MARKET MANUAL

Connecting Today.
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Market Manual 9: Day-Ahead Commitment Process

Part 9.2: Submitting Operational and Market Data for the DACP

Issue 10.0

This document provides guidance to Market Participants on the submission of dispatch data in the Day-Ahead Energy and Operating Reserve Markets.

Public

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Reference (Paragraph and Section)	Description of Change
Section 5.1.4	Added sentence to indicate that IESO approval is required prior to withdrawing dispatch data submitted after 10:00.

List of Figures

1. Market Manuals

The *market manual*s consolidate the market procedures and associated forms, standards, and policies that define certain elements relating to the operation of the *IESO-administered markets*. Market procedures provide more detailed descriptions of the requirements for various activities than is specified in the *market rules*. Where there is a discrepancy between the requirements in a document within a *market manual* and the *market rules*, the *market rules* shall prevail. Standards and policies appended to, or referenced in, these procedures provide a supporting framework.

– End of Section –

2. About this Manual

The "Day-Ahead Commitment Process" manual is Series 9 of the *market manuals,* where this document forms Part 9.2: Submitting Operational and Market Data for the DACP.

A list of the other component parts of the "Day-Ahead Commitment Process" manual is provided in Part 9.0: Day-Ahead Commitment Process Overview, in Section 2, "About this Manual".

2.1   Conventions

The *market manual* standard conventions are as defined in "Part 9.0: Day-Ahead Commitment Process", section '2.4 Conventions'.

– End of Section –

3. Introduction

3.1   Purpose

This document provides the procedures for submitting the operational and market information necessary to participate in the Day-Ahead Commitment Process (DACP). The procedure to submit operational and market data for the *pre-dispatch* process will not change. However, some additional information is required for dispatchable *generation facilities* that receive commitments and schedules in the DACP.

3.2   Scope

This *market manual* provides a summary of the steps and interfaces between *market participants*, the *IESO*, and other parties for submitting operational and market data. The procedural workflows and steps described in this document serve as a roadmap for you and the *IESO*, and reflect the requirements set out in the *market rules* and applicable *IESO* policies and standards.

The overview information in Section 4 is provided for context purposes only, highlighting the main actions in the procedure as set out in Section 5.

These procedures describe the data requirements and timelines for the submission of *dispatch data*, daily generation data (DGD), *segregated mode of operation* (*SMO*) requests, and *regulation* capacity *offers*.

– End of Section –

4. Overview of Submitting Operational and Market Data

You may submit standing *dispatch data* if this data is not expected to change from *trading week* to *trading week*. Such data must be submitted before 06:00, when it is converted to regular *dispatch data* that will automatically be used by the DACP at 10:30.

Standing *bids* and *offers* for physical units (PUs) associated with a *pseudo unit* (PSU) are converted to regular *dispatch data* at 06:00 and are accepted, but they will not be used in the DACP calculations. This *dispatch data* will be used in the initial *pre-dispatch* after 15:00.

There are no restrictions on submitting new or revised *dispatch data* for the next day's operation between 06:00 and 10:00.

The data submission process includes the submission of *dispatch data* and technical data, referred to as daily generation data (DGD), for use in the DACP. The timeline for submitting *dispatch data* and DGD is described in detail in this section and is illustrated in Figure 4-1.
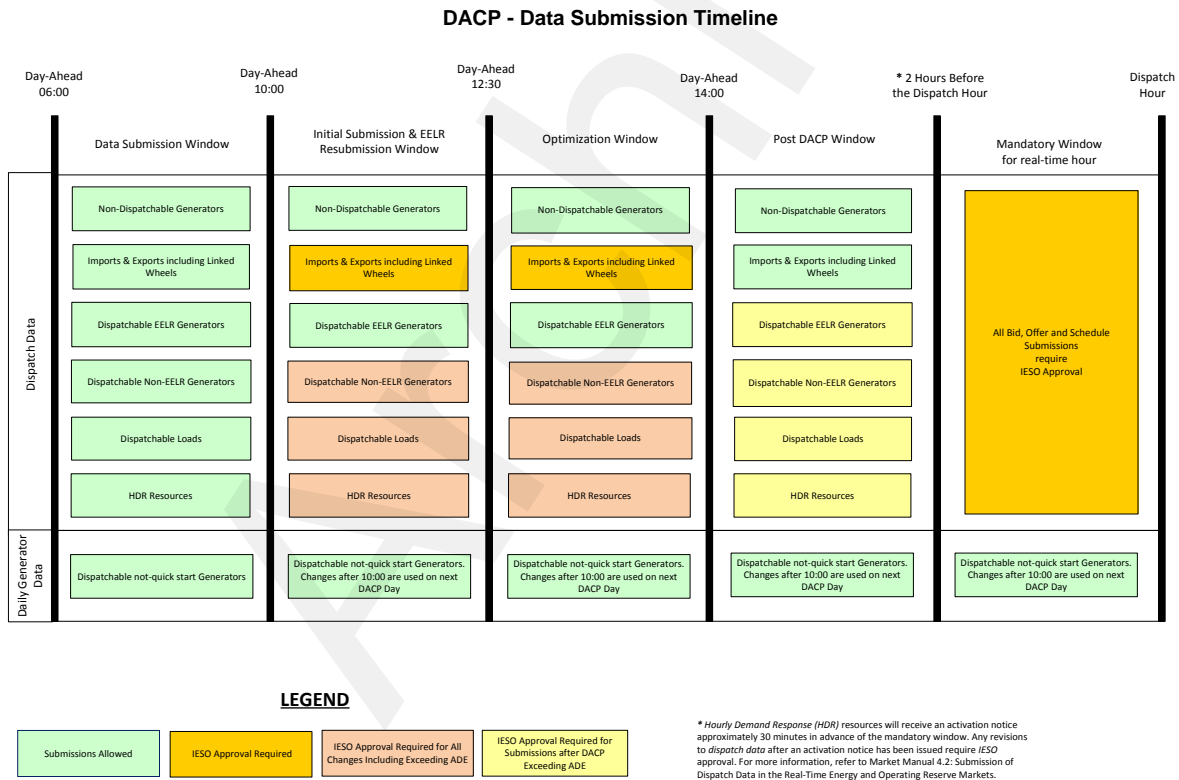
DACP - Data Submission Timeline

Figure 4-1: DACP Data Submission Timeline

4.1 Generation Facilities, Dispatchable Loads, and Hourly Demand Response Resources

Generation facilities (i.e., dispatchable, intermittent, self-scheduling or a *transitional scheduling generator*), *dispatchable loads,* and *hourly demand response (HDR)* resources intending to operate in real time must participate in the DACP by submitting standing *dispatch data* before 06:00 day-ahead or initial *dispatch data* for next day's operation between 06:00 and 10:00 day-ahead. See Appendix A for a list of valid reasons for which you are permitted to operate in real time if you did not submit *dispatch data* for the DACP.

If you are a dispatchable *generation facility*, which is an eligible *energy*-limited resource (EELR), you must also submit a daily *energy* limit (DEL) with your initial *dispatch data* for each of these *generation units*. The DACP *offer* for your EELR that is in effect for the 10:30 DACP run must have a value greater or equal to zero in the **DAILY ENERGY LIMIT** field of the *energy offer* template in the Market Participant Graphical User Interface (MP-GUI) or Application Programming Interface (API). Note that a DEL of zero for your EELR will result in your *facility* being scheduled at zero megawatts (MW) throughout the day.

If you are a *dispatchable load*, you must submit *dispatchable load bids* by 10:00, unless you intend to operate as non-dispatchable in real-time. You may submit "no *bid*" to indicate non-dispatchable status for any hour of the next day. "No *bid*" for a *dispatchable load* indicates a "zero" dispatchable quantity and your *facility* will be non-dispatchable for hours for which no *bid* is received. Increases to hours and quantities *bid* as dispatchable in the day-ahead require our approval.

Note: Unlike pre-*dispatch*, *bids* at *+ maximum market clearing price (MMCP)* are considered dispatchable by the Day-Ahead Calculation Engine (DACE).

If you do not submit changes to your *dispatch data* to reflect that you are on an *outage* because you think you may wish to return from the *outage* early[1], you must submit an *outage* request for *outages* of any duration.

HDR resources with a *demand response capacity obligation* will indicate their ability to reduce *energy* withdrawals through their *energy bids*.

4.2 Imports and Exports

Boundary entities do not have to submit *dispatch data* in the DACP in order to submit *dispatch data* in pre-dispatch and real-time. However, importers that wish to qualify for the day-ahead *intertie offer* guarantee (DA-IOG) must submit their *offers* with a valid e-Tag identifier[2] within the window between 06:00 and 10:00 day-ahead. It is our expectation that the same e-Tag identifier will be used in the other jurisdiction. Importers must keep in mind that if they submit daily energy limits (DELs) with their *offers* for the DACP, we will enforce their *energy* limit during each run of the DACE.

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[1] We will not approve dispatchable load bids and operating reserve (OR) offers submitted in real time for a late start of a planned outage.

[2] A valid *e*-Tag identifier consists of the registered codes for the Source (Generation) BA Area and Purchasing-Selling Entity, a tag code (unique seven character transaction identifier made up of upper alpha characters or the digits 0 through 9), and the registered code for the Sink (Load) BA Area.

Although the DACP provides the necessary drivers to have importers schedule the corresponding export transaction day-ahead in the adjacent Balancing Authority (BA) Area, you do not need to have an export *bid* or schedule in the adjacent BA Area to submit an import *offer* into the DACP.

Exports out of Ontario are considered in the DACP. This means that export *bids* for the next day's operation that are submitted between 06:00 and 10:00 will be accepted and included in the Valid Bid Report and they will receive a schedule in the DACP.

You may have an import and an export that are not part of a linked wheel and are independent transactions. We will treat them independently during the DACP. We will use the import and export in the DACE and they will receive DACP schedules. A day-ahead scheduled import may be paid IOG although in some cases the IOG may be subsequently clawed back (or "offset").

4.3   Linked Wheel Transactions

Section 3.5.8.3 of Chapter 7 of the "Market Rules" and "Market Manual 4.2: Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets", describe linked wheels as an import *offer* and an export *bid* with an explicit indication that these transactions are linked.

We use submitted *bids* and *offers* to schedule the import and export legs of a linked wheel based on overall economics. The import *offer* and export *bid* are individually submitted and the wheel is scheduled if the difference between the export *bid* and import *offer* prices exceeds the difference between the import and export zone shadow prices. When one leg of an *offer* to import or a *bid* to export submitted for an identified linked wheel transaction is not successfully scheduled in whole or in part in DACP, the corresponding leg will be reduced to the lowest scheduled quantity.

In the DACP, linked wheels will be scheduled economically as linked transactions. It is not necessary to follow the pricing constraints for real-time *bid/offers* defined in *Market Manual* 4.2.

– End of Section –

5. Submitting Operational and Market Data for DACP

This section provides detailed procedures for submitting the operational and market data necessary to receive a schedule or commitment from the DACP. The following procedures are described in this section.

- Procedure 5.1 - Submit New or Revised Dispatch Data
- Procedure 5.2 - Submit Daily Generation Data
- Procedure 5.3 - Request Segregated Mode of Operation (SMO)
- Procedure 5.4 - Submit Regulation Offers
- Procedure 5.5 - Procedure for Submitting Dispatch Data During Contingencies

The applicability of these procedures to specific resources is shown in Table 5-1:

Table 5-1: Applicability of Procedures by Resource Type

Resource Type	5.1: Submit New or Revised Dispatch Data	5.2: Submit Daily Generation Data	5.3: Request Segregated Mode of Operation	5.4: Submit Regulation Offers
Not Quick Start	X	X		X
Pseudo Unit	X	X[3]		
Quick Start	X		X	X
Transitional Scheduling (TSG); Intermittent; Self Scheduling	X			
Dispatchable Load	X			X
Importer	X			
Exporter	X			
HDR Resource	X			

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[3] Pseudo unit (PSU) DGD is calculated by the IESO based on the DGD submitted for the associated physical units (PUs).

5.1   Submit New or Revised Dispatch Data

The *dispatch data* that each resource type must submit for the DACP is shown in Table 5-2:

Table 5-2: Dispatch Data Submission by Resource Type

Data Description	Unit of Measure	Not Quick Start	Pseudo Units	Quick Start	TSG; INT; SS Generators	Dispatchable Loads	Imports	Exports	HDR Resources
Start-Up Costs	$	X	X						
Speed No-Load Costs	$	X	X						
Incremental Energy Bid	$/MWh					X		X	X
Incremental Energy Offer	$/MWh	X	X	X			X		
Incremental Energy Quantity	MW	X	X	X		X	X	X	X
Incremental OR Offer	$/MWh	X	X	X		X	X	X	
Incremental OR Quantity	MW	X	X	X		X	X	X	
Energy Ramp Up[4]	MW/minute	X	X	X		X	X	X	X
Energy Ramp Down[5]	MW/minute	X	X	X		X	X	X	X
OR Ramp Up	MW/minute	X	X	X		X	X	X	
Energy Limit[6]	MWh	X	X	X			X		
Schedules and Forecasts	MWh				X				
Dispatch Price	$				X				

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[4] The DACE uses the first hourly ramp rate offered as the ramp rate for all subsequent hours.

[5] The DACE uses the first hourly ramp rate offered as the ramp rate for all subsequent hours.

[6] The *energy* limit has a daily granularity. The other data elements in this table have hourly granularity.

5.1.1   Dispatch Data

Dispatch data submissions for the DACP are comprised of three-part *offers* for non *quick start facilities*, as described in section 5.1.2. Submit *dispatch data* using the Market Participant Interface (MPI) / GUI or the Application Programming Interface (API).

You can enter *dispatch data* and daily generation data (DGD) directly on the screen using the MPI/GUI or you can use an *IESO*-specified data submission template. Submit the template using the UPLOAD action of the MPI/GUI or the API.

Data submission templates include:

- *physical market bids* (RTEM)
- *physical market* schedules
- *operating reserve offers*
- bilateral contracts
- daily *generator* data

You can also use these templates to submit standing data.

5.1.2   Three-Part Offers

Dispatchable non *quick start facilities* can submit three-part *offers* for consideration in the Day-Ahead Calculation Engine (DACE). The three parts of the *offer* are:

- *start-up cost*
- *speed-no-load cost*
- incremental *energy*

5.1.2.1   Start-Up Cost

Start-up cost (SUC) is submitted as an *offer* attribute of *dispatch data*. The *SUC* is a single value for each offered hour submitted (to a maximum of 24 values) for day-ahead.

5.1.2.2   Speed No-Load Cost

Speed No-Load (SNL) cost is submitted as an *offer* attribute of *dispatch data*. The *SNL* cost is a single value for each offered hour submitted (to a maximum of 24 values) for day-ahead.

5.1.2.3   Incremental Energy Bids/Offers

Approved *offers* will be used by both DACP and pre-dispatch (with the exception of *pseudo units (PSUs)* in pre-dispatch and physical units (PUs) associated with *PSUs* in DACP).

You may wish to adjust your incremental *energy offers* after the DACP *schedule of record (SOR)* is issued to reflect your integrated costs in a single part *offer*. Pre-dispatch only considers incremental energy *offers* and ignores *SNL* and *SUC* and all *PSU offers*.

Incremental *energy* price and quantity submissions for *PSU* resources will require an additional validation step that ensures that the number of *price-quantity (PQ) pairs* does not exceed a specified number. The allowed number of *PQ* pairs for a *PSU* is based on the number of CT's registered as part of that combined cycle plant. This limitation is required to ensure that during PCG *settlement* of a

PSU, all of the associated *PSU* incremental *energy offers* can be reconstructed into a single ST incremental *energy offer* and does not exceed the 20 *PQ* pair limit currently in place.

For all *PSU* incremental *energy offer* submissions, you will not be able to submit more than (20 /N)[7] PQ pairs where, N is equal to the Number of Combustion Turbines (CTs) at a Combined Cycle Plant.

5.1.3   Dispatch Data Submission Prior to 10:00

You must submit initial *dispatch data* for the next day's operation before the start of the commitment process (before 10:00), for your resource to be considered for optimization in the DACP. You must either provide *dispatch data* for the resource between 06:00 and 10:00 or have a standing *bid/offer* that is accepted before 06:00 (Standing *bids/offers* submitted before 06:00 are converted at 06:00 for use in the commitment process).

5.1.3.1   Pseudo Unit Offer Submission

Day-ahead *offers* for the *PSU* resources must be submitted by 10:00, (i.e., in time for the first DACE run of the day). You can submit your *PSU offers* as either standing *offers* (before 06:00) or anytime between 06:00 and 10:00 day-ahead.

5.1.3.2   Physical Unit Associated with a Pseudo Unit Offer Submission

If you have elected to use the *PSU* model you must submit real-time *offers* for the physical unit (PU) resources that comprise the *PSU* by 10:00 day-ahead. You can submit your PU *offers* as either standing *offers* (before 06:00) or anytime between 06:00 and 10:00 day-ahead.

5.1.3.3   Availability Declaration Envelope

The Availability Declaration Envelope (ADE) is the hourly capacity offered day-ahead for dispatchable *generators* or the hourly load *bid* as dispatchable for *dispatchable loads. Dispatch data* submitted prior to 10:00 forms the resource's initial ADE day-ahead.

Any new or revised *dispatch data* submission which we have accepted and approved before 14:00 is used to establish the resource's final ADE.

You must submit your initial real-time *offers* for PUs associated with a *PSU* by 10:00 day-ahead. For each PU associated with a PSU, the PU *offer* at 14:00 determines the ADE for that resource. You must ensure that the ADE established for your PUs is sufficient to cover the PU schedules you receive from the DACP.

After 14:00, you need *IESO* approval to submit any new or revised *dispatch data* that expands your ADE, except for *dispatch data* submitted in response to our request for additional *bids* and *offers*.

5.1.3.4   Daily Energy Limit

The daily energy limit (DEL) is used to specify the amount of energy that you want your resource to be limited to for the day. When submitting a daily energy limit you must ensure that the limit is greater than or equal to the energy required to operate your resource at MLP for your MGBRT. (DEL >= MLP x MGBRT). If your DEL is lower than this value (MLP x MGBRT) then your resource will not receive a day-ahead schedule.

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[7] The result of the 20/N calculation will be rounded down to the nearest whole number.

5.1.3.5 Offers to Satisfy MGBRT over Midnight

If your *generation facility* is eligible for DA-PCG and has a commitment and non-zero schedule[8] in the last hour of today your *MGBRT* will be honoured in the DACP schedule for the next day, provided you have valid *offers* for all the hours required to satisfy your remaining *MGBRT*. You should include all costs associated with the completion of *MGBRT* over midnight in the *start-up cost* of the escalating *offer* you submit for the end of the previous DACP day. For more information on escalating start-up *offers*, refer to "Market Manual 9.5 Settlement of the Day-Ahead Commitment Process".
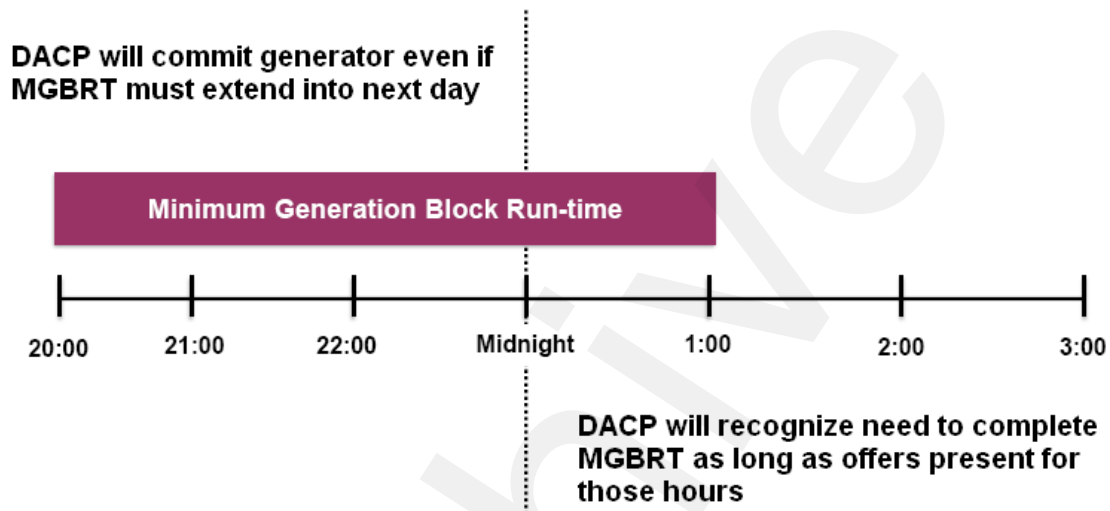
Figure 5-1: Offers to Satisfy MGBRT Over Midnight

5.1.3.6 Availability Window for Demand Response Resources

The availability window is the range of *business days* and hours during a *commitment period* that resources are expected to be available to provide *demand response*. It applies to *dispatchable loads* and *HDR* resources with a *demand response capacity obligation*. Hours in the availability window and months of the *commitment period* are specified in "Market Manual 12: Demand Response Auction".

To meet their *demand response capacity obligation,* both *dispatchable loads* and *HDR* resources are required to submit a *demand response energy bid* for each hour of the availability window, at a price that is above the *demand response bid price threshold* of $100/MWhr and below the *maximum market clearing price*.

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[8] Must have a commitment in the last hour of today (i.e., a constraint in the *IESO* contract management application) and a *pre-dispatch schedule* in the last hour of today.

5.1.4   Dispatch Data Submission after 10:00

You must include a reason code for *dispatch data* submissions between 10:00 and 14:00 from dispatchable *generation facilities* and *dispatchable load*s. (See Appendix A for a list of valid reason codes.) If you select "OTHER", you must include an explanation or your *bid/offer* will be automatically rejected and a validation error will be issued. If you do not include a reason code, the *bid/offer* will be automatically rejected and a validation error will be issued.

We will accept *dispatch data* submissions between 10:00 and 14:00 from non-dispatchable *generation facilities* (forecasts and schedules), PUs associated with a *PSU* and eligible *energy* limited resources (EELRs) that pass standard validation rules.

We will automatically reject *dispatch data* waiting for operator approval at 14:00 for dispatchable *generation facilities*, *dispatchable loads,* imports, exports and linked wheels. *Dispatch data* submissions for PUs associated with a *PSU* will not be held for operator approval and will therefore not be automatically rejected at 14:00.

Cascade hydroelectric *generation units* that are *energy* limited may be scheduled in a sub-optimal way. For this reason, we will give EELRs that submit a daily *energy* limit (DEL) prior to 10:00 an opportunity to look at the results of one complete run of the DACE and allow EELR *offers* including the DEL to be adjusted.

During the EELR re-submission window (normally from 11:30 to 12:30), restrictions will not apply to *dispatch data* changes from EELRs. There may be limitations on your ability to view DACE results or to change EELR data due to contingencies or other planned events such as software upgrades.

A list of valid reason codes for revisions to *dispatch data* that require *IESO* approval can be found in Appendix A of this document.

Withdrawing *dispatch data* also requires *IESO* approval. Refer to Market Manual 9.4, Section 4.2 for more information on the Decommitment and Withdrawal process.

5.1.4.1   Non-dispatchable Generators

If you are a non-dispatchable *generation facility* (self-scheduling *generator* or *intermittent generator*) you may submit new or revised *dispatch data* (schedules or forecasts) without restriction. Your *dispatch data* revisions do not require our approval. You are not eligible to submit daily generation data (DGD).

5.1.4.2   Eligible Energy Limited Resources (EELR)

We optimize the *energy* of any dispatchable *generator* that submits a Daily *Energy* Limit (DEL) over the entire day, however, because of hydraulic dependencies it is possible that an EELR may be scheduled in a suboptimal way. For this reason, you have an opportunity to look at the results of the first run of the DACP and adjust your EELR *offers* to help us solve potential *reliability* problems.

You will normally have one hour for this process. The time between the end of one DACP run and the start of the next will allow you to make adjustments to your *offers* and to complete the submissions before the next run.

Unlike other dispatchable *generation facilities*, you can revise your EELR *offers* between 11:30 and 12:30 without our approval. This means that, having submitted a DEL for your EELR at 10:00, you can revise your *offers*, including changes to the DEL before the 12:30 DACE run.

Note: DACE applies the DEL in hour ending one to all hours of the day. Therefore, if you want to update your DEL during the DACP, the first hour DEL value should be changed to match any subsequent hours.

Several situations can arise that will require special handling of EELR *offer* changes, specifically:

- You either fail to submit a DEL at 10:00 or, after 10:00, circumstances change which make your EELR *energy* limited.

- After having submitted a DEL for your EELR at 10:00, you fail to enter a value >= 0 in the **DAILY ENERGY LIMIT** field in a subsequent *offer* submission during the DACP for your resource.

Our goal for the DACP is to plan for tomorrow's operation using the best available information. Therefore, if your resource is an EELR and has limited *energy* for tomorrow, but you failed to provide the DEL by 10:00, we will approve a changed submission if you properly notify us.

Between 10:00 and 12:30, you must take the following steps to change an EELR from non-*energy* limited to *energy* limited:

1. Enter your revised *dispatch data* with a reason code.

2. Enter the *energy* limit for the day in the **DAILY ENERGY LIMIT** field.

3. If the reason code "OTHER" is entered in the **REASON_FOR_CHANGE** field, you will also need to enter text stating the specific reason in the **OTHER_REASON** field of the Market Participant Graphical User Interface (MP-GUI) input screen.

4. Enter the PQ pairs defining your *energy offer*.

5. Enter information in the remaining fields as needed.

When we have received, validated and placed your *offer* in a pending approval queue, our systems will notify you that you have an *offer* awaiting our approval. You must notify us of your submission by phone as early as possible so that we can review your submission before the next DACE run.

Upon our acceptance or rejection of your submitted *offer*, our systems will notify you of the decision. In the case of our acceptance, we enter the *offer* for your resource and use it in the next DACE run. Once your EELR *offer* is accepted, subsequent *offers* between 11:30 and 12:30 do not need our approval. If we accept your *bid* or *offer*, we will enter it and use it in the next DACE run.

If your resource is no longer *energy* limited between 11:30 and 12:30, you can revise your *offer* and, by not entering a value in the **DAILY ENERGY LIMIT** field, your EELR will no longer be considered *energy* limited. Note that you do not need our approval to make this change (i.e., at the time of submission your resource is still considered an EELR). However, if this submission was in error, to restore your resource to a non-*energy* limited EELR status you must follow the steps listed above.

After 12:30, *dispatch data* submissions from an EELR will be treated like any other non-*energy* limited dispatchable *generation facility* unless the EELR submission window has been extended[9].

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[9] The re-submission window for EELRs with a DEL is normally open from 10:00 to 12:00. However this window may be extended by the DACP Operator. When this occurs, a DACP notification will be issued.

5.1.4.3 Dispatchable Loads, Hourly Demand Response Resources, and Non Energy Limited Dispatchable Generation Resources

If you are a *dispatchable load, hourly demand response* (HDR) resource*,* or a non *energy* limited dispatchable *generation facility* , you need our approval when you submit any new or revised *dispatch data*, including *dispatch data* submitted in response to our request for additional *bids* and *offers*. Therefore, you must submit this data with a reason code. Submissions that do not include a reason code will be automatically rejected.

Dispatch data changes that we approve during the DACP are included in the next DACE run. However, *dispatch data* changes submitted with a reason code that we do not take any action on during the DACP are automatically rejected after 14:00 and will not be used in the calculations of the Pre-dispatch after 15:00.

5.1.4.4 Imports/Exports and Linked Wheels

We will only approve new or revised *dispatch data*[10] for imports, exports, and/or linked wheels that is submitted during the DACP in response to our request for additional *bids* and *offers* or for changes to e-Tag identifiers. Once approved, we use this data in the subsequent run of the DACE.

All other *dispatch data* that you submit during the DACP with a reason code will be automatically rejected at 14:00.

When you submit new or revised *dispatch data* in response to our request for additional *bids* and *offers*, please follow this process:

- Enter your new or revised *dispatch data* with a reason code[11].

- Select the reason code "OTHER" and indicate in the **OTHER REASON** field[12] of the Market Participant Graphical User Interface (MP-GUI) input screen that your submission is in response to our request for additional *bids* and *offers*.

- Enter the necessary PQ pairs.

- Enter other information in the remaining fields as needed.

- When we have received, validated and placed your *offer* in a pending approval queue, our systems will notify you that you have an *offer* awaiting our approval.

- After we receive your submission, we will review your *dispatch data* submission and approve or reject your submission.

- Follow any specific instructions we may give you during consultations.

- Upon our acceptance or rejection of your submitted *offer*, our system will also notify you of the decision.

- If we accept your *bid* or *offer*, it will be used in the next DACE run.

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[10] *Dispatch data* changes for imports include changes to the e-Tag ID.

[11] See Appendix A for a complete list of the Reason Codes available in the Market Participant Graphical User Interface (MP-GUI).

[12] This is a free format field that allows you to type the reason in your own words, using up to 128 characters.

5.1.4.5   Physical Unit Associated with a Pseudo Unit

You do not need our approval for changes to *offers* for PUs associated with a *PSU* when these changes occur between 10:00 and 14:00. You must ensure that the *offers* for your PUs are sufficient to allow the PU schedules you receive from the DACP to be scheduled in Pre-*dispatch*.

5.1.5   Dispatch Data Submission after 14:00

We will reject all *PSU offer* submissions after 14:00 until 06:00 the next day, with the exception of valid standing *offers*.

Offers for PUs associated with a *PSU* are real-time *offers* and are ignored by the DACE (i.e., are not considered during the day-ahead optimization process). Changes to these *offers* after 14:00 are subject to the real time validation rules. If you submitted *Start-Up Cost* and *Speed No-Load* cost in the DACP, changes to these values after 14:00 are also subject to the real time validation rules, even though these values are not used in pre-dispatch and real-time.

5.1.6   Retrieval of Submitted Dispatch Data and DGD

You can retrieve validly submitted *dispatch data* and DGD using the RETRIEVE action of the MPI/GUI or the API. This RETRIEVE action is a data download for *dispatch data* (referred to as the Valid Bid Report [VBR]) and for DGD. This action results in a query of *dispatch data* or DGD that you have submitted into our Market Operation System (MOS). The RETRIEVE download contains the *dispatch data* or DGD submissions that have been validated and accepted into the MOS "work space" data area.

You can receive the query results either on the GUI screen (web) in HTML format, or as a text file that uses the applicable *dispatch data* or DGD submission template format. You can save the text file version of the query for future use in resubmitting *dispatch data* or for your own business needs.

The data that you receive when using the RETRIEVE action during the DACP or during the mandatory window in real time does not include any *dispatch data* or DGD that is waiting for our approval. Prior *dispatch data* or DGD submissions that may have been accepted and approved are over-written by the most recent data submission waiting for approval, and are no longer stored in the MOS "work space" data area. Therefore, such prior approved *dispatch data* or DGD is not included in the query results.

Calculated *PSU* DGD is not available through the query. These calculated values are available after 10:00 on private reports.

5.1.7   Submit New or Revised Dispatch Data—Procedure

Use this procedure if you have a resource identified in Table 5-2: Dispatch Data Submission by Resource Type and you wish to submit new or revised *dispatch data* to participate in the DACP. You must complete this activity within the timelines shown in Figure 4-1: DACP Data Submission Timeline.

5.1.8   Workflow for Submit New or Revised Dispatch Data

The diagrams in this section represent the flow of work and information for submitting new or revised *dispatch data* for use in the DACP.

Table 5-3 contains descriptions of the workflow diagram shapes.

Table 5-3: Workflow Diagram Legend

Legend	Description
Oval	An event that triggers task or that completes task. Trigger events and completion events are numbered sequentially within procedure (01 to 99)
Task Box	Shows reference number and task name or brief summary of task. Reference number (e.g., 1A.02) indicates procedure number within current *market manual* (1), sub-procedure identifier (if applicable) (A), and task number (02).
Solid Horizontal Line	Shows information flow between the *IESO* and external parties
Solid Vertical Line	Shows linkage between tasks
Broken Line	Links trigger events and completion events to preceding or succeeding task

Market Participant   IESO

```
                    01
               Intent to submit
              new or revised
               dispatch data
```

5.1.01   — *Valid* →   **5.1.02**

Dispatchable Generator, Dispatchable
Load, Non-Dispatchable Generator,   ← *Incomplete /invalid*   Valid standing dispatch data is
Boundary Entity, HDR resources, and   accepted and converted to active bids
PSU submits standing dispatch data   and offers at 6:00
before 6:00 on the pre-dispatch day

5.1.03   — *Valid* →

Dispatchable Generator, Dispatchable
Load, Non-Dispatchable Generator,   ← *Incomplete /invalid*
Boundary Entity, HDR resources, and
PSU submits active dispatch data
between 6:00 and 10:00 on the pre-
dispatch day

5.1.05   — *Valid* →   **5.1.04**

EELR submits active dispatch data   ← *Incomplete /invalid*   Valid dispatch data is accepted
between 10:00 and 12:30 on the pre-
dispatch day

5.1.06   — *Valid* →   **5.1.07**

Non EELR (Dispatchable Generator,
Dispatchable Load, Boundary Entity,   ← *Incomplete /invalid*   Valid dispatch data is accepted and
HDR resources, and PSU) submits   queued for approval
active dispatch data between 10:00 and
14:00 on the pre-dispatch day with
reason code

                                             5.1.08

                                             New or revised dispatch data is
                                             reviewed for approval

                          Not Approved   *Approved*

```
        04                                              02
   PSU intends to                                  Dispatch data is
   submit new or                                   used in the DACE
   revised dispatch
        data
```

```
                                                        03
                                                   Dispatch data is
                                                     rejected
```

5.1.09   — *Valid* →   **5.1.10**

PSU submits active dispatch data after   ← *Rejected*   Dispatch data is not accepted
14:00 on the pre-dispatch day (not
standing dispatch data)

                                             Not Approved

```
                                                        05
                                                   Dispatch data is
                                                     rejected
```
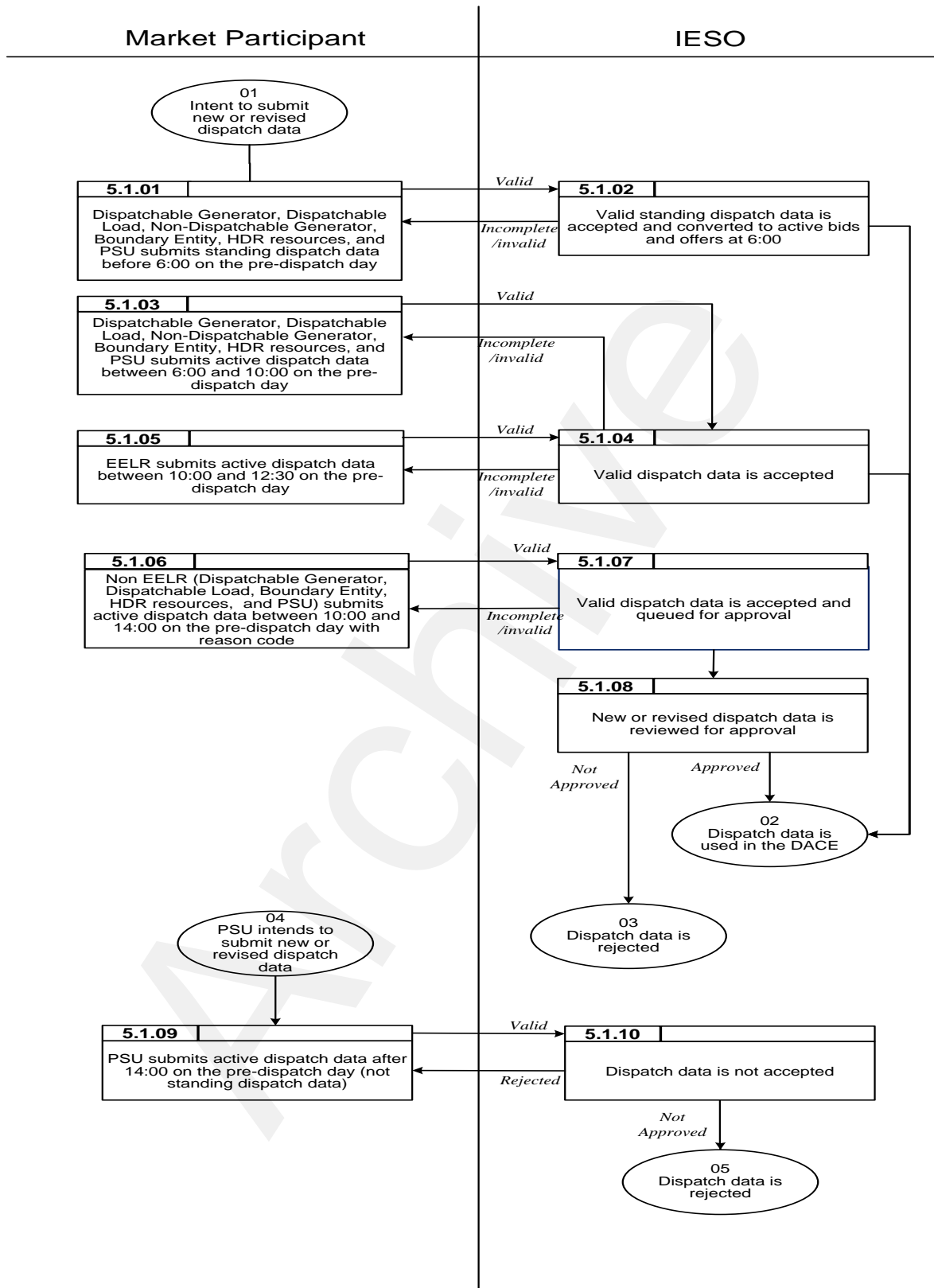
Figure 5-2: Workflow for Submit New or Revised Dispatch Data

5.1.9   Procedural Steps for Submit New or Revised Dispatch Data

This section explains the steps for the submission of *dispatch data* and revisions with or without restriction in the real-time *energy* and *operating reserve markets*.

Table 5-4 describes the fields used in the table of procedural steps.

Table 5-4: Procedural Steps Legend

Legend	Description
Ref #	The numerical reference to the task.
Accountable Entity	The entity that is accountable for executing the specific task identified in the action column.
Action	Detail about the specific task including: • A description of the events that can trigger commencement of the task • A list of the information flows that may or must result from the task
Tools	The format and method for each information flow are specified.

Table 5-5: Procedural Steps for Submit New or Revised Dispatch Data

Ref #	Accountable Entity	Action	Tools
01	*market participant*	*Market participant intends to submit new or revised dispatch data* *Log into the MPI and enter dispatch data:* • Incremental *energy* and *operating reserve bids* and *offers* • *Speed-no-load* cost • *Start-up cost* Applies to all resource types: • Dispatchable *generation facilities* • Non-dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities* • PSUs • *HDR* resources	*Market Operation System - Market Participant Graphical User Interface (MPI) or Application Programmers Interface (API)* *More information on the Market Participant Graphical User Interface can be found in the Users Guide (*[click here](#)*).*
5.1.01	*market participant*	*Submit standing dispatch data before 06:00 day-ahead:* • Incremental *energy* and *operating reserve bids* and *offers* • *Speed-no-load* cost • *Start-up cost*	*Market Operation System - Market Participant Graphical User Interface (MPI) or Application Programmers Interface (API)*

Ref #	Accountable Entity	Action	Tools
		Applies to all resource types: • Dispatchable *generation facilities* • Non-dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities* • PSUs • *HDR* resources	
5.1.02	*IESO*	*We receive and validate submitted standing dispatch data* *Valid standing dispatch data is converted to active dispatch data at 06:00* *We notify you via MPI of validation errors* *We will use all accepted dispatch data in the DACP and/or Pre-dispatch*	*Market Operation System - MPI or API*
5.1.03	*market participant*	*Submit dispatch data between 06:00 and 10:00 day-ahead:* • Incremental *energy* and *operating reserve bids* and *offers* • Speed-no-load cost • Start-up cost *Applies to all resource types:* • Dispatchable *generation facilities* • Non-dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities*, • PSU's • *HDR* resources	*Market Operation System - MPI or API*
5.1.04	*IESO*	*We receive and validate submitted dispatch data* *We notify you via MPI of validation errors* *We will use all accepted dispatch data in the DACP and/or Pre-dispatch* *Note: Offers for physical units (PU) associated with a PSU are real-time offers and are not considered during the Day-Ahead Optimization Process*	*Market Operation System - MPI or API*
5.1.05	*market participant*	*Submit dispatch data between 10:00 and 12:30 day-ahead:* • Incremental *energy* and *operating reserve bids* and *offers*	*Market Operation System - MPI or API*

Ref #	Accountable Entity	Action	Tools
		• DEL *Applies to EELR's*	
5.1.04	*IESO*	*We receive and validate submitted dispatch data* *You are notified via MPI of validation errors* *We will use all accepted dispatch data in the DACP and/or Pre-dispatch*	*Market Operation System - MPI or API*
5.1.06	*market participant*	*Submit dispatch data between 10:00 and 14:00 day-ahead:* • Incremental *energy* and *operating reserve bids* and *offers* • *Speed-no-load* cost • *Start-up cost* • DEL • Reason Code *Applies to all non-EELR resource types:* • Dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities* • PSU's • *HDR* resources *Reasons for submitting dispatch data that requires our approval (appropriate reason code must be submitted as per Appendix A):* • We request submission of *dispatch data* for *reliability* reasons • Changes to e-Tag identifiers associated with imports/exports • We reject, revoke or recall an *outage* or transition the *outage* to "At Risk" status • Equipment is returning early from a *planned outage* (with planned, opportunity or information Priority Code) or *forced outage* (with forced or urgent Priority Code) or a non-performance event • An eligible *energy* limited resource submits a DEL after 10:00 • Changes in the operational status of the *generation facility, HDR* resource, or the *dispatchable load facility* to prevent the *facility* from operating in a manner that would violate any *applicable law*, endanger the safety of any person, or damage	*Market Operation System - MPI or API*

Ref #	Accountable Entity	Action	Tools
		property or the environment	
5.1.07	*IESO*	*We receive and validate submitted dispatch data* *You are notified via MPI of validation errors*	*Market Operation System - MPI or API*
5.1.08	*IESO*	*We review revised dispatch data and approve in accordance with Appendix A, Section A.2.1* *Approved dispatch data will be used in the DACP and/or Pre-dispatch* *Applies to all non-EELR resource types:* • Dispatchable *generation facilities* • Non-dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities* • PSU's • *HDR* resources	*Market Operation System - MPI or API*
02		*Your dispatch data is used in the DACP*	
5.1.08	*IESO*	*We review revised dispatch data and approve in accordance with Appendix A, Section A.2.1* *Non-approved dispatch data will be rejected at 14:00* *Applies to all non-EELR resource types:* • Dispatchable *generation facilities* • Non-dispatchable *generation facilities* • *Dispatchable load* • *Boundary entities* • PSU's • *HDR* resources	*Market Operation System - MPI or API*
03		*We automatically reject all dispatch data awaiting our approval at 14:00* *Your dispatch data is not used in the DACP*	*Market Operation System - MPI or API*
04	*market participant*	*PSU intends to submit dispatch data after 14:00* *Log into the MPI and enter dispatch data:* • Incremental *energy* and *operating reserve bids* and *offers* • *Speed-no-load* cost; • *Start-up cost* *Applies to PSUs.*	*Market Operation System - MPI or API* *More information on the Market Participant Graphical User Interface can be found in the Users Guide (click here)*

Ref #	Accountable Entity	Action	Tools
5.1.09	*market participant*	*PSU submits dispatch data after 14:00 day-ahead:* • Incremental *energy* and *operating reserve bids* and *offers* • *Speed-no-load* cost • *Start-up cost* • DEL • Reason code *Applies to PSU's.*	*Market Operation System - MPI or API*
5.1.10	*IESO*	*We automatically reject the submitted dispatch data*	*Market Operation System - MPI or API*
05		*We automatically reject all dispatch data awaiting our approval at 14:00. Your dispatch data is not used in the DACP*	

5.2 Submit Daily Generation Data

The DACE requires DGD values for dispatchable non *quick start facilities*. The DACE initializes DGD with the default values[13] shown in 'Table 5-6: Daily Generation Data Submission by Resource Type'.

Non *quick start facilities* can provide alternate values to the defaults and can revise the values on a daily basis. Non-dispatchable resources (intermittent, self-scheduling, *dispatchable loads*, imports and exports) do not have default DGD values or the ability to alter these values.

Table 5-6: Daily Generation Data Submission by Resource Type

Data Description	Unit of Measure	Default Value	Non Quick Start Facility	Quick Start Facility	Non-dispatchable Resources
Minimum Loading Point	MW	0	x	n/a	n/a
Minimum Generation Block Run Time	Hours	0	x	n/a	n/a
Minimum Generation Block Down Time	Hours	0	x	n/a	n/a
Maximum Number of Starts per Day	Number	24	x	n/a	n/a
Single Cycle Flag14	Yes/No	No	x	n/a	n/a

---

[13] The DACE does not accept null values as inputs. Inputs to the DACE require initial default values.

[14] Only applies to CTs associated with PSUs.

5.2.1   Minimum Loading Point

We will validate the DGD *minimum loading point* (MLP) you submit and compare it to the DGD *MLP* Limit. You can submit a value that exceeds this limit, but it will require a reason code and our approval. You must phone the DACP Operator to inform that you submitted a *MLP* value that requires our approval. The submission may be sent to compliance for review if the change was made for non-technical reasons.

The DGD *MLP* Limit is calculated by applying a predefined tolerance to the registered value, i.e., MLP Tolerance). The tolerance value is a percentage and will be >= 100%. The DGD *MLP* Limit can be calculated as follows:

DGD MLP Limit = (Registered Value MLP) x (MLP Tolerance)

where: MLP Tolerance = 110%

5.2.2   Minimum Generation Block Run Time

We will validate the DGD *minimum generation block run time* (MGBRT) you submit and compare it to the DGD *MGBRT* Limit. You can submit a value that exceeds this limit, but it will require a reason code and our approval. You must phone the DACP Operator to inform that you submitted a *MGBRT* value that requires our approval. The submission may be sent to compliance for review if the change was made for non-technical reasons.

The DGD *MGBRT* Limit is calculated by applying a predefined tolerance to the registered value, i.e., *MGBRT* Tolerance). The tolerance value is a percentage and will be >= 100%. The DGD *MGBRT* Limit can be calculated as follows:

DGD MGBRT Limit = (Registered Value MGBRT) x (MGBRT Tolerance)

where: MGBRT Tolerance = 105%

The submitted value will be accepted by *IESO* solutions if it meets the above validation rules.

5.2.3   Minimum Generation Block Down Time

Minimum generation block down time (MGBDT) is defined as the minimum number of hours, specified by the market participant, required between the time a generation unit is last at its minimum loading point before de-synchronization and the time the generation unit reaches its minimum loading point again after synchronization.

5.2.4   Maximum Number of Starts per Day

The *maximum number of starts per day* is the number of times that a *generation unit* can be started within a *dispatch day*.

5.2.5   Pseudo unit Daily Generation Data Submission

You cannot directly submit DGD for *PSU* resources. Instead, you must revise your PU DGD accordingly, and the *IESO* will compute their *PSU* parameters.

You are expected to understand how updating your PU DGD will affect your *PSU* DGD, and you should adjust your PU DGD as required to achieve the desired *PSU* results. See below for the formulas used in computing the PSU parameters.

5.2.5.1 Single-Cycle Mode for a Combustion Turbine of a Pseudo unit

You can elect to operate a *PSU* in single-cycle mode (i.e., remove the steam turbine (ST) contribution from the *PSU*). You can elect this option by submitting the single-cycle mode DGD value for the combustion turbine (CT) associated with the *PSU*. By doing so, the computed technical parameters on the *PSU* resource will be equal to the technical parameters of the CT. This feature is only available to a CT associated with a *PSU*, and will enable you to continue submitting *offers* on the *PSU* when the ST is derated or unavailable.

Single-cycle mode is a DGD value used by the *IESO* in calculating *PSU* DGD values. These *PSU* DGD values are inputs to the DACE. The single-cycle mode is a single value applied to all hours of the DACP day.

> IF
>> $SingleCycleModeFlag_{PSU(n)}$ = NO,
>> THEN PSU operates in combined cycle mode (ST contribution enabled)
> ELSE
>> $SingleCycleModeFlag_{PSU(n)}$ = YES,
>> THEN PSU operates in single cycle mode (ST contribution disabled)

5.2.5.2 Computation of Pseudo unit DGD Technical Parameters

The following *PSU* parameters are computed by the *IESO* after 10:00 and are based on the related PU DGD parameters submitted:

- **PSU Maximum Generator Capacity (MGC)** is computed to be the sum of the MGC of the associated CT (submitted through registration) plus the ST contribution to PSU MGC (computed value).

> $MaxCapacity_{PSU(n)} = MaxCapacity_{CT(n)} + MaxCapacity_{ST\_to\_PSU(n)}$
> WHERE,
> IF
>> $SingleCycleModeFlag_{PSU(n)}$ = NO,
>> $MaxCapacity_{ST\_to\_PSU(n)} = Share\%_{PSU(n)} * MaxCapacity_{ST}$
> ELSE
>> $MaxCapacity_{ST\_to\_PSU(n)} = 0.0$

- **PSU MLP** is computed to be the sum of the MLP of the associated CT plus the DGD 1-on- 1 MLP of the ST as submitted through DGD.

> IF
>> $SingleCycleModeFlag_{PSU(n)}$ = NO,
>> $MLP_{PSU(n)} = MLP_{CT(n)} + MLP_{ST}$
> ELSE
>> $MLP_{PSU(n)} = MLP_{CT(n)}$

- **PSU MGBRT** is computed to be equal to the associated CT DGD *MGBRT* as submitted through DGD.

    $MGBRT_{PSU(n)} = MGBRT_{CT(n)}$

- **PSU MaxStarts** is computed to be equal to the associated CT MaxStarts as submitted through DGD.

    $MaxStarts_{PSU(n)} = MaxStarts_{CT(n)}$

- **PSU Minimum Generation Block Down Time (MGBDT)** is the *minimum generation block down time* of a *PSU* equal to the supplied *MGBDT* of the associated CT through DGD.

    $MGBDT_{PSU(n)} = MGBDT_{CT(n)}$

    Note: Computed parameters will be rounded to the nearest single decimal value.

- **PSU Lower Operating Region Amount (PSU_OR_1)**, also known as the MLP Range, is defined as the capacity available from zero output to the MLP of the PSU. The PSU Lower Operating Region is computed to be equal to the computed value of the MLP of the PSU.

    $PSU\_OR\_1_{PSU(n)} = MLP_{PSU(n)}$

- **PSU Upper Operating Region Amount (PSU_OR_3)**, also known as the Duct Firing Range, is defined as the capacity available from duct firing above the Middle Operating Region. The PSU Upper Operating Region is computed to be the product of ST percentage share per PSU and the ST duct firing capacity. Both input values are submitted through registration.

    IF

    　　　$SingleCycleModeFlag_{PSU(n)} = NO$,

    　　　$PSU\_OR\_3_{PSU(n)} = Share\%_{PSU(n)} * DuctFiring_{ST}$

    ELSE

    　　　$PSU\_OR\_3_{PSU(n)} = 0.0$

- **PSU Middle Operating Region Amount (PSU_OR_2)**, also known as the Dispatchable Range, is defined as the capacity available above MLP and below the start of duct firing. The PSU Middle Operating Region is computed as the difference of the PSU MCR, the Upper Operating Region and the Lower Operating Region.

    $PSU\_OR\_2_{PSU(n)} = MaxCap_{PSU(n)} - PSU\_OR\_3_{PSU(n)} - PSU\_OR\_1_{PSU(n)}$

5.2.5.3 Computation of ST DGD Portion of PSU Operating Regions

The following PSU parameters are computed by the *IESO* after 10:00 and are based on the related PU DGD parameters submitted.

The ST Portion of an Operating Region is the capacity the ST contributes to the *PSU* for a specified operating region. The DACE requires the input of the ST portions expressed as percentages.

- **ST Portion of the Lower Operating Region Amount (ST_OR_1)** is equal to the DGD 1-on-1 MLP of the ST.

    IF

    $$\text{SingleCycleModeFlag}_{PSU(n)} = NO,$$
    $$\text{ST\_OR\_1}_{PSU(n)} = \text{MLP}_{ST}$$

    ELSE

    $$\text{ST\_OR\_1}_{PSU(n)} = 0.0$$

- **ST Portion of the Upper Operating Region Amount (ST_OR_3)**, expressed in MW, is computed as the product of ST percentage share per PSU and the ST duct firing capacity. Both input values are submitted through registration.

    IF

    $$\text{SingleCycleModeFlag}_{PSU(n)} = NO,$$
    $$\text{ST\_OR\_3}_{PSU(n)} = \text{Share\%}_{PSU(n)} * \text{DuctFiring}_{ST}$$

    ELSE

    $$\text{ST\_OR\_3}_{PSU(n)} = 0.0$$

- **ST Portion of the Middle Operating Region Amount (ST_OR_2)**, expressed in MW, is computed as the difference of the ST contribution to a PSU MGC, the ST Portion of the Upper Operating Region and the ST Portion of the Lower Operating Region. All three input values are computed.

    $$\text{ST\_OR\_2}_{PSU(n)} = \text{MaxCapacity}_{ST\_to\_PSU(n)} - \text{ST\_OR\_3}_{PSU(n)} - \text{ST\_OR\_1}_{SU(n)}$$

- **ST Portions of Operating Regions**, expressed as percentages, are computed as the share of the ST Portion divided by the PSU Operating Region. Both input values are computed.

    K1 = ST_OR_1PSU(n) / PSU_OR_1PSU(n) * 100

    K2 = ST_OR_2PSU(n) / PSU_OR_2PSU(n) * 100 where PSU_OR_2PSU(n) > 0, ELSE K2 = 0

    K3 = ST_OR_3PSU(n) / PSU_OR_3PSU(n) * 100 where PSU_OR_3PSU(n) > 0, ELSE K3 = 0

5.2.6 Steam Turbine DGD MLP for n-on-1 CT-to-ST Configuration Submission and Validation

A physical ST that is part of a combined cycle plant and is not physically aggregated (regardless of whether or not the *market participant* has elected to use the *PSU* model) will be able to provide each of their n-on-1 DGD MLPs where applicable. The number of DGD MLPs you can submit for a ST is dependent on the number of CTs in the combined cycle plant.

The additional n-on-1 DGD MLPs is limited and equal to (n-1), where n is equal to the number of CTs at the combined cycle plant. For example, a combined cycle plant with three CTs and one ST can provide a 2-on-1 and 3-on-1 DGD MLP, but may not submit a 4-on-1 DGD MLP.

You may only submit CT-to-ST configuration values for the number of CTs in the combined cycle plant.

The DGD MLP limits are computed based on the registered value of MLP and the tolerances as determined by the *IESO*.

The submitted MLP will be validated based on the following validation rules:

- Number format xxxx.x, (units are in megawatts [MW])
- 0 < DGD MLP(i)-on-1 < DGD MLP(i)-on-1 Limit
- 0 < DGD MLP(i-1)-on-1 < DGD MLP(i)-on-1, where 2 =< i =< n

5.2.7   Approval of Daily Generation Data

You can submit DGD at any time. Unlike unapproved submitted *dispatch data*, we do not reject DGD submissions daily at 14:00.

DGD submissions accepted by us before 10:00 will be used for the optimization for the next day and will be validated using the DGD limits effective for that day. DGD submissions after 10:00 will be used in the next day's DACP and for all subsequent DACP days until it is changed.

Submission above the DGD *MLP* Limit or DGD *MGBRT* Limit will require a reason code and *IESO* approval. We will approve submissions above the limit, but we may send them to compliance for review if the change was made for non-technical reasons. Where DGD submitted after 16:00 requires approval, you must notify the DACP Operator the next day and request approval. DGD requiring approval must be accompanied by a reason code (Technical or Non-Technical).

Table 5-7: DGD Submission Reason Codes

Code	Definition
T	Technical requirement
NT	Non-technical requirement

5.2.8   Submit Daily Generation Data—Procedure

Follow this procedure when you have a non quick start generation unit and wish to submit DGD for use in the DACP. The previously submitted DGD will remain in effect until you revise it. You must complete this procedure in accordance with the timelines shown in'Figure 4-1: DACP Data Submission Timeline.

5.2.9   Workflow for Submit Daily Generation Data

The diagrams in this section represent the flow of work and information associated with submitting DGD for use in the DACP.

See 'Table 5-3: Workflow Diagram Legend' for a description of the shapes used in the workflow.
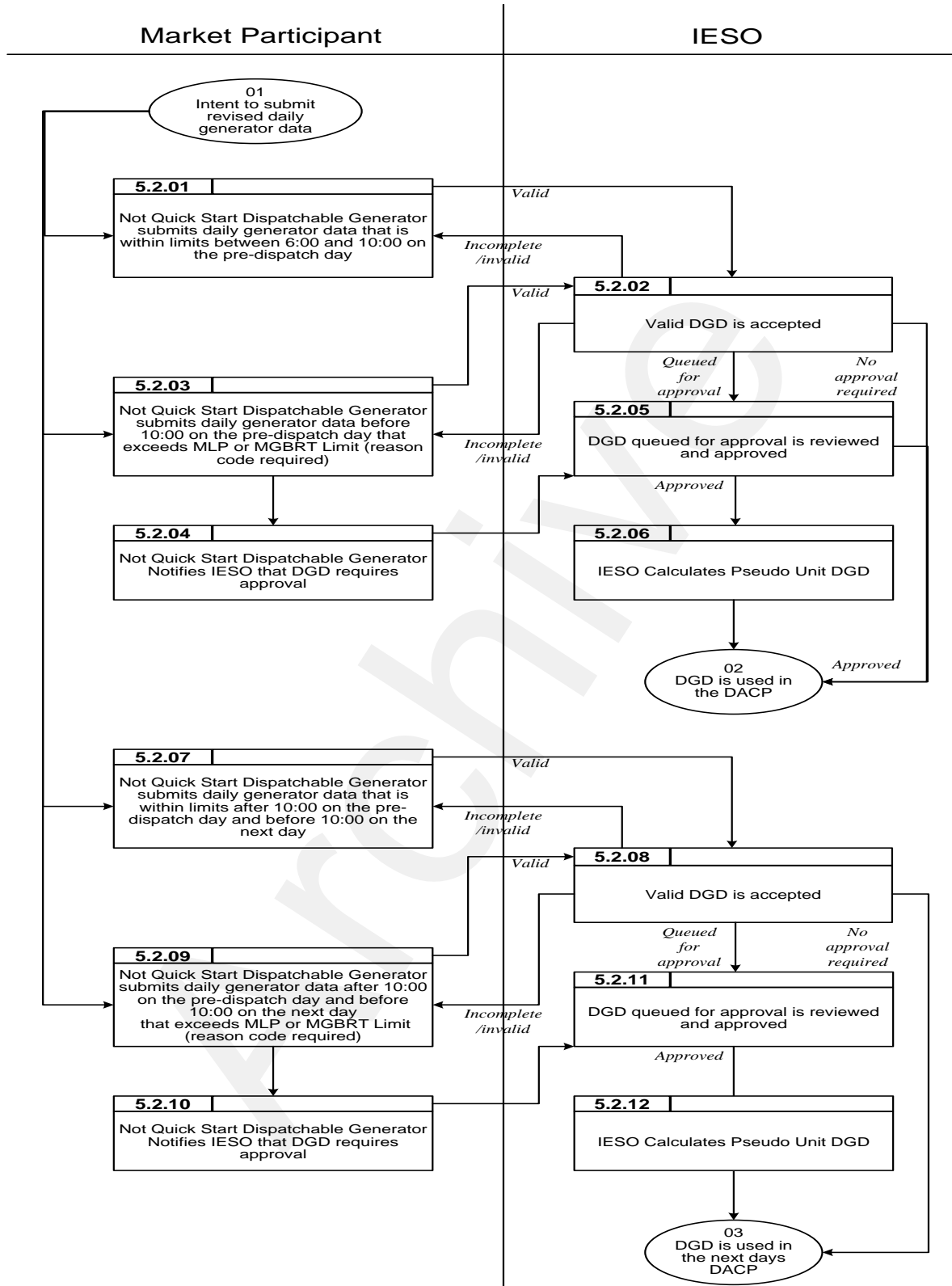
Market Participant   IESO

01
Intent to submit revised daily generator data

5.2.01

Not Quick Start Dispatchable Generator submits daily generator data that is within limits between 6:00 and 10:00 on the pre-dispatch day

Valid

Incomplete /invalid

5.2.02

Valid DGD is accepted

Valid

5.2.03

Not Quick Start Dispatchable Generator submits daily generator data before 10:00 on the pre-dispatch day that exceeds MLP or MGBRT Limit (reason code required)

Incomplete /invalid

Queued for approval

No approval required

5.2.05

DGD queued for approval is reviewed and approved

Approved

5.2.04

Not Quick Start Dispatchable Generator Notifies IESO that DGD requires approval

5.2.06

IESO Calculates Pseudo Unit DGD

02
DGD is used in the DACP

Approved

5.2.07

Not Quick Start Dispatchable Generator submits daily generator data that is within limits after 10:00 on the pre-dispatch day and before 10:00 on the next day

Valid

Incomplete /invalid

5.2.08

Valid DGD is accepted

Valid

Queued for approval

No approval required

5.2.09

Not Quick Start Dispatchable Generator submits daily generator data after 10:00 on the pre-dispatch day and before 10:00 on the next day that exceeds MLP or MGBRT Limit (reason code required)

Incomplete /invalid

5.2.11

DGD queued for approval is reviewed and approved

Approved

5.2.10

Not Quick Start Dispatchable Generator Notifies IESO that DGD requires approval

5.2.12

IESO Calculates Pseudo Unit DGD

03
DGD is used in the next days DACP

Figure 5-3: Workflow for Submit Daily Generator Data

5.2.10 Procedural Steps for Submit Daily Generation Data

This section describes the steps required to submit DGD for use in the DACP.

See 'Table 5-4: Procedural Steps Legend' for a description of the fields used in the table of procedural steps.

Table 5-8: Procedural Steps for Submit Daily Generator Data

Ref #	Accountable Entity	Action	Tools
01	*market participant*	Log into MPI and enter DGD: • *MLP* • *MGBRT* • *MGBDT* • *Maximum number of starts per day* • Combined cