



**Distributed Energy Resource Provider
Participation Guide with Checklist**

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Distributed Energy Resource Provider Checklist

The following checklist provide interested parties a guide to taking the steps necessary in becoming a Distributed Energy Resource Provider (DERP) and complete what is necessary to begin market participation with a Distributed Energy Resource Aggregation (DERA).

Information Request Sheet	Submitted	<input type="checkbox"/>
Executing a Distributed Energy Resource Provider Agreement	Received for review	<input type="checkbox"/>
	Executed – Signed Electronically - DocuSign	<input type="checkbox"/>
Scheduling Coordinator Assignment	Obtained	<input type="checkbox"/>
Market Participation System Access Needs	Evaluated	<input type="checkbox"/>
	Obtained	<input type="checkbox"/>
Market Participation Training Needs	Evaluated	<input type="checkbox"/>
	Obtained	<input type="checkbox"/>
UDC/MSS coordination of DERA development	Coordination Complete	<input type="checkbox"/>
	Attachment A Developed	<input type="checkbox"/>

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30-Day UDC/MSS DERA Review	Concurrence Letter Obtained	<input type="checkbox"/>
New Resource Implementation	Initiated – Project Details Form submitted	<input type="checkbox"/>
	Completed – Resource ID obtained	<input type="checkbox"/>

Distributed Energy Resource Provider (DERP)

The CAISO recognizes a distributed energy resource provider (DERP) as a new type of market participant that owns or operates distributed energy resources (DER)¹ with the ability to meet participation requirements, in aggregate, as a new type of market resource capable of operating in response to an ISO schedule, award or dispatch. Distributed energy resource aggregations (DERAs), meeting a 0.5 MW minimum capacity requirement, can participate in the CAISO day-ahead, real-time and ancillary services markets as a participating generator using participation models that fit the needs of the DERA. The ISO envisions these resources contributing to the low-carbon, flexible capacity needed to maintain real-time system balance and reliability supporting the integration of renewable energy.

The DERP must first execute a Distributed Energy Resource Provider Agreement (DERPA) to accept and abide by the terms of the ISO tariff.² A DERP, the aggregated resources it operates and the distributed energy resources that comprise such aggregated resources must comply with applicable utility distribution company (UDC) tariffs and any applicable requirements of the local regulatory authority. There are a

¹ The ISO defines a distributed energy resource as any distribution-connected resource, regardless of size or whether it is connected behind or in front of the end-use customer meter. Distribution-connected means connected to distribution facilities controlled by a distribution utility, regardless of voltage level, served by the ISO grid.

² Section 4.17 http://www.aiso.com/Documents/Section4_RolesAndResponsibilities_asof_Jun3_2016.pdf

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number of steps that need to be taken with the UDC in terms of their application review process and technical studies. These steps take place prior to the ISO’s [New Resource Implementation Process](http://www.caiso.com/participate/Pages/NewResourceImplementation/Default.aspx)

For more information about interconnection to a utility controlled facility, please consult the utility’s website by searching the keyword ‘interconnection’. You may also see the list of utilities on the ISO website at <http://www.caiso.com/participate/Pages/ResourceInterconnectionGuide/UtilityDistributionCompanies.aspx>.

The DERA would participate in the ISO’s market through a scheduling coordinator and the ISO would treat the resource as a scheduling coordinator metered entity.

Distributed Energy Resource Aggregation Requirements

The following provides some of the applicable DERA participation requirements that the DERP should be familiar with:³

- (a) A DERA will consist of one (1) or more Distributed Energy Resources (DER).
- (b) A DER participating in a DERA may not participate in more than one DERA.
- (c) A DER participating in a DERA may not participate as a resource in the CAISO Market separate from the DERA.
- (d) A DER participating in a DERA may not also participate in a retail net energy metering program that does not expressly permit wholesale market participation.
- (e) Each DERA must be located in a single Sub-LAP.
- (f) A DERA must provide a net response at its PNode(s) that is consistent with CAISO Dispatch Instructions and applicable Generation Distribution Factors.
- (g) DERAs are Scheduling Coordinator Metered Entities. Scheduling Coordinators for a DERA must have entered into a Scheduling Coordinator

³ See CAISO Tariff Section 4.17 for additional DERA requirements

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- Metering Agreement with the CAISO. A DER participating in a DERA **may not** also participate in the CAISO Markets as a CAISO Metered Entity.
- (h) Individual DERs within an aggregation must have a rated capacity less than 1 MW.⁴
 - (i) The rated capacity of a DERA will be no smaller than 0.5 MW.
 - (j) The rated capacity of a DERA that includes DERs located at different PNodes will be no larger than 20 MW.

Executing a Distributed Energy Resource Provider Agreement (DERPA)

To initiate a Distributed Energy Resource Provider Agreement an Information Request Sheet must be filled out completely and returned to regulatorycontracts@caiso.com. Once the Information Request Sheet has been reviewed for completeness, it will be processed by a contracts analyst and a DERPA will be initiated by electronic execution, DocuSign.

The pro forma DERPA is incorporated in [Appendix B.21](#) of the CAISO Tariff⁵. This agreement must be signed by the DERP and the ISO and executed prior to proceeding with steps necessary to establish a DERA as a market resource and obtain a resource ID for market participation.

As with other ISO agreements, the DERPA will bind the DERP to the CAISO Tariff. The DERPA, among other things, also requires that the DERP satisfies all applicable rules and regulations of the UDC/MSS as well as requirements of the applicable Local Regulatory Authority (LRA). The agreement requires that the DERP use a certified Scheduling Coordinator (note, the Scheduling Coordinator must be certified to submit

⁴ Individual generating units located in the CAISO balancing authority that are 1 MW or greater will still be required to become participating generators and will not be eligible to aggregate their capacity through a distributed energy resource provider. Generating units that are between 0.5 MW and 1 MW that elect to become participating generators will also not be eligible to be part of a distributed energy resource aggregation unless owners/operators decide to terminate their participating generator agreements.

⁵http://www.caiso.com/Documents/AppendixB21_DistributedEnergyResourceProviderAgreement_Asof_Jun03_2016.pdf

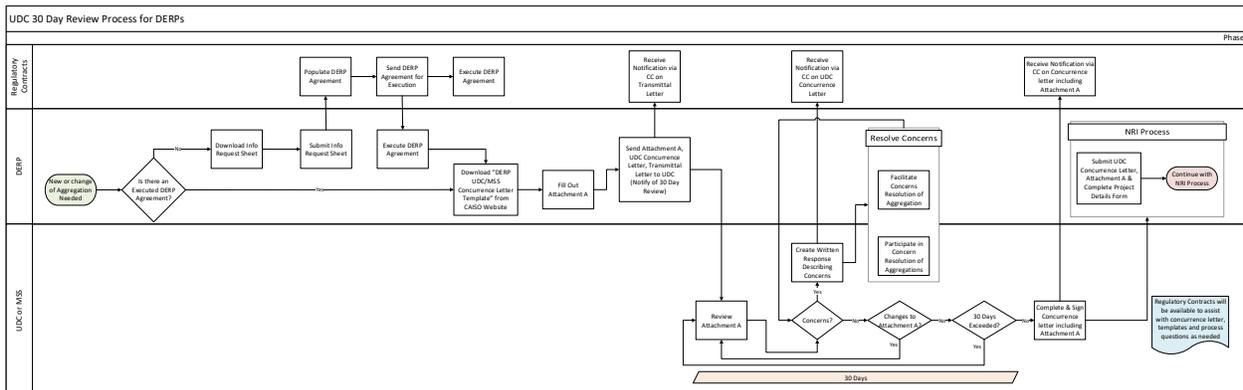
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Settlement Quality Meter Data and have a Meter Service Agreement for Scheduling Coordinators with the CAISO) for all required tariff activities with the CAISO.

Review process by applicable Utility Distribution Company/Metered Sub System

The DERPA requires that the DERP obtain concurrence from the applicable Utility Distribution Company (UDC) / Metered Sub System (MSS) that there are no concerns with any DERAs wholesale market participation. This review and concurrence review process will have a thirty (30) business day turnaround timeframe. It is anticipated that the DERP will have contacted the applicable UDC/MSS prior to submitting a UDC/MSS concurrence letter for processing. It is strongly encouraged that the DERP work with the UDC/MSS in advance of the 30-day concurrence review to reduce or eliminate the identification of concerns during the 30-day conferral period.⁶

The following illustrates the process that must be completed before a DERA enters the CAISO new resource implementation process (NRI):



⁶ CAISO tariff section 4.17.4 provides review concerns that will result in a DERA not being able to proceed with new resource implementation processing

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Using a Scheduling Coordinator

The CAISO requires the use of a certified Scheduling Coordinator (SC) to be eligible to transact business directly with the CAISO⁷. A DERP could endeavor to become a certified Scheduling Coordinator or use an existing certified Scheduling Coordinator. It is important to note that the certification process for a new Scheduling Coordinator could take up to 120 days.

A list of certified Scheduling Coordinators is maintained on the CAISO website. By using a certified Scheduling Coordinator, all requirements, as outlined in the BPM for Scheduling Coordinator Certification and Termination, will be maintained by the Scheduling Coordinator; therefore, the DERP would not have to satisfy these requirements.

Additionally, the Scheduling Coordinator for a DERP must have the authority to represent Scheduling Coordinator Metered Entities. This requires the Scheduling Coordinator to have executed a Meter Service Agreement for Scheduling Coordinators (MSA SC) with the CAISO. The Scheduling Coordinator for a Scheduling Coordinator Metered Entity is responsible for providing settlement quality meter data (SQMD) for the DERPs it represents.

The Scheduling Coordinator for Scheduling Coordinator Metered Entities must conduct (or engage an independent, qualified entity to conduct) an annual SC Self-Audit. The SC Self-Audit must evaluate the process flow of Meter Data beginning with the Validation, Estimation and Editing (VEE) and following the process through submittal of Actual SQMD to the CAISO. (See BPM for Metering for all applicable Scheduling Coordinator for Scheduling Coordinator Metered Entities requirements).

⁷ See Participate tab on the CAISO website for Scheduling Coordinators, <http://www.caiso.com/participate/Pages/SchedulingCoordinator/Default.aspx>

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Definitions

Distributed Energy Resource (DER)

Any resource with a first point of interconnection to a Utility Distribution Company or a Metered Subsystem.

Distributed Energy Resource Aggregation (DERA)

A resource comprised of one or more Distributed Energy Resources.

Distributed Energy Resource Provider (DERP)

The owner/operator of one or more Distributed Energy Resource Aggregations that participates in the CAISO markets as such.

Distributed Energy Resource Provider Agreement (DERPA)

An agreement between the CAISO and a Distributed Energy Resource Provider, a pro forma version of which is set forth in Appendix B.21.