7a** | **Short Term [Less than six months]**<br>In the short term, CAISO should clarify the current status of IID deliverability under its interpretation of the current MIC allocation methodology in the CAISO Tariff and Business Practices Manual. In the 2013 TPP,[1] in testimony before the CA Legislature,[2] and at least three times during the July 14 Stakeholder meeting, the CAISO has stated that the forward looking MIC allocation from the IID Balancing Authority will be 1000 MW when all currently planned and approved transmission upgrade projects are placed into service.<br>CEERT, however, believes that CAISO could alternatively take the position expressed by Southern California Edison in its 2014 RPS Procurement Plan[3], a position that CEERT supports. Specifically, if and when the IOU LSEs procure resources from the IID Balancing Authority area, that up to 1400 MW of MIC from IID will be made available as enshrined in CPUC decision D.12-11-016 and agreed to by the CAISO[4].<br>CEERT believes that it is inappropriate for the CAISO to treat the IID branch group any differently than any other branch group that imports into its Balancing Authority. To the extent that events such as the closure of SONGS results in a lower total MIC, that CAISO, by its formal agreement with D.12-11-016 remains obligated to forecast at least 1400 MW of forward looking MIC to the IID branch group.<br><br>Regardless of which of these positions is adopted by CAISO, it should clearly state its position so as to remove any residual confusion surrounding the capacity value of potential near term procurement of renewable resources from IID. In this regard, some parties have asserted that the 1000 MW figure (or the alternate 1400 MW figure) is "gross deliverability" and must be reduced by projects requesting full deliverability status with a connection point on the SDGE bus at | (1st paragraph)<br>The ISO has provided further documentation of the existing status of deliverability. Please refer to the documentation provided at http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target.<br>Particular import schedules and internal generation near the associated import tie-lines can contribute to overloading the same deliverability constraint. When that constraint is at its limit, the CAISO must either reduce the NQC of the internal generation pursuant to the CAISO Tariff or reduce the MIC from the associated tie-lines.<br>The projects approved in the 2013-2014 transmission planning process restore 1000 MW of incremental new deliverability from the Imperial area, which can include imports from IID and generation connecting directly to the ISO controlled grid.<br><br>(2nd and 3rd paragraph) |

[1] Recommendations on the Policy Driven Projects SCE and SDGE Areas, Sonzhe Zhu, Feb 12, 2014 @ slide 5.
[2] Testimony of Phil Pettingill, CAISO, at Assembly Natural Resources Committee Hearing on SB 1139, June 26, 2014.
[3] SCE 2014 RPS Procurement Plan, @ p.57
[4] *D-12-11-016 at 17-20*

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| | the Imperial Substation. CEERT disagrees. A direct interconnection established through the GIP (Generator Interconnection Process) has, up until now, never impacted MIC from imports into the CAISO Balancing Authority, and there is no basis to conclude that it should do so here. | The ISO intends to continue following the direction set out in the annual renewable generation portfolios developed by the CPUC regarding the amount of renewable generation import to plan for. Accordingly, the ISO is conducting the analysis of the sensitivity scenario provided by the CPUC of increased import from IID as part of the 2014-2015 planning process.<br><br>(4th paragraph) As noted above, the ISO has provided further documentation of the existing status of deliverability. |
| 7b | **Mid Term [Six months to one year]**<br>In various forums, CAISO has signaled that it believes there is residual need for new capacity in Southern California after procurements authorized in the CPUC's 2012 LTPP, and that it intends to make that case in the 2014 LTPP proceeding later this year. While CEERT does not share this view of residual need, CEERT agrees that the CPUC's 2014 LTPP is the appropriate forum to have this debate. However, CEERT cautions against CAISO asserting a procurement need before developing and reviewing alternatives to satisfy that need with resources from East of the Southern California load pocket. This approach will avoid the CPUC being faced, as it was in the 2012 LTPP, with authorizing procurement without a clear view of the cost or feasibility of alternatives to fill that need. At a minimum, any recommendation by the CAISO for procurement of new capacity to serve Southern California load should be accompanied by proposed transmission alternatives that can satisfy that need through deliverable imports into the load pocket.<br>Specifically, while much of the July 14 stakeholder meeting was taken up with discussing what appeared to be infeasible or prohibitively expensive transmission alternatives to increase deliverability from West of Colorado River, two projects that are feasible were presented.<br><br>First, Neil Millar stated during the meeting that the CAISO had concluded that the flow controller between Imperial substation and the CFE system could be the smaller and less expensive phase shifting transformer without compromising | The ISO has indicated that it will be reassessing the residual need for new capacity or transmission upgrades in Southern California in the 2014-2015 planning cycle based on the latest available information. Since the stakeholder session was held in August, the ISO has since released preliminary reliability analysis that did not indicate a residual need. Further, the ISO does not believe that the CPUC is considering local area needs in the 2014 LTPP, in any event.<br><br>The ISO will consider these comments in the development of our 2014-2015 transmission plan. |

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| | reliability. However, to the extent that increased deliverability would be required to satisfy a residual Southern California need with imports, then, the more expensive AC/DC:DC/AC flow controller that adds 400 MW of deliverability over the phase shifting transformer should not be excluded from consideration.<br><br>Second, the "Enhanced TE-VS" project discussed in the July 14 meeting that would provide ~ 1500 MW of deliverability, appeared, at best, to be extremely difficult to site. In that circumstance, CEERT believes that the plain vanilla TE-VS project, while only providing roughly 500 MW of deliverability, but was rated by Aspen as relatively easy to site, is relatively inexpensive to construct, and should continue to be considered. | The July 14 meeting referred to potential local capacity requirements reduction benefits of projects that were referred to as included TE-VS. However it did not suggest that there would be any significant generation deliverability from Imperial benefits from projects like TE-VS. |
| 7c | **Long Term [Next two to three years]**<br>CEERT notes that much of the material presented at the July 14 stakeholder meeting was not simple, clear, or generally understood by the audience at that meeting. By the end of that meeting, in fact, there appeared to be widespread confusion regarding CAISO's deliverability analysis even among those participants with a high level of technical knowledge and experience with the concept of "deliverability" and its application to imports.<br>CEERT believes that this outcome results from fundamental shortcomings in the current MIC allocation methodology. Specifically, this methodology has its roots in historic assumptions from a bygone era, and relies on arcane power flow studies that are notoriously sensitive to nuances in base case definitions and forward looking dispatch and contingency assumptions. As a result, the methodology no longer appears to produce common sense, good policy-driven solutions. In fact, CEERT would argue that the "policy" underlying the current MIC allocation scheme is in direct contradiction to adopted state energy policy and needs to be revised and reconstructed from the ground up.<br><br>CEERT has no illusions as to the long and contentious nature of a process to recreate an accounting scheme to decide which of the few, out of hundreds, can get paid to import "RA capacity" across a very complicated set of interrelated tie points that report only to Kirchhoff's Laws and do not recognize FERC or CPUC jurisdiction or WECC Path ratings or state borders or loading orders. | Additional information is currently available regarding the ISO's deliverability methodology. The ISO deliverability methodology and examples can be found at: http://www.caiso.com/Documents/TechnicalPaper-GeneratorInterconnection-DeliverabilityStudyMethodology.pdf .<br><br>Referring to the one comment in particular, all RA eligible internal resources and RA Imports need to be made "deliverable" and they are all studied at the same time.<br><br>Currently the total MIC is based on actual LSE schedules and also looks forward to ensure state and federal policies are accounted for.<br><br>The ISO will consider these comments in the context of next steps both for the re-allocation proposal as well as a more comprehensive review of MIC methodology. We expect that inclusion of these issues, and especially the broader MIC methodology review suggested, in the ISO's stakeholder initiative catalogue would be appropriate to ensure that the initiative is considered in overall decisions about prioritizing stakeholder initiatives. |

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| | The problem begins with the concept that historic flows can be used for any other purpose than to demonstrate that importing that amount of energy with some feasible dispatch is possible during high load conditions in CA. The baseline for these flows occurred in an era when a very substantial portion of California's imports was coal from plants in AZ, NM, NV and elsewhere throughout the interconnected WECC. Today, some of those coal plants no longer exist, many have planned retirement dates in the next few years, and none can sign long-term contracts with CA LSEs. Yet, these historic flows echo through MIC calculations today and long into the future. The current MIC allocation scheme encourages LSEs to sign RA contracts and import energy and capacity from mainly existing natural gas plants located in the same branch group as the old coal plants in order to preserve an entitlement to the valuable resource which is a MIC allocation. That makes no policy sense in a carbon-constrained world, effectively discriminates against similar gas plants located inside the borders of the CAISO Balancing Authority, and works to exclude preferred resources from replacing the old order.<br><br>The problem is compounded as the definition of what constitutes an "import" changes with innovations such as dynamic scheduling and changes to the CAISO Balancing Area boundaries. When the CAISO absorbs entities such as VEA or builds new transmission lines such as Delaney/Colorado or Harry Allen/El Dorado which expand the CAISO borders, but the LSEs contract with other generators who remain "importers" to maintain historic MIC allocations, the premise that import flows are feasible because they occurred in the past becomes suspect.<br><br>CEERT notes that on the very same day as the Stakeholder Meeting, July 14, IID formally filed to become a PTO and have a portion of its collector system become part of the CAISO grid, and thus convert any generator who interconnected to that portion of the collector system from an import subject to branch group MIC allocation to a full deliverability generator with valuable project specific RA rights.[5] | While the ISO is open to considering a broader review of MIC methodology, as noted above, we cannot agree with several of the observations included in the comments;; only the last two years of highest import schedules are taken in account when MIC is calculated, therefore any intertie where a contract that is no longer scheduled by the LSEs (including coal) will have its MIC decrease by half of that eliminated contract within one year and the entire amount be removed after the second year. Therefore the current "historical" method is always following the patterns of LSEs schedules, by eliminating reliance on old contracts and accounting for new. Any new schedules that are used by the LSEs will get 50% credit the first year after their use and full credit two years later.<br><br>The MIC methodology does not discriminate against power plants located inside the ISO since these retain their own deliverability status and can find a suitable contract with on LSE.<br><br>From an RA accounting all imports are treated the same regardless of their characterization – schedules, dynamic schedules, pseudo-ties; they all require an LSEs to have MIC allocation or "import deliverability" in order to count them for RA.<br>New PTOs or new transmission may change the intertie points |

[5]http://www.caiso.com/documents/IIDCoverLetterApplicationforParticipatingTransmissionOwnerStatusandDraftTOTariff07-14-14.pdf

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| | The problem is compounded further as, over time, generators at or near the expanding borders of the CAISO observe these events and choose to construct gen ties to the CAISO border and file under the GIP (Generator Interconnection Process) for full deliverability rights. By so doing, they potentially secure permanent project specific RA and FRACMOO payments that could substantially increase in value in the near future.<br><br>The problem is compounded even further when the CAISO proposes to use "effectiveness factors" to reassign MIC allocations to different branch groups. CEERT clearly understands the fundamental physical reality that it is best if generators supplying RA capacity are not all clustered just upstream of the fault that is the n-1 contingency in the power flow study. However, that reality does not mean that it is appropriate to assign a hard and fast effectiveness factor to those generators and effectively derate their deliverability vs. a generator in another branch group. That calculation assumes that the original allocation was derived from a power flow study that established some base "effectiveness factor" that was now going to be altered. Clearly that is not the case.<br><br>To harden the grid against the fault being studied by using effectiveness factors derived from a power flow simply makes the grid more vulnerable to faults that are not studied. Certainly, the grid would have been even worse off in the 2011 San Diego blackout if this process had been used in previous deliverability assessments to raise the MIC allocation of the Palo Verde branch group at the expense of resources in Imperial County. Protecting the grid against brush fires in Eastern San Diego County that might take out the SWPL and/or the Eco lines must be balanced against protecting the grid from, say, a large earthquake on the San Andreas fault that takes out the Colorado Devers line and/or the El Dorado Lugo line.<br><br>A precise and unambiguous answer to this conundrum is simply not possible, but, surely, one underlying principle of a rational MIC allocation scheme is diversity. Further concentration of MIC allocation to one of the largest existing branch groups is not good for reliability. | therefore the amount of resources considered imports; ISO makes adjustment for this after each occurrence.<br><br>All RA eligible internal resources and MIC are studied for deliverability together in the same cases; therefore the problems found on the grid and effectiveness factors would be the same in either case. In one case there are more internal resources and less external MIC in the other higher external MIC and less internal resources still at the end there is the same amount of deliverable MWs.<br><br>ISO already has, in its Reliability Requirements BPM, provisions to transition existing resources at the borders to the ISO control area, however is a net zero game – MIC is decreased by the same amount as it is given to the transitioning resource based on prescribed parameters. We must note that the facilities IID was selected as the approved sponsor for though the ISO's competitive selection process and for which IID filed to become a PTO do not entail moving generators from the IID system to the ISO system.<br><br>The comment suggests that the ISO proposes to use effectiveness factors to reassign MIC allocations. The ISO has not developed a proposal at this point – we have brought forward a concept for discussion. We have noted that for the very specific circumstances affecting deliverability from the Imperial area, that in testing reductions in MIC from Arizona, that deliverability from IID only increased by approximately 50% of the MW reduction from Arizona. This information was provided to help stakeholders understand the trade-offs inherent in the concept based on the actual system configuration. |

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| | It is CEERT's belief that even if we have not yet reached a tipping point where the current allocation scheme collapses under its own weight, that such a result is inevitable given the trends in load and resources that lie before us.<br><br>In addition to revising and updating the underlying assumptions and design of the methodology, we need to recognize the importance of spurring innovation and implementing the state's loading order policy, as well as the CAISO strategic plan objectives. The unintended consequence of the current methodology is to reward existing out of state fossil resources at the expense of similar existing resources inside California plus crowd out new preferred resources that do not enter CAISO over the existing branch groups. If unchanged, this will unneceesarily drive up ratepayer costs as the "missing money" from the market drives up capacity payments to in state resources to prevent "disorderly retirement."<br><br>CEERT respectfully asks that the CAISO take the above short and middle term actions while stepping back and reexamining the entire process for assigning MIC to imports from a clean sheet of paper. In performing this task, the following principles should be utilized:<br>-Ensure a diversity in supply across all intertie points and test the system against multiple potential fault scenarios.<br>- Reflect load and resource conditions going forward. Do not use historic flows to establish specific MIC allocations.<br>- MIC allocation is a policy matter, not a power flow issue. Ensure that the process follows adopted State energy policy and the CAISO Strategic Plan[6]<br>- Treat electrically similar resources consistently | ISO studies all contingencies on the transmission grid as described in the "deliverability methodology" provided above.<br><br>The ISO will consider these comments in the development of our 2014-2015 transmission plan. |

[6] Follow the loading order. See D-13-02-015 at pp.10-11, also D-14-03-004 at pp. 14-16

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| **8** | **Duke America Transmission Company**<br>**Submitted by: Will Hazelip** | |
| **8a** | DATC participated in the recent Imperial County Transmission Consultation Stakeholder meeting on July 14, 2014. We recognize the varied interest in renewable energy and transmission development in the Imperial County area. DATC also recognizes the importance of developing cost-efficient projects that create value to California retail customers. Therefore, DATC would like to respectfully submit a project to the CAISO for its consideration as it evaluates potential solutions to Imperial County deliverability issues.<br><br>The projects presented at the July 14th CAISO meeting are multi-billion dollar projects whose large scope may make them hard to complete. We recommend that the CAISO consider other options which may address individual problems with modular projects rather than a single project to fix multiple issues. Moreover, the following proposed solutions may cost significantly less than the proposed multi-billion dollar projects. We encourage the CAISO to consider route analysis for this modular solution for the 2014-15 TPP.<br><br>The attached DATC HVDC project suggestion could also help address southern California coastal issues related to SONGS and OTC retirements. The project proposed route is only about 15 miles. The proposed route may be challenging, but because of its relatively short length the use of an underground cable could improve its feasibility. The Imperial County renewable outlet could be addressed by other modular concepts which are not discussed in this material. {See their posted comments for details}. | The CEC authorized Aspen to evaluate the DATC proposal among others. The environmental feasibility will be discussed in an upcoming Second Addendum to the Aspen report that will be provided to the CAISO and posted by the CEC. |

