



# 2018 Interconnection Process Enhancements (IPE)

Stakeholder Call

May 21, 2018

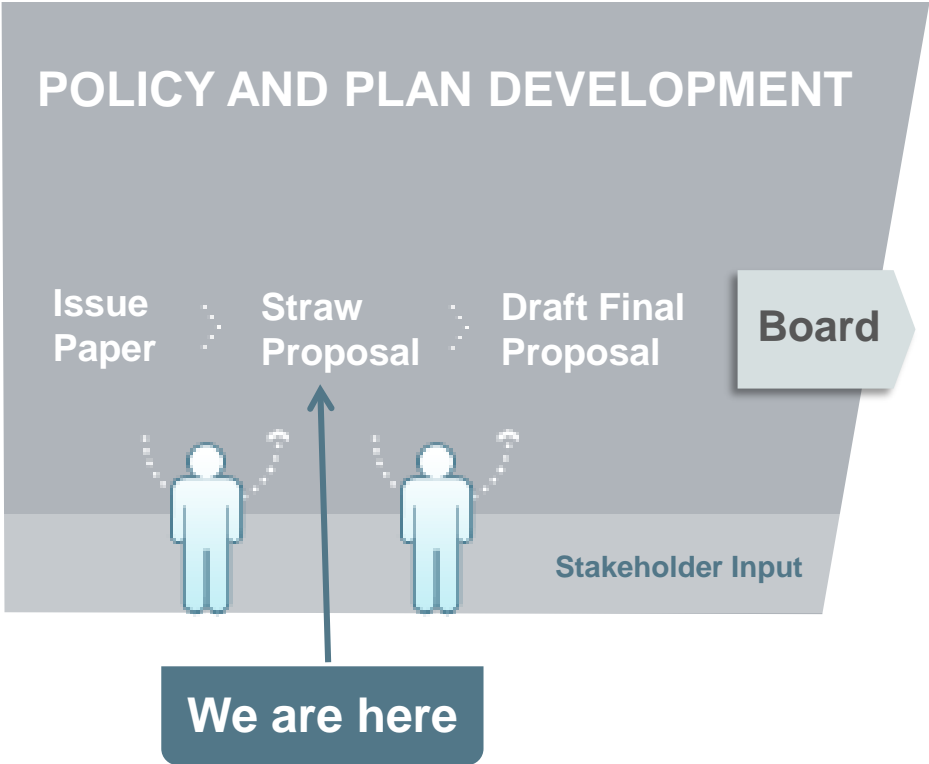
10:00 a.m. – 4:00 p.m. (Pacific Time)

# Agenda

Time	Item	Speaker
10:00 - 10:10	Stakeholder Process and Schedule	Jody Cross
10:10 - 10:15	Introductions	Joanne Bradley
10:15 - 10:30	Background and Scope	
10:30 - 12:00	Deliverability Topics	Team
12:00 – 1:00	Lunch Break	
1:00 – 1:30	Energy Storage Topics	Team
1:30 – 2:00	Generator Interconnection Agreement Topics	
2:00 – 2:25	Interconnection Financial Security and Cost Responsibility Topics	
2:25 -2:40	Break	
2:40 – 3:00	Interconnection Request Topics	
3:00 – 3:50	Modifications Topics	
3:50 - 4:00	Next Steps	Jody Cross

# STAKEHOLDER PROCESS

# CAISO Policy Initiative Stakeholder Process



# Background/Scope

# 2018 IPE goal is to modify and clarify the generator interconnection process to reflect changes in the industry and in customer needs

- IPE was completed in 2014
  - Included 14 topics
- IPE 2015 was completed in 2016
  - Included 11 topics
- IPE 2017 was completed March 2018
  - Included 2 topics
- 2018 IPE
  - Issue paper included 42 potential topics
  - Straw proposal moving forward with 24 topics

# Initiative topics and associated presenter

Category	Topic	Presenter
Deliverability	Summary	Jason Foster
	Transmission Plan Deliverability Allocation <ul style="list-style-type: none"> <li>• Balance Sheet Financing</li> <li>• Participating in the Annual Full Capacity Deliverability Option</li> <li>• Energy Only Projects' Ability to Re-enter the Queue for Full Capacity</li> <li>• Commercial Viability – PPA Path Clarification</li> </ul>	Jason Foster
	Change in Deliverability Status to Energy Only	Linda Wright
	Options to Transfer Deliverability	Songzhe Zhu
	Transparency on Availability of Deliverability	Songzhe Zhu
	Interim Deliverability Status	Songzhe Zhu
	Effective Load Carrying Capacity	Songzhe Zhu
	Cancellation or Delay of TPP Approved Projects	Songzhe Zhu
	Commercial Viability Criteria – Continuous Compliance Obligation	Raeann Quadro

# Initiative topics and associated presenter

Category	Topic	Presenter
Energy Storage	Distributed Energy Resources	Joanne Bradley
	Replacing Entire Existing Generator Facilities with Storage	Joanne Bradley
	Deliverability Assessment for Energy Storage Facilities	Songzhe Zhu
Generator Interconnection Agreements	Suspension Notice	Joanne Bradley
	Affected Participating Transmission Owner	Daune Kirrene
	Clarify New Resource Interconnection Requirements	Riddhi Ray
	Ride-through Requirements for Inverter-based Generation	Lou Fonte
	Affected System Options	Joanne Bradley
	Modeling Data Requirements	Joanne Bradley



# Initiative topics and associated presenter

Category	Topic	Presenter
Interconnection Financial Security and Cost Responsibility	ITCC for Non-Cash Reimbursable NU Costs	Joanne Bradley
	Queue Clearing Measures	Raeann Quadro
	Maximum Cost Responsibility for NUs and potential NUs	Phelim Tavares
	Financial Security Postings and Non-Refundable Amounts	Phelim Tavares
	Shared SANU and SANU Posting Criteria Issues	Phelim Tavares
	Clarification on Posting Requirements for PTOs	Bob Emmert
	Reliability Network Upgrade Reimbursement Cap	Bob Emmert
	Reimbursement for NUs	Bob Emmert
	Impact of Modifications on IFS Posting (new topic)	Phelim Tavares

# Initiative topics and associated presenter

Category	Topic	Presenter
Interconnection Requests	Revisions to Queue Entry Requirements	Bob Emmert
	Master Planned Projects	Bob Emmert
	Study Agreements	Julie Balch
	Project Name Publication	Joanne Bradley
	Interconnection Request Application Enhancements	Jason Foster
	FERC Order No. 827	Songzhe Zhu

# Initiative topics and associated presenter

Category	Topic	Presenter
Modifications	Short Circuit Duty Contribution Criteria for Repower Projects	Songzhe Zhu
	Timing of Technology Changes	Raeann Quadro
	PPA Transparency	Raeann Quadro
	Increase Repowering & Serial Deposit	Raeann Quadro
	Clarify Measure for Modifications After COD	Raeann Quadro
	Material Modifications for Parked Projects	Jason Foster

# DELIVERABILITY TOPICS

# Deliverability Summary

Where the opportunity exists, CAISO seeks to clarify existing deliverability issues and modify some of the current methodologies so there is better alignment with the procurement landscape in California

CAISO suggests the following principles for revisions:

- Limit the impact that one Interconnection Customer's choices have on other Interconnection Customers
- Ensure the most viable projects proceed appropriately
- Allow those projects that have executed a PPA or are in a short-list process greater opportunity to obtain deliverability
- Provide Interconnection Customers reasonable time to market their projects with minimal financial impact or risk
- Limit risk to the Participating TOs (PTOs)

# Transmission Plan Deliverability (TPD) Allocation (4.1)

## ISO Proposed 5 Topics in the Issue Paper

- 1) Transmission Plan Deliverability Allocation (4.1)
- 2) Balance Sheet Financing Option to seek TP Deliverability (4.2)
- 3) Energy Only Projects' Ability to Re-enter the Queue for Full Capacity (4.3)
- 4) Participating in the Annual Full Capacity (AFC) Deliverability Option (4.5)
- 5) Commercial Viability Criteria – PPA Path Clarification (9.2)

# TPD Allocation Straw Proposal (4.1)

Combination of these 5 topics will:

- 1) Provide opportunity for projects to obtain TPD when they have a PPA
  - During Study/Parking Process or projects that are converted to Energy Only
- 2) Maintain an opportunity to construct and obtain TPD without a PPA
  - increased requirements and restriction
  - fka balance sheet financing
- 3) Provide opportunity for Energy Only projects to obtain a TPD allocation
  - With PPA or achieved commercial operation
  - A TPD Allocation Study Deposit required for all Energy Only projects requesting TPD
- 4) Eliminate the current AFC deliverability allocation option
- 5) Eliminate the Balance Sheet Finance option as part of commercial viability criteria for ICs requesting to extend COD beyond the 7/10 year threshold

# TPD Allocation Straw Proposal (4.1)

Allocation Group	Project Status	Commercial Status	Can Build DNU's for Allocation?	Allocation Rank
1	Study/Parking Process	Executed or regulator-approved PPA requiring FCDS or IC itself is LSE	Yes	Allocated 1 <sup>st</sup>
2	Study/Parking Process	Shortlisted in a RFO	Yes	Allocated 2 <sup>nd</sup>
3	Study Process (Following Ph.II Only)	Proceeding without a PPA (fka BSF)	Yes	Allocated 3 <sup>rd</sup>
4	Converted to Energy Only	Executed or regulator-approved PPA requiring FCDS	No	Allocated 4 <sup>th</sup>
5	Converted to Energy Only	Shortlisted in a RFO	No	Allocated 5 <sup>th</sup>
6	Converted to Energy Only	Commercial operation achieved	No	Allocated 6 <sup>th</sup>
7	Energy Only	Commercial operation achieved	No	Allocated 7 <sup>th</sup>



## Change in Deliverability Status to Energy Only (4.4)

- **Current Opportunities**
  - Between Phase I and Phase II
  - Following TPD Allocation process
- **Future Opportunity Proposed**
  - Any time after the Phase II study
  - Project evaluated in the annual reassessment study
  - Cost responsibility retained for DNU's still required
- **Energy Only Conversion for Failure to Meet Commercial Viability or TPD Retention Criteria**
  - Cost responsibility retained for DNU's

## Options to “Transfer” Deliverability (4.6)

- Deliverability is not an assignable property right
- Opportunities to transfer deliverability
  - Deliverability reservation from repowering generators
  - Deliverability transfer among generating units of the same owner at the same POI
  - Deliverability transfer within the same IR
  - Deliverability transfer between the original capacity and the expansion capacity for behind-the-meter capacity expansion request

$$\begin{aligned} & (\text{Deliverability } \%)_{\text{transfer-to}} \\ &= \max \left\{ 100\%, \frac{(\text{Max Deliverability Output})_{\text{transfer-from}}}{(\text{Max Deliverability Output if FC})_{\text{transfer-to}}} \right\} \end{aligned}$$

## Transparency on Availability of Deliverability (4.7)

- LSA and First Solar request more information on available and awarded deliverability for the purpose of TPD allocation
- CAISO provides the information in Phase I & Phase II interconnection study area reports and TPD allocation reports
  - Reports are posted on market participant portal
- CAISO includes TPD summary in the annual TPP report that is public
- CAISO will add link to MPP reports posting on [caiso.com](https://www.caiso.com)
- CAISO will not include the issue in 2018 IPE

## Commercial Viability Criteria – Continuous Compliance Obligation (4.8)

- EDF-RE proposed that the CAISO continuously check commercial viability for all projects over the 7/10 years
- The matter is currently before the FERC in Docket# ER18-156-000
- CAISO clarifies that if a project MMA for site or related project fact is approved, it's reasonable that permitting and other criteria would change after the modification is approved
- CAISO will not include the issue in 2018 IPE until litigation resolves

## Interim Deliverability Status (4.9)

- LSA requests clarification and documentation of interim deliverability assignment
- LSA requests annual updates of the operational deliverability assessment
- The methodology to allocate interim deliverability is described in the GIDAP BPM and the annual study results, including FC requirement for all projects in an area, are provided in cluster Phase II reports
- CAISO will not include the issue in 2018 IPE

## Effective Load Carrying Capability (4.10)

- LSA requests that the CAISO explore the implications of the CPUC's adoption of the ELCC for wind and solar projects on deliverability availability and interconnection studies
- CAISO is having a broad framework review regarding the study methodology, upgrade identification, NQC determination and coordination between transmission planning process and generation interconnection procedure
- This effort will take its own track outside 2018 IPE  
CAISO expects to share the initial results of this effort and seek input from the stakeholders in the 2018-2019 transmission planning cycle
- CAISO will not include the issue in 2018 IPE

# Cancellation or Delay of CAISO Approved Transmission Projects (4.11)

- LSA requests generator deliverability being expressly included in decisions to delay or cancel transmission projects approved under the TPP and providing notice to generation developers of resulting impacts
- Generator deliverability is one of the factors used to re-evaluate the need for a transmission project
- Specific changes proposed by LSA to the BPM is being addressed in BPM PRR 1027
- CAISO will not include the issue in 2018 IPE

# ENERGY STORAGE TOPICS



## Distributed Energy Resources (5.1)

- It was requested that the CAISO provide clarification on DER issues and also provide notification to DERs when aggregations fall under NERC jurisdiction
- Stakeholder comments on the issue paper supported CAISO position that:
  - DER clarifications would be best addressed in ESDER Phase 3 and at the CPUC
  - CAISO does not determine or advise other entities on NERC jurisdiction or obligations to NERC standards
- CAISO will not include this topic in 2018 IPE

## Replacing Entire Existing Generator Facilities with Storage (5.2)

- CAISO reconsidered this issue based on stakeholder comments
- Issue: If storage is added to an existing resource through the modification process, and the existing resource retires, is the storage unit also required to retire?
  - The decision is based on the reliability assessment done when the existing resource requests to retire. If no reliability issue, then storage could remain and get FCDS/PCDS.

# Deliverability Assessment for Energy Storage Facilities (5.3)

- CESA is concerned with a charging deliverability study and a discharging deliverability study under the worst dispatch scenario
- CESA acknowledges the CAISO's clarification in the issue paper and requests further clarifications between system and flexible capacity deliverability
- CAISO is in the process of investigating a study methodology for flexible capacity deliverability
- It will take its own track following the discussion of the deliverability assessment methodology
- CAISO will not include the issue in 2018 IPE

# GENERATOR INTERCONNECTION AGREEMENT TOPICS

## GIA Suspension Notice (6.1)

- Modification to GIA to allow transparency of suspensions and impact on other customers by adding start and end dates for suspension
- Add approval process to ensure no impact to other customers
  - If there is an impact, the customer may mitigate the impact to other customers to obtain the suspension
- Interconnection customer must negotiate in good faith to expeditiously amend the GIA with the new milestone dates and escalated costs

## Affected Participating Transmission Owner (6.2)

- Interconnection customers generally supported further development of policies clarifying interconnection customer financial obligations to PTOs
- The CAISO's proposal added clarity to the interconnection customer's financial security postings, cost responsibility, and PTO repayment for the interconnecting and affected PTOs
  - Separate maximum cost responsibility for each PTO
  - Separate 3<sup>rd</sup> posting for each PTO
  - Separate, proportional repayment from each PTO

# Affected Participating Transmission Owner (6.2 cont'd)

## Sample Proportional Repayment Calculation

- Assumes a 100 MW generating capacity and a \$10,000,000 total cost of reliability network upgrades across all PTOs.

	<b>RNU Cost</b>	<b>Proportion of Total Costs Assigned to PTO</b>	<b>100 MW Maximum Repayment</b>
Interconnecting PTO	\$7,000,000	70%	\$4,200,000
Affected PTO	\$3,000,000	30%	\$1,800,000
Total	\$10,000,000	100%	\$6,000,000

# Affected Participating Transmission Owner (6.2 cont'd)

## Proposal Goals

- The project's maximum cost responsibility is adjusted according to existing tariff provisions
- The PTO whose cost increases exceed the maximum cost responsibility is responsible for the costs above the MCR
- PTO savings may reduce the maximum cost responsibility according to existing tariff provisions
- PTO cost modifications can float among PTOs as long as the costs do not exceed the maximum cost responsibility



## Affected Participating Transmission Owner (6.2 cont'd)

- Stakeholders suggested that the CAISO consider a combined four (or more) party agreement, combining the generator interconnection agreement and the affected PTO upgrade facilities agreement
- Other stakeholders further suggested that the interconnecting PTO serve as a single point-of-contact for the interconnection customer
- The CAISO proposes to use separate agreements but will seek further comment on this issue

# Clarify New Resource Interconnection Requirements (6.3)

- New Resource Interconnection (NRI) requirements have existed for years and existing generators need to complete the NRI process to convert to market participant status
- CAISO will amend Section 25 of CAISO Tariff to clarify existing requirements. No new requirements will be added

# Ride-through Requirements for Inverter-based Generation (6.4)

Revise GIAs to incorporate NERC recommendations for inverter based generation

1. Background
2. Momentary cessation
3. Return times following transient voltage deviations
4. Phase lock loop synchronization issues
5. Inverter TRIP return time

# Ride-through Requirements for Inverter-based Generation (6.4 cont'd)

## Diagnostic Equipment

1. Plant level data
2. Inverter level data
3. Time synchronization of data (1 mSec)
4. Data retention
5. Data reporting
6. PMU (30 samples per sec)

## Affected System Options (6.5)

- It was requested that CAISO-system options mitigate adverse affected system impacts in order to eliminate or reduce the need to deal with separate affected system study timelines and financial-impact uncertainty
  - Existing process allows for mitigation on the CAISO system and associated coordination with affected system operators and interconnection customers
- Not possible to examine without affected system study
- CAISO will not include this topic in 2018 IPE

## Modeling Data Requirements (6.6)

- CAISO has since determined that in accordance with Section 24.8.2 of the tariff that additional modeling information can be requested from all generators in the CAISO market
- Transmission Planning BPM will be modified beginning in the June PRR process
- CAISO will not include this topic in 2018 IPE

# INTERCONNECTION FINANCIAL SECURITY AND COST RESPONSIBILITY TOPICS

# Maximum Cost Responsibility for NUs and potential NUs (7.1)

Stakeholders support CAISO proposal to clarify cost responsibility for Network Upgrades by adding additional defined terms

- Proposed defined terms:
  - Maximum Cost Responsibility
  - Current Cost Responsibility
  - Potential Network Upgrade
- Proposed definition of Potential NU and cost responsibility
  - Potential NUs are precursor network upgrades from prior cluster projects without an executed GIA
  - Costs to be included in the Maximum Cost Responsibility
  - Projects are not required to post for potential network upgrades
  - Costs cannot be used to create headroom within the maximum cost responsibility for increasing the allocation from other NUs



## ITCC for Non-cash Reimbursable NU Costs (7.2)

- CalWEA questions whether non-cash reimbursement network upgrades should be subject to ITCC
- CalWEA, LSA, EDF and sPower also question whether non-cash reimbursement network upgrades should be paid CRRs, which is already allowed in GIDAP 14.3.2.1
- The CAISO is not the appropriate arbiter
- CAISO will not include this topic in 2018 IPE

## Financial Security Postings and Non-Refundable Amounts (7.3)

- Stakeholders commented that the current structure for the recovery of financial security is punitive, and recommend a change in the disbursement of non-refundable funds
- CAISO believes that the current process ensures that generators are serious in moving forward with project costs and will not include the proposal in 2018 IPE
- CAISO proposes to eliminate the conditions of partial recovery of the IFS for Network Upgrades. Under the new proposal in 2018 IPE, all projects will qualify for partial recovery

## Queue Clearing Measures (7.4)

- LSA proposed additional ways to clear the queue
  - Periodic review of commercial viability criteria
  - One-time security non-refundable funds “holiday”
- ORA, PG&E, and SDG&E believe existing measures and current 2018 IPE proposals are sufficient
- CAISO will not include this topic in 2018 IPE

# Shared SANU and SANU Posting Criteria Issues (7.5)

Clarify SANU provisions when multiple generation projects in a cluster trigger a SANU and desire to share construction of the SANU, and clarify the posting requirement related to SANUs

- Stakeholder input

- CALWEA recommended exploring with measures to prevent gaming strategies
- LSA, EDF, and SPower stated that sharing construction and cost responsibility for SANUs should be allowed to be shared among projects within a cluster
- ORA and SDG&E recommended revising the BPM to allow for shared cost allocation of SANU
- PG&E supported the CAISO's position not to include the topic in 2018 IPE
- SCE stated that the current policy where each project assigned a SANU posts for 100% of the associated costs should remain intact
- SDG&E supported the position that it is not appropriate to create specific criteria on what SANU an interconnection customer will be allowed to build

# Shared SANU and SANU Posting Criteria Issues (7.5 cont'd)

- CAISO is concerned that multiple projects building a SANU
  - Could potentially put the PTO at risk if projects with a shared SANU withdraw and the SANU is still needed
  - Complexity of the GIA could be problematic
- CAISO proposes the determination to allow a single or multiple ICs to build a SANU should be made on a case-by-case basis
  - CAISO proposes to remove the BPM requirement where 100% of the cost responsibility for a SANU must be assigned to one customer for that customer to build the SANU

## Clarification on Posting Requirements for PTOs (7.6)

PG&E proposed that PTOs should not have to post financial security to themselves when they develop new generation projects interconnecting to their own areas

- Stakeholder Input
  - CalWEA recommends that PTOs be required to seek waivers at FERC on a case-by-case basis
  - All other stakeholders agree that PTOs should not be required to post IFS to themselves
- The CAISO proposes to exempt the PTOs from posting to themselves
  - will develop a tariff mechanism that requires a PTO to provide appropriate non-refundable funds to the CAISO if it withdraws a project after the initial posting date

# Reliability Network Upgrade Reimbursement Cap (7.7)

The \$60k/MW maximum reimbursement for an RNU has the potential to be circumvented when earlier-queued projects withdraw and the upgrade is still needed

- Stakeholder Input
  - CalWEA suggested that the cost cap should be eliminated
  - LSA suggested that if cap is exceeded then the non-refundable funds mechanism should cover the amount over \$60k/MW
  - ORA, SCE, and SDG&E individually suggested if a project withdraws after executing a GIA whose RNU costs exceed the \$60k/MW cap, the cost responsibility for the amount in excess of the \$60k/MW cap should fall to the later cluster projects needing the RNUs, in the fashion of a potential NU, but not be reimbursable
- The CAISO considers the solution by ORA, SCE, and SDG&E to be simple to implement and would be appropriate

# Reliability Network Upgrade Reimbursement Cap (7.7 cont'd)

- The CAISO proposal:
  - When a project withdraws after executing a GIA whose RNU costs exceed \$60k/MW and are still needed by later clusters:
    - PTO would still be responsible for the amount up to the \$60k/MW cap
    - the cost responsibility for the amount exceeding the \$60k/MW cap will fall to the later cluster projects needing the RNU
    - methodology to be the same as for a potential NU, but the cost will not be reimbursable
    - costs exceeding the \$60k/MW cap will be included as a potential NU in the interconnection customers' study reports



# Reimbursement for Network Upgrades (7.8)

Six Cities proposed to change the methodology for reimbursing ICs for the funding the construction of network upgrades

- Stakeholder Input
  - CalWEA, LSA, and SDG&E agree with rejecting the issue, which represents a fundamental paradigm shift
- CAISO will not include this topic in 2018 IPE
  - This change represents a fundamental paradigm shift in the CAISO's generator interconnection process
  - Such a significant policy shift would need unified stakeholder support

# Impact of Modifications on IFS Posting (7.9 - new topic)

- Reductions in the Initial IFS postings are permitted if the following requirements are met:
  - The upgrades are no longer needed
  - A project has been modified such as a decrease in electrical output and/or change in deliverability status
- The CAISO proposes in 2018 IPE to eliminate the requirement that a project must be modified in order to qualify for a reduction in the initial IFS
- The CAISO proposes that if engineering judgement can conclusively determine that a required upgrade is no longer needed, then the project should not post for that upgrade

# INTERCONNECTION REQUEST TOPICS

## Study Agreement (8.1)

- CAISO proposes to make the study agreement part of the interconnection request so that it is executed when the interconnection customer submits the interconnection request
- The interconnection request would change slightly and incorporate the *pro forma* Generator Interconnection Study Process Agreement
- CAISO would also require the interconnection request be signed by an authorized signatory (cannot be signed by consultant), an officer's certificate, and State of Incorporation certificate

## Study Agreement (8.1 cont'd/new)

- CAISO also proposes to clarify Section 3.5 of Appendix DD to ensure that developers must submit the \$150,000 interconnection study deposit within the interconnection request window
- Absent the deposit, the CAISO does not have funds to process and validate the interconnection request
- The CAISO intends to clarify that the lack of an interconnection study deposit is not a deficiency that can be cured
- Interconnection requests that lack a deposit by the close of the interconnection request window will be rejected without opportunity to cure

## Revisions to Queue Entry Requirements (8.2)

Consider more stringent information requirements for projects to enter the queue to help ensure that only viable projects seek interconnection

- Stakeholder Input
  - CalWEA, LSA, and SDG&E agreed that this issue should not be considered for 2018 IPE
  - GSCE and ITC suggested that the CAISO should remain open to specific proposals that would meet the limitations set by FERC
  - The ORA recommended that the CAISO provide the deliverability status in the proposed project area as an immediate response to interconnection requests
- CAISO will not include the issue in 2018 IPE
  - Stakeholders did not submit any specific, concrete proposals
  - Stakeholder consensus would be difficult
  - CAISO believes that it is unlikely that queue entry requirements could be revised in any meaningful way that would be acceptable to FERC

# Master Planned Projects (Open-Ended and Serial Projects) (8.3)

Develop enhanced processes to facilitate open-ended, serial, and master-planned renewable energy projects

- Stakeholder Input
  - CalWEA LSA, ORA, and PG&E recommended the issue not be pursued in 2018 IPE
    - LSA stated the issue is complex and would require a separate effort
    - ORA stated that phased projects should not receive a unique status
    - PG&E stated an open-ended interconnection project undermines the current cluster study process
  - GCSE and SDG&E recommended issue be included in 2018 IPE
    - GCSE stated CAISO should encourage master-planned projects that will provide benefits to the system, ratepayers and the environment
    - SDG&E stated that there could be potential improvements to better manage open-ended and serial projects

## Master Planned Projects (Open-Ended and Serial Projects) (8.3 cont'd)

- CAISO will not include the topic in 2018 IPE
  - GIDAP accommodates some of the issues raised
  - Such projects retaining their interconnection and deliverability capacity would exacerbate speculation and hoarding in the queue
  - Vast majority of stakeholders oppose the proposal
  - Pending policy decisions are needed before considering this issue
    - increase deliverability above the 33% RPS level yet to be determined
    - CPUC Integrated Planning Process yet to provide actionable guidance to the jurisdictional utilities or the CAISO
    - California Legislature considering RPS greater than 50%, which could dramatically impact transmission planning assumptions and direction



## Project Name Publication (8.4)

- CAISO proposes to include at a minimum project names in the public queue list and may consider interconnection customer name based on stakeholder input
- Coordination with other entities and ability to meet NERC standards would be improved if project names were publicly available
- CAISO requests clarification on comments that suggested permission should be required

# Interconnection Request Application Enhancements (8.5)

- Project Naming Guidelines
  - Suggestion to improve naming guidelines to avoid duplicate use
  - Section 5.2 of GIDAP BPM & Prohibited Project Name List used as naming guidelines
  - CAISO believes more time is necessary to evaluate impact and need for further improvements
- Standardized Technical Data
  - Suggestion to improve interconnection request (IR) application and standardize technical data on IR
  - CAISO introduced the new Attachment A, IR form in Cluster 11
- Changes to Technical Data submissions during Application Process
  - Suggestion to define a cut-off date for allowable changes to technical data during the Phase I Study Process
  - CAISO expects all technical data to be final and 'locked-in' following the scoping meeting and believes the current process is sufficient
- CAISO will not include these topics in 2018 IPE

# FERC Order No. 827 – Generator Reactive Capability Requirement (8.6)

- PG&E and PARS request that CAISO clarify implementation of FERC Order No. 827 in the generation interconnection studies
- Generator reactive capability will be evaluated during the IR validation and throughout the interconnection studies
- The consistent evaluation approach is being developed among all PTO areas and implemented for Queue Cluster 11 application window
- This evaluation approach will be incorporated in BPM through the BPM change management
- CAISO will not include the issue in 2018 IPE

# MODIFICATION TOPICS

## Timing of Technology Changes (9.1)

- CAISO proposes to prohibit technology changes that change the fuel type if a project has, or is requesting, milestones beyond the 7/10 year threshold
- Regardless of time-in-queue, all projects requesting technology changes must demonstrate they are able to construct the project with the proposed new configuration
- CAISO may consider checking CVC with every MMA when a project's milestones are beyond the 7/10 year threshold

## PPA Transparency (9.3)

- Stakeholder support the clarification that customers demonstrating commercial viability criteria with a PPA must provide the PPA to the CAISO, and that the PPA must match the GIA on the following items:
  - the Point of Interconnection
  - MW capacity fuel type and technology; and
  - site location
- The PPA may be redacted to protect commercial sensitive information, and will not be shared with the PTO
- CAISO proposes to take this issue to the July Board

## Increase Repowering and Serial Deposit (9.4)

- CAISO proposes to change deposits to \$50,000
  - Any excess study funds are returned with interest
- CalWEA generally agreed but suggested \$25,000 deposit
- ORA, PG&E, SCE, and SDG&E agreed with CAISO proposal
- CAISO proposes to take this issue to the July Board

## Clarify Measure for Modifications After COD (9.5)

- Clarify that modifications post-COD are subject to section 25.1 of the tariff; and not the terms in article 5.19 of the GIA
- All stakeholders agreed or did not oppose the proposal
- LSA, EDF-RE, and sPower requested the ability to downsize projects after COD
  - This ability already exists for all serial and cluster projects in accordance with Section 7.5 of Appendix DD
- CAISO proposes to take this issue to the July Board



# Short Circuit Duty Contribution Criteria for Repower Projects (9.6)

- Any increase of SCD contribution is considered a substantial change of the electrical characteristic under section 12 of the GM BPM for repower projects
- CAISO proposes to make SCD criteria more consistent with other study tracks, such as material modification analysis
  - Increase of SCD at network breakers that requires upgrades is less than PTO specified threshold
  - The total SCD from the repower and all active generation projects do not exceed breaker capacity

## Material Modifications for Parked Projects (9.7)

Original proposal: CAISO believes intent of parking is to defer project obligations and proposed to limit the ability to modify projects while parked


Upon stakeholder feedback and further review:

- CAISO agrees that there may be a business necessity to modify a project while parked
- MMA costs are paid entirely by customer
- CAISO proposed to maintain customer's opportunity to request modifications while parked

CAISO will not include the issue in 2018 IPE

# NEXT STEPS

## Next Steps



Milestone	Date
Post straw proposal	May 9, 2018
Stakeholder call	May 21, 2018
Stakeholder comments due	June 4, 2018
Revised straw proposal	Q3 2018
Draft Final Proposal	Q4 2018

Written stakeholder comments on the straw proposal are due by COB June 4 to [InitiativeComments@caiso.com](mailto:InitiativeComments@caiso.com)

Materials related to the 2018 IPE initiative are available on the ISO website at:

<http://www.caiso.com/planning/Pages/GeneratorInterconnection/Default.aspx>