2022 Deliverability Test Process for IESO Acquisition Mechanisms

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1. Introduction

The Deliverability Tests described in this document apply to projects being considered for submission into the expedited process for the procurement of Long-Term Reliability Projects (Expedited Process), the Same-Technology Upgrades initiative and the first Long-Term Request for Proposals (LT1 RFP).

These procurements are intended to acquire capacity from new and existing resources in order to meet Ontario's emerging resource adequacy needs beginning in 2025. The IESO must ensure that new generation capacity is located in areas that can accommodate their injections of electricity to the grid (and withdrawals from the grid in the case of *electricity storage facilities* that draw power from the grid for charging). In order to verify this, proponents planning to submit projects in these procurements will be required to participate in a Deliverability Test. The Deliverability Test is a mandatory requirement and only projects that receive a test result of "Deliverable" or "Deliverable but Competing" (see Section 2.1) are eligible to be considered for these procurement initiatives. One combined Deliverability Test will be held for the Expedited Process and the Same-Technology upgrades mechanisms and a second, subsequent Deliverability Test will be held for the LT1 RFP.[1]

This document describes the processes, methodologies, inputs, assumptions, roles and responsibilities and an explanation of the results associated with the Deliverability Tests. It is intended to ensure that the Deliverability Tests are performed in a clear and consistent manner and to maintain the fairness and integrity of the procurement processes.

The IESO has full discretion on the methods and assumptions used for Deliverability Tests.

Terms in italics have the meaning ascribed in the *Market Rules*. Capitalized terms not defined herein have the meaning ascribed in the IESO Request for Qualifications for the Procurement of Long-Term Electricity Reliability Services (LT1 RFQ).

[1] As indicated at the August 10 Engagement Session, Same Technology **Expansions** at contracted facilities will be eligible to participate in the Expedited and Long-Term RFP processes (and will not be required to be qualified applicants).

1.1 Limited Scope of the 2022 Deliverability Tests

The Deliverability Tests described in this document are specific to the procurements mentioned above. The Deliverability Test assesses the ability of a project, as a capacity resource, to deliver the intended reliability-based service value during a commitment period or contract term, and will not consider potential transmission congestion or other market parameters outside the demand periods defined in the testing parameters. Thus, a project that receives a result of "Deliverable" under a Deliverability Test may still encounter situations where output is curtailed due to transmission congestion.

The Deliverability Test does not replace or impact any of the connection assessments that are necessary for project connection, being:

- System Impact Assessment (SIA) and Customer Impact Assessment for *transmission system* connected projects (CIA-TX); and
- Connection Impact Assessment for *distribution system* connected projects (CIA-DX).

Receiving a result of "Deliverable" in a Deliverability Test does not imply that the project will pass the connection assessment or that connection costs will be within any specific range or estimate.

For *electricity storage facilities* that draw power from the grid for charging, the Deliverability Test will consider the impact of charging demand on the electricity system.

2. Deliverability Test

2.1 Deliverability Test Concept

Capacity acquired through a given acquisition mechanism must be deliverable from the connection location to load centres in order to ensure that system reliability needs can be met. Thus, the Deliverability Test will assess the impact of the resource/project on all the paths along the way.

For the LT1 RFP, Expedited Process and Same-Technology Upgrades mechanisms, the Deliverability Test will be carried out before the proposal submission deadlines in order to provide participants a deliverability result that will determine eligibility for the procurements in question. Deliverability Tests will be carried out for the Expedited Process and Same-Technology Upgrades first, followed by a separate test for the LT1 RFP.

When performing the Deliverability Test, all proposed projects in the same region that use the same transmission paths will be tested simultaneously in order to evaluate the combined effects on the system if all the proposed projects were to connect. The Deliverability Test will include both summer and winter seasons.

The output of the Deliverability Test will be a simple designation of one of the following three statuses:

- "Deliverable": No currently known deliverability concerns.
- "Not Deliverable": Deliverability concerns on *distribution systems* and/or *transmission systems* based on currently known parameters.
- "Deliverable but Competing": Multiple resources proposed in the same deliverability path in *distribution systems* and/or *transmission systems*, where the total combined capacity is higher than the path's capability.

In the case of projects deemed "Not Deliverable", the IESO will not be providing recommendations as to what changes would be required to make the proposed project deliverable. Those projects which receive a status of "Not Deliverable" under the Expedited Deliverability Test may resubmit to the LT1 Deliverability Test (see Section 2.7).

The Deliverability Testing process for upcoming procurements aims to provide applicants with relevant information ahead of proposal submission. The tests will also act as a gate, ensuring that only projects deemed "deliverable" or "deliverable but competing" are competing in the proposal evaluation.

2.2 Roles and Responsibilities

The Deliverability Test process will be led by the IESO, but will require collaboration with *Transmitters* and Local Distribution Companies (LDCs). The following is an overview of roles and responsibilities:

- LDCs are responsible for the Deliverability Test considerations in their service territory, and can use any test method they choose, which can be unique to each LDC.
- *Transmitters* are responsible for short circuit test for the network, and the method used.
- The IESO is not responsible for variation in the assessment processes adopted by the LDCs and *transmitters* involved in implementing their portion of Deliverability Tests.
- The IESO is responsible for performing the Deliverability Test at the bulk *transmission system* level as described in this document. Also, the IESO is responsible for determining the final Deliverability Test results for each project under consideration.

For example, an LDC will assess if a project connecting to a *distribution system* is deliverable up to a Transformer Station (TS) or a *transmission system* connected Distribution Station (DS). An LDC, working with the owners of the relevant assets, will also assess if the transformers at the TS and the transmission connected DS have sufficient capacity. Further to this, the IESO will test if there is capacity on the transmission circuit(s) that the TS or DS connects to, and through the bulk *transmission system* paths to electricity load centres.

When new generation capacity is connected, it will increase the short circuit level in *distribution systems* and *transmission systems*. Hence, the Deliverability Test will also check whether the increased short circuit levels are within equipment capability. LDCs, working with the owners of the relevant assets, will check the short circuit impact to the *distribution system,* and *transmitters* will check the short circuit impact to the *transmission system*.

Thus, each Deliverability Test will include numerous tests. The specific tests that are applicable to a project will depend on where the proposed connection point is in the electricity system.

2.3 Deliverability Test Result Explanation

For a project to obtain a "Deliverable" result, it has to pass all applicable tests included under the Deliverability Test, both under the IESO's purview in addition to those conducted by LDCs and transmitters. A project will be deemed "Not Deliverable" if it fails any of the tests.

If the test result for a given project is "Not Deliverable" or "Deliverable but Competing", the IESO will identify one of the following reasons for this status:

- Distribution system short circuit limitation
- Distribution feeder capacity limitation
- Limitation of transformation capacity at a TS or at a transmission connected DS
- Other distribution system limitation
- Radial transmission circuit capacity limitation
- Network transmission circuit capacity limitation
- Transmission interface capacity limitation
- Network/transmission short circuit limitation

2.4 Eligible Connection

There can be new system expansions, such as new transmission lines or new feeders, that are planned or could be installed with possible in-service dates prior to the required project in-service. However, only the proposed connection to existing and operating *transmission system* or *distribution system* facilities will be accepted for purposes of the Deliverability Test.

2.5 Up to Three Project Variations

It is recognized that Qualified Applicants may be considering more than one connection point and more than one size (capacity) for a given project. Applicants can submit up to 3 variations on these parameters for the Deliverability Test for each project. The variation can be on the connection point and project capacity.

It is important to note that the project location and project type must remain fixed.

Applicants are required to indicate the priority sequence among the three variations for the test. The IESO will attempt to provide answers to all three, but, if time does not permit, the test may stop once a "deliverable" result is obtained.

2.6 Valid Information for the Deliverability Test

Applicants who seek to obtain a Deliverability Test result should note that they will be responsible for providing valid information for the Deliverability Test. As the first step in the Deliverability Test process, the IESO, LDCs and *transmitters* will review the information provided by applicants. If errors or omissions in the data are identified, the IESO will aim to offer a single round of corrections/clarifications from applicants to correct the information provided before proceeding with the Deliverability Test. Considering the volume of tests that the IESO, LDCs and *transmitters* will be responsible for, applicants are strongly advised to validate all data before submitting for the Deliverability Test in order to ensure their test can be carried out in the time required.

2.7 Deliverability Test Sequencing

There are several Deliverability Tests that will be conducted in sequence. The first will apply to projects proposed for the Same Technology Upgrades initiative and the Expedited Process, the second will apply to projects proposed for the LT1 RFP. It is anticipated that additional deliverability tests will be conducted as part of the proposal evaluation process under each procurement.

For clarity, projects intended for the Expedited Process that receive a status of "Not Deliverable" under the first Deliverability Test may resubmit to the second Deliverability Test for the LT1 RFP (provided that they intend to participate in that procurement).

If applicants with a "Deliverable but Competing" designation decide to proceed with proposal submission, an additional test may be required during the proposal evaluation stage of the procurement, as the testing sequence of these competing projects can impact the results. In the event that retesting of these projects is required, it will be conducted based on evaluated proposal price ranking.

The following is a description of the sequencing proposed:

1. All projects submitted to the Expedited Process or the Same-Technology Upgrades must pass their deliverability test. Projects that receive a status of "Not Deliverable" cannot proceed to the proposal evaluation stage of their respective procurement; however, these projects could be modified and re-submitted for the second Deliverability Test for the LT1 RFP (see point 4). Projects that receive a "Deliverable" or "Deliverable but Competing" status can proceed to the proposal evaluation stage of the Expedited Process or the Same Technology Upgrades process.

2. During the proposal evaluation stage for the Same Technology Upgrades process for those proposing upgrades to existing contracted facilities, projects that receive a "Deliverable" status will not be assessed any further for deliverability and will be assumed to be deliverable. On the other hand, projects that received a "Deliverable but Competing" status will be considered in one of two ways. Where the competition is with another proposed upgrade project in the Same Technology Upgrades process, that process' evaluation mechanism will select the winner. On the other hand, where the competition is with a project in the Expedited Process, the Same Technology upgrade project will take priority. For clarity, on-site expansion Projects submitted under Expedited process which are deemed "Deliverable but Competing" will be evaluated alongside other competing projects submitted for the Expedited Process.

3. During the proposal evaluation stage for the Expedited Process, projects that received a "Deliverable" status will not be assessed any further and will be assumed to be deliverable. On the other hand, projects which receive a "Deliverable but Competing" status will be tested for deliverability in sequence based on their evaluated proposal price ranking, as part of proposal evaluation for the Expedited Process. It is anticipated that at the time that these deliverability tests are being carried out, the results of the Same Technology Upgrades process (i.e., for upgrades to existing contracted facilities) will be known and, as such, projects successful in that process will be considered as existing connected facilities in the subsequent deliverability test for the Expedited Process evaluation.

4. All projects submitted to the LT1 RFP must also pass a deliverability test. It is anticipated that at the time these deliverability tests are held, the outcomes of the Expedited Process and the Same Technology Upgrades process will likely **not** be known. However, the IESO will know which projects were submitted for deliverability tests for these two acquisition mechanisms. Hence, the deliverability test for the LT1 RFP will consider all of the projects submitted to the deliverability test for the Expedited Process and the Same Technology Upgrades process. As discussed previously, there are three possible outcomes of the LT1 RFP deliverability test. Projects that receive a status of "Not Deliverable" cannot submit a proposal for the LT1 RFP. Projects that receive a "Deliverable" or "Deliverable but Competing" status can proceed to proposal submission.

5. During the proposal evaluation stage for the LT1 RFP, projects that received a "Deliverable" status will not be assessed any further for deliverability and will be assumed to be deliverable. On the other hand, projects that received a "Deliverable but Competing" status will be tested for deliverability in sequence, based on their evaluated proposal price ranking. At the time that these deliverability tests are being carried out, it is anticipated that the results of the Same Technology Upgrades procurement and Expedited Process will be known and, as such, projects successful in those processes will be considered as existing connected facilities in the subsequent deliverability test for the LT1 RFP evaluation.

3. Deliverability Test and Procurement Process

The Deliverability Test described herein will apply to the LT1 RFP, the Expedited Process and Same-Technology Expansions. Three categories of information are required from the applicant for the Deliverability Test:

- Project location and technology/fuel type information
- Connection information
- Project output information

3.1 Eligibility for Deliverability Testing

The following is a summary of project eligibility requirements for applicants seeking a Deliverability Test prior to proposal submission for IESO acquisition mechanisms.

Acquisition Mechanism	**Eligible Projects**
LT1 RFP	• Qualified Applicants under the LT1 RFQ. • Expansion at Contracted Facilities • Project information was not required at RFQ Submission.
Expedited Process	• Qualified Applicants under the LT1 RFQ. • Expansions at Contracted Facilities • Project information required at RFQ Submission (with modifications allowed) in order to be eligible for Proposal Submission.
Same Technology Upgrades	• Participation in LT1 RFQ not required. • Limited to current IESO contracted facilities in good standing

3.2 Testing Requirements for IESO Procurements

3.2.1 Expedited Process

Based on the volume of LT1 RFQ Submissions received and interest level in the Expedited Process, the **IESO will implement a limit of 10 projects that each Qualified Applicant can submit**

for the Expedited Process Deliverability Test. This limit will apply to the Deliverability Test for the Expedited Process and will be considered for the Deliverability Test for the LT1 RFP.

The Deliverability Test for the Expedited Process is not intended to be a mechanism for interested parties to obtain deliverability information for all possible projects under consideration, but only for projects that will be submitted to the Expedited Process. A limit on the number of Deliverability Test requests per Qualified Applicant is necessary to ensure the results provide meaningful information to Qualified Applicants. For example, too many Deliverability Test requests for too many projects could result in many more projects being placed in the "Deliverable but Competing" category.

For the Expedited Process, RFQ Applicants were required under the LT1 RFQ to submit, as part of their Qualification Submission, a description of all proposed Long-Term Reliability Projects for which they are seeking qualification to participate in the Expedited Process.

Only a project listed on the **Long-Term Reliability Project Description Prescribed Form** (as part of the LT1 RFQ) may be submitted into the Deliverability Test for the Expedited Process, subject to the limit of 10 projects that can be submitted per Qualified Applicant.

The below Mandatory Information submitted in the Qualification Submission for the LT1 RFQ for each proposed Long-Term Reliability Project **must remain unchanged** for the Deliverability Test for the Expedited Process:

- Location of the proposed Long-Term Reliability Project (address or GPS coordinates of the facility itself); and
- Fuel(s) and technology type (including the make-up of individual technologies, such as if the proposed Long-Term Reliability Project incorporates electricity generation and *electricity storage facilities*).

All additional Mandatory and Optional information contained in the **Long-Term Reliability Project Description Prescribed Form** **may be modified** for the Deliverability Test for the Expedited Process. This includes:

- Summer and winter maximum continuous ratings (MW) and nameplate capacity (MW), which is required for short circuit impact test;
    - For clarity, the largest of the summer or winter maximum continuous ratings (MW) provided for Deliverability Testing will serve as the upper limit to the contract capacity submitted in respect of the Expedited Process;
- Interconnection point, connecting circuits or upstream transformer station;
- Round-trip efficiency (%);
- Duration of the proposed Long-Term Reliability Project's ability to generate a sustained amount of Electricity during normal operating conditions (Hours);
- Ramp rate (MW/min); and
- All other information on the proposed Long-Term Reliability Project.

As a reminder, applicants considering same technology expansions at existing contracted facilities may submit these expansion projects for the Deliverability Test for the Expedited Process, even if they have not participated in the LT1 RFQ. The procurement documents for the Expedited Process and Same-Technology Upgrades initiative will provide further clarity where multiple options were identified for a single site by a single Qualified Applicant and/or contract counterparty.

3.2.2 LT1 RFP

Projects submitted to the second Deliverability Test, being the Deliverability Test for the LT1 RFP, did not need to have been identified as part of a Long-Term Reliability Project Description Prescribed Form under the LT1 RFQ. As such, the restrictions identified in 3.2.1 will not be placed on Qualified Applicants seeking to participate in the Deliverability Test for the LT1 RFP. The same or modifications to projects submitted as part of the LT1 RFQ, or new projects, may be submitted to the Deliverability Test for the LT1 RFP. However, depending on the outcome of the results of the Deliverability Test for the Expedited Process, the IESO may also implement a limit on the number of projects per Qualified Applicant that may be submitted for deliverability testing under the LT1 RFP. Such a limit will be communicated at a later date.

3.3 Deliverability Tests and Connection Assessments

All projects proposing to connect to the Ontario electricity grid must apply for a connection assessment. Transmission connection assessments will include a System Impact Assessment (SIA) carried out by the IESO and a Customer Impact Assessment (CIA-TX) carried out by a *transmitter*. Distribution connection assessments will include a Connection Impact Assessment (CIA-DX) carried out by an LDC. A distribution connected project that is ≥ 10 MW also requires an SIA and a CIA-TX.

These assessments examine the equipment that is proposed to be connected and verify that it will meet *Market Rule,* Transmission System Code and/or Distribution System Code requirements, and that the manner in which the facility is connected would not result in an adverse impact on system reliability or to connected customers.

On the transmission side, an SIA does not assess whether or not the electricity moving to/from the proposed project can be delivered, because when it can't be delivered, the assumption in an SIA is that the facility will be constrained off. This is the reason that a project that may have already obtained an SIA and a CIA-TX cannot be deemed to be "deliverable" for purposes of IESO procurements without going through the Deliverability Test. In addition, a completed SIA does not reserve connection capacity.

On the distribution side, a project that has already obtained a CIA-DX will also not be deemed to be "deliverable" for purposes of IESO procurements without going through the Deliverability Test.

3.3.1 Expedited Process and Same Technology Upgrades

For applicants that are working towards a May 2025 in-service date for the Expedited Process and the Same-Technology Upgrades mechanisms, the IESO does not expect to impose any restrictions on maintaining an existing or applying for a new connection assessment for both transmission and distribution connected projects. Qualified Applicants/Same Technology Applications are asked to identify the CIA-DXs associated with the projects undergoing Deliverability Tests and any plans to apply for a new connection assessment during the Deliverability Test window. This information is necessary for LDCs to carry out their part of the Deliverability Test. CIA-DXs allocate/reserve connection capacity and LDCs need to know if any allocations are related to the projects that are the subject of the Deliverability Tests.

Since CIA-DXs reserve capacity on the *distribution system*, it is expected that Qualified Applicants (or contracted facility expansion applicants) that are not offered contracts through the Expedited Process will be required to rescind any CIA-DXs associated with the projects submitted; the same applies for the Same Technology Upgrades participants. The IESO is proposing that the return of proposal security submitted as part of the Expedited Process will be tied to a proponent rescinding any CIA-DX for an unsuccessful project.

3.3.2 LT1 RFP

It is expected that the LT1 RFP procurement will preclude Qualified Applicants from applying for a CIA-DX for *distribution system* connected projects until the conclusion of the Deliverability Test for the LT1 RFP. For clarity, projects submitted for a Deliverability Test for the LT1 RFP must rescind any current CIA-DXs. The IESO will work with LDCs in order to verify that this has been completed. Should this requirement not be met, those projects will not be included in the Deliverability Test for the LT1 RFP, and hence, would not be eligible for the LT1 RFP.

After the Deliverability Test for the LT1 RFP is concluded, projects that obtained "Deliverable" results and that propose to connect to a *distribution system* may apply for a CIA-DX.

Those projects that obtained a "Deliverable but Competing" result, where the reason for this status, as noted in 2.3, is not related to the *distribution system* or TS (or transmission connected DS) capacity, may also apply for a CIA-DX.

Similar to the requirement under the Expedited Process, since CIA-DXs reserve capacity on the *distribution system*, it is expected that Qualified Applicants (and contracted facility expansion applicants) that are not offered contracts through the LT1 RFP will be required to rescind any CIA-DXs associated with the projects submitted. The IESO is proposing that the return of proposal security submitted as part of the LT1 RFP will be tied to a proponent rescinding any CIA-DX for an unsuccessful project.

The IESO strongly recommends that Qualified Applicants proposing *transmission system* projects or ≥ 10 MW *distribution system* projects delay their SIA applications until the results of the LT1 RFP are announced. If a Qualified Applicant (or contracted facility expansion applicant) chooses to apply for an SIA, it is important to note that the SIA may need to be updated or restarted after the results of the LT1 RFP are announced, as an SIA completed earlier would not have included all successful projects as firm projects (and as noted above, a completed SIA does not reserve connection capacity).

4. Deliverability Test Schedule

The below schedules are indicative and are subject to change. Any changes to milestones or dates will be communicated by the IESO and relevant updates to this document and engagement materials made.

Expedited and Same-Technology Upgrades initiative Milestones	**Revised Date**
Deliverability Assessment Submission	**August 30, 2022**
Deliverability Test Results	**November 30, 2022**
LT1 RFP Milestones	**Revised Date**
LT1 RFP Deliverability Test Submission	**January 4, 2023**
LT1 RFP Deliverability Test Results	**[April 14, 2023]** (Additional time may be required depending on volume of applicants)

5. Deliverability Test Assumptions

5.1 System Base Cases

Six sets of system base cases will be used for the Deliverability Tests. These sets each will contain winter and summer cases.

1. Northern Ontario (Northwest and Northeast zones)
2. Western Ontario (West Zone)
3. Southwestern Ontario (Southwest and Bruce zones)
4. Niagara area (Niagara Zone)
5. Central Ontario (Toronto and Essa Zones)
6. Eastern Ontario (East and Ottawa Zones)

5.2 Demand Levels Considered

New acquired capacity needs to be deliverable not only during the highest peak demand period in winter and summer, corresponding to the extreme weather conditions, but also during lower normal weather peak demand periods. Thus, the tests will consider zonal demand levels associated with extreme weather and normal weather conditions. The demand forecast levels for the extreme weather and the normal weather for 2027 from the latest available Annual Planning Outlook (APO) forecast will be used.

A third set of demand levels will be used to test the ability of the local electricity system to supply the charging demand of *electricity storage facilities*. With the expectation of the need for daily charging and discharging cycle on a peak demand day, it is assumed that charging can occur anytime during the 16-hour period outside the 8-hour peak demand periods. The average of the zonal demand levels of those 16-hours on the system wide peak winter and on peak summer day will be used for the test. The hourly, extreme weather demand forecast for 2027 will be used to determine the levels for the test, for winter and summer.

5.3 Output of Existing Generation for Two Peak Demand Levels

During the system wide peak demand situations in winter and summer, all existing resources are expected to make contribution to the system supply reliability. However, some of the resources may be out-of-service due to equipment or other issues. Under this situation, it is assumed that resources that are in-service can be operating at its full capability and deliverable to where it is needed. Thus, the Deliverability Test needs to consider the full rated output of the existing resources, not at the effective capacity (UCAP).

Thus, for dispatchable resources that are not fuel limited such as gas or nuclear generation, the test will be done at their maximum summer and winter continuous ratings. For the other types of resources, the considerations are as follows:

- Hydroelectric generation can technically operate at 90% of their output at system peak if needed. However, as hydroelectric generation is fuel limited resources, the test will be based on the winter and summer capacity levels that reflect their normal operation at system peak conditions.
- Wind and solar generation are variable and there can be high output at one parts of the province and very low output at another part of the province. Thus, high wind generation available needs to be deliverable. Wind generation may be able to operate at their maximum output under ideal conditions. However, it is acknowledged that such situation is a low probability event and assuming that level for the test would be too restrictive. Zonal aggregate historical output of wind and solar generation were considered to determine a reasonable level for the test. The output level not exceeded more than 10% of the time during the 8 peak hours in January and July will be used. For the West Zone, this results in wind generation output of 43% and 91% for the summer and the winter tests, respectively.

5.4 Output of Existing Generation for Electricity Storage Facility Charging Test

Electricity storage faculties are required to operate in the generation mode to provide capacity to the system during the peak hours on the peak demand days in winter and summer. The demand levels during the off-peak hours on the peak winter and summer peak day when the charging is to take place are forecast to still to be high enough to require much of the dispatchable resources to be operating. The test is to see the impact of the extra demand from storage on the load supply capability in the local system.

The existing generation within the testing area will be set to the following conditions for testing *electricity storage faculties* charging:

- Hydroelectric generation at zero for peaking units but run-of-the river units at normal operating levels.
- Nuclear generation at maximum output.
- For wind generation, historical data was used to determine the level to be used for the tests. Wind generation level available 90% of the time during the off-peak hours will be used. For the West Zone, this results in wind generation output of 1% and 4% for the summer and the winter tests, respectively.
- Fossil fuelled generation at their half of the maximum output to reflect the situation that not all such local generation may be required to run at their maximum outputs.
- Solar generation at zero output.
- Other local generation at maximum output.

5.5 Output for New Resources Being Tested

The Deliverability Test for the submitted projects will be carried out at maximum continuous rating levels indicated in the Deliverability Test submission form. This also applies to *electricity storage facilities*. At the system peak periods, the expected operating mode of *electricity storage facilities* is the full generation mode.

For the charging demand test for *electricity storage facilities*, 50% of the maximum continuous rating levels will be used. *Electricity storage facilities* have 16 hour periods where the charging could occur and charging demand can be much less than the maximum continues rating in generation mode. The 50% level is thought to be a reasonable level for the test.

Same Technology Upgrades applicants will be required to submit their existing maximum continuous rating **as well as** the incremental capacity associated with an upgrade to an existing contracted facility.

5.6 System Dynamics

The electricity system is dynamic and subject to change over time. For fairness and consistency, the test assumptions will be established just before each Deliverability Test is initiated and will remain unchanged throughout the tests. Some of these details are included in this document and other finer technical details and assumptions will be established and documented just before the Deliverability Test is carried out.

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