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| **9** | **EnergySource LLC**<br>**Submitted by: Jeffery D. Harris** | |
| **9a** | **I. THE CAISO SHOULD CLARIFY THE CURRENT STATUS OF DELIVERABILITY FOR IN-STATE RENEWABLE GENERATION OUT OF IMPERIAL COUNTY TO THE SAN DIEGO AND LA BASIN AREAS AND THE ASSUMPTIONS USED TO QUANTIFY AVAILABLE DELIVERABILITY**<br>The first step needed to enable useful stakeholder input and ensure an informed discussion of available solutions is for CAISO to clarify the current status of deliverability for Imperial County resources, taking into account available information and CAISO's interpretation of the current maximum import capability ("MIC") allocation methodology.<br><br>As evidenced by discussion during the July 14 Stakeholder Meeting, there are several conflicting figures for the deliverability out of Imperial County into the CAISO Balancing Authority, and significant uncertainty regarding CAISO's assumptions and intentions. The Draft Discussion Paper states that "Despite the impacts being heavily offset by other reinforcements proposed in the transmission plan, only 1000 MW of the 1715 MW of the Imperial County renewable generation portfolio amounts developed for the 2013-2014 transmission planning process can be made deliverable without additional actions."2 In contrast, Southern California's 2014 RPS Procurement Plan assumes that up to 1400 MW of MIC will be available, reflecting the CPUC's determination in Decision 12-11-016, which CAISO expressly supported. Other figures can be found in various California agency planning documents.<br><br>In order to provide some level of clarity to stakeholders and a reasonable starting point for these discussions, the CAISO should confirm in the final draft of the Discussion Paper that there is at least 1,000 MW of deliverability out of Imperial County into the CAISO Balancing Authority today, without further system improvements. A simple declaration confirming deliverability of at least 1,000 MW would go a long way to providing short-term certainty.<br><br>Second, to provide long-term certainty, the CAISO should clearly articulate the | The ISO has provided additional documentation of this issue. Please see http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br><br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target. |

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| | assumptions and the data sets that will be used to establish deliverability. As the comments at the July 14, 2014 workshop reflected, CAISO stakeholders are frustrated with a general lack of clarity as to the current available MIC, and the CAISO's intentions and assumptions for identifying a MIC going forward. EnergySource understands and appreciates that the CAISO's approach to dealing with deliverability issues has been necessarily affected by recent developments such as the retirement of SONGs, and evolving policies regarding renewable development and resource adequacy. However, in order to move forward, stakeholders need to understand the CAISO's foundational assumptions.<br><br>As discussed in the July 14 workshop, the "Process for allocating MIC to LSEs – Steps 2-13 in Tariff Section 40.4.6.2.1, Available Import Capability Assignment Process" is complex and somewhat opaque to parties that are not involved in the process.3 As suggested at the workshop, a CAISO "White Paper" describing the process should be published as soon as possible to facilitate informed stakeholder participation in the review and potential reform of this important process. | For assumptions and data sets, please see http://www.caiso.com/Documents/2014-2015FinalStudyPlan.pdf<br><br>The topic is addressed in both ISO documentation of the current deliverability methodology[7] as well as in the Business Practice Manual for Reliability Requirements[8]. The ISO does not see that a separate white paper is also needed.. |
| **9b** | **II. CAISO SHOULD ESTABLISH A METHODOLOGY FOR ALLOCATING THE MAXIMUM IMPORT CAPABILITY THAT REFLECTS THE CURRENT STATE POLICY OF FOSTERING IN-STATE RENEWABLE GENERATION**<br>At the workshop, the CAISO Staff explained that the current system for allocating the MIC among interties and branch groups is based on "historic" flows. While the use of historic data was a reasonable starting point for allocation of the MIC, it is now time for the CAISO to allocate the MIC based on the state of California's | Currently the total MIC is based on actual LSE schedules plus it also looks forward to ensure that state and federal policies are accounted for. As noted earlier, the ISO is open to considering a more comprehensive review of the methodology, and given the potential |

[7] http://www.caiso.com/Documents/TechnicalPaper-GeneratorInterconnection-DeliverabilityStudyMethodology.pdf
[8] http://www.caiso.com/rules/Pages/BusinessPracticeManuals/Default.aspx

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| | procurement policies aimed at fostering the development of in-state renewable generation, providing the certainty that these preferred resources will qualify as Resource Adequacy ("RA") resources.<br><br>Reflecting prior policy and procurement decisions, the historic flows were primarily from out-of-state fossil generators, including out-of-state coal plants. California State polices have evolved from this historic basis toward policies that, for example, no longer allow for procurement of such resources on a long-term basis.4 Many of these historic resources have either ceased operations or their long-term contracts are facing termination as a means of "divesting" California's utilities of higher emitting resources.<br><br>California's Greenhouse Gas ("GHG") and Renewable Portfolio Standard ("RPS") policies, among other policy initiatives, are moving the State's procurement policies away from the "historic" import of fossil fueled resources toward a portfolio of in-state, renewable generation, firmed and shaped as needed by local resources, including base-loaded geothermal resources.<br><br>The "historic" import allocation policy is plainly at odds with adopted state policy to give preference to "preferred resources" consistent with the State's loading order. Without revision, the current practice of relying on "historic" flows will have the undesirable effect of giving preference to out-of-state fossil generators and exporting California ratepayer dollars, all in contradiction to adopted state energy policy.<br><br>The reallocation of the MIC away from "historic" flows is not a technical issue; it is a policy issue. The MIC should be revised to emphasize current state policies intended to foster the development of in-state renewable generation. The MIC allocation process should be revised to incentivize in-state renewable generation over historic, out-of-state fossil fueled resources. | scope of that review, the review needs to be assessed in the stakeholder initiative catalog consultation before it is initiated.<br><br>We must note that only the last two years of highest import schedules are taken in account when MIC is calculated, therefore any intertie where a contract that is no longer scheduled by the LSEs (including coal) will have its MIC decrease by half of that eliminated contract within one year and the entire amount be removed after the second year. Therefore the current "historical" method is always following the patterns of LSEs schedules, by eliminating reliance on old contracts and accounting for new. Any new schedules that are used by the LSEs will get 50% credit the first year after their use and full credit two years later.<br><br>The ISO will consider these comments in the development of our 2014-2015 transmission plan. |
| **9c** | **III. RATHER THAN CONTINUING TO EXPLORE TRANSMISSION ROUTES AND OPTIONS THAT ARE ADMITTEDLY "CHALLENGING" IF NOT INFEASIBLE, THE CAISO SHOULD DIRECT ITS RESOURCES TOWARDS CLARIFYING DELIVERABILITY AND UPDATING THE MIC PROCESS** | |

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| | **TO REFLECT CURRENT STATE POLICES RELATED TO PROMOTING IN-STATE RENEWABLE GENERATION**<br>While we appreciate the thorough and comprehensive work of Aspen Consulting on its reconnaissance level review, much of the July 14 CAISO Stakeholder meeting was taken up with discussing infeasible or prohibitively expensive, long-term transmission alternatives to increase deliverability from West of Colorado River. The report considered regional transmission routes evaluated by Aspen and "finalized by the California ISO in early October 2013."5 The routes described were characterized most optimistically as "Possible but Challenging" and, at the other extreme, as "Challenging" or Very Challenging".<br><br>Although it is useful to look at some of these longer-term possibilities, the near-term effort to enable deliverability of renewable resources from Imperial County should be more focused on smaller, more feasible projects such as portions of the larger routes examined. Of even greater potential value, rather than focusing on larger, multi-year transmission routing projects, which are more appropriately discussed in the ongoing CAISO Transmission Planning Process, the allocation of the MIC should focus on more modest and imminently more feasible transmission improvements like phase shifting transformers and IID's proposed path 42 parallel line to I-10.<br><br>While EnergySource does not want to dissuade thinking about larger, more grandiose transmission solutions, in the context of the MIC, we believe that the CAISO should look for smaller, more feasible project segments and system components to allow for deliverability of instate renewable resources. | The CAISO considers the presentation of the comprehensive work commissioned by the CEC and performed by Aspen commensurate with the overall objectives of the Imperial County Consultation process to ensure a balanced perspective of transmission options that are under consideration in response to the closure of SONGS and in order to meet state and federal policy goals.<br><br>The ISO will consider these comments in the development of our 2014-2015 transmission plan. |

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| **10** | **Imperial Irrigation District**<br>**Submitted by: Jamie Asbury** | |
| **10a** | The Imperial Irrigation District ("IID") appreciates the opportunity to provide these initial comments on the Imperial Valley Consultation Draft Discussion Paper. IID supports this initiative and looks forward working with the CAISO and stakeholders to improve the deliverability methodology and place resources in the IID Balancing Authority Area ("BAA") on equal footing with resources elsewhere. State policy identifies not only the Imperial Valley Renewable Energy Zone but also resources specifically in the IID Balancing Authority itself as meeting renewable planning scenarios. A durable solution to this issue is imperative. Resources from the IID BAA cannot have the rug pulled out from under deliverability assumptions every time there is a system condition change, while deliverability from resources with which they compete is preserved, apparently at their expense. This doesn't make policy or technical sense since many of these resources may be electrically similar. Renewable resources in the IID BAA count toward fulfillment of a retail sellers' Product Content Category 1 obligations under the RPS law and regulations, and the IID system has the ability to export capacity and energy to the CAISO BAA.<br><br>It was the close work of the CAISO and IID together that drove the initial recognition of a 1400 MW Maximum Import Capability ("MIC") in 2010. IID is confident that if that spirit of constructive engagement is replicated, this issue can be solved.<br><br>**General Principles for a Durable Solution**<br><br>Before delving into specific issues, IID sets forth for consideration general principles it proposes should guide any resolution of this issue:<br><br>1. A common basecase and set of assmptions should be agreed to so that IID and the CAISO can work with an accurate and consistent set of facts and study inputs. IID believes strides have been made in this area; | The ISO has worked closely with stakeholders and IID in particular on developing the base cases and assumptions. |

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| | 2. The deliverability methodology should be well understood by interested stakeholders, replicable in studies, and transparent.<br><br>3. The deliverability methodology should be based on sound technical principals and match the physics of the system, not based on an historical artifact.<br><br>4. Electrically similar resources should be treated similarly. The deliverability methodology should not discriminate against imports given that they are being counted for Resource Adequacy ("RA") and meeting California load serving entity ("LSE") needs therefore. Imports should not have their RA deliverability diminished by generator interconnections to the CAISO Controlled Grid.<br><br>Any solution must be durable to allow for reliance in the procurement process, reflect commercial requirements for purchase power agreements, and to align with anticipated forward RA obligation for California LSEs. Moreover, it should facilitate long term purchasing of RA products as the CAISO considers multi-year capacity obligations. | The ISO recently held an extensive stakeholder process to review the ISO deliverability methodology to ensure it was well understood.<br><br>The methodology has been recently reviewed and demonstrated to be based on sound technical principals that match the physics of the system. The methodology used to establish MIC levels does rely on two years of historical flow levels.<br><br>Particular import schedules and internal generation near the associated import tie-lines can contribute to overloading the same deliverability constraint. When that constraint is at its limit, the ISO must either reduce the NQC of the internal generation pursuant to the ISO Tariff or reduce the MIC from the associated tielines.<br><br>The ISO planning objective is to maintain deliverability in a cost effective manner. |
| **10b** | **Specific Issues in the Draft Discussion Paper**<br><br>*Aligning Study Assumptions*<br><br>IID concerns about certain of the MIC numbers published by the CAISO, including the affect of the proposed Delaney-Colorado River project, were driven in part by different basecase assumptions between IID studies and those of the CAISO, which led to different conclusions as to the project's impact on MIC from IID. This illustrates the importance of common sets of assumptions that underlie the deliverability methodology.<br><br>IID has worked to resolve those issues with the CAISO. This process would benefit from new numbers being published to reflect updated assumptions. Also, going forward, there should be a robust process to align not only IID and CAISO assumption but other elements of the basecase and other study | Please refer to the CAISO's response in 10a above. |

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| | parameters to ensure that the parties are working of a common and accurate set of facts and assumptions. | |
| **10c** | *Clarifying the Ability of IID to Deliver Energy to the CAISO BAA versus "Deliverability"*<br><br>At the Workshop IID observed some confusion on this issue, with "deliverability" being interpreted by some as the inability of IID to deliver energy over its transmission system for import into the CAISO market. In fact, IID has the physical transfer capability to deliver significant energy and capacity at its ties with the CAISO. With completion of Path 42 IID additions already underway, IID will be able to wheel nearly 2000 MW to its tie points with the CAISO. The "deliverability" test does not measure this, but instead allocates rights to import into the CAISO BAA for RA counting purposes. This distinction needs to be clear in this process. | RA "deliverable capacity" either internal to the ISO or external at the interties (through MIC) is not to be confused with real-time energy delivery. Real-time energy is scheduled from interties up to the OTC (Operating Transfer Capability) of each intertie and beyond that point any restrictions due to congestion will favor the use of the least cost resource the rest must be curtailed based on price. |
| **10d** | *The Ferron ACR Directs and Assumes 1400 MW of MIC from the IID BAA, not the Imperial Valley as a Whole*<br><br>The Assigned Commissioner Ruling of Commissioner Ferron states: "I conclude that it would be unreasonable for an IOU to use a MIC less than 1,400 MW for imports from the IID BAA as part of its LCBF evaluation of project bids within the 2011 RPS solicitation." *Ferron ACR, June 7, 2011.* The CAISO has committed that the 1400 MW number for the IID BAA be preserved.<br><br>Yet, it appears from the Draft Discussion paper that the CAISO methodology is "taking off the top" resources connected electrically adjacent to the IID BAA. This practice raises technical questions on how the methodology can treat in a discriminatory manner resources that are electrically similar, and in some cases virtually identical. It is inconsistent with a sustainable deliverability policy that generation interconnection can be allowed to degrade the deliverability of other resources. The electrical flows created by these resources are similar if not identical, and discriminatory treatment points to fundamental flaws in the methodology itself. | Particular import schedules and internal generation near the associated import tie-lines can contribute to overloading the same deliverability constraint. When that constraint is at its limit, the ISO must either reduce the NQC of the internal generation pursuant to the ISO Tariff or reduce the MIC from the associated tielines. As the 1400 MW projected in the CPUC's 2011 RPS proceeding was not acquired, the ISO is continuing to follow the direction of the CPUC renewables portfolios each year for future planning cycles for the overall Imperial area.<br><br>Deliverability is provided as described in the ISO generation interconnection process but is essentially on a first come first serve basis. Once all the available deliverability is utilized then additional transmission upgrades are required to obtain more deliverability. The decision to invest in these upgrades must be in the best ratepayer interest. |

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| | IID has worked constructively to facilitate the development of resources in and around the Imperial Valley, with the collaboration of the CAISO. It is a clear case of "no good deed goes unpunished" that the ISO would propose to penalize resources in the IID BAA because of that collaboration. | |
| **10e** | *The Aspen Study*<br><br>IID would like further explanation as to why routes for transmission that it has proposed, and were in the CAISO request window, were not included in the Apsen routing analysis. IID's proposed route utilizes its own existing rights-of-way for a significant portion of the line, and may have siting advantages over other alternatives. | The CEC authorized Aspen to evaluate the IID proposal among others. The environmental feasibility is discussed in an addendum to the Aspen report that has been provided to the CAISO and posted on the CEC at: http://www.energy.ca.gov/2014publications/CEC-700-2014-002/CEC-700-2014-002-AD.pdf |
| **10f** | *Allocation of MIC from Palo Verde Branch Group to IV Branch Group*<br><br>IID recognizes the CAISO's discussion of reallocation of import capability from the Palo Verde Branch Groups to the Imperia Valley Branch Groups. This concept needs further exploration in light of a more robust understanding of the deliverability methodology. In particular, how generation interconnection and retirements affect related branch groups, and what tariff or other changes would be necessary to effectuate this reallocation should be explored. | The CAISO concurs that such issues would need to be considered should a reconsideration of the current MIC methodology be undertaken. |
| **10g** | *Process*<br><br>Given the confusion as to the MIC methodology that was evident at the first stakeholder meeting, IID firm believes the second optional stakeholder meeting will be needed for further consultation on this issue. | A second stakeholder meeting will be scheduled. |

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| **11** | **Independent Energy Producers**<br>**Submitted by: Steven Kelly** | |
| **11a** | 1. **Need Clarity on Planned Imports From Imperial County.** The issue paper states that since 2011 the California ISO has targeted enabling 1400 MW of renewable generation imports from Imperial County to be deliverable. (p. 2) Later, the paper speaks of a "portfolio amount" of 1715 Mw specified for the Imperial County reflecting potential generation in the geographic area, whether connected to the ISO grid or the IID grid in the area. (See Ftnt 2). Finally, the paper references that, post SONGs, only 1000 MW of the 1715 MW can be deliverable without additional actions. (p. 2) Moreover, the paper discussed the CPUC/CEC resource portfolios forecast amount of 1000 MW of new renewable generation in the Imperial County, as well as a sensitivity of 2500 MWs in the Imperial County. (p. 3) Finally, the paper discusses the "remaining local capacity deficiency in the LA Basin/Sand Diego area could reach 900 MWs." (p. 3)<br><br>For the next version of the discussion paper, it would be helpful if paper discussed in more detail the basis of these numbers and how they all tie-together, if at all. | Please refer to http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br><br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target.<br><br>This information will be included in the next draft of the discussion paper. |
| **11b** | 2. **Group III Transmission Projects Serve Multiple Interests**. The issue paper describes Group III transmission projects as those that "provide reliability benefits but also could play a role in achieving future state policy objectives by enabling additional renewable generation in the Imperial zone…" This approach to qualifying these types of projects raises a number of issues and potential concerns.<br><br>For example, assume a Group III project proposes to take renewable power from Imperial County and delivery this power into the LA Basin near SONGS (e.g. Inland Substation or thereabouts). IEP considers a segment of this entire project to be equivalent to a "renewable trunkline" facility delivering power from, for example, the IID substation to the CAISO grid (e.g. Devers Substation). A second segment of this entire project, i.e. from the point of interconnection to the CAISO grid (e.g. Devers Substation) to an area in the LA Basin (e.g. Inland Substation), is clearly a reliability component. In light of this reality, we note two | The review of specific benefits of components will need to take place in the transmission planning process.<br><br>The ISO's transmission planning process assesses reliability, policy and economically-driven needs in sequence, and at each stage, a previously identified project may be replaced or increased in scope – in which case it is labeled as the new latest category. We agree that it would be incorrect to attribute the entire project's costs to the costs of achieving state policy objectives. For this reason, the ISO has declined in the past to attempt to separate out the rate impact of the cost of reliability needs from the cost of policy needs in the |

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| | important concerns:<br><br>First, IEP would be concerned that the transmission necessary to deliver renewable resources from Imperial County to the CAISO grid was delayed due to the permitting/siting issues associated with the reliability component of the transmission project.<br><br>Second, IEP would be concerned if the entire Group III transmission project was characterized as needed for public policy purposes to integrate renewables and, more importantly, if the entire cost of the transmission line were imputed to the RPS program. The RPS program is subject to cost containment provisions, and imputing the entire cost of a Group III transmission line to the RPS would unnecessarily and wrongly impair achievement of the states' RPS objectives.<br><br>From IEP's perspective, this type of Group III project should be considered as two separate transmission line segments and treated as such from a planning and permitting perspective. | transmission planning process – many transmission facilities provide multiple benefits. |
| 11c | 3. **Reallocation of Maximum Import Capability (MIC).** The concept of re-allocating MIC at one intertie to another intertie based on its effectiveness factor is intriguing and warrants further review. Certainly, additional clarify must be added to the concept for stakeholders to fully understand and appreciate its implications.<br><br>With regards to the general concept of reallocating MIC, IEP raises the following issues for clarification and further discussion:<br><br>• Will reallocation of MIC impair existing contracts entered into by individual LSEs with electric generators?<br>• What will be the methodology for determining the Effectiveness Factor applied when determining the reallocation of MIC? What is the proposed Effectiveness Factor?<br>• IEP understands that the CAISO Board recently approved the Delaney-Colorado River 500 kV transmission line. In light of | Reallocation of MIC could impair existing contracts – depending on the reallocation methodology to be determined.<br><br>The effectiveness factor will be the one dictated by the most limiting contingency that drives the need to reallocate. As noted in earlier responses, the ISO is exploring a concept; we have not proposed a specific methodology.<br><br>As stated earlier, when in-service, the Delaney-Colorado River 500 kV line will increase the deliverability from the general Imperial County area by about 225 MW. Depending on future state and federal policy needs this incremental amount may or may not be enough. As such this discussion on the reallocation concept and its merits and issues is expected to continue as an input into the planning process.<br><br>If reallocation is undertaken, the ISO would expect it to be done in step 1 of the MIC allocation process; therefore any LSEs receiving the |

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| | this approval, what is the impact of the increase deliverability from Imperial County (i.e. 225 MWs) on the need for and results of the MIC reallocation concept?<br>How fungible will be the final deliverability? For example, will Load-Serving Entities (LSEs) be able to trade re-allocated deliverability? | reallocated capacity in steps 2-13 will be able to trade it just like they trade any MIC capacity today. |

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| **12** | **The Nature Conservancy**<br>**Submitted by: Erica Brand** | |
| **12a** | **1. Introduction and Summary**<br>The Nature Conservancy (Conservancy) appreciates the opportunity to submit comments in response to the California Independent System Operator's (CAISO) Imperial County draft discussion paper and associated materials.<br><br>The mission of the Conservancy is to conserve the lands and waters on which all life depends. To achieve that mission, the Conservancy strongly supports the emission reduction goals1 and renewable energy mandates2 established by the state of California to benefit Earth's climate. We urge continued action to facilitate California' transition to a low carbon energy system; this transition should be guided by a comprehensive planning process that has the objective of meeting multiple goals, including protection of nature.<br><br>For these reasons, the Conservancy supports comprehensive planning for land use, energy generation and transmission development as the best path forward for California's energy future. We appreciate the increased coordination between the CAISO, the California Public Utilities Commission (CPUC), and the California Energy Commission (CEC) on this topic, and we encourage this to continue.<br><br>The following comments address planning for renewable energy in Imperial County, integrating land use planning into transmission planning, and specific conservation considerations for the Aspen Study. | Thank you for our comments |
| **12b** | **2. Renewable Energy Development in Imperial County**<br>The Conservancy has been actively involved in planning for renewable energy within the Mojave and Sonoran Deserts of California. Most recently, the Conservancy has participated in the Bureau of Land Management's (BLM's) Western Solar Program and in the Desert Renewable Energy Conservation Plan (DRECP), contributing a Mojave Desert Ecoregional Assessment3 that evaluated conservation value across these ecoregions.<br><br>The Conservancy's principal focus in renewable energy development in the California deserts has been to use science-based analysis to help ensure that | Thank you for your comments |

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| | renewable energy facilities are sited and conditioned in ways that preserve the remarkably intact and fragile natural communities of California's Mojave and Sonoran Deserts, and to preserve migration corridors and connectivity between key habitat areas.<br><br>We strongly support the development of renewable sources of energy to mitigate the increasing threat of climate change. However, if not located, built, and operated responsibly, energy projects can negatively impact biodiversity, harm wildlife and their important habitats, and diminish water resources, especially in fragile desert environments. The Conservancy supports siting renewable energy facilities in locations where ecological impacts can be minimized, contained, or mitigated. In California's desert region, these locations are on degraded lands, close to economic centers and existing transmission lines.<br><br>Within Imperial County, there are significant areas that have been identified as highly converted through the Sonoran Desert Conservation Framework4 (Figure 1). Highly converted lands are urban, suburban and agricultural lands that are heavily altered and their ecological context is highly compromised. Siting of renewable energy facilities in highly converted lands minimizes impacts to a wide range of desert wildlife and habitats.<br><br>The Conservancy has been supportive of efforts to increase the development of geothermal development around the Salton Sea. We believe that with proper planning, siting, and application of best management practices, the future development of geothermal energy projects in this area can benefit the stability of California's electrical grid, help meet our climate change goals, and provide a potential revenue source for addressing some of the environmental and public health issues at the Salton Sea. | |
| **12c** | **4. Integrating Land Use and Transmission Planning**<br>The Conservancy has strongly advocated for improved improve integration of land use, generation, and transmission planning5 and we view the Imperial County Stakeholder Consultation process as an important step forward in this direction. | |

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| | The CEC's 2013 Integrated Energy Policy Report (IEPR) identifies the need for California to better synchronize the planning and permitting processes for renewable generation and the power lines needed to bring that generation to market6. We appreciate that CAISO, together with the CPUC and CEC, is taking a longer term view of Imperial County and has undertaken a study of the transmission solutions needed to increase deliverability from this region. The Conservancy has been supportive of comprehensive energy planning that uses landscape-scale planning to first identify preferred areas of least-impact for development and then strategically plans transmission investments in these areas for timely development and delivery of renewable energy. This approach is increasingly important with the implementation of the BLM Western Solar Program, and the development of the DRECP; critical to the success of getting renewable energy developed in zones – or development focus areas – is ensuring that these areas are adequately studied and then are prioritized for transmission investments that may be required. This is a key building block in the foundation of comprehensive energy planning.<br><br>We appreciate that the CEC initiated the Aspen Study, "Transmission Options and Potential Corridor Designations in Southern California in Response to Closure of San Onofre Nuclear Generating Station (SONGS): Environmental Feasibility Analysis"7. To our knowledge, this is the first time that the environmental feasibility of potential transmission options has been studied prior to a solution being identified through the CAISO's annual Transmission Planning Process. We feel strongly that it's important to understand the environmental dimension and feasibility of infrastructure decision-making as early as possible in the process, and with this report, CAISO has this valuable information as it considers increased deliverability from Imperial County. To this end, the Conservancy has a few detailed recommendations in response to the following question posed by CAISO at the workshop:<br>"Considering the information documented in the existing Aspen environmental feasibility of potential corridor designations in southern California, what additional information could be provide to the Aspen to supplement their study?" | The CAISO believes that our collaborative relationship with the CEC and CPUC is important in the development of a reliable transmission grid.<br><br>The CAISO believed that the CEC/Aspen work is an important part of the overall consideration of import deliverability capability in the Imperial County area. |
| **12d** | **5. Additional Environmental Considerations in Transmission Siting in the Study Area** | In this region, high value habitat for sensitive biological resources is widespread, and therefore the feasibility analysis did not rely upon |

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| | Aspen has appropriately included environmental sensitivities and constraints such as Anza-Borrego Desert State Park, Santa Rosa-San Jacinto National Monument, National Forest Lands, Agua Tibia Wilderness, and the Santa Margarita Ecological Reserve. The Nature Conservancy also recommends that Aspen supplement their study with the following environmental sensitivities and constraints.<br>**a. The Santa Ana-Palomar Linkage between Temecula and Rainbow**<br>Nearly all of the identified transmission alternatives (e.g., 3, 4, 5, 6) appear to bisect the Santa Ana-Palomar linkage8 between Temecula and Rainbow. The Santa Ana-Palomar linkage contains the last remaining relatively intact habitat connecting the Santa Ana Mountains, including the Santa Margarita Ecological Reserve, Santa Rosa Plateau Ecological Reserve and Marine Corps Base Camp Pendleton, to the inland chain of largely-protected mountain ranges, i.e., the Palomar, San Diego, San Jacinto and San Bernardino Mountains. Protecting the Santa Ana-Palomar Linkage will help continue key ecological and evolutionary processes by providing habitat for numerous species of native wildlife, and ensure that conservation investments in existing protected areas are not compromised. The Nature Conservancy, other conservation organizations, and federal, state, and local agencies have invested over $100 million in conservation within this region (Figure 2). The Nature Conservancy offers to share with Aspen select conservation data sets from within this region for use in the environmental feasibility analysis.<br>**b. Other Protected Lands**<br>Several of the alternatives appear to intersect with lands that are protected (e.g., protected lands around the Santa Margarita River, the Santa Rosa Plateau which The Nature Conservancy protected and which is now managed and largely owned by Riverside County and the California Department of Fish & Wildlife). Protected lands are an integral part of an environmental feasibility analysis for infrastructure development and this data should be included. We recognize that this is a corridor study process, and that any transmission project subsequently brought forth pursuant to a selected alternative will be permitted by the respective public agencies that have jurisdiction. That said we feel it important to mention that Alternative 2 appears to cross the San Dieguito River and that any specific transmission project that moves forward within this corridor should plan for and | biological resources data to drive the comparisons of routing constraints. The Aspen report focused primarily on land use constraints. The potential biological constraints were considered, but not in detail. Routing refinements would need to take into account conservation easements and protected lands such as those identified in the comment. |

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| | minimize impacts to the river. | |

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| **13** | **The Nevada Hydro Company**<br>**Submitted by: David Kates** | |
| **13a** | **1. Introduction**<br>Although its Talega–Escondido/Valley–Serrano 500 kV Interconnect (the "TE/VS Interconnect") was mentioned numerous times within the Presentation, Nevada Hydro noted that the ISO apparently is still not clear on the scope and status of the project. Nevada Hydro has described many times to the ISO its two landmark projects under development in southern California that, although they pre–date the demise of the San Onofre Nuclear facility ("SONGS"), are ideally situated to solve that and other issues facing California ratepayers and ISO operators. These projects are the TE/VS Interconnect and the Lake Elsinore Advanced Pumped Storage ("LEAPS") projects. These projects have been described in detail in formal filings to a variety of venues at the ISO numerous times, including the following: {See posted comment for details}<br><br>All of these filings, as will this, essentially make the same points:<br>With regard to our TE/VS Interconnect,<br>• The Federal Energy Regulatory Commission ("FERC") and the US Forest Service ("Forest") have issued their Final Environmental Impact Statement ("Final EIS") (which is now being updated) showing precise routing, mitigation and conditions that would be required to construct the project. This EIS was published in FERC Docket P–11858, and may be found at the following link: https://www.dropbox.com/sh/h8esqz0uj483ar8/AABGBXIPzl1nrkyJUoaKA1Y1a<br><br>• Nevada Hydro has completed all of the routing, engineering and environmental work towards obtaining the required permit to construct. The project is precisely defined and has been reviewed in detail from each of these perspectives. See Nevada Hydro's Application and<br>Proponents Environmental Assessment filed with the California Public Utilities Commission ("PUC") at: http://www.cpuc.ca.gov/Environment/info/aspen/nevadahydro/talega_escondido_valley_serrano.htm<br><br>• In 2005, Congress directed, through Section 1221(a) of the Energy Policy Act of | The May 2014 Aspen report included the alignment of the TE/VS Interconnect in the Routing Summary for Alternative 3 (at p. 37). The TE/VS Interconnect would include components of the 500 kV Alberhill to Inland portion of the report's Alternative 3; these components were reported as having "Challenging" siting issues (at p. 4).<br><br>The CEC authorized Aspen to evaluate the TNHC proposal among others. The environmental feasibility will be discussed in an upcoming Second Addendum to the Aspen report that will be provided to the CAISO and posted by the CEC.<br><br>The TEVS line is not expected to increase deliverability from Imperial County. However, it may be considered for meeting other potential transmission needs |

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| | 2005, 119 Stat. 594, 946-951 (2005) (16 U.S.C. § 824p) ("EPAct"), that the Secretary of Energy identify "any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers" as a National Interest Electric Transmission Corridor. On August 6, 2006, well before SONGS went dark, the United States Department of Energy (DOE) issued a preliminary National Electric Congestion Study (Congestion Study), designating the southern California region as a "critical congestion area" under Section 1221 of the EPAct. The TE/VS Interconnect in right in the middle of this identified area.<br><br> After extensive analysis by Aspen in connection with its approval process for SDG&E's Sunrise Powerlink, the California Public Utilities Commission ("PUC"), in dockets A.05-12-014 and A.06-08-010, identified the TE/VS Interconnect as the preferred transmission alternative in that FEIR/FEIS ("Sunrise FEIR/FEIS"). This document may be accessed on the PUC's website at: http://www.cpuc.ca.gov/Environment/info/aspen/sunrise/sunrise.htm<br><br> FERC has granted incentive rates to the project in Docket ER06–278 (122 FERC ¶ 61,272) after Nevada Hydro demonstrated with independent evidence that the project provides benefits to ratepayers.<br><br> Nevada Hydro's EPC contractor, Barnard Construction, has provided a detailed cost estimate to construct the project.<br><br>With regard to our LEAPS pumped storage facility:<br><br> As it has with regard to the TE/VS Interconnect, FERC and the US Forest Service have issued a final Environmental Impact Statement ("EIS") (which is now being updated) showing precise routing, mitigation and conditions that would be required to construct the project. This EIS was published in FERC Docket P–11858, and may be found at the following link: https://www.dropbox.com/sh/h8esqz0uj483ar8/AABGBXIPzl1nrkyJUoaKA1Y1a<br><br> The project has a high queue position and completed interconnection | |

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| | agreements with both SCE and SDG&E. See FERC Dockets ER12-1302, ER12-1305 and ER12-1312.<br><br>• FERC has issued a Preliminary Permit to Nevada Hydro in Docket P–14227 (141 FERC ¶ 62,071). Preliminary permits are intended to "preserve the right of the permit holder to have the first priority in applying for a license for the project that is being studied", including its connection to the grid, whether called the "LEAPS generation tie line", "LEAPS Transmission Alternative", "forest route", "TE/VS" or the TE/VS Interconnect.<br><br>• As described above, LEAPS is in the middle of the EPAct Section 1221(a) National Interest Electric Transmission Corridor.<br><br>• In November 2006, under the provisions of Sections 1223 and 1241 of EPAct, the FERC identified LEAPS as an "advanced transmission technology," defined as a "technology that increases capacity, efficiency, or reliability of an existing or new transmission facility."<br><br>• The benefits to grid operation of advanced pumped storage facilities like LEAPS, particularly in connection with the loss of SONGS and increasing reliance on intermittent renewable resources is now clear.<br><br>• Ordering Paragraph 1 of the PUC Decision on "Track 4" from the long term procurement docket requires that the utilities procure capacity from "large pumped hydro facilities" like LEAPS. In the same decision, the PUC also noted that energy storage facilities like LEAPS are to be considered as "Preferred Resources".<br><br>As a result, Nevada Hydro requests that the ISO and Aspen incorporate an assessment of the TE/VS Interconnect as it has been described by Aspen in the Sunrise FEIS/FEIR and by the Forest and FERC in their FEIS. | |
| **13b** | **2. Nevada Hydro's Comments on requested topics**<br>The ISO sought stakeholder input on a number of specific topics. Nevada Hydro is here providing its input on two of these topics. | While the initial focus of the discussion was on issues that related to Imperial area, the potential policy-related benefits of reinforcement |

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| | **2.1 Goals, Options and Alternatives**<br>On page 69 of the Presentation, the ISO sought stakeholder input on whether there are other options to consider addressing transmission issues from Imperial County to the ISO. Nevada Hydro found it difficult to respond to the question because we found the purpose(s) of the Meeting to be somewhat unclear. From its title, Nevada Hydro believed that the meeting was to address issues relating exclusively to Imperial County. Bullets on slide 4 ("There is varied interest in the Imperial County area including factors that drive the need for study") note that these studies were driven by "Past efforts by the ISO & CPUC to enable renewable generation development in Imperial County". However, bullets also note that the meeting is to address "Deliverability impacts related to early retirement of SONGS and the implementation of California's Once Through Cooling (OTC) requirements" as well as "reliability benefits in the LA Basin/San Diego area." With goals this varied, Nevada Hydro found it difficult to understand which alternative and options were addressing which goals. Nevada Hydro hopes that next time, the ISO clarify that the Meeting has broader relevance than just Imperial County, that it is also addressing Group II study issues. In may also help to break out the meeting into more manageable, topic–specific sub–groups.<br><br>Notwithstanding the title of the Meeting, it might have been helpful if, for example, the 2nd bullet on slide 5 ("There are three key objectives which the ISO seeks to achieve through the consultation effort") explicitly mentioned that these "transmission options" included those from Group II, not just "transmission options from Imperial County to the ISO". Clearly, with the inclusion of the Aspen's report, the Meeting was intended to address this broader view.<br><br>The Aspen Report addresses the Group II issues in the TPP, not Imperial County issues. Nevada Hydro was further surprised by the apparent last minute inclusion of the Aspen Report at this Meeting. In Nevada Hydro's view, the Aspen Report should have been presented in a meeting explicitly addressing the TTP and Group II, not Imperial County related information. Lastly, the Aspen Report should have been provided with sufficient lead time to allow for proper review by stakeholders. | from the Imperial area west to the LA/San Diego area inevitably comingle with potential reliability benefits, and become intertwined with (primarily) reliability-focused projects in the LA/San Diego area that may also provide some policy-related benefits. We therefore did not restrict the discussion to exclusively transmission reinforcements emanating from the Imperial area.<br><br>We must also note that the Aspen report has been available on the CEC website for some time, and are giving additional opportunities for input through additional consultation discussions. |
| 13c | **2.2 Supplemental Material for Aspen** | |

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| | On page 69 of the Presentation, the ISO sought stakeholder input on the following requested topic:<br><br>*Considering the information documented in the existing Aspen environmental feasibility analysis of potential corridor designations in southern California, what additional information could be provided to the Aspen to supplement their study?*<br><br>Nevada Hydro understands that the ISO identified the end points and asked Aspen to determine feasible routes and to assess permitting issues. However, both Aspen and the ISO know the precise details of Nevada Hydro's TE/VS Interconnect: the ISO has identified the TE/VS Interconnect as one of 3 Group II projects in its TPP, as presented on slide 15 of the Presentation. Aspen was the environmental consultant to the PUC for the EIER/EIS for the Sunrise project that included the TE/VS Interconnect as the preferred transmission alternative, and was the environmental consultant in the PUC proceeding for approval of the TE/VS Interconnect. With its project so clearly defined and well analyzed, Nevada Hydro requests the following 5 modifications be incorporated into the Aspen Report, the Presentation and final Meeting documentation:<br><br>1. Incorporate Aspen's analysis of the TE/VS Interconnect as described in the environmental documents Aspen prepared for the PUC for the Sunrise Powerlink. Nevada Hydro reminds Aspen and the ISO that Aspen identified what they called the "LEAPS Transmission–Only Alternative" as the "most environmentally superior" transmission route, preferable to other alternatives. Aspen must also modify page 30 of the Presentation (Relevant CEQA & NEPA Documents") to reflect properly the relation of this document to the TE/VS Interconnect.<br><br>2. Incorporate the project configuration and conclusions of the FEIS into its analysis of the project and permitting issues. Reference to the FEIS should also be added to the list of "Relevant CEQA & NEPA Documents" on page 30 of the Presentation.<br><br>3. Incorporate (and perhaps update) the detailed analysis and conclusions | To identify a corridor for Alternative 3, Aspen's May 2014 report considered that the TE/VS Interconnect would be separated from the Lake Elsinore Advanced Pumped Storage (LEAPS) project. Aspen used the 2010 application filed with the CPUC to define the project components, as suggested in the comment. For example, in considering this information, the description of the TE/VS Interconnect in the May 2014 Aspen report did not include 115 kV components that were identified in 2010 application to CPUC.<br><br>The comment also suggests incorporating the project configuration from the 2007 Final Environmental Impact Statement (FEIS); however, that FEIS published by Federal Energy Regulatory Commission (FERC) addressed the combination of the TE/VS Interconnect with LEAPS. The Aspen report focused on the transmission corridor without taking into account the proposed pumped storage components that were the subject of the FEIS prepared by FERC.<br><br>The CEC authorized Aspen to evaluate the TNHC proposal among others. The environmental feasibility will be discussed in an upcoming Second Addendum to the Aspen report that will be provided to the CAISO and posted by the CEC. |

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| | developed in the PUC's "Interim Preliminary Report on Alternatives Screening for: San Diego Gas & Electric Company Valley - Rainbow 500kV Interconnect Project". This document identifies the TE/VS Interconnect as the "forest route" and is particularly important regarding the potential feasibility of the suggested "Inland" substation and alternatives connecting thereto. The report assessed 45 alternatives to the route proposed by SDG&E which itself is strikingly similar to Alternative 6 in the Presentation. Reference to the document should also be added to the list of "Relevant CEQA & NEPA Documents" on page 30 of the Presentation.<br><br>4. Although it is listed on slide 30 of the Presentation, there is presently no "Relevant CEQA & NEPA Documents" for the West of Devers Upgrade, so there should be no reference to this unfinished effort. Alternatively, if the ISO choses to retain reference to a document that does not exist, they should do the same for the unfinished EIR analysis for Nevada Hydro's projects from its PUC proceedings.<br><br>5. Differentiate the TE/VS Interconnect as defined in the above described documents, as a stand–alone segment from any extensions the ISO may wish Aspen to consider. Thus, for example, Alternative 3 on page 40 of the Presentation (Transmission Alternatives: Permitting Likelihood by Segment) should include as the first segment "Lake/Alberhill to Case Springs" and a second segment could then be "Case Springs to Inland." With a published final EIS and Aspen's analysis in the Sunrise proceeding, the TE/VS Interconnect faces "no major obstacles to permitting or construction" and this designation should be reflected in Aspen's Report and the Presentation. | |
| 13d | **3. Nevada Hydro's comments on other issues**<br>In addition to responding to the above specific requests of the ISO, the following subsections address other issues from the Meeting.<br><br>**3.1 Aspen's environmental feasibility analysis fundamentally mischaracterizes the project and status of the TE/VS Interconnect.** | The Aspen report correctly noted (at p.37) that there is no active application before the CPUC for the TE/VS Interconnect. As noted above, the project configuration from the 2007 FEIS published by FERC addressed the combination of the TE/VS Interconnect with LEAPS. As a result, the TE/VS Interconnect has no project-specific |

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| | As addressed in detail in Section 2, notwithstanding its FEIS, the fact that it was determined to be the preferred transmission alternative in the PUC's Sunrise proceeding, that its "forest route" was identified as perhaps the only viable route for the Valley–Rainbow project, and that Nevada Hydro has a precisely defined project, route, cost and ratebase authorization from the FERC, the ISO failed once again to give proper consideration to the TE/VS Interconnect. Nevada Hydro has undertaken a huge amount of environmental and routing feasibility work in connection with its TE/VS Interconnect, as has Aspen, and none was reflected in the Meeting or in Aspen's Report.<br><br>The "TE/VS (Forest)" route (as the TE/VS Interconnect was referred to in the Meeting) is not nearly 140 miles, does not transition at the undefined "Inland" site, and as described herein and in Nevada Hydro's other filings to the ISO, its "likelihood of successful permitting" is not "challenging". With a published final EIS and Aspen's analysis in the Sunrise proceeding, in fact, the TE/VS Interconnect faces "no major obstacles to permitting or construction". Nevada Hydro requests that the record be corrected.<br><br>As the Aspen Report focused on Group II, the ISO should have studied the TE/VS Interconnect as submitted into the request window, and not added an additional 110 miles of difficult to permit routing to conclude the TE/VS Interconnect has similar permitting difficulties to other projects assessed by the ISO and Aspen in this Meeting.<br><br>Nevada Hydro understands that the ISO, of course, can study any potential connection it wishes. Although the ISO Tariff allows that the ISO "may" study projects submitted to the request window, if permitability is a concern, as it seemed to be in this Meeting, the ISO sensibly should assess projects with advanced siting conclusions like those presented in the FEIS and Sunrise FEIR/FEIS in connection with Nevada Hydro's TE/VS Interconnect. Unfortunately, uniquely singling the TE/VS Interconnect out for this "dumbing down" treatment is counterproductive.<br><br>Clearly, the ISO cannot simply ignore these facts about the TE/VS Interconnect to | CEQA document other than the analysis presented for the Sunrise Powerlink alternatives analysis. Aspen relied upon the other noted publicly-available environmental studies, where possible.<br><br>The CEC authorized Aspen to evaluate the TNHC proposal among others. The environmental feasibility will be discussed in an upcoming Second Addendum to the Aspen report that will be provided to the CAISO and posted by the CEC. |

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| | try and make it appear that all of the project proposals it has under consideration in the various elements of the TPP are all similarly situated, for they are not. The TE/VS Interconnect has been precisely defined in its FEIS as well as in the Sunrise FEIR/FEIS. Nevada Hydro filed the project into the ISO's "request window" and so the ISO has precise details on the placement of each tower and configuration of each connection point and on the overall permitability of the route. Nevada Hydro has facts supporting its contention that the TE/VS Interconnect is the solution to the situation caused by SONGS and if properly evaluated, could also help by delivering Imperial County renewables to Talega or into San Diego across a second circuit added to the TE/VS Interconnect. | |
| 13e | **3.2 The "Inland" site re–raises the specter of SDG&E's ill–fated foray into Temecula with their Valley–Rainbow proposal**<br>On March 23, 2001, SDG&E proposed to construct an approximately 30-mile, 500 kV transmission line that would connect the Southern California Edison Company ("SCE") Valley Substation with a proposed Rainbow Substation in northern San Diego County in PUC docket A.01–03–036. The proposed project also included a second 230 kV circuit to the Talega-Escondido transmission line. This project looks a lot like "Alternative 6" and the suggested "inland" location a few miles from the proposed Rainbow location.<br><br>These similarities are critical for the ISO to consider now, as the Valley Rainbow proposal produced an immense amount of controversy that was reflected in the unprecedented level of participation by the local community, with roughly 20,000 residents registered as intervenors at the PUC! The local Pechanga Tribe was also instrumental in the project's demise. Aspen and the ISO should carefully consider whether it is wise to continue advancing consideration of alternatives in this area, and may wish to review the issues raised in this proceeding.<br><br>Although no formal EIS/EIR was prepared, as Aspen did note, the PUC completed a preliminary alternatives analysis, described herein at Footnote 10. This analysis was prepared to see if other, less controversial routes could be utilized for the proposed connection. It is interesting to note that this report concluded that the TE/VS Interconnect was likely the only viable route for this connection. As a result, the TE/VS Interconnect is electrically identical to the | The Aspen report identified and considered the challenges that arose during the Valley-Rainbow proceeding (at pp.9-10). Overhead transmission components in the vicinity of the former Valley-Rainbow proposal were reported as having "Very Challenging" siting issues (at p.6). Comments regarding SDG&E's 2001 application for Valley-Rainbow are noted. |

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| | Valley–Rainbow project, and is located just a few miles up the road from the route proposed by SDG&E.<br><br>In its 2001 approval of the project, the ISO Board noted that "a 500 kV project such as the Valley Rainbow project," is needed", approving the electrical configuration and components but "without determining a route and substation site". The Memo from ISO Staff to the Board in connection with its action noted the controversy surrounding the current route, and "encouraged" SDG&E to pursue the TE/VS Interconnect route though Forest Service land (SDG&E did not follow this suggestion). ISO Staff noted:<br>*The decision of the former Board to require a competitive solicitation was based to a significant degree on strong community opposition to the Valley-Rainbow Project from the citizens of the Temecula Valley. Since October 2000, additional information has emerged regarding a potential alternative route for the Valley-Rainbow Project, in association with a pumped storage project at Lake Elsinore. The project includes a transmission line that can be extended to connect Valley substation to the proposed Rainbow substation and would thus be functionally equivalent to the project proposed by SDG&E . . . Unlike the route proposed by SDG&E, the route associated with the Lake Elsinore project will have minimal impacts on residential communities SDG&E can and should be encouraged to explore the Forest Service land alternative and other alternatives that would minimize impacts on affected communities.13*<br><br>Nevada Hydro would also like to point out an error in the Aspen report. On page 10 of the full report, Aspen states that "Ultimately, SDG&E withdrew its application to the CPUC . . ." In fact, SDG&E did not withdraw its application, but it was instead dismissed by the PUC in Decisions 02–12–066, 03–05–038 and 03–06–030. | |
| **13f** | **4. Conclusion**<br>Nevada Hydro believes that that the grand projects provided to Aspen for evaluation miss some subtle but important opportunities. For instance, there are reliability benefits to be gained by completing segments of these larger suggested routes. The ability to stage the development of segments of the various alternatives may alter permitting assumptions on individual segments, while the | The May 2014 Aspen report identified major constraints for transmission siting in the study area (at pp. 11-17), and this information could be used by potential project sponsors to suggest incremental segments that avoid the constraints. The report gathered information in a way that should improve the ability of stakeholders to |

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| | overall alternative may be ranked as "very challenging". We believe the base TE/VS Interconnect is one such segment of a grander scheme that provides much needed reliability benefits that the grander plan may find more difficult to achieve. Nevada Hydro's TE/VS Interconnect will relieve the present reliability deficiency caused by the SONGS retirement, which is no small problem. This will provide the time for consideration of ways to mitigate the looming impacts of OTC retirements while not having the "Sword of Damocles" hanging above the CAISO's head due to the SONGS retirement.<br><br>There are a number of projects that have been proposed by stakeholders for resolving the long-term reliability issues of southern California without resorting to the last ditch solution of large numbers of new, GHG–producing, natural gas fired generators. Rather than having just the small number of large-scale projects that may succumb to each one's worst siting issues, Nevada Hydro suggests that a more openly developed collection of segments drawn from the various aspects of large-scale project proposals may be able to resolve the reliability issues for the long term. One step in helping that process succeed would be to have Aspen evaluate smaller segments of the larger proposals. This will inform stakeholders of avenues to solutions that can be assembled successfully while helping address critical reliability issues segment–by–segment. Of course, Nevada Hydro believes that the first step should be the approval of the TE/VS Interconnect. | tailor incremental solutions to avoid known siting issues.<br><br>These comments will be considered in the course of the 2014-2015 transmission planning process. |

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| **14** | **Office of Ratepayer Advocates**<br>**Submitted by: Charles Mee and Traci Bone** | |
| **14a** | **1. It Is Appropriate For The CAISO To Address Imperial County Transmission Planning Issues And To Actively Involve Stakeholders At This Early Stage.**<br>ORA supports the CAISO's identification of Imperial County Transmission Planning issues for discussion at this time. Although the results of any studies regarding these issues will not be formally addressed until development of the CAISO's 2014-15 Transmission Plan, the CAISO's hosting of the stakeholder meeting and request for comments at this early stage allows for broad stakeholder participation in development of a CAISO position. Such early stakeholder engagement facilitates more educated stakeholder understanding of the issues which is not possible when stakeholders are faced with a draft transmission plan addressing a host of issues that must be understood, analyzed, and commented on by stakeholders in a short period of time. ORA appreciates the CAISO's approach here and encourages the CAISO to expand on this type of pre-draft report stakeholder engagement. | Thank you for your comments |
| **14b** | **2. The CAISO Should Clarify The Scope Of The Problem – Congestion Versus Deliverability**<br>Both the CAISO and a handful of stakeholders realize that the primary issue regarding Imperial County transmission planning is the deliverability of renewable resources that have chosen the Full Capacity Delivery Service (FCDS)[9] option in their generator interconnection requests. This option allows buyers of the renewable resource to count the generation capacity toward their Resource Adequacy (RA) needs. However, there continues to be a perception in some stakeholders' minds that major, new transmission infrastructure is needed to obtain renewable energy (not capacity) from the resources in Imperial County to meet California's 33% Renewable Portfolio Standard ((RPS) mandate. | Please see response to 10c above. |

[9] If generator developers request to interconnect to the transmission grid and choose the Energy Only Delivery Service option, the transmission provider only needs to upgrade the transmission grid to address any interconnection and reliability issues. However, if the generator developers choose the Full Capacity Delivery Service option, the transmission provider needs to upgrade the transmission grid to address any deliverability issues, as well as interconnection and reliability issues.

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| | Thus, there appears to be some confusion regarding RA deliverability – the primary issue presented in the CAISO's Imperial County Transmission Consultation stakeholder meeting on July 14, 2014 – and congestion – which is a different issue. Discussions at the July 14, 2014 stakeholder meeting suggest that the CAISO believes that the congestion risk associated with the renewable generators providing energy under the RPS is low, and that the primary issue to be addressed is RA capacity deliverability. However, the CAISO should clarify its position on this point. If this is not the CAISO's position, or if the congestion risk is unclear, then the scope of the work under this initiative should be expanded to expressly identify and address the congestion issue. It is also important that stakeholders understand the distinctions between RA deliverability and congestion, and the technical characteristics of the limitations on the Imperial County portion of the transmission system. | During the production cost simulations done for the 2013-2014 transmission plan the ISO has not seen significant congestion in the area however the ISO will redo these studies as part of the 2014-15 transmission plan and report back to stakeholders. |
| 14c | **3. RA Oversupply Requires A Reappraisal Of How RA Deliverability Should Be Addressed**<br>Currently, notwithstanding the closure of the San Onofre Nuclear Generation Station and the retirement of some once-through-cooling plants, California has a surplus of system RA capacity. The current planning reserve margins are 115% in 2029 and 114% in 2030 under the California Public Utilities Commission 2012 Long Term Procurement Plan (LTPP) Trajectory Scenario. These numbers do not account for the fact that though California currently has excess system RA capacity, any additional resources for local capacity and flexible capacity needs will also be counted for system RA c proceeding's Scoping Memo dated March 26, 2014 addressing these RA over-supply issues asked parties to comment on the possibility that the RA status of system capacity should have "zero value" in bids received:<br>"In the 2012 LTPP proceeding (R.12-03-014), the Commission found that there is no need to procure additional system capacity. Thus, this ruling seeks parties' feedback on whether, to be consistent with that determination, the IOUs' should assume in their [Least Cost Best Fit] methodologies that system capacity in the context of resource adequacy requirements has zero value and whether they should evaluate bids accordingly."<br>Such an acknowledgement highlights the need for the CAISO to modify its historic approach to reflect the new resources that will be added to the grid's | The 2014-2015 policy driven transmission analysis and the associated renewable portfolios are part of a framework that includes ISO Generation Interconnection and Deliverability Allocation Process (GIDAP). Since virtually all generation in the GIDAP process and therefore all generation procured to meet the 33% goal are specified as deliverable generation, the ISO policy driven transmission analysis has the objective of ensuring that the generation in the portfolios will be deliverable.<br><br>Any shift in this approach would need to be led through the CPUC portfolio development process, and not addressed after the fact in the transmission planning process |

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| | local and system reliability which will address RA deliverability issues. Generally, when dependable generation capacity is not plentiful, deliverability might be required for the RA capacity to be deliverable to load centers during peak hours; however, when dependable generation capacity is more than enough, requiring all those generation capacity to be deliverable will most likely lead to transmission over-build capacity, and will therefore add to the excess. The CPUC 2014 LTPP | |
| 14d | **4. The Costs For Full Deliverability Of RPS Resources Should Not Be Socialized**<br>If new transmission is triggered by generator requests for RA deliverability, then transmission should not be funded as Policy Driven projects paid for by all ratepayers because there is no State policy to obtain RA from specific resources such as renewable resources. For example, the proposed state laws such as requiring the contracting for geothermal project output do not require the purchase of RA capacity from these resources. The CAISO has commented previously that its focus on FCDS is due to requests from generators for such service. Generator requests for such service do not mean that generators should be shielded from the price signals associated with such a request. Generators who request the FCDS should be fully responsible for the associated transmission upgrade costs. | Please refer to the response to 14 (c) above. |
| 14e | **5. Environmental Impacts Must Be Justified By Significant and Demonstrable Public Benefits**<br>It is clear from Aspen's presentation at the CAISO's Imperial County Transmission Consultation stakeholder process meeting on July 14, 2014, that most of the projects being proposed so far and labeled as Group II and III projects[10] have major adverse environmental impacts and will be difficult to site. This highlights that any proposed solution that includes building a major new | The ISO is open to exploring options. |

[10] Group II projects are considered potential LA/San Diego connector projects that would be identified through a longer term analysis (10 to 20 year) in 2014-2015 or 2015-2016 cycle to address evolving load forecasts and the potential for preferred resources and storage and Group III projects are those that provide reliability benefits but also could play a role in achieving future state policy objectives by enabling additional renewable generation in the Imperia zone, and they may obviate the need to advance a future reliability-driven Group II project. (CAIOS Draft Discussion Paper titled "Imperial County Transmission Consultation", dated July 2, 2014)

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| | transmission line must have significant and clear public benefits that cannot be reasonably met through alternative means. | |
| 14f | **6. Deliverability Options Requiring No Transmission Upgrades Should Be Pursued**<br>Notwithstanding the foregoing concerns, if the deliverability capacity needed to obtain additional RA from the Imperial County resources can be obtained without expensive transmission upgrades, those mechanisms should be pursued. ORA supports the concept of re-allocating the Maximum Import Capability (MIC)[11] that is expected to be unused from some interties to other interties where there is an expectation of use, such as those interconnecting to Imperial County. ORA supports this approach. If tariff changes are required to accomplish this goal, ORA proposes a separate stakeholder process be initiated as soon as practicable. A decision on the details of such a re-allocation scheme need not be decided before such a process is begun. ORA has no detailed recommendations on needed tariff changes at this time, but observes that this is one of many reasons to hold a second stakeholder meeting on Imperial County deliverability issues. | The ISO will consider these comments in the development of our 2014-2015 transmission plan.<br><br>Please also see response to 3c4 above. |
| 14g | **7. The CAISO Should Prepare A Chart Identifying The Status Of The Allocation Of The Maximum Import Capability Available In The Imperial County**<br>The CAISO noted during the April 14, 2014 stakeholder meeting that much of the MIC for the Imperial County has already been allocated to generators in the CAISO interconnection queue. Using the table below as a template, the CAISO should provide the amount of resources to which this statement applies, and identify the current system MIC. The table should also include the larger generators who have chosen the FCDS option, and their construction timeline as well as the CPUC's RPS portfolio capacity amounts for this area. This would allow stakeholders to have a better quantitative understanding of the gap to be bridged. A further enhancement would be information on the amount of resources that are in the portfolios that have executed Power Purchase | Please see response above to a similar comment from BAMx at 1c above. |

[11] The Maximum Import Capability is derived based on a detailed 13-step process set forth in CAISO Tariff Section 40.4.6.2 to allocate intertie transfer capabilities to generators outside of California for importing their Resource Capacity to CAISO.

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| | Agreements. Lastly, the table should also include likely additional development of legislatively mandated geothermal procurement amounts. | |

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| **15** | **Pacific Gas & Electric**<br>**Submitted by: Eliah Gilfenbaum** | |
| **15a** | PG&E recommends additional discussion through subsequent meetings to ensure that the implications of the various approaches discussed in this Stakeholder Consultation are adequately understood by stakeholders, and suggests that a focused discussion is particularly needed on the implications of the Maximum Import Capability (MIC) Reallocation approach.<br>In addition, PG&E would like to seek further clarification and confirmation on the following issues:<br><br>• Whether the forecasted RPS portfolios sent to the CAISO by the CPUC and CEC through the annual transmittal letter should be considered fully deliverable for planning purposes<br><br>• Whether the MIC target of 1,400 MW from Imperial Irrigation District (IID) should be considered a firm planning assumption to be upheld even if it comes at significant cost<br><br>PG&E thanks the CAISO for its consideration of these matters.<br><br>**1. PG&E believes that further discussion is needed before the CAISO considers implementing the approaches laid out in this Stakeholder Consultation.**<br><br>PG&E believes that it would be premature to commit to any of the approaches laid out by the CAISO. More time is needed for a deeper discussion of the issues so that the full implications can be understood by all parties. In particular, at the stakeholder meeting it appeared that there is still confusion about the MIC Reallocation approach, and the tradeoffs involved between Palo Verde and IID MIC rights. CAISO staff seemed to indicate during the stakeholder meeting that this issue does not require an immediate decision, and therefore, PG&E supports an additional stakeholder meeting. | The 2014-2015 policy driven transmission analysis and the associated renewable portfolios are part of a framework that includes ISO Generation Interconnection and Deliverability Allocation Process (GIDAP). Since virtually all generation in the GIDAP process and therefore all generation procured to meet the 33% goal are specified as deliverable generation, the ISO policy driven transmission analysis has the objective of ensuring that the generation in the portfolios will be deliverable.<br><br>Also, pursuant to the ISO Tariff, a policy transmission project must be found to be needed in the base portfolio as well as a significant number of sensitivity portfolios. If the upgrade is only needed in the sensitivity portfolio, then it is classified as a Category 2 upgrade for further evaluation in later planning cycles.<br><br>We note that the purpose of the consultation is to inform the transmission planning process by exploring issues that are not readily addressed through the transmission planning process stakeholder input framework. The transmission planning process will be relied upon to determine if these approaches are in fact necessary and warrant further consideration. |

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| | While it is not necessary to pick one of the approaches laid out during the stakeholder meeting immediately, PG&E does believe that near-term confirmation is needed with respect to how the potential upgrades in question are to be studied in the 2014/2015 Transmission Planning Process (TPP). PG&E agrees that the interaction between LCR-driven transmission and the issues related to deliverability from Imperial County should be studied in the 2014/2015 TPP, but believes that a policy-driven basis for approval of those upgrades is not warranted at this time, and seeks clarification from the CAISO on this issue. | |
| 15b | **2. PG&E would like to see further clarity regarding the deliverability requirements of the RPS portfolios developed for various planning processes.**<br>Since 2010, the CAISO, CPUC, and CEC have committed to coordinate transmission planning assumptions through a Memorandum of Understanding (MOU) among the agencies. Through this MOU, the Commissioners and senior staff have jointly agreed to the RPS portfolio assumptions that should be used as inputs into the planning process. However, while the number of MWs by location and technology are very clear in these portfolio assumptions, the choice of whether or not to assume this incremental procurement requires Full Capacity Deliverability Status (FCDS) remains unclear.<br><br>The deliverability targets laid out it in this consultation suggest the CAISO has interpreted that these portfolio assumptions do require FCDS for all MWs contained within. However, PG&E seeks clarity as to whether this is the intended interpretation, and suggests that the CAISO ask the agencies to be explicit on this point in subsequent submissions to the CAISO (the next is expected in February 2015 for the 2015/2016 TPP and 2016 Long Term Procurement Plan (LTPP)). PG&E would like to highlight that energy-only contracts are viable, evidenced by the fact that a number of energy-only RPS Purchase Power Agreements (PPAs) have been signed by load serving entities (LSEs), and therefore it is reasonable to assume that some portion of the incremental portfolio is likely to be signed as energy-only, particularly in areas where significant upgrades would be needed to ensure deliverability. | Please see response above. |

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| | The cost/benefit of Resource Adequacy (RA) vs. network upgrades is currently an issue in the 2014 RPS Plan, where the CPUC has asked parties to comment on its proposal to assume the value of capacity from RPS procurement to be zero. While PG&E, in its comments to the CPUC, has argued that RA from fully or partially deliverable RPS resources does have positive value, PG&E notes that it currently expects the RA value from non-flexible resources to be low for the foreseeable future, and, with respect to energy-only deals, the RA value, by definition, would be zero. Given the CPUC's aforementioned proposal in the 2014 RPS Plan, PG&E believes it is timely and appropriate for the CAISO, CPUC, and CEC to jointly determine the extent to which FCDS should be assumed in the RPS portfolio planning assumptions used in the CAISO's TPP and the CPUC's LTPP. | |
| 15c | **3. PG&E suggests that the basis for the current target MIC value of 1400 MW from IID should be reexamined.**<br>While MIC Reallocation is one approach to ensure the target amount of deliverability from IID, it is unclear whether this target is a desirable policy choice, and whether the relative value of RA from IID and Palo Verde warrants such a tradeoff. In its Draft Discussion Paper, the CAISO cites a 2011 Decision1 from the CPUC as the basis for its target MIC value of 1,400 MW from IID. However, PG&E's interpretation is that this decision was never intended to become a policy driver for new transmission upgrades or RA market rules. Instead, it was more narrowly meant to influence the procurement decisions LSEs were to make in their 2011 RPS solicitation. PG&E believes further discussion would be useful as to whether CPUC's 2011 decision is a sufficient basis for maintaining the MIC target at 1,400MW, and whether this target should be upheld indefinitely, even if doing so drives costs in other aspects of the market. | Thank you for the comment. We should note that a lesser amount of import has been inherent in this year's base renewable generation portfolios supplied by the CPUC. |
| 15d | **4. An in-depth discussion about the role of MIC rights at the Palo Verde intertie should be on the agenda for the next stakeholder meeting on August 28th**<br>At the stakeholder meeting, the CAISO explained its rationale for why the MIC Reallocation approach would not necessarily result in a net decrease in RA value. PG&E's understanding of the CAISO's argument is that because long-term contracts may roll off in the future, LSEs will not have as much need for | For clarity, we must reiterate that the ISO set out a concept put forward for consideration. The ISO is not promoting a particular proposal or recommendation at this time but seeking input on the concept that has been suggested. |

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| | MIC rights at Palo Verde, and any excess MIC at Palo Verde would not be utilized. Therefore, in the CAISO's line of reasoning, it makes sense to reallocate a portion of the available MIC from Palo Verde to IID so that it can be utilized by expected future contracts.<br><br>However, PG&E has a different interpretation. The value of Palo Verde MIC rights does not apply exclusively to long-term dedicated import contracts. Regardless of whether some long-term dedicated import contracts from the Southwest may be rolling off over the next decade, LSEs can still use MIC rights for system RA compliance. The MIC methodology creates a pool based on the historical simultaneous imports into the CAISO system as a whole, and the MIC Reallocation approach would reduce the size of that pool. In this way, the total amount of MIC at all interties will potentially be decreased because the amount of MWs each LSE can request is reduced. PG&E suggests a focused discussion on this point at the next stakeholder meeting so that the implications for the overall RA market can be fully vetted. | We agree that due to the electrical characteristics of the system and the resulting "2-to-1" relationship that was identified through studies for import from Arizona versus IID, the reallocation concept could result in an overall reduction. We should note that one of the issues raised was whether a small amount of reallocation to achieve a state policy objective may be acceptable to some stakeholders whereas a larger reallocation would not. |

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| **16** | **Pinnacle West Capital Corporation**<br>**Submitted by: Jason Smith** | |
| **16a** | **Determination and Allocation of Maximum Import Capability (MIC):**<br>It was clear from the meeting that the methodology CAISO uses to determine CAISO system MIC and how that MIC is allocated to the external tie lines is not widely understood. There appears to be one method using historical flows to determine the annual "operational MIC limitations" and another analytical method for determining the MIC needs looking forward for planning purposes. PNW recommends that the CAISO develop communication tools that will help stakeholders better understand these processes. PNW also recommends that CAISO revisit the possibility of having a more technical basis for both current year operating MIC and forward looking MIC, and determine if a consistent approach would be feasible and useful for both timeframes. | Both the "historical" based MIC and its increase due to "forward looking" MIC are described in details (see chapter 5.1.3.5) for the Reliability Requirement BPM at: http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Reliability%20Requirements . |
| **16b** | **ASPEN Briefing on Environmental Feasibility Analysis:**<br>All of the options from the ASPEN evaluation appear to go significantly farther South and East than what may be necessary to achieve additional MIC from the IV area. PNW recommends that the CAISO revisit opportunities for solutions that focus on the SCE to northern San Diego area to see if significant MIC from the IV region could be gained from those solutions. If possible, these alternatives may also be more environmentally feasible. | We will consider these issues. |
| **16c** | **Reallocation of Maximum Import Capability from Arizona to the IV Area:**<br>PNW understands the proposed reallocation but is concerned with the one-for-two tradeoff on overall System MIC. This should be considered a near term solution, with continued commitment by the CAISO to maintain its long term MIC projections through system upgrades.<br><br>In closing, PNW reiterates our appreciation for this important first step by the CAISO to foster an understanding of the MIC determination methodology and to gain insight from stakeholders on potential ways to restore the previously targeted levels of MIC from the IV area. PNW is very interested in transmission planning and development in the southern portion of the CAISO and commits to remaining engaged in this specific process and the general 2014-2015 CAISO Transmission Planning Process in order to support the CAISO in planning and developing its future transmission system for optimal reliability and economic | Thank you for your comment. |

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| | operation for the benefit of the CAISO customers and the overall WECC interconnected transmission system. | |

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| **17** | **San Diego Gas & Electric**<br>**Submitted by: Steve Williams** | |
| **17a** | "Deliverability" to Loads is Not Limited to Loads in the San Diego and LA Basin Areas<br>The CAISO's July 2, 2014 *Imperial County Transmission Consultation Draft Discussion Paper* indicates that the CAISO is consulting with stakeholders "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." As a threshold matter SDG&E notes that the "deliverability" of generation is not limited to loads in the "San Diego and LA Basin areas." Deliverability is needed to all loads within the CAISO Balancing Authority. | Deliverability is established to the aggregate of load. The ISO will change the language and will make future references as such. |
| **17b** | Stakeholders Need a Clear Understanding of the Renewable Resources that the CAISO is Planning For<br>The CAISO notes that the "early retirement of SONGS materially shifted anticipated electrical flow patterns and negatively impacted the ability to provide deliverability to future increased generation potential in Imperial County." It would be helpful if the CAISO could provide a detailed listing of the locations, quantities and types and timing of the referenced "future increased generation potential in Imperial County." There is ambiguity between what the CAISO may consider as "existing" generation in Imperial County, what the CAISO may consider as "future" generation potential in Imperial County and what the CAISO may consider as "future increased" generation potential in Imperial County.<br><br>Also, it is unclear how much of the future generation within Imperial County is expected to be interconnected within (i) the CAISO balancing authority, (ii) within the IID balancing authority, and (iii) within the Western Area Power Administration (WAPA) balancing authority.<br>Page 10 of the CAISO's July 14, 2014 presentation package states that the CAISO "Considered and approved modest transmission reinforcements to support a 1400 MW deliverability from IID." Page 10 then states that "The 2013-2014 transmission plan identified the impact of the SONGS retirement on forecast incremental deliverability from Imperial County area." It is unclear whether the term "forecast incremental deliverability" refers to "deliverability from | 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):<br><br>Please see http://www.caiso.com/Documents/TechnicalAddendum-ImperialCountyDeliverability.pdf<br><br>The ISO has since also been informed of 200 MW of renewable generation connecting to the IID system that has resource adequacy capacity commitments to ISO load serving entities. The ISO will be modifying this technical addendum to reflect the additional generation, and its treatment within the context of the original 1400 MW target.<br><br>The ISO interconnection queue is on the ISO website and the following information is from that list. The amount of active FCDS generation in the queue at Imperial Valley and East County substations is approximately 1900 MW. The amount of completed FCDS generation at Imperial Valley Substation and on the Sunrise Powerlink is approximately 500 MW. |

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| | IID" that is *in addition to* the referenced 1400 MW number, or in addition to some other number.<br><br>Page 67 of the CAISO's July 14, 2014 presentation package states that reallocating available unallocated MIC for year 2015 from the Palo Verde branch group would result in a "433 MW increase" in MIC for the Imperial Valley branch groups. What this "increase" would be in addition to is not specified.<br><br>The stakeholder process would be enhanced if the CAISO provided the details that would allow all parties to have a common understanding of the resources, deliverability projections, and timing that are at issue in this consultation. | |
| **17c** | <u>"Deliverability at Any Cost" is Not a Public Policy Objective</u><br>The CAISO's paper is focused on "renewable generation deliverability." It does not address the question of whether it makes economic sense to provide "deliverability" for all of the "future increased generation potential in Imperial County." SDG&E believes there should be some assessment of whether consumers would be better off (i) procuring renewable generation on an "energy only" basis thereby avoiding the transmission costs that would make such generation deliverable and buying Resource Adequacy (RA) capacity from sources that do not require incremental transmission capacity, or (ii) procuring renewable generation with both energy and RA capacity attributes, which could mean incurring transmission costs to make such generation deliverable for RA counting purposes.<br><br>The CAISO's paper introduces the concept of reallocating Maximum Import Capability (MIC) from the "Palo Verde branch group to the Imperial Valley branch groups…to facilitate additional deliverability from Imperial County without requiring system upgrades." The idea is that "MIC at one intertie could be reallocated to another intertie based on its effectiveness factor." At the July 14, 2014 stakeholder meeting the CAISO indicated that, currently, the "unallocated" Palo Verde branch group MIC is 1266 MW. As SDG&E understands it, the CAISO then subtracted 400 MW of "future increased generation potential" in Arizona -- presumably dependable renewable generation capacity included in the RPS portfolio provided to the CAISO by the CPUC – to arrive at an available | The ISO has not used the phrase "deliverability at any cost" or stated that this is a public policy objective.<br><br>The ISO's policy driven transmission analysis and the associated renewable portfolios are part of a framework that includes ISO Generation Interconnection and Deliverability Allocation Process (GIDAP). Since virtually all generation in the GIDAP process and therefore all generation procured to meet the 33% goal are specified as deliverable generation, the ISO policy driven transmission analysis has the objective of ensuring that the generation in the portfolios will be deliverable. The ISO economic analysis is then performed sequentially and includes the identified policy driven upgrades. In past plans, the policy driven upgrades have been incremental in nature and did not merit additional sensitivity studies. However, if there are major policy driven upgrades identified in the sensitivity portfolios beyond those assumed in the development of the portfolios, the ISO can consider performing sensitivity analysis in the economic studies with and without major upgrades identified as needed in the sensitivity portfolio. This work would be aligned with the CPUC and CEC request for the ISO to consider a sensitivity portfolio.<br><br>The comment suggests that the 2-to-1 tradeoff in MIC between |

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| | unallocated MIC number of 866 MW. (Page 67 of the CAISO's July 14, 2014 presentation package.)<br><br>Given the most limiting contingency conditions, the CAISO stated that reallocating this available unallocated MIC to the Imperial Valley branch groups would result in a 433 MW increase in the Imperial Valley branch groups' MIC; i.e., dependable generating capacity at the Imperial Valley branch groups is only 50% as effective in mitigating the critical contingency impacts as dependable generating capacity at the Palo Verde branch group. The difference in effectiveness factors between the Palo Verde branch group and the Imperial Valley branch groups needs to be accounted for before deciding whether it makes sense to proceed with a reallocation of MIC.<br><br>Additionally, before deciding to reallocate the currently available unallocated MIC, consideration needs to be given to the likely availability of dependable generating capacity on the Palo Verde and Imperial Valley branch groups; dependable generating capacity that CAISO Load Serving Entities (LSEs) could procure in the future to utilize the currently available unallocated MIC. In this regard, SDG&E notes that the Palo Verde branch group is connected to areas with large amounts of existing generation; Arizona, New Mexico and the El Paso area in west Texas. In contrast, the amount of existing dependable generating capacity within the IID balancing authority that would be available to utilize reallocated MIC is much smaller, and may in fact be zero assuming IID needs all of its existing internal generation to meet IID's own balancing authority needs. It could very well turn out that any MIC reallocated to the Imperial Valley branch groups could only be used by CAISO LSEs if new dependable generating capacity is constructed within the IID balancing authority.<br><br>SDG&E understands that the RPS portfolios currently being used for CAISO planning purposes contemplate significant amounts of "future increased generation potential" in Imperial County. It is unclear how much of this "future increased generation potential" is within the IID balancing authority and would therefore require MIC, and how much would be connected within the CAISO balancing authority and therefore not require MIC. Recent history suggests that | Arizona and IID relates to the effectiveness of import in mitigating the contingency. This is mixing two concepts. Local capacity resources can mitigate the impact of a contingency. Deliverability refers to the amount that can be delivered based on the system response to contingencies. The ISO's study results demonstrated the approximately 2-to-1 relationship; it is not clear what "accounting" is expected.<br><br>The considerations set out will be included in the ISO's summary of issues needing to be addressed if the reallocation path is eventually found to be necessary and pursued.<br><br>Increased deliverability from the Imperial area is not materially different whether connected via IID or directly through the ISO grid.<br><br>The ISO has not proposed to unilaterally guess how much MIC from Arizona would not be used. Any proposal to move forward with a reallocation methodology will need to take into account stakeholder input. |

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| | renewable resource developers prefer to interconnect within the CAISO balancing authority. If this trend continues, it is not obvious that there is a pressing need for increased MIC on the Imperial Valley branch groups.<br><br>Considering the existing availability of dependable generating capacity east of the Palo Verde branch group, considering that dependable generating capacity within the IID balancing authority is only half as effective as dependable generating capacity on the Palo Verde branch group, and assuming that new generation would have to be constructed within the IID balancing authority in order for any increase in MIC to be of use, SDG&E believes the concept of reallocating currently available MIC from the Palo Verde branch group to the Imperial Valley branch groups is of dubious value.<br><br>Finally, SDG&E questions the practicality of MIC reallocation since it would seem to require the CAISO to make an upfront guess of the amount of MIC that CAISO LSEs will leave unrequested on the Palo Verde branch group during each year's annual 13 step allocation process. If the CAISO guesses wrong, it could be depriving CAISO LSEs the opportunity to procure cost-effective dependable generating capacity from existing sources of dependable generating capacity east of the Palo Verde branch group. SDG&E is concerned that any such guesses made by the CAISO are pre-judging market outcomes and may be unwarranted intrusions into the market participants' commercial interests. | If reallocation is necessary and it moves forward, the ISO would expect that some means of linking the actual increase date (due to reallocation) with the in-service dates for resources under RA contract in IID system as required to meet state and federal policy needs. |
| **17d** | <u>The Environmental Feasibility of New Transmission Connecting Imperial County to the San Diego Area Via the Banning Pass Should be Analyzed</u><br>Aspen Environmental Group's May, 2014 consultant report on "*Transmission Options and Potential Corridor Designations in Southern California in Response to Closure of San Onofre Nuclear Generating Station (SONGS), Environmental Feasibility Analysis*" evaluates eight transmission alternatives. An alternative not analyzed was a route that connects the Imperial Valley to northeast San Diego. That routetravels north on the west side of the Salton Sea and then turns west just north of the Anza-Borrego Desert State Park(ABDSP), avoiding ABDSP altogether. This route was presented to Aspen, however, at that time Aspen chose not to study this particular route. | The May 2014 Aspen report was focused on transmission options between the SCE and SDG&E territories. Major constraints identified in the May 2014 Aspen report (at pp. 12-14) included crossing the Santa Rosa-San Jacinto National Monument and the San Bernardino National Forest (SBNF), which would occur if routing is "just north of the Anza-Borrego Desert State Park," as suggested by the comment. Based on constraints documented by Aspen, such a route through the National Monument and the SBNF fell within the "Very Challenging" category. |

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| | At the July 14, 2014 stakeholder meeting an Aspen Environmental Group representative suggested that this route was not analyzed because there was a desire to "keep distances manageable." SDG&E appreciates the economic savings that can be realized by constructing transmission within corridors that connect two points on as straight a path as possible. However, this is often not possible. Moreover, under existing law, economics are not a determinative factor when evaluating environmental feasibility.<br><br>Whether the route proposed above is more or less environmentally feasible than the other routes evaluated in the May, 2014 report is unknown. As options for addressing the impacts of the SONGS retirement and the anticipated shut down of coastal generation using Once-Through-Cooling (OTC) technologies are being considered, it would be helpful to know the comparative environmental feasibility of this route. | The CEC has authorized Aspen to evaluate the SDG&E proposal among others. The environmental feasibility will be discussed in an upcoming Second Addendum to the Aspen report that will be provided to the CAISO and posted by the CEC. |

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| **18** | **Sempra US Gas and Power**<br>**Submitted by: Shawn Bailey** | |
| **18a** | 1. Any Re-allocation of Maximum Import Capability (MIC) Should Occur After On-System Deliverability Needs Are Met, and Should Reflect LSE Renewable Procurement Decisions<br><br>At the 7/14/2014 meeting, the CAISO requested stakeholder input on the following question:<br><br>"Is the reallocation of Maximum Import Capability from the transmission path from Arizona to the transmission paths from Imperial County a viable option? If so, what approaches should be considered by the ISO to implement this proposal?"<br><br>Currently, MIC at an intertie is determined annually based on historical imports during peak periods. Existing transmission contracts and pre-Resource Adequacy (RA) program imports are subtracted from the available capacity to determine the capacity available for allocation to Load Serving Entities (LSE) and other market participants in the CAISO annual multi-step nomination process. Renewable capacity from off-system resources may be credited by an LSE to meet RA requirements to the degree the LSE acquires import capacity in the annual allocation process.<br><br>An efficient and equitable option to accommodate a reallocation of MIC between intertie points could be based on the annual CAISO intertie allocation process. The CAISO could establish conversion effectiveness ratios for various potential import points (for example, the CAISO has estimated an approximate 2 for 1 ratio between imports from Arizona and imports from the Imperial Valley area). If allowed, market participants acquiring import capacity at relevant interties through the CAISO annual multi-step process could have the opportunity to convert import capacity between interties based on the effectiveness ratios established by the CAISO. This change would allow market participants to better coordinate their procurement decisions with available import capacity, and would align with the existing multi-step import allocation process. Such an | One of the advantages of relying on historical imports in the MIC process is that the historical import levels have been demonstrated to be a system usage level and pattern that is reliable. Although, minor deviations from these levels are manageable and require manageable amount of analysis, allowing a large number of deviations could become unmanageable. However, the ISO will consider this option. |

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| | approach would be preferable to a static assumption-driven reallocation of import capacity, and allows market participants more flexibility to dynamically and efficiently manage their procurement decisions.<br><br>In establishing the import capacity available for allocation (or reallocation), it is important that the CAISO continue to preserve deliverability protocols for existing generators interconnected to the CAISO grid, and new generators participating in the interconnection and resource transitions processes. | |

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| **19** | **Sierra Club, Audubon California, Defenders of Wildlife, Natural Resources Defense Council**<br>**Submitted by: Sarah K. Freidman, Gary George, Kim Delfino and Helen O'Shea** | |
| **19a** | **1. *Introduction***<br>The Sierra Club is a national nonprofit organization of approximately 2.5 million members and supporters (over 380,000 who live in California) dedicated to exploring, enjoying, and protecting the wild places of the earth. The Sierra Club's concerns encompass protecting our lands, wildlife, air and water while at the same time rapidly increasing use of renewable energy to transition towards a carbon-free future.<br><br>With over 150,000 members and supporters in our state, Audubon California connects people with birds, nature and the environment that supports us all. For over a century, our national network of community-based nature centers, chapters, scientific, education, and advocacy programs engages millions of people from all walks of life in conservation action to protect and restore the natural world. The Imperial Valley/Salton Sea and the surrounding agricultural fields have been recognized by Audubon as a globally significant Important Bird Area in an international program to identify key locations critical for the conservation of birds, and a key stopover on the Pacific Flyway for migratory birds.<br><br>Defenders of Wildlife has approximately 1.2 million members and supporters nationally including approximately 170,000 in California. Defenders of Wildlife is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.<br><br>The Natural Resources Defense Council ("NRDC") has over 1.2 million members and online activists nationwide, more than 250,000 of whom live in California. NRDC uses law, science and the support of its members and activists | |

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| | to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC has worked to protect wildlands and natural values on public lands and to promote pursuit of all cost effective energy efficiency measures and sustainable energy development for many years.<br><br>Our organizations are each committed to a carbon-free future, and strongly support the emission reduction goals found in the Global Warming Solutions Act of 2006, AB 32. We also support California's electricity "loading order" as the preferred sequence for meeting electricity demands. The loading order lists energy efficiency and demand response first, renewable resources second and natural gas-fired power plants third.<br><br>As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the impacts of large scale energy development with the impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. To that end, we have each participated as active stakeholders on California's Desert Renewable Energy Conservation Plan (DRECP) and were deeply engaged in developing the Bureau of Land Management (BLM)'s Solar Energy Program. A number of our groups are also engaged in work on Imperial County's Geothermal/Alternative and Transmission Element Update. | |
| **19b** | ***2. Geothermal development at the Salton Sea.***<br>We are pleased to see the CAISO study transmission options to Imperial County, and that one of their considerations in doing so is recognition of interest in geothermal development at the Salton Sea. We are also pleased to see the National Renewable Energy Laboratory's work to provide technical support and guidance to the Salton Sea Authority on the potential for geothermal and transmission development to offset Salton Sea restoration costs.<br><br>Our organizations have worked for years on resolving the fish and wildlife and air quality issues around the Salton Sea created by the water transfer authorized | The ISO will continue to work with and support the CPUC and the CEC in the development of renewables generation portfolios addressing.} |

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| | in the Quantification Settlement Agreement. The fate of the Salton Sea and its surrounding communities in Imperial and Riverside Counties will rely on future restoration projects to address the loss of habitat for fish and birds and the air quality problems created by dust from a receding Salton Sea.<br><br>Additional geothermal development around the Salton Sea could be sited on exposed playa to minimize dust emissions and could potentially generate funding for habitat and air quality projects around the Sea. Geothermal is a carbon-free resource that will help California continue its decarbonization trajectory and add diversity to the existing fleet of clean energy resources. With proper planning, siting, and application of best management practices, the development of future geothermal energy projects at the Salton Sea can benefit California's electrical grid, help meet our climate change goals, and provide mitigation and a potential revenue source for addressing some of the environmental and public health issues at the Salton Sea.<br><br>Transmission constraints are a barrier to developing significant new geothermal resources at the Salton Sea. The CAISO should consider the benefits of developing geothermal at the Salton Sea when analyzing options to address deliverability from Imperial County to the California ISO's balancing control areas. | |
| **19c** | ***3. Aspen Environmental Feasibility Analysis.***<br>We are pleased to see the California Energy Commission1 engaged Aspen to study the environmental feasibility of potential transmission options prior to a solution being identified through the CAISO's annual Transmission Planning Process. Potential environmental conflicts should be determined as early as possible in generation and transmission planning, using the most robust information available. The Garamendi Principles require that rights-of way (ROW)s are *justified by environmental, technical, or economic reasons*.2 Avoiding harm to protected species should be key to complying with the Garamendi Principles.<br><br>The Santa Rosa and San Jacinto National Monument is correctly identified as constrained. Not only is there is express legislative intent to preserve the scenic | As noted in the response to The Nature Conservancy (see 12.d above) the Aspen report focused primarily on land use constraints, but also acknowledged biological constraints. We recognize the evolving availability of robust environmental data sets, especially related to the DRECP, and to the extent that they are appropriate and available, higher levels of detailed environmental data may be used in future corridor studies similar to the May 2014 report.<br><br>The May 2014 Aspen report was focused on transmission options between the SCE and SDG&E territories and identifying the siting challenges of various corridors. As such, consideration of the potential to interconnect or deliver an incremental amount of generation, and |

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| | values of the Monument, but also the proposed route traverses a designated Conservation Area under the Coachella Valley Multiple Species HCP/NCCP as well as critical habitat for endangered Peninsular bighorn sheep. Thus, the area is inappropriate for new transmission ROWs, as are current or proposed wilderness areas. In addition to the land use constraints specifically identified by Aspen, there are a number of other designations which indicate high biological value and potential environmental conflicts, including: Areas of Critical Environmental Concern or Desert Wildlife Management Areas on BLM managed lands, BLM known raptor use areas, US Fish and Wildlife critical habitat unit or core area/core recovery area, areas subject to state and federal recovery plans and areas within the reserve design for a Habitat Conservation Plan or Natural Communities Conservation Plan. Aspen should particularly consider impacts to Peninsular bighorn sheep as a number of routes appear to conflict with Peninsular bighorn sheep habitat.<br><br>Aspen should consider DRECP data in analyzing transmission routes. The Aspen Analysis seems to rely a good deal on work done in connection with the Sunrise Powerlink. Since that time, the California desert has been extensively studied and catalogued in connection with the DRECP, resulting in a massive increase in understanding of sensitive species and natural vegetation communities in Southern California. This data is publicly available3 in GIS layers. It would be a huge oversight to not take advantage of such up-to-date, granular data early in the transmission planning process.<br><br>The Aspen Analysis should provide information on generation facilitated by the various transmission options. The environmental conflicts and benefits of a particular transmission option are not limited to the on-the-ground impacts of the line itself. Indeed, transmission decisions may result in vastly different climate and biological impacts. We understand that much of this data is analyzed at the California Public Utilities Commission during the Certificate of Public Convenience and Necessity process. However, given the pivotal role that transmission plays in guiding generation, it is important to provide this information to the public and decision-makers as early as possible. This information should include what, if any types of generation would be facilitated | the potential effects of that generation on the transmission network or on the environment, would have been outside the scope of the report. |

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| | by the various transmission options and the general location of such generation.<br><br>We appreciate the opportunity to provide comments to the CAISO's Imperial County draft discussion paper and associated materials. As discussed above, sustainably-sited and operated renewable generation in Imperial County could bring multiple benefits to Southern California. Transmission lines to deliver these resources to San Diego and the LA Basin should be sited in accordance with the Garamendi Principles and avoid or minimize harm to sensitive wildlife and wildspaces. | |

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| 20 | **Six Cities**<br>**Submitted by: Bonnie S. Blair, Margaret E. McNaul and Thompson Coburn** | |
| 20a | **1. Proposed Transmission Solutions for Deliverability**<br>The Six Cities are troubled by the fact that stakeholders are being asked to provide input regarding potentially very expensive transmission projects to facilitate deliverability out of Imperial Valley on an abbreviated timeline with very little data, other than what appear to be basic estimates, concerning the cost of these projects. The cost of some of the projects as stated in the discussion paper ranges from $700 million to $5.7 billion, and the Cities have not located any cost estimates for the projects as configured in the Aspen report on the environmental feasibility of certain options commissioned by the California Energy Commission. The Six Cities observe that several of the routes evaluated by Aspen include substantial undergrounding, including (for example) an underground route located within a state park having terrain described as "granite bedrock" with biologically sensitive resources in the vicinity. As stakeholders have now observed with respect to other transmission projects, routes that involve even modest lengths of undergrounding may raise transmission costs by a large magnitude, and lengthy segments that will be undergrounded within difficult, hard-to-access terrain in environmentally vulnerable areas are likely to be just as, if not more, costly on a per-mile basis than other underground projects that have been either recently completed or are currently underway.<br><br>If the ISO intends to rely on environmental feasibility assessments performed outside the ISO's transmission planning process to narrow the range of transmission solutions under consideration, the ISO should also look to cost as an important factor in considering which options are most viable. In that regard, the ISO may need to consider alternate routes from those that have been studied thus far and, as to all routes that the ISO intends to consider for its transmission plan, develop a detailed understanding of cost impacts so that stakeholders may be fully informed about the policy choices being made to facilitate deliverability from Imperial Valley. With respect to these large projects, it may not be sufficient to simply defer considerations of cost until after a project has been selected, put out for competitive solicitation, and competing bids | The ISO is asking for input on environmental considerations which will be input into future transmission planning discussions in the ISO's transmission planning process. That process takes into account economic considerations. |

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| | received with varying cost estimates (and, potentially, no firm cost containment commitments). Serious consideration should be given to selection of a project (or projects) that will be economic for ratepayers, just as the ISO intends to give serious consideration to only those projects that are viable from an environmental feasibility perspective. | |
| 20b | **2. Reallocation of MIC from the Palo Verde Branch Group to the Imperial Valley Branch Group(s)**<br>In the Six Cities' view, the ISO has not made available sufficient information regarding this possible approach in order for stakeholders to fully consider its implications. As was recommended at the July 14th stakeholder meeting, the Six Cities request that the ISO publish a detailed issue paper discussing in more detail how MIC is currently allocated, the logistics of how a reallocation would work (including the contemplated timing for when the reallocation would occur) and how market participants, including market participants that may rely on the availability of MIC at this branch group to import Resource Adequacy resources, would be affected. The issue paper should explain why eliminating 866 MW of MIC at the Palo Verde branch group to produce a net gain of 433 MW of MIC at the Imperial Valley branch group(s) (for an overall loss of 433 MW of MIC to imported Resource Adequacy resources) is a reasonable approach, even if the Palo Verde branch group is not fully subscribed at this particular time. Stakeholders should have the opportunity to fully consider if attaining a policy goal of greater procurement from the Imperial Valley area is worth forgoing future opportunities to rely on Resource Adequacy resources from other areas outside of the ISO, such as Arizona, that may be available for long-term procurement now or otherwise offer more competitive pricing or other advantages.<br><br>The Six Cities found troubling the ISO's rather casual suggestions at the July 14th stakeholder meeting that additional MIC beyond the 433 MW reallocation that is currently under consideration could be reallocated if capacity associated with Existing Transmission Contracts ("ETCs") and Transmission Ownership Rights ("TORs") were no longer granted priority in the MIC allocation process. Although it is not entirely clear what exactly the ISO may be considering with respect to elimination of ETC and TOR priority at this time, the Six Cities oppose | The ISO has not put forward a specific proposal – the concept has been put forward, and the ISO is seeking comment on the issues that should be considered in developing a comprehensive proposal if that proves necessary.<br><br>Detail on the MIC methodology is set out in the Reliability Requirements Business Practice Manual.<br><br>The assessment of the potential impact to IID MIC of a reduction to Arizona MIC was based on technical analysis – the issues associated with assessing whether this is an appropriate course of action are being explored and identified through this consultation effort. |

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| | implementing sweeping policy and tariff changes that substantially diminish the value of ETCs and TORs by reducing their allocated priority share of MIC (and LSEs' ability to rely on these longstanding contract arrangements). This is certainly not the forum in which to consider these broad changes and, in the Six Cities' view, doing so in order to shift MIC to a preferred set of import branch groups for policy reasons is unfair and shortsighted. It is unfair because the ISO committed to preserving the value of existing contracts, and it is shortsighted because it appears that MIC reallocation would achieve, at best, a temporary uptick in the ability to import RA resources from the Imperial Valley (*albeit* at a reduced level, based on the ISO's data showing that the MIC reallocation to Imperial Valley is only 50% effective), but would not fix the fundamental problem of a lack of transmission to provide deliverability for Imperial Valley resources. | |

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| **21** | **Southern California Edison**<br>**Submitted by: Karen Shea, Ayman Samaan and Eric Little** | |
| **21a** | **1. Recommended Transmission Alternative to Evaluate in the CAISO's TPP**<br><br>SCE suggests the CAISO evaluate a **new 500kV AC transmission line from Devers Substation to IID's Midway Substation** as a proposed mitigation to increase the deliverability out of Imperial Valley. The proposed mitigation would:<br><br>• Utilize existing IID ROW<br>• Have a reduced cost relative to other alternatives due to a relatively shorter AC transmission line<br>• Increase system transfer capability beyond current Path 42 upgrade project which will enable IID to export more renewables<br>– Based on a preliminary power flow analysis, an additional 1,200 MW transfer capability is achievable<br>• Utilize available capacity due to the WOD project, which is underway<br><br>SCE has performed a power flow study and the preliminary results show that the line can provide the deliverability and reliability needs for the Imperial Valley area. However, additional assessment is needed and SCE recommends that the CAISO evaluate this option as a potential solution to substantially increasing incremental deliverability from Imperial County. | The CEC authorized Aspen to evaluate the SCE proposal among others. The environmental feasibility is discussed in an addendum to the Aspen report that has been provided to the CAISO and posted on the CEC at: http://www.energy.ca.gov/2014publications/CEC-700-2014-002/CEC-700-2014-002-AD.pdf<br><br>The ISO analysis of options, as found to be necessary, will be conducted in the 2014-2015 transmission planning process. |
| **21b** | **2. Reallocation of Maximum Import Capability**<br><br>SCE appreciates the July 14 discussion on MIC, and it was a good step. However, more discussion is still needed.<br><br>SCE would like to note as well that the MIC is on a different "track" as compared to the transmission planning process, and it might be prudent to have further discussion on this issue before any decision on next steps is made.<br><br>These discussions could then include alternate methodologies as well as the compromises and benefits that a change could impart. | The ISO anticipates further discussion on these issues. A revised discussion paper is planned to be released on October 1, leading up to a second stakeholder discussion on October 8. Further, this information is an input into the planning cycle, in which the selection of mitigations (if found to be necessary) would take place. |

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| | *2.1. Import Counting Rights Process Should Not Be Changed*<br><br>In their white paper, the CAISO acknowledged:<br><br>While redistributing import capability among certain interties may address the same issue that the expanded MIC methodology was attempting to resolve it is important to mention that it would likely not be on a "one-for-one" basis.<br><br>While SCE understands the potential need for import allocation at IID, it is not clear that there is a logical way to determine how many import counting rights to take from other locations to make such available. SCE notes that PV is a liquid trading point that provides great potential for the use of import counting rights to meet RA obligations. Taking from PV will therefore not be without opportunity cost. It would be very difficult for the CAISO and market participants to make a decision in such matters without understanding the value of increased IID availability while at the same time reducing value from PV. SCE therefore recommends that the CAISO not make changes to the import counting rights process at this point and convene a stakeholder process that would then be able to better evaluate potential changes as well as identify other potential alternative proposals. | The ISO has not put forward a specific proposal – the concept has been put forward, and the ISO is seeking comment on the issues that should be considered in developing a comprehensive proposal if that proves necessary. The CAISO agrees that further stakeholder input will be required before a proposal can be implemented. |
| **21c** | **3. Detailed Alternatives for CAISO Consideration**<br><br>SCE has discussed the issue internally and would appreciate stakeholder vetting of two alternatives prior to a decision as to what changes might be made.<br><br>In one alternative, the CAISO could modify the MIC process to more closely resemble the CRR process. In this case a tiered (quantities made available in several tiers to prevent overloading of any given point immediately) allocation process would be used that would allow market participants to request any import point on the grid without the CAISO first defining the quantities at any point. The CAISO would then evaluate the requests for, and maximize the amount of capacity granted subject to simultaneous feasibility. | Please refer to the ISO response to a similar comment from Sempra at 18a above. |

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| | In a second alternative, the CAISO could get to a certain point in the allocation process (e.g. step 10 or 11) and offer alternatives based on what is still available. The CAISO could grant import capacity based on a set of points or a different quantity if the set of points included IID. Using this method would allow participants to obtain the quantities of points with the most value, and allow a later tier for trades between the remaining capacity and its effective equivalent at the IID branch group.<br><br>SCE understands that either option would require a significant amount of analysis and discussion. SCE, however, believes that any proposal to reduce capacity from a point, such as PV, in order to increase import capacity from IID, would require significant analysis and discussion. | |

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| **22** | **Southwestern Power Group**<br>**Submitted by: David Getts** | |
| **22a** | **Reallocating the RA import capacity (MIC) from other interties, in particular the Palo Verde intertie, would be a substantial change in policy**. As the ISO identifies, the MIC policy was expanded in 2011. The expanded MIC policies provided further assurance that efficient supplies of renewable energy could be obtained from adjacent markets; that the ISO would make best efforts to determine the maximum existing import capability and that the ISO would perform upgrades to expand the MIC should LSEs contract for supplies outside the CAISO boundaries. This MIC expansion policy ensured that California LSEs could contract with the most efficient supplies of renewable energy, even if such supplies existed outside of the CAISO's boundaries. By doing so it provided stability for renewable development by allowing developers to count on MIC being made available from existing capacity or through upgrades. Now allowing reallocation would be a substantial change to that policy that may likely have significant ramifications for renewable developers and LSEs. | The ISO has not put forward a specific proposal – the concept has been put forward, and the ISO is seeking comment on the issues that should be considered in developing a comprehensive proposal if that proves necessary. |
| **22b** | **A decision to remove import capability at Palo Verde and shift it to IID will likely result in a more costly renewable solution**. The CAISO has not indicated that it would consider reallocation because IID renewable supplies are much less costly. Rather the ISO's proposal to consider reallocation is predicated significantly on state policy objectives. Palo Verde MIC capacity exists because certain energy supplies from the southwest are cost effective for Californians. To simply curtail the ability to deliver from that region to provide capacity for IID resources – irrespective of economics – will necessarily raise the cost of clean energy for Californians. This is not only true because it would simply preclude PV supplies without demonstrated cost effectiveness, but more importantly because any increase in IID import capacity through this means requires a 2 MW decrease in PV import capacity. | The ISO has not put forward a specific proposal – the concept has been put forward, and the ISO is seeking comment on the issues that should be considered in developing a comprehensive proposal if that proves necessary. |
| **22c** | **Even the possibility that the ISO would take import capability from one geographic market and give it to another creates significant instability in the renewable market.** Given past policies, the MIC capacity has been stable and/or increasing over time. If it can be simply taken away through a re-allocation, this would create substantial risks in the market place and thereby creates inefficiencies. While SWPG appreciates the ISO's careful and explicit | The CAISO agrees that the issues involved in such an approach need to be considered carefully. |

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| | deliberation on this issue, the choice to reallocate should be considered very carefully by the ISO given the instability such a change in MIC policy would create.<br>We urge the ISO to be very cautious before considering undoing the expanded MIC policy. If such a policy is going to be reconsidered the CAISO must address questions including:<br>• Under what conditions is it appropriate to reallocate MIC?<br>• How does the ISO rightly decide which markets are provided existing MIC?<br>• How is increased MIC allocated between the respective geographic markets?<br><br>The CAISO should support a MIC allocation policy that is rational, has certainty, and is equitable. SWPG looks forward to the CAISO's subsequent thinking on this issue and appreciates the opportunity to submit these comments. | |

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| **23** | **ZGlobal and Regenerate Power, LLC**<br>**Submitted by: Nisar Shah** | |
| **23a** | **Questions on the draft discussion paper:**<br>1. Page 2, Overview, third line, "California ISO has targeted enabling 1400 MW of renewable generation imports from Imperial County to be deliverable." Is 1400 MW targeted for Imperial County or for IID? Table 4.1-1 in the 2013-2014 Transmission Plan identifies 1715 MW for Imperial County, not 1400 MW. | The 1400 MW target pertains to imports from IID only. |
| **23b** | 2. Page 3, first paragraph, "…sensitivity of 2500 MW in the Imperial County." How is ISO planning to allocate 2500 MW generation between ISO and IID service territories? | The ISO is working with the CPUC on the modeling of the portfolios. The base cases will be posted on the ISO Market Participant Portal. |
| **23c** | **Questions on presentation material:**<br>1. First bullet on page 5 has not been explained in detail, hence this question: Once ISO determines the deliverability capability out of Imperial County, how will ISO allocate it among various entities within Imperial County? For example, how will IID BA's share be determined? | Deliverability is provided as described in the ISO generation interconnection process but is essentially on a first come first serve basis. Once all the available deliverability is utilized then additional transmission upgrades are required to obtain more deliverability. The decision to invest in these upgrades must be in the best ratepayer interest. |
| **23d** | 2. Page 63, if target MIC is determined based on external resources in 33% RPS, isn't this a chicken and egg situation? The whole purpose of increasing MIC is to remove the disadvantage developers are facing today in getting contracts with LSEs. If MIC is available, developers will build and meet 33% RPS, otherwise they won't. ZGlobal suggests establishing target MIC through other means, such as expected generation, steps taken by developers, engineering judgment, etc. | State and Federal agencies dictate the policy needs and they designate what should be included in the policy portfolio including the location is coming from to the best of their estimates. As long as the ISO has enough MIC available to accommodate the policy portfolio it is open competition among resources to fill in the need. |
| **23e** | 3. Page 67, how is 50% effectiveness factor determined for IID BA imports? What is the limiting element? | The limiting element is the ECO-Miguel 500 kV line during the outage of the Ocotillo-Suncrest 500 kV line. The effectiveness factor is based on the limiting element and determined through powerflow analysis. |
| **23f** | 4. Can the above 50% factor be increased through network upgrades within IID, including upgrades of the tie lines with ISO? | Upgrades that control flow in a manner that result in more flow on Path 42 to the ISO from IID and less flow to Imperial Valley substation from IID during the contingency could influence the impact of IID |

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| | | generation on the deliverability constraint and therefore the 50% factor. |
| **23g** | 5. Is ISO developing a new MIC methodology to address future systems with new lines, upgraded circuits, new generators, new substations, etc.? All of which, collectively, will significantly change the system topology. | Existing deliverability methodology already accounts for all these system changes. MIC is merely "deliverability" give to imports and a change to its allocation method does not depend on actual system changes. |
| **23h** | 6. If an entity makes an investment to upgrade their system to increase MIC, how can that investment (MIC value) be protected? For example, if IID invests money to upgrade their system to increase MIC, isn't that reasonable to expect the MIC value will be maintained to justify investment? What will happen to that MIC value if new generation comes at Imperial Valley substation, Sunrise Power Link, or N.Gila – IV line? | If investment is repaid by ISO ratepayers than it does not have to be protected. It should however be used in the best interest of the ratepayer.<br><br>If the investment is solely made by IID without reimbursement than it can be protected by receiving bidirectional TOR like rights. |
| **23i** | 7. If generation interconnection to the ISO reduces deliverability from the IID BA, who should be responsible to pay for upgrades to maintain deliverability? | When studying a new generation interconnection to the ISO the MIC (including IID portion) is already modeled in the deliverability case, and if new Deliverability Network Upgrades (DNUs) are required the resource will be responsible for at least upfront the cost of DNUs. |
| **23j** | **Comments on presentation material:**<br>1. REGP and ZGlobal strongly support ISO consultation process to develop a better way to restore Imperial Valley deliverability capability through Stakeholder input. | Thank you for your comment. |
| **23k** | 2. Reallocation of excess capabilities from one area to another where it is needed the most is a sound policy and REGP and ZGlobal strongly support it. Such a policy would increase the utilization of existing transmission, encourage renewables development in a local area, and optimize local resources and economic development. | Thank you for your comment. |
| **23l** | 3. In terms of ISO's request for other 500 kV transmission options to consider, ZGlobal proposes ISO consider the following:<br>a. A 500 kV DC line from IID Hoober substation (new 230 kV substations) near the Salton Sea to existing SONGS 230 kV substation. This is a 185 Mile line with total capacity of 2200 MW. Initial Phase I capacity will be rated at 1100 MW.<br>b. A series of upgrades and new construction of several 500 kV and 230 kV facilities will make up the "IID collector system". This IID collector system would facilitate the export of 1100 MW to CAISO grid and | ZGlobal suggests a transmission option that is the same as the Hoober to SONGS HVDC portion of IID's Strategic Transmission Expansion Project (STEP), which was suggested for study in the comments by IID (see 10e above). Please refer to response in 10e above.<br><br>ZGlobal also identifies upgrades to 500 kV and 230 kV facilities |

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| | simultaneously another 1100 MW to the southwest of geothermal and solar energy. This project is called Strategic Transmission Expansion Project ("STEP").<br>c. Numerous technical benefits can be realized from this project due to its strategic location:<br>c1. Significant voltage support in southern Orange County and northern San Diego County through DC line using Voltage Source Converter ("VSC") technology with +/- 750 MVAR SVC.<br>c2. Provides a parallel path to the constrained N.Gila – Imperial Valley 500kV line; the source of the September 2011 blackout.<br>c3. Provides a second path of energy into SDG&E service area independent of the Sunrise Power Link and Southwest Power Link.<br>c4. By removing existing transmission constraints the import capability into SDG&E will increase leading to increased utilization of the existing Sunrise Power Link and Southwest Power Link<br>c5. Provides a new and direct-connect and deliverable renewable energy generation pathway to both SCE and SDG&E load centers.<br>c6. Improves the IID connection to SDG&E / CAISO at the Imperial Valley substation from a single 230 kV line to a double circuit 230 kV line rated at 1600 MW.<br>c7. Strengthens the interconnection among the southwest region, Mexico and California. | internal to the IID system; however, these facilities would not be within the scope of review for environmental feasibility by Aspen at this time. In contrast with previously-identified transmission options already reviewed by Aspen for environmental feasibility in response to closure of SONGS, the "IID collector system" appears to have a greater relationship to facilitating interconnection of generators local to the IID territory.<br><br>The range of technical benefits claimed by ZGlobal in the comment appears to be related to the combination of the Hoober to SONGS HVDC portion of STEP along with the IID collector system.<br>Thank you for the comments. The ISO will consider this option. |
| **23m** | 4. In terms of ISO's request for reasonable methodologies for the California ISO to consider, REGP and ZGlobal propose one potential methodology:<br>a. To evaluate MIC for any BG, start with a normal summer peak power flow case. Create a new power flow case with zero MW export from this BG into ISO.<br>b. Run category B contingencies on this new power flow case which has zero MW export. Note any overloaded facilities. Under ideal conditions there should be no overloaded facilities because no generation has been added. If any overloaded facilities are identified, it is not the responsibility of the BG under evaluation because that BG is not exporting any power into ISO grid. Such overloads can be classified as "pre-existing overloads". | The ISO cannot ignore pre-existing overloads. Our Tariff requires us to reduce the NQC of generation to mitigate pre-existing overloads. However, we reduce NQC the minimum amount so that there is no remaining transmission for uses. New uses will then be responsible for the so called pre-existing overload. |

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| | c. Now increase generation into that BG until any new overloaded facility shows up. This overloaded facility is solely caused by the exports. The amount of export is the MIC for that BG without any upgrades. The MIC can be increased if the overloaded facility is upgraded. Then you increase the export until the next overloaded facility shows up. The process can continue provided the exporting entity has enough resources to export and is also willing to pay for upgrades as they emerge. | |