

**COMMENTS FROM
EDPR NORTH AMERICA, EDF- RENEWABLES (EDF-R), INTERSECT POWER,
LARGE-SCALE SOLAR ASSOCIATION (LSA), & SPOWER**

Appendix A

- Area Off-Peak Constraints

A transmission system operating limit that would cause excessive curtailment to a substantial number of Generating Facilities during Off-Peak Load conditions, as described in Section 6.3.2.2 of Appendix DD and the CAISO Off-Peak Deliverability Assessment posted on the CAISO Website.

- Area Off-Peak Network Upgrades (AOPNUs)

A transmission upgrade or addition the CAISO identifies in the Transmission Planning Process to relieve an Area Off-Peak Constraint.

- Assigned Network Upgrade (ANU)

Reliability Network Upgrades, Local Off-Peak Network Upgrades, and Local Delivery Network Upgrades currently assigned to the Interconnection Customer. Assigned Network Upgrades exclude (1) Conditionally Assigned Network Upgrades unless they become Assigned Network Upgrades, and (2) Precursor Network Upgrades.

- Conditionally Assigned Network Upgrade (CANU)

Reliability Network Upgrades, Local Off-Peak Network Upgrades, and Local Delivery Network Upgrades currently assigned to an earlier Interconnection Customer, but which may be assigned to the Interconnection Customer.

- Deliverability Assessment

An evaluation performed pursuant to the CAISO On-Peak Deliverability Assessment posted on the CAISO website, to determine if a Generating Facility or a group of Generating Facilities could provide Energy to the CAISO Controlled Grid and be delivered to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of severely stressed conditionsThe On-Peak Deliverability

Commented [SRS1]: Separate MCRs/MCEs for OPNUs? That seemed to be the CAISO's intent in the stakeholder process. Also need to add language saying that Assigned OPNUs would be the lower of Phase I or Phase II study numbers.

Assessment, or Off-Peak Deliverability Assessment.

- Deliverability Status

An Attributes of a Generating Facility that is requested by an Interconnection Customer for the Generating Facility, assigned by the CAISO to the Generating Facility through the GIP, GIDAP, or other process specified in the CAISO tariff, ~~indicating its ability to deliver its Energy to Load during different conditions, which may and that affects help determine~~ the its maximum Net Qualifying Capacity to which the Generating Facility could be entitled.

Commented [SRS2]: Does not seem right, since (as noted below) these deliverability statuses don't provide any priority in operations or guarantees that energy can be delivered – suggest deleting.

Commented [SRS3]: When would it not help determine NQC – it's not the only factor, but certainly a major one.

- Economic Only

Status for a Generating Facility that prohibits its Scheduling Coordinator from submitting Self-Schedules unless expressly ~~excepted~~ allowed to do so in the CAISO Tariff.

- Local Off-Peak Constraints

A transmission system operating limit modeled in the generator interconnection study process that would be exceeded or lead to excessive curtailment if the CAISO were to assign Off-Peak Deliverability Status to ~~all one or more~~ Generating Facilities interconnecting to the CAISO Controlled Grid in a specific local area ~~requesting such status~~, and that is not an Area Deliverability Constraint.

- Local Off-Peak Network Upgrades (LOPNUs)

A transmission upgrade or addition the CAISO identifies in the generator interconnection study process to relieve a Local Off-Peak Constraint.

- Off-Peak Deliverability Assessment

The technical study performed under ~~GIP Section~~ Section 6.3.2.2 set forth in ~~of~~ Appendix YDD and the CAISO Off-Peak Deliverability Assessment posted on the CAISO Website, to determine if Generating Facilities can provide expected Energy to the CAISO Controlled Grid during off-peak Load conditions without excessive curtailment due to transmission constraints.

- Off-Peak Deliverability Constraints

A transmission system operating limit that constrains Generating Facilities in an area, leading to the excessive curtailment of expected Energy.

- Off-Peak Network Upgrades

Network Upgrades needed to relieve Off-Peak Deliverability Constraints. Area Off-Peak Network Upgrades address Area Off-Peak Constraints. Local Off-Peak Network Upgrades address Local Off-Peak Constraints.

- Off-Peak Deliverability Status

Status for a Generating Facility indicating it can provide expected Energy to the CAISO Controlled Grid during off-peak Load conditions without excessive curtailment due to transmission constraints, and that allows its Scheduling Coordinator to submit Self-Schedules consistent with the CAISO Tariff.

- On-Peak Deliverability Assessment

The technical study performed under GIP Section 6.3.2.1 set forth in Appendix Y or GIDAP Section 6.3.2.1 set forth in Appendix DD and the CAISO On-Peak Deliverability Assessment posted on the CAISO Website, to determine if a Generating Facility or a group of Generating Facilities **requesting Full Capacity Deliverability Status or Partial Capacity Deliverability Status** could provide Energy to the CAISO Controlled Grid **and be that can be** delivered to the aggregate of Load on the CAISO Controlled Grid at peak Load, under a variety of severely stressed conditions.

Appendix DD

2.4.3 The Interconnection Studies.

For Interconnection Requests in Queue Cluster 5 and subsequent Queue Clusters, the Interconnection Studies consist of a Phase I Interconnection Study, a reassessment conducted prior to the commencement of a Phase II Interconnection Study, a Phase II Interconnection Study, and an update to the Phase II Interconnection Study report to reflect the results of a reassessment conducted after the TP Deliverability allocation process for the Queue Cluster.

For Interconnection Requests processed under the Independent Study Process, the Interconnection Studies consist of a system impact and facilities study, and, as applicable to Full Capacity or Partial Capacity Deliverability Status, Phase I and Phase II Interconnection Studies and a reassessment.

2.4.3.1 The Phase I Interconnection Studies

The Phase I Interconnection Studies for Queue Cluster Generating Facilities will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The Phase I Interconnection Studies will identify direct Interconnection Facilities and required Reliability Network Upgrades necessary to interconnect the Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase I Interconnection Studies will also identify LDNUs and LOPNUs for Generating Facilities, including those being processed under the Independent Study Process, that have selected Full Capacity, ~~or~~ Partial Capacity Deliverability Status, and/or Off-Peak Deliverability Status, as applicable. Such LDNUs Network Upgrades shall be identified in accordance with the On-Peak Deliverability Assessments set forth in Section 6.3.2. The Phase I Interconnection Studies will also provide cost estimates for ADNUs and AOPNUs, as described in Section 6.3.2.4-2. The Phase I Interconnection Study report shall include cost estimates for RNUs, LDNUs, ADNUs, LOPNUs, AOPNUs, and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the initial Interconnection Financial Security postings under Section 11.2.

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2.4.3.3 The Phase II Interconnection Studies

The Phase II Interconnection Studies will include, but not be limited to, short circuit/fault duty, steady state (thermal and voltage) and stability analyses, and will identify direct Interconnection Facilities and required RNUs necessary to interconnect the Generating Facility, mitigate thermal overloads and voltage violations, and address short circuit, stability, and reliability issues associated with the requested Interconnection Service. The Phase II Interconnection Studies shall identify LDNUs and LOPNUs for Generating Facilities participating in Phase II (including those being processed under the Independent Study Process) that have elected Full Capacity, ~~or~~ Partial Capacity Deliverability Status, and Off-Peak Deliverability Status, as applicable, and ADNUs for Interconnection Customers selecting Option (B) in accordance with Section 7.2.

The Phase II Interconnection Study report shall also set forth the applicable cost estimates for RNUs, LDNUs, ADNUs, LOPNUs, and AOPNUs, and Participating TOs Interconnection Facilities that shall, as applicable, establish the basis for the second and third Interconnection Financial Security postings under Section 11.3.

Where an Interconnection Study report identifies specific transmission facilities for Network Upgrade or Interconnection Facilities, the cost estimates determined in accordance with Section 6.4 will be set forth in present dollar costs as well as time-adjusted dollar costs, adjusted to the estimated year of expenditure for construction of the components being constructed.

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Section 3 Interconnection Requests

3.5 Processing of Interconnection Requests

3.5.1 Initiating an Interconnection Request.

To initiate an Interconnection Request, except as set forth for the Fast Track Process in Section 5, and have the Interconnection Request considered for validation under Section 3.5.2, the Interconnection Customer must submit all of the following during the Cluster Application Window, or at any time during the year for proposed Generating Facilities applying for processing under the Independent Study Process:

- (i) An Interconnection Study Deposit of \$150,000.
- (ii) A completed application in the form of Appendix 1, including requested Deliverability statuses, requested study process (either Queue Cluster or Independent Study Process), preferred Point of Interconnection and voltage level, and all other required technical data, including all data requested in Attachment A to Appendix 1 in Excel format.

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Section 4 Independent Study Process

4.2.1.2 Requirement Set Number Two: for Requests for Independent Study of Behind-the-Meter Capacity Expansion of Generating Facilities

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- (ii) Business criteria.
 - 1) The Deliverability Status (Full Capacity, Partial Capacity or Energy-Only, and Off-Peak Deliverability Status or Economic Only) of the original Generating Facility will remain the same after the behind-the-meter capacity expansion. The capacity expansion will have Energy-Only, Economic Only Deliverability Statuses unless otherwise specified in this GIDAP, and the original Generating Facility and the behind-the-meter capacity expansion will be metered separately from one another and be assigned separate Resource IDs, except as set forth in (2) below.
 - 2) If the original Generating Facility has Full Capacity Deliverability Status and/or Off-Peak Deliverability Status and the behind-the-meter capacity expansion will use the same technology as the original Generating Facility, the Interconnection Customer may elect to have the original Generating Facility and the behind-the-meter capacity expansion metered together, in which case both the original Generating Facility and the behind-the-meter capacity expansion may have Partial Capacity Deliverability Status and Off-Peak Deliverability Status, as applicable, and a separate Resource ID will not be established for the behind-the-meter capacity expansion.

Commented [SRS4]: This does not seem to reflect current CAISO policy regarding hybrid resources, which: (1) Considers the entire project to be PCDS even if the original project is FCDS; and (2) allows combination of the original and added capacity into a single hybrid Resource ID even where the fuels are different.

Commented [SRS5]: So, even if the expansion is significant, the whole project gets OPDS without paying for any additional OPNUs?

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4.6 Deliverability Assessments

Interconnection Customers under the Independent Study Process that request Partial Capacity, ~~or Full Capacity Deliverability Status~~, or Off-Peak Deliverability Status will be deemed to have selected Option (A) under Section 7.2 and will have ~~a Deliverability Assessments~~ performed as part of the next scheduled Phase I and Phase II Interconnection Studies for the Queue Cluster study performed for the next Queue Cluster Window that opens after the CAISO received the request ~~for Partial Capacity or Full Capacity Deliverability Status~~. If the Deliverability Assessment identifies any ~~LDNUs and ADNUs~~ Network Upgrades that are triggered by the Interconnection Request, the Interconnection Customer will be responsible to pay its proportionate share of the costs of those Upgrades, pursuant to Sections 6, 7, and 8, and for posting Interconnection Financial Security pursuant to the rules for Interconnection Customers in Queue Clusters pursuant to Section 11. If the Generating Facility (or increase in capacity of an existing Generating Facility) achieves its Commercial Operation Date before the Deliverability Assessment is completed and before any necessary Delivery Network Upgrades are in service, the proposed Generating Facility (or increase in capacity) ~~will be treated as an Energy-Only Deliverability Status Generating Facility or Interim Deliverability Status Generating Facility until such Delivery Network Upgrades are in service~~. This Section shall not apply to Interconnection Customers requesting behind-the-meter capacity expansion under Section 4.2.1.2. Separate rules regarding the Deliverability Status of such requests are set forth in that Section.

Commented [SRS6]: It seems like there should be a provision here for Interim and/or Partial Capacity Deliverability Status.

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4.8 Generator Interconnection Agreement

An Interconnection Customer in the Independent Study Process that requests Off-Peak Deliverability Status, Partial Capacity or Full Capacity Deliverability Status must still negotiate and execute a GIA reflecting Economic Only and Energy-Only Deliverability Status pursuant to the requirements and timelines set forth in Section 13. Upon the completion of the Deliverability Assessments per Section 4.6, the Interconnection Customer's GIA will be amended as appropriate to reflect the results thereof.

Section 5 Fast Track Process

5.1 Applicability and Initiation of Fast Track Process Request

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5.2.1 Screens

5.2.1.1 The proposed Generating Facility's Point of Interconnection must be on the CAISO Controlled Grid.

5.2.1.2 For interconnection of a proposed Generating Facility to a radial transmission circuit on the CAISO controlled grid, the aggregated generation on the circuit, including the proposed Generating Facility, shall not exceed 15 percent of the line section annual peak load as most recently measured at the substation. For purposes of this Section 5.2.1.2, a line section shall be considered as that portion of a Participating TO's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the transmission line.

This screen will not be required for a proposed interconnection of a Generating Facility to a radial transmission circuit with no load.

In cases where the circuit lacks the telemetry needed to provide the annual peak load measurement data, the CAISO shall use power flow cases from the latest completed Queue Cluster studies (either Phase I or Phase II) to perform this screen.

5.2.1.3 ~~[Not Used] For Generating Facilities requesting Off-Peak Deliverability Status, the CAISO can determine that the Generating Facility can receive Off-Peak Deliverability Status without participating in the Off-Peak Deliverability Assessment and without Off-Peak Network Upgrades.~~

Commented [SRS7]: What is the rationale for giving these projects or added capacity OPDS without any study participation or OPNU funding?

5.2.1.4 The proposed Generating Facility, in aggregate with other Generating Facilities on the transmission circuit, shall not contribute more than 10 percent to the transmission circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

The CAISO shall use the short circuit study data from the latest completed Queue Cluster studies (either Phase I or Phase II) to test this screen.

5.2.1.5 The proposed Generating Facility, in aggregate with other Generating Facilities on the transmission circuit, shall not cause any transmission protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5 percent of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5 percent of the short circuit interrupting capability.

The CAISO shall use the short circuit study data from the most recently completed Queue Cluster studies (either Phase I or Phase II) to test this screen.

5.2.1.6 A Generating Facility will fail this initial review, but will be eligible for a supplemental review, if it proposes to interconnect in an area where there are known transient stability, voltage, or thermal limitations identified in the most recently completed Queue Cluster studies or transmission planning process.

5.2.1.7 No construction of facilities by a Participating TO on its own system shall be required to accommodate the proposed Generating Facility.

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Section 6 Initial Activities and Phase I of the Interconnection Study Process for Queue Clusters

The provisions of this Section 6 shall apply to all Interconnection Requests except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process as set forth in Appendix 7.

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6.2. Scope and Purpose of Phase I Interconnection Study

The Phase I Interconnection Study shall:

- (i) evaluate the impact of all Interconnection Requests received during the Cluster Application Window for a particular year on the CAISO Controlled Grid;

- (ii) preliminarily identify all LDNUs, LOPNUs, and RNUs needed to address the impacts on the CAISO Controlled Grid of the Interconnection Requests, as Assigned Network Upgrades or Conditionally Assigned Network Upgrades;
- (iii) preliminarily identify for each Interconnection Request required Interconnection Facilities;
- (iv) assess the Point of Interconnection selected by each Interconnection Customer and potential alternatives to evaluate potential efficiencies in overall transmission upgrades costs;
- (v) establish the Current Cost Responsibility, Maximum Cost Responsibility, and Maximum Cost Exposure for each Interconnection Request, until the issuance of the Phase II Interconnection Study report;
- (vi) provide a good faith estimate of the cost of Interconnection Facilities for each Interconnection Request;
- (vii) provide a cost estimate of ADNUs and AOPNUs for each Generating Facility in a Queue Cluster Group Study;
- (viii) identify any Precursor Network Upgrades; and
- (ix) identify RNUs as GRNUs or IRNUs.

The Phase I Interconnection Study will consist of a short circuit analysis, a stability analysis to the extent the CAISO and applicable Participating TO(s) reasonably expect transient or voltage stability concerns, a power flow analysis, including off-peak analysis, and an On-Peak Deliverability Assessment, (and an Off-Peak Deliverability Assessment ~~which will be for informational purposes only~~) for the purpose of identifying LDNUs and LOPNUs and estimating the cost of ADNUs and AOPNUs, as applicable.

The Phase I Interconnection Study will state for each Group Study or Interconnection Request studied individually (i) the assumptions upon which it is based, (ii) the results of the analyses, and (iii) the requirements or potential impediments to providing the requested Interconnection Service to all Interconnection Requests in a Group Study or to the Interconnection Request studied individually.

The Phase I Interconnection Study will provide, without regard to the requested Commercial Operation Dates of the Interconnection Requests, a list of RNUs, LOPNUs, and LDNUs to the CAISO Controlled Grid that are preliminarily identified as Assigned Network Upgrades or Conditionally Assigned Network Upgrades required as a result of the Interconnection Requests in a Group Study or as a result of any Interconnection Request studied individually and Participating TO's Interconnection Facilities associated with each Interconnection Request, the estimated costs of ADNUs and AOPNUs, if applicable, and an estimate of any other financial impacts (i.e., on Local Furnishing Bonds).

6.3 Identification of and Cost Allocation for Network Upgrades

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6.3.2 Delivery Network Upgrades.

6.3.2.1 The On-Peak Deliverability Assessment.

The CAISO, in coordination with the applicable Participating TO(s), shall perform

On-Peak Deliverability Assessments for Interconnection Customers selecting Full Capacity or Partial Capacity Deliverability Status in their Interconnection Requests. The On-Peak Deliverability Assessment shall determine the Interconnection Customer's Generating Facility's ability to deliver its Energy to the CAISO Controlled Grid under peak load conditions, and identify preliminary Delivery Network Upgrades required to provide the Generating Facility with Full Capacity or Partial Capacity Deliverability Status. The Deliverability Assessment will consist of two rounds, the first of which will identify any transmission constraints that limit the Deliverability of the Generating Facilities in the Group Study and will identify LDNUs to relieve the local constraints, and second of which will determine ADNUs to relieve the area constraints. The On-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or Delivery Point, nor guarantee any level of transmission capacity or avoided curtailment.

Commented [SRS8]: Same as language added below for OPNUs, for which it also applies.

6.3.2.1.1 Local Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used to establish the Maximum Cost Responsibility and Maximum Cost Exposure for LDNUs for each Interconnection Customer selecting Full Capacity or Partial Capacity Deliverability Status. Deliverability of a new Generating Facility will be assessed on the same basis as all existing resources interconnected to the CAISO Controlled Grid.

The methodology for the On-Peak Deliverability Assessment will be published on the CAISO Website or, when effective, included in a CAISO Business Practice Manual. The On-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or Delivery Point. The cost of LDNUs identified in the On-Peak Deliverability Assessment as part of a Phase I Interconnection Study shall be estimated in accordance with Section 6.4. The estimated costs of Delivery Network Upgrades identified in the On-Peak Deliverability Assessment shall be assigned to all Interconnection Requests selecting Full Capacity or Partial Capacity Deliverability Status based on the flow impact of each such Generating Facility on the Delivery Network Upgrades as determined by the Generation distribution factor methodology set forth in the On-Peak Deliverability Assessment methodology.

6.3.2.1.2 Area Delivery Network Upgrades

The On-Peak Deliverability Assessment will be used in the Phase I Interconnection Studies to identify those facilities necessary to provide the incremental Deliverability between the level of TP Deliverability and such additional amount of Deliverability as is necessary for the MW capacity amount of generation targeted in the Phase I Interconnection Studies. Based on such facility cost estimates, the CAISO will calculate a rate for ADNU costs equal to the facility cost estimate divided by the additional amount of Deliverability targeted in the study. The Phase I Interconnection Studies shall provide a cost estimate for each Interconnection Customer which equals the rate multiplied by the requested deliverable MW capacity of the Generating Facility in the Interconnection Request.

6.3.2.1.3 [Intentionally Omitted]

6.3.2.2 Off-Peak Deliverability Assessment.

The CAISO, in coordination with the applicable Participating TO(s), shall perform an Off-Peak Deliverability Assessment to identify transmission upgrades in addition to those Delivery Network Upgrades identified in the On-Peak Deliverability Assessment, if any, for a Group Study or individual Phase I Interconnection Study that includes one or more Location Constrained Resource Interconnection Generators (LCRIG), where the fuel source or source of energy for the LCRIG substantially occurs during off-peak conditions.

The transmission upgrades identified under this Section shall comprise those needed for the ~~full maximum megawatt electrical expected~~ output of each proposed new LCRIG or the amount of megawatt increase in the generating capacity of each existing LCRIG as listed by the Interconnection Customer in its Interconnection Request, whether studied individually or as a Group Study, to be deliverable to the aggregate of Load on the CAISO Controlled Grid under the Generation dispatch conditions studied ~~without excessive curtailment~~. The methodology for the Off-Peak Deliverability Assessment will be published on the CAISO Website or, if applicable, included in a CAISO Business Practice Manual.

The CAISO will perform the Off-Peak Deliverability Assessment ~~for Interconnection Customer informational purposes only~~ to identify Off-Peak Network Upgrades required for Generating Facilities to achieve Off-Peak Deliverability Status, and any such upgrades identified in the Off-Peak Deliverability Assessment as part of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. ~~The Off-Peak Deliverability Assessment does not convey any right to deliver electricity to any specific customer or Delivery Point, nor guarantee any level of deliverability, or transmission capacity, or avoided curtailment.~~

~~The estimated costs of Local Off-Peak Network Upgrades identified in the Off-Peak Deliverability Assessment will be assigned or conditionally assigned to Interconnection Requests selecting Off-Peak Deliverability Status based on the flow impact of each such Generating Facility on the Off-Peak Network Upgrades as determined by the Generation distribution factor methodology set forth in the Off-Peak Deliverability Assessment methodology.~~

~~The estimated costs of Area Off-Peak Network Upgrades are for information only and not assigned to any Interconnection Requests.~~

All Interconnection Requests are eligible to request Off-Peak Deliverability Status ~~unless if~~ they:

- ~~(i) are not Location Constrained Resource Interconnection Generators, and~~
- ~~(ii) have a fuel source of energy that does not substantially occurs during off-peak conditions, and~~
- ~~(iii) are Energy Only.~~

~~The estimated costs of such upgrades identified in the assessment will be referred to as "off peak Deliverability transmission upgrades," the description of such upgrades in any report will be conceptual in nature, and such transmission~~

Commented [SRS9]: Also true of the On-Peak Deliverability Assessment (see above), except for the reference to deliverability.

Commented [SRS10]: Easier to understand without the double negatives.

Commented [SRS11]: "Off-peak conditions" should be a defined term. For example, the CAISO should clarify that solar projects are considered "off-peak" for these purposes.

Better yet, just delete this provision entirely, i.e., just say that LCRIGs can request OPDS, period. Restriction (ii) was not discussed in the stakeholder process anyway. Moreover, the definition of "off-peak hours" may change over time.

Commented [SRS12]: Why couldn't an Energy Only resource request OPDS? That restriction was not discussed in the stakeholder process and should be deleted here.

Commented [SRS13]: Should say that new non-LGRIG FCDS or PCDS projects would receive OPDS automatically, even if they do not have to "request" it separately. For example, new natural-gas projects may not be eligible to "request" OPDS by this definition but would still receive it if they get FCDS or PCDS.

upgrades will not be included as an Assigned Network Upgrade or Conditionally Assigned Network Upgrade within the applicable Interconnection Study report.

The cost of all transmission upgrades identified in the Off-Peak Deliverability Assessment performed during the course of the Phase I Interconnection Study shall be estimated in accordance with Section 6.4. However, because these transmission upgrades shall be conceptual in nature only these upgrades shall be treated as follows:

- (i) these transmission upgrades will not be required for the proposed Generating Facility (or proposed increase in capacity) that is the subject to the Interconnection Request to achieve Full Capacity Deliverability Status;
- (ii) the estimated costs for these transmission upgrades shall not be assigned to any Interconnection Customer in an Interconnection Study report, such costs shall not be considered in determining the Current Cost Responsibility or Maximum Cost Responsibility of the Interconnection Customer for Network Upgrades under this or in determining the Interconnection Financial Security than an Interconnection Customer must post under Section 11;
- (iii) and the applicable Participating TO(s) shall not be responsible under this for financing or constructing such transmission upgrades.

6.3.2.3 Transition to Off-Peak Deliverability Status

The CAISO will assign Off-Peak Deliverability Status to active Generating Facilities Interconnection Customers following the 2020 TP Deliverability allocation cycle based on the provisions described below. The Effective Date of this provision is set at (DATE).

- Generating Facilities in the following categories will automatically receive Off-Peak Deliverability Status:
 - Generating Facilities that have reached Commercial Operation by the Effective Date.
 - Generating Facilities active in the Generator Interconnection Queue as of the Effective Date with Full Capacity Deliverability Status or Partial Capacity Deliverability Status.
 - Generating Facilities active in the Generator Interconnection Queue as of the Effective Date with Energy Only Deliverability Status that do not contain LCRIG generation.
 - Generating Facilities without LCRIG generation entering the Generator Interconnection Queue after the Effective Date of this provision that are assigned deliverability (Full Capacity Deliverability Status or Partial Capacity Deliverability Status).
- Generating Facilities studied in Cluster 11 that requested Full Capacity Deliverability Status or Partial Capacity Deliverability Status will be assumed to have requested Off-Peak Deliverability Status. The cost of any Off-Peak Deliverability Upgrades required to provide that status will be determined in the Phase II Study. Such projects may select Economic Only status within XXX days of receiving their Phase II

Commented [SRS14]: Suggested rewrite below, with a few additional details. (Included comments on the language suggested for deletion, in case you don't delete it.)

Commented [SRS15]: The facilities receive the status, not the ICs. Same terminology issues throughout the tariff.

Commented [SRS16]: Define what is meant by an "allocation cycle." Does this mean right after the allocation (e.g., around April 2020)?

Commented [SRS17]: Keeping your earlier terminology, but it would be clearer to just say wind or solar.

Studies, and they will have no responsibility for any assigned costs for associated Off-Peak Deliverability Upgrades.

- Generating Facilities with LCRIG generation active in the Generator Interconnection Queue as of the Effective Date with Energy Only Deliverability Status may request Off-Peak Deliverability Status through the 2020 Interconnection Request Application Window, as described further below in Section 9.1. Notwithstanding any provision of this GIDAP, the CAISO will study those Off-Peak Deliverability Status requests together with Queue Cluster 13 and assign the allocated cost of any required Local Off-Peak Network Upgrades to them pursuant to this Section 6.3.2. Such Generating Facility GIAs, Current Cost Responsibilities, Maximum Cost Responsibilities, and Maximum Cost Exposures will be amended to reflect the additional costs of assigned Local Off-Peak Network Upgrades.

All Non-Generator Resources in the CAISO Markets will receive or be eligible to request Off-Peak Deliverability Status on the same basis as Generating Facilities in this section.

The CAISO will consider Interconnection Customers' Deliverability Status based on the results of that cycle in determining eligibility for Off-Peak Deliverability Status. Active CAISO Interconnection Requests received before [[effective date]] for Energy Only Generating Facilities that would be eligible to receive Off-Peak Deliverability Status pursuant to this Section 6.3.2 will have a one-time opportunity to request Off-Peak Deliverability Status. Notwithstanding any provision of this GIDAP, if such Interconnection Customers request Off-Peak Deliverability Status, the CAISO will study those requests in the next Interconnection Study, and assign any required Local Off-Peak Network Upgrades to them pursuant to this Section 6.3.2, and their Interconnection Studies will be amended to include the assigned costs for those Network Upgrades. Such Interconnection Customers' GIAs, Current Cost Responsibilities, Maximum Cost Responsibilities, and Maximum Cost Exposures also will be amended to reflect the additional costs of assigned Local Off-Peak Network Upgrades.

All CAISO Interconnection Requests for Full Capacity Deliverability Status or Partial Capacity Deliverability Status received before [[effective date]] will automatically receive Off-Peak Deliverability Status. All CAISO Interconnection Requests received before [[effective date]] for Generating Facilities that are not Location-Constrained Resource Interconnection Generators, regardless of Deliverability Status, will automatically receive Off-Peak Deliverability Status.

Interconnection Customers that achieved their Commercial Operation Date before [[effective date]] will have Off-Peak Deliverability Status pursuant to Sections 30.5.2.2.1 and 30.5.6.1 of the CAISO Tariff.

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6.7.2 Modifications.

- 6.7.2.1** At any time during the course of the Interconnection Studies, the Interconnection Customer, the applicable Participating TO(s), or the CAISO may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes are acceptable to the applicable Participating TO(s), the CAISO, and

Commented [SRS18]: This was unclear in the stakeholder process but would be fair. They won't know any OPNU costs based on their Phase I Study results, so it's not fair to make them determine whether they want OPDS right after that study.

Commented [SRS19]: Includes hybrids as well as wind or solar

Commented [SRS20]: Include here for completeness – don't make people jump around.

Commented [SRS21]: Moved here from below.

Commented [SRS22]: What does that mean?

Commented [SRS23]: Should reference the Cluster 13 window, if the intent is that such requests would be submitted there.

Commented [SRS24]: Unclear, since the CAISO did not amend the MCR or MCE definition to provide for separation of RNU/LDNU and OPNU costs – see above.

Interconnection Customer, such acceptance not to be unreasonably withheld, the CAISO shall modify the Point of Interconnection and/or configuration in accordance with such changes without altering the Interconnection Request's eligibility for participating in Interconnection Studies.

6.7.2.2 At the Phase I Interconnection Study Results Meeting, the Interconnection Customer should be prepared to discuss any desired modifications to the Interconnection Request. After the issuance of the final Phase I Interconnection Study, but no later than ten (10) Business Days following the Phase I Interconnection Study Results Meeting, the Interconnection Customer shall submit to the CAISO, in writing, modifications to any information provided in the Interconnection Request. The CAISO will forward the Interconnection Customer's modification to the applicable Participating TO(s) within one (1) Business Day of receipt.

Modifications permitted under this Section shall include specifically: (a) a decrease in the electrical output (MW) of the proposed project; (b) modifying the technical parameters associated with the Generating Facility technology or the Generating Facility step-up transformer impedance characteristics; (c) modifying the interconnection configuration; (d) modifying the In-Service Date, Initial Synchronization Date, Trial Operation Date, and/or Commercial Operation Date that meets the criteria set forth in Section 3.5.1.4 and is acceptable to the applicable Participating TO(s) and the CAISO, such acceptance not to be unreasonably withheld; (e) change in Point of Interconnection as set forth in Section 6.7.2.1; ~~and~~ (f) change in Deliverability Status to Energy Only Deliverability Status, Partial Capacity Deliverability Status, or a lower fraction of Partial Capacity Deliverability Status; and (g) change from Off-Peak Deliverability Status to Economic Only.

...

7.2 **Full/Partial Capacity Deliverability Options for Interconnection Customers**

This section applies to Interconnection Requests for which the Generating Facility Deliverability Status is either Full Capacity or Partial Capacity.

Within such Appendix B, the Interconnection Customer must select one of two options with respect to its Generating Facility:

Option (A), which means that the Generating Facility requires TP Deliverability to be able to continue to Commercial Operation. If the Interconnection Customer selects Option (A), then the Interconnection Customer shall be required to make an initial posting of Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs, ~~LOPNUs~~, and LDNUs; or,

Option (B), which means that the Interconnection Customer will assume cost responsibility for Delivery Network Upgrades (both ADNUs and LDNUs, to the extent applicable) without cash repayment under Section 14.2.1 to the extent that sufficient TP Deliverability is not allocated to the Generating Facility to provide its requested Deliverability Status. If the Interconnection Customer selects Option (B) then the Interconnection Customer shall be required to make an initial posting of Interconnection Financial Security under Section 11.2 for the cost responsibility assigned to it in the Phase I Interconnection Study for RNUs, LDNUs, ~~LOPNUs~~, and ADNUs. To qualify to receive any allocation of TP Deliverability, Interconnection Customers selecting Option (B) must still meet the minimum criteria identified in Section 8.9.2.

7.3 **Postings and Cost Estimates for Network Upgrades**

Commented [SRS25]: See below. It seems like you need a separate section for OPNUs, since the selection of OPDS is not related to the selection of FCDS/PCDS.

Commented [SRS26]: Mixing apples and oranges. They don't need to post any money for LOPNUs unless they elect OPDS – has nothing to do with whether they select FCDS/PCDS, or Options A/B.

Notwithstanding the Interconnection Customer's Maximum Cost Responsibility and Maximum Cost Exposure, until such time as the Phase II Interconnection Study report is issued to the Interconnection Customer, the allocated costs for Assigned Network Upgrades for each Interconnection Customer for RNUs, LOPNUs, and LDNUs in the Phase I Interconnection Study report shall establish the value for

- (i) each Interconnection Customer's Current Cost Responsibility; and
- (ii) the initial posting of Interconnection Financial Security required from each Interconnection Customer under Section 11.2 for such Network Upgrades.

...

Section 8 Phase II Interconnection Study and TP Deliverability Allocation Processes

The provisions of this Section 8 shall apply to all Interconnection Requests under this GIDAP except those processed under the Independent Study Process selecting Energy Only Deliverability Status, the Fast Track Process, or the 10 kW inverter process.

8.1 Scope of Phase II Interconnection Study

8.1.1 Purpose of the Phase II Interconnection Study

The CAISO, in coordination with the applicable Participating TO(s), will conduct a Phase II Interconnection Study that will incorporate eligible Interconnection Requests from the previous Phase I Interconnection Study. The Phase II Interconnection Study shall:

- (i) update, as necessary, analyses performed in the Phase I Interconnection Studies to account for the withdrawal of Interconnection Requests from the current Queue Cluster;
- (ii) identify final GRNUs and IRNUs needed in order to achieve Commercial Operation status for the Generating Facilities and provide final cost estimates;
- ~~(iv) (iii) — identify final LDNUs needed to interconnect those Generating Facilities selecting Full Capacity or Partial Capacity Deliverability Status and provide final cost estimates;~~
- ~~(v) identify, and final LOPNUs needed for Generating Facilities selecting Off-Peak Deliverability Status, and provide final cost estimates;~~
- (iv) identify final ADNUs for Interconnection Customers selecting Option (B), as provided below and provide revised cost estimates;
- (v) identify, for each Interconnection Request, the Participating TO's Interconnection Facilities for the final Point of Interconnection and provide a +/-20% cost estimate;
- (vi) coordinate in-service timing requirements based on operational studies in order to facilitate achievement of the Commercial Operation Dates of the Generating Facilities;
- (vii) update the Interconnection Customer's Current Cost Responsibility, Maximum Cost Responsibility, and Maximum Cost Exposure, as applicable; and

Commented [SRS27]: Grammatically, just need a separate bullet.

- (viii) provide updated Precursor Network Upgrades needed to achieve the Commercial Operation status and Deliverability Status for the Generating Facilities.

The Phase II Interconnection Study report shall set forth the applicable cost estimates for Network Upgrades and Participating TOs Interconnection Facilities that shall be the basis for Interconnection Financial Security Postings under Section 11.3. Where the Maximum Cost Responsibility is based upon the Phase I Interconnection Study (because it is lower under Section 10.1), the Phase II Interconnection Study report shall recite this fact.

To the extent the CAISO determines that previously identified Conditionally Assigned Network Upgrades become Precursor Network Upgrades pursuant to Section 14.2.2, or are otherwise removed, the CAISO will reduce the Interconnection Customer's Maximum Cost Exposure, as applicable. To the extent the CAISO determines that a Conditionally Assigned Network Upgrade becomes an Assigned Network Upgrade, the CAISO will adjust the Interconnection Customer's Current Cost Responsibility and Maximum Cost Responsibility.

...

8.2 Determining Phase II Network Upgrades

8.2.1 Reliability Network Upgrades, and Local Delivery Network Upgrades, and Local Off-Peak Network Upgrades

RNUs, LOPNUs, and LDNUs will be identified on the basis of all Interconnection Customers in the current Queue Cluster requesting Full or Partial Capacity Deliverability Status, regardless of whether they have selected Option (A) or (B).

LOPNUs will be identified on the basis of all Interconnection Customers in the current Queue Cluster regardless of whether they have selected: (1) Full or Partial Capacity Deliverability Status or Energy Only Deliverability Status; or (2) Off-Peak Deliverability Status or Economic Only.

...

8.4.1 Cost Responsibility for Local Off-Peak Network Upgrades

The estimated costs of Local Off-Peak Network Upgrades identified in the Off-Peak Deliverability Assessment will be assigned or conditionally assigned to Interconnection Requests selecting Off-Peak Deliverability Status based on the flow impact of each such Generating Facility on the Off-Peak Network Upgrades as determined by the Generation distribution factor methodology set forth in the Off-Peak Deliverability Assessment methodology.

...

Section 9 Additional Deliverability Assessment Options

9.1 ~~Intentionally Omitted~~ 2020 One-Time TP Deliverability Allocation Process

~~Notwithstanding the allocation order described in Section 8.9.2, following the process set forth in Section 8.9.1, the CAISO will allocate any remaining TP Deliverability in the following order for the 2020 TP Deliverability allocation cycle. Following the 2020 allocation cycle, this Section 9.1 will only not be used for the 2020 allocation cycle, and thereafter the CAISO will allocate TP Deliverability pursuant to Section 8.9.2. All other provisions of Section 8.9 will apply to the 2020~~

Commented [SRS28]: Very confusing language, and not necessary.

allocation cycle unless expressly excepted in this Section 9.1.

The CAISO will allocate available TP Deliverability to all or a portion of the full MW capacity of the Generating Facility as specified in the Interconnection Request. Where a criterion is met by a portion of the full MW generating capacity of the Generating Facility, the eligibility score associated with that criterion will apply to the portion that meets the criterion. The demonstration must relate to the same proposed Generating Facility as described in the Interconnection Request. The CAISO will allocate TP Deliverability in the following order:

- (1) To Interconnection Customers in the current Queue Cluster or coming out of parking that have executed power purchase agreements, and to Interconnection Customers in the current Queue Cluster that are Load Serving Entities serving their own Load.
- (2) To Interconnection Customers in the current Queue Cluster or coming out of parking that are actively negotiating a power purchase agreement or on an active short list to receive a power purchase agreement.
- (3) To Energy Only Interconnection Customers that have not achieved their Commercial Operation Date, originally requested Full Capacity Deliverability Status or Partial Capacity Deliverability Status, and have executed power purchase agreements; and to Energy Only Interconnection Customers that have achieved their Commercial Operation Date and have executed power purchase agreements.
- (4) To Energy Only Interconnection Customers that have not achieved their Commercial Operation Date, originally requested Full Capacity Deliverability Status or Partial Capacity Deliverability Status, and are actively negotiating a power purchase agreement or on an active short list to receive a power purchase agreement; and to Energy Only Interconnection Customers that have achieved their Commercial Operation Date and are actively negotiating a power purchase agreement or on an active short list to receive a power purchase agreement.
- (5) To Energy Only Interconnection Customers that originally requested Full Capacity Deliverability Status or Partial Capacity Deliverability Status but achieved their Commercial Operation Date as Energy Only.
- (6) To Energy Only Interconnection Customers that achieved their Commercial Operation Date.
- (7) To Interconnection Customers that elect to proceed without a power purchase agreement, and elect to be subject to Section 8.9.2.2.

Only groups one and two and Interconnection Customers in group seven that already have Full Capacity Deliverability Status may trigger the construction of new Delivery Network Upgrades pursuant to Section 6.3.2. The CAISO will allocate TP Deliverability to groups three, four, five, six, and Energy Only Interconnection Customers in group seven based on TP Deliverability available from existing transmission facilities, from already planned/approved upgrades in the CAISO Transmission Planning Process, or upgrades under construction.

Energy Only Interconnection Customers requesting Deliverability must submit to the CAISO a \$60,000 study deposit for each Interconnection Request seeking TP Deliverability. The CAISO will deposit these funds in an interest-bearing account at a bank or financial institution designated by the CAISO. The funds will be applied to pay for prudent costs incurred by the CAISO, the Participating TO(s), and/or third parties at the direction of the CAISO or applicable Participating TO(s), as applicable, to perform and administer the TP Deliverability studies for the Energy Only Interconnection Customers. Any and all costs of the Energy Only TP Deliverability

Commented [SRS29]: This never made sense. If they already have FCDS, why would they need to request deliverability in this TPD allocation?

study will be borne by the Interconnection Customer. The CAISO will coordinate the study with the Participating TO(s). The Participating TO(s) will invoice the CAISO for any work within seventy-five (75) calendar days of completion of the study, and, within thirty (30) days thereafter, the CAISO will issue an invoice or refund to the Interconnection Customer, as applicable, based upon such submitted Participating TO invoices and the CAISO's own costs for the study. If the actual costs of the study are greater than the deposit provided by the Interconnection Customer, the Interconnection Customer will pay the balance within thirty (30) days of being invoiced.

All power purchase agreements in this Section 9.1 must require Deliverability for the Interconnection Customer to represent that it has, is negotiating, or is shortlisted for a power purchase agreement. For all TP Deliverability allocations based upon having, negotiating, or being shortlisted for power purchase agreements, the CAISO will allocate TP Deliverability up to the amount of deliverable MW capacity procured by the power purchase agreement. All Load Serving Entities building Generating Facilities to serve their own Load must be doing so to fulfill a regulatory requirement that warrants Deliverability. Load Serving Entities acting as Interconnection Customers are otherwise eligible for all other attestations.

Interconnection Customers will be assigned a numerical score reflecting their demonstration of having met the criteria described in 8.9.2.1 under the methodology set forth in the Business Practice Manual, and a fourth criteria:

(4) Commercial Operation Date

- a. The Interconnection Customer's Commercial Operation Date is in 2020 or earlier.
- b. The Interconnection Customer's Commercial Operation Date is in 2021.
- c. The Interconnection Customer's Commercial Operation Date is in 2022.
- d. The Interconnection Customer's Commercial Operation Date is in 2023 or later.

In allocating TP Deliverability, in a situation where the TP Deliverability cannot accommodate all of the Interconnection Customers in a qualifying group, the CAISO will allocate TP Deliverability based on the highest numerical score. In a situation where the available amount of TP Deliverability cannot accommodate all Interconnection Customers with equal scores, the CAISO will allocate the TP Deliverability to the Interconnection Customers with the lowest LDNU cost estimates, then based on the weighted least square algorithm. For all TP Deliverability allocations based upon having, negotiating, or being shortlisted for power purchase agreements, the CAISO will allocate TP Deliverability up to the amount of deliverable MW capacity procured by the power purchase agreement.

9.2 [Intentionally Omitted]

Section 10 Cost Responsibility for Interconnection Customers

10.1 Interconnection Customers in a Queue Cluster.

- (a) RNUs, LOPNUs, and LDNUs. The Interconnection Studies will establish Interconnection Customers' Current Cost Responsibility, Maximum Cost Responsibility, and Maximum Cost Exposure consistent with the cost allocations described in Section 8. The CAISO will adjust Interconnection Customers' cost responsibilities as described in this GIDAP. Interconnection Customers will post Interconnection Financial Security based on their Current Cost Responsibility.

Commented [SRS30]: Add language that:

-Awards based on PPAs must have regulatory approval for the PPAs by the next cycle; and

-Those based on short-list/active negotiations status must have executed PPAs by the next cycle and regulatory approval for the PPAs by the cycle after that.

- (b) AOPNUs and ADNUs. Only Interconnection Customers selecting Option (A) must de not post Interconnection Financial Security for ADNUs. All No Interconnection Customers de not post Interconnection Financial Security for AOPNUs. The Current Cost Responsibility provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security Posting under Section 11.2. For Interconnection Customers selecting Option (B), the Phase II Interconnection Studies shall refresh the Current Cost Responsibility for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

Commented [SRS31]: Again, get away from the double negatives.

The ADNU and AOPNU cost estimates provided in any Interconnection Study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs or AOPNUs. However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNUs adjusted in the reassessment process undertaken under Section 7.4. Accordingly, for such Interconnection Customers, the most recent annual reassessment undertaken under Section 7.4 shall provide the most recent cost estimates for the Interconnection Customer's ADNUs.

10.2 Interconnection Customers in the Independent Study Process.

- (a) Assigned Network Upgrades. The Current Cost Responsibility for the Interconnection Customer's Financial Security for RNUs shall be established by the costs for such Network Upgrades assigned to the Interconnection Customer in the final system impact and facilities study report.

For such Interconnection Customers choosing Full Capacity or Partial Capacity Deliverability status, the maximum value of LDNUs shall be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final Phase I Interconnection Study or the final Phase II Interconnection Study.

For such Interconnection Customers choosing Off-Peak Deliverability Status, the maximum value of LOPNUs will be established by the lesser of the costs for such Network Upgrades assigned to the Interconnection Customer in the final Phase I Interconnection Study or the final Phase II Interconnection Study.

Commented [SRS32]: Implies a separate MCR and MCE for OPNUs, but that seems inconsistent with cluster-study treatment, and no separate OPNU MCR/MCE is defined.

The Interconnection Customer's Maximum Cost Responsibility shall be subject to further adjustment based on the results of the annual reassessment process, as set forth in Section 7.4.

- (b) ADNUs and AOPNUs. Only Interconnection Customers selecting Option (A) must de not post Interconnection Financial Security for ADNUs. The Current Cost Responsibility provided in the Phase I Interconnection Studies establishes the basis for the initial Interconnection Financial Security posting under Section 11.2. For Interconnection Customers selecting Option (B), the Phase II Interconnection Studies shall refresh the Current Cost Responsibility for ADNUs and shall provide the basis for second and third Interconnection Financial Postings as specified in Section 11.

The ADNU cost estimates provided in any study report are estimates only and do not provide a maximum value for cost responsibility to an Interconnection Customer for ADNUs. However, subsequent to the Interconnection Customer's receipt of its Phase II Interconnection Study report, an Interconnection Customer having selected Option (B) may have its ADNU adjusted in the reassessment process undertaken under Section 7.4.

Interconnection Customers do not post Interconnection Financial Security for AOPNUs.

...

11.2.3 Posting Amount for Network Upgrades.

11.2.3.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster shall post an Interconnection Financial Security instrument as follows:

- 1) Interconnection Customers selecting Energy Only Deliverability Status must post for assigned RNUs and assigned LOPNUs, if any.

The posting amount for such RNUs and LOPNUs shall equal the lesser of fifteen percent (15%) of the Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

- 2) Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity Deliverability Status must post for assigned RNUs, LOPNUs, and LDNUs, if any.

The posting amount for such RNUs, LOPNUs, and LDNUs shall equal the lesser of fifteen percent (15%) of the Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

- 3) Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for assigned RNUs, LDNUs, LOPNUs, and ADNUs, if any.

The posting amount for such RNUs, LDNUs, LOPNUs, and ADNUs shall equal the lesser of fifteen percent (15%) of the ADNU costs and total Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades or (ii) \$20,000 per megawatt of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, but in no event less than \$50,000.

11.2.3.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster shall post an Interconnection Financial Security instrument as follows:

- 1) Interconnection Customers selecting Energy Only Deliverability Status must post for assigned RNUs and assigned LOPNUs, if any.

The posting amount for such RNUs and LOPNUs shall equal the lesser of (i) fifteen percent (15%) of the total RNU Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

In addition, if an Interconnection Customer switches its status from Full Capacity Deliverability Status or Partial Capacity Deliverability Status to Energy-Only Deliverability Status within ten (10) Business Days following the Phase I Interconnection Study Results Meeting, the required Interconnection Financial Security for Network Upgrades shall, for purposes of this section, be additionally capped at an amount no greater than the Current Cost Responsibility assigned to the Interconnection Customer in the Phase I Interconnection Study for Reliability Network Upgrades.

- 2) Interconnection Customers selecting Option (A) Full Capacity or Partial Capacity Deliverability Status must post for assigned RNUs, LOPNUs, and LDNUs, if any.

The posting amount for such RNUs and LDNUs shall equal the lesser of (i) fifteen percent (15%) of the Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

- 3) Interconnection Customers selecting Option (B) Full Capacity or Partial Capacity Deliverability Status must post for assigned RNUs, LDNUs, LOPNUs, and ADNUs, if any.

The posting amount for such RNUs, LDNUs, LOPNUs, and ADNUs shall equal the lesser of (i) fifteen percent (15%) of the ADNU costs and the total Current Cost Responsibility assigned to the Interconnection Customer in the final Phase I Interconnection Study for Network Upgrades, (ii) \$20,000 per megawatt of electrical output of the Large Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by the Interconnection Customer in its Interconnection Request, including any requested modifications thereto, or (iii) \$7,500,000, but in no event less than \$500,000.

...

11.3.1.3

Posting Requirements and Timing for Parked Option (A) Generating Facilities

For an Interconnection Customer choosing Option (A) whose Generating Facility was not allocated TP Deliverability in either the first TP Deliverability allocation following its receipt of the final Phase II Interconnection Study or the TP Deliverability allocation after parking, and who chooses to park the Interconnection Request, the posting due date will be extended by 12 months consistent with each parking election after the initial allocation process.

For an Interconnection Customer choosing Option (A) whose Generating Facility was allocated TP Deliverability for less than the full amount of its Interconnection Request, and who chooses to seek additional TP Deliverability for the remainder of the requested Deliverability of the Interconnection Request in the next allocation cycle, the postings for RNU, Participating TO Interconnection Facilities, LOPNUs, and for LDNUs corresponding to the initial allocation of TP Deliverability will be due in accordance with the dates specified in this Section 11. The posting due date for the LDNUs corresponding to the remainder of the requested Deliverability will be extended by 12 months consistent with each parking election after the initial allocation process.

Commented [SRS33]: Again, "apples and oranges." Posting for LOPNUs has nothing to do with whether a project is Option A or Option B for FCDS/PCDS.

11.3.1.4 Network Upgrade Posting Amounts

11.3.1.4.1 Small Generator Interconnection Customers

Each Interconnection Customer for a Small Generating Facility assigned to a Queue Cluster or an Interconnection Customer for a Small Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument that brings the security amount up to the following:

- 1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$1 million or (ii) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs and LOPNUs in either the final Phase II Interconnection Study report, or for Independent Study Process Interconnection Customers, the system impact and facilities study. In no event shall the total amount posted be less than \$100,000.
- 2) For Interconnection Customers who have Option (A) Generating Facilities, the lesser of (i) \$1 million or (ii) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs, LOPNUs, and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in the system impact and facilities study.

However, in no event shall the total amount posted be less than \$100,000.

- 3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$1 million or (ii) the sum of:
 - (a) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs, LOPNUs, and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process

Commented [SRS34]: See above.

Interconnection Customers, in the system impact and facilities study; plus

- (b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ADNU cost responsibility will be reduced pro rata.

However, in no event shall the total amount posted be less than \$100,000.

11.3.1.4.2 Large Generator Interconnection Customers

Each Interconnection Customer for a Large Generating Facility assigned to a Queue Cluster and each Interconnection Customer for a Large Generating Facility in the Independent Study Process shall post an Interconnection Financial Security instrument that brings the security amount up to the following:

- 1) For Interconnection Customers selecting Energy Only Deliverability Status: the lesser of (i) \$15 million or (ii) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs and LOPNUs in the final Phase II Interconnection Study, system impact and facilities study. In no event shall the total amount posted be less than \$500,000.
- 2) For Interconnection Customers, who have Option (A) Generating Facilities the lesser of (i) \$15 million or (ii) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs, LOPNUs, and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in the system impact and facilities study.

However, in no event shall the total amount posted be less than \$500,000.

- 3) For Interconnection Customers who have Option (B) Generating Facilities: the lesser of (i) \$15 million or (ii) the sum of:
 - (a) thirty (30) percent of the Current Cost Responsibility assigned to the Interconnection Customer for RNUs, LOPNUs, and LDNUs in the final Phase II Interconnection Study or, for Independent Study Process Interconnection Customers, in the system impact and facilities study; plus

Commented [SRS35]: See above – only required if they elect OPDS.

- (b) thirty (30) percent of the cost responsibility assigned to the Interconnection Customer for ADNUs in the final Phase II Interconnection Study. However, to the extent that the Option (B) Interconnection Customer's Generating Facility is allocated TP Deliverability, the cost responsibility assigned to the Interconnection Customer for ADNUs will be adjusted to reflect the allocation of TP Deliverability. If the allocation of TP Deliverability is for the full Deliverability of the Interconnection Request, then the ANDU cost responsibility will equal zero (0). If the allocation of TP Deliverability is less than the full Deliverability of the Interconnection Request, then the ANDU cost responsibility will be reduced pro rata.

However, in no event shall the total amount posted be less than \$500,000.

...

14.3.1 Initial Funding

Assigned Network Upgrades shall be funded by the Interconnection Customer(s) either by means of drawing down the Interconnection Financial Security or by the provision of additional capital, at each Interconnection Customer's election, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s). Current Cost Responsibility may be adjusted consistent with this GIDAP and up to the Interconnection Customer's Maximum Cost Responsibility, but the applicable Participating TO(s) shall be responsible for funding any capital costs for the Assigned Network Upgrades that exceed the Current Cost Responsibility assigned to the Interconnection Customer(s).

- (a) Where the funding responsibility for any RNUs, LOPNUs, and LDNUs has been assigned to a single Interconnection Customer, the applicable Participating TO(s) shall invoice the Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to each Interconnection Customer(s) for the RNUs, LOPNUs, or LDNUs, respectively.
- (b) Where the funding responsibility for an RNU, LOPNU, or LDNU has been assigned to more than one Interconnection Customer in accordance with this GIDAP, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such RNU Network Upgrades in accordance with their respective Current Cost Responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to that Interconnection Customer.
- (c) ~~Where the funding responsibility for an LDNU has been assigned to more than one Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such LDNUs based on their respective Current Cost Responsibilities. Each Interconnection Customer may be invoiced up to a maximum amount no greater than that established by the Current Cost Responsibility assigned to that Interconnection Customer.~~

(c) Where the funding responsibility for an ADNU being constructed by one or more Participating TO has been assigned to more than one Option (B) Interconnection Customer, the applicable Participating TO(s) shall invoice each Interconnection Customer under LGIA Article 12.1 or SGIA Article 6.1, whichever is applicable, for such ADNUs based on their respective Current Cost Responsibilities.

Any permissible extension of the Commercial Operation Date of a Generating Facility will not alter the Interconnection Customer's obligation to finance its Assigned Network Upgrades where the Network Upgrades are required to meet the earlier Commercial Operation Date(s) of other Generating Facilities that have also been assigned cost responsibility for the Network Upgrades.

14.3.2 Repayment of Amounts Advanced for Network Upgrades and Refund of Interconnection Financial Security

14.3.2.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

An Interconnection Customer with a non-Phased Generating Facility in Queue Cluster 5 or earlier, or an Interconnection Customer in the Independent Study Process or the Fast Track Process that has been tendered a Generator Interconnection Agreement before December 19, 2014, shall be entitled to a repayment for the Interconnection Customer's contribution to the cost of Network Upgrades commencing upon the Commercial Operation Date of its Generating Facility.

An Interconnection Customer with a non-Phased Generating Facility in Queue Cluster 6 or later, or an Interconnection Customer in the Independent Study Process or the Fast Track Process that has not been tendered an Interconnection Agreement before December 19, 2014, shall be entitled to repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed in service on or before the Commercial Operation Date of its Generating Facility, commencing upon the Commercial Operation Date of the Generating Facility. Repayment for the Interconnection Customer's contribution to the cost of Network Upgrades placed into service after the Commercial Operation Date of its Generating Facility shall, for each of these Network Upgrades, commence no later than the later of: (i) the first month of the calendar year following the year in which the Network Upgrade is placed into service or (ii) 90 days after the Network Upgrade is placed into service.

An Interconnection Customer subject to this Section 14.3.2.1 shall be entitled to repayment for its contribution to the cost of Network Upgrades as follows:

- (1) For RNUs, in accordance with the Interconnection Customer's cost responsibility assigned up to a maximum of \$60,000 per MW of generating capacity as specified in the GIA. The CAISO will publish an annual inflation factor and adjusted amount for this figure with the per unit cost publication on the CAISO Website pursuant to Section 6.4 of this GIDAP. Interconnection Customers will be entitled to repayment subject to the figure corresponding to their Commercial Operation Date.
- (2) For LDNUs and LOPNUs, except for LDNUs for Option (B) Generating Facilities that were not allocated TP Deliverability, in accordance with the Interconnection Customer's Current Cost Responsibility.

- (3) Option (B) Generating Facilities that were not allocated TP Deliverability will not receive repayment for LDNUs or ADNUs.

Unless an Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, such amounts shall include any tax gross-up or other tax-related payments associated with the Network Upgrades not refunded to the Interconnection Customer, and shall be paid to the Interconnection Customer by the applicable Participating TO(s) on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the applicable date as provided for in this Section 14.3.2.1; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the applicable commencement date.

For Network Upgrades the Interconnection Customer funded but did not receive repayment, the Interconnection Customer will be eligible to receive Merchant Transmission Congestion Revenue Rights (CRRs) in accordance with CAISO Tariff Section 36.11 associated with those Network Upgrades, or portions thereof that were funded by the Interconnection Customer. Such CRRs would take effect upon the Commercial Operation Date of the Generating Facility in accordance with the GIA.

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**Appendix 1 Interconnection Request
INTERCONNECTION REQUEST**

Provide one copy of this completed form pursuant to Section 7 of this Appendix 1 below.

...

3. Requested Deliverability Statuses ~~is for~~ are (check one in each category):

On-Peak (for purposes of Net Qualifying Capacity):

- Full Capacity (For Independent Study Process and Queue Cluster Process only)
(Note – Deliverability analysis for Independent Study Process is conducted with the next annual Cluster Study)
- Partial Deliverability for ___ MW of electrical output (For Independent Study Process and Queue Cluster Process only)
- Energy Only

Off-Peak (for purposes of Off-Peak Deliverability Status):

- Off-Peak Deliverable
- Economic Only

...

Appendix B Data Form, Pre- System Impact and Facilities Study

**DATA FORM TO BE PROVIDED BY THE INTERCONNECTION CUSTOMER
PRIOR TO COMMENCEMENT OF THE ~~SYSTEM IMPACT AND FACILITIES STUDY~~ PHASE II
INTERCONNECTION STUDY**

...

Level of Deliverability Status: Choose one of the following:

_____ Energy-Only

_____ Full Capacity

_____ Partial Capacity (expressed in fraction of Full Capacity)

Off-Peak Deliverability Status: Choose one of the following:

_____ Off-Peak Deliverable

_____ Economic-Only

Please provide any additional modification request pursuant to Section 6.7.2.2 of Appendix DD

Appendix EE¹

**LARGE GENERATOR INTERCONNECTION AGREEMENT
[INTERCONNECTION CUSTOMER]**

Article 1. Definitions

[[Definitions to match new and revised Appendix A definitions.]]

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Article 4. Scope of Service

- 4.1 Interconnection Service.** Interconnection Service allows the Interconnection Customer to connect the Large Generating Facility to the Participating TO's Transmission System and be eligible to deliver the Large Generating Facility's output using the available capacity of the CAISO Controlled Grid. To the extent the Interconnection Customer wants to receive Interconnection Service, the Participating TO shall construct facilities identified in Appendices A and C that the Participating TO is responsible to construct.

Interconnection Service does not necessarily provide the Interconnection Customer with the capability to physically deliver the output of its Large Generating Facility to any particular load on the CAISO Controlled Grid without incurring congestion costs. In the event of transmission constraints on the CAISO Controlled Grid, the Interconnection Customer's Large Generating Facility shall be subject to the applicable congestion management procedures in the CAISO Tariff in the same manner as all other resources. Full Capacity Deliverability Status, Partial Capacity Deliverability Status, and Off-Peak Deliverability Status do not confer any priority over other Generating Facilities to deliver Energy; nor provide any warranty or guarantee to deliver any amount of Energy or avoid curtailment at any time.

...

ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION

- 5.20 Annual Reassessment Process.** In accordance with Section 7.4 of the GIDAP, the CAISO will perform an annual reassessment, as part of a queue cluster interconnection study cycle, in which it will update certain base case data prior to beginning the GIDAP Phase II Interconnection Studies. As set forth in Section 7.4, the CAISO may determine through this assessment that Delivery Network Upgrades and Off-Peak Network Upgrades already identified and included in executed generator interconnection agreements should be modified in order to reflect the current circumstances of interconnection customers in the queue, including any withdrawals therefrom, and any additions and upgrades approved in the CAISO's most recent TPP cycle. To the extent that this determination modifies the scope or characteristics of, or the cost responsibility for, any Delivery Network Upgrades and Off-Peak Network Upgrades set forth in Appendix A to this LGIA, such modification(s) will be reflected through an amendment to this LGIA.

¹ The CAISO will make similar revisions to the SGIA, Appendix FF.

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Article 11. Performance Obligation

11.4.1 Repayment of Amounts Advanced for Network Upgrades.

11.4.1.1 Repayment of Amounts Advanced Regarding Non-Phased Generating Facilities

An Interconnection Customer subject to this Article 11.4.1.1 shall be entitled to repayment for its contribution to the cost of Network Upgrades as follows:

- (a) For Reliability Network Upgrades, the Interconnection Customer shall be entitled to a repayment of the Interconnection Customer's assigned cost responsibility for Reliability Network Upgrades as set forth in Appendix G, up to a maximum of \$60,000 per MW of generating capacity. For purposes of this determination, generating capacity will be based on the capacity of the Interconnection Customer's Generating Facility at the time it achieves Commercial Operation. To the extent that such repayment does not cover all of the costs of Interconnection Customer's Reliability Network Upgrades, the Interconnection Customer shall receive CRRs for that portion of its Reliability Network Upgrades that are not covered by cash repayment.
- (b) For Local Delivery Network Upgrades:
 - i. If the Interconnection Customer is an Option (B) Interconnection Customer and has been allocated and continues to be eligible to receive TP Deliverability pursuant to the GIDAP, the Interconnection Customer shall be entitled to repayment of a portion of the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible, as set forth in Appendix G. The repayment amount shall be determined by dividing the amount of TP Deliverability received by the amount of deliverability requested by the Interconnection Customer, and multiplying that percentage by the total amount paid to the Participating TO by the Interconnection Customer for Local Delivery Network Upgrades
 - ii. If the Generating Facility is an Option (B) Generating Facility and has not been allocated any TP Deliverability, the Interconnection Customer shall not be entitled to repayment for the costs of Local Delivery Network Upgrades.
 - iii. If the Generating Facility is an Option (A) Generating Facility, the Interconnection Customer shall be entitled to a repayment equal to the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible, as set forth in Appendix G.
- (c) For Area Delivery Network Upgrades, the Interconnection Customer shall not be entitled to repayment for the costs of Area Delivery Network Upgrades.
- (d) If an Interconnection Customer having a Option (B) Generating Facility, and is eligible, to construct and own Network Upgrades pursuant to the Merchant Option set forth in Article 5.15 of this LGIA, then the Interconnection Customer shall not be entitled to any repayment pursuant to this LGIA.

(e) For Local Off-Peak Network Upgrades, the Interconnection Customer will be entitled to a repayment equal to the total amount paid to the Participating TO for the costs of Local Delivery Network Upgrades for which it is responsible, as set forth in Appendix G.

(f) For Area Off-Peak Network Upgrades, the Interconnection Customer will not be entitled to repayment for the costs.

Unless an Interconnection Customer has provided written notice to the CAISO that it is declining all or part of such repayment, such amounts shall include any tax gross-up or other tax-related payments associated with Network Upgrades not refunded to the Interconnection Customer pursuant to Article 5.17.8 or otherwise, and shall be paid to the Interconnection Customer by the Participating TO on a dollar-for-dollar basis either through (1) direct payments made on a levelized basis over the five-year period commencing on the applicable date as provided for in this Article 11.4.1.1; or (2) any alternative payment schedule that is mutually agreeable to the Interconnection Customer and Participating TO, provided that such amount is paid within five (5) years of the applicable commencement date. Notwithstanding the foregoing, if this LGIA terminates within five (5) years of the applicable commencement date, the Participating TO's obligation to pay refunds to the Interconnection Customer shall cease as of the date of termination.

Commented [SRS36]: Seems unnecessary, since there doesn't seem to be any right to elect and/or construct AOPNUs.

Section 30: Bid and Self-Schedule Submission

30.5.2 Supply Bids

30.5.2.2 Supply Bids for Participating Generators

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30.5.2.2.1 Bids for Off-Peak Deliverability Status for Participating Generators and Non-Generator Resources

Scheduling Coordinators may submit Self-Schedules on behalf of Participating Generators only where the Participating Generator has Off-Peak Deliverability Status. Scheduling Coordinators for Participating Generators with Economic Only status must submit Economic Bids for Energy. Notwithstanding the foregoing, Scheduling Coordinators may submit Energy Self-Schedules in the Real-Time Market up to the Participating Generator's Day-Ahead Market Schedule in the same Trading Hour. ~~All Participating~~

~~Generators in the CAISO Markets before [[effective date]] have Off-Peak Deliverability Status.~~

...

30.5.6.1 Off-Peak Deliverability Status for Non-Generator Resource Bids

~~Scheduling Coordinators may submit Self-Schedules on behalf of Non-Generator Resources only where the Non-Generator Resource has Off-Peak Deliverability Status. Scheduling Coordinators for Non-Generator Resources with Economic Only status must submit Economic Bids for Energy. Notwithstanding the foregoing, Scheduling Coordinators may submit Energy Self-Schedules in the Real-Time Market up to the Non-Generator Resource's Day-Ahead Market Schedule in the same Trading Hour. All Non-Generator Resources in the CAISO Markets before [[effective date]] have Off-Peak Deliverability Status.~~

Commented [SRS37]: Already addressed above, and in much greater detail.

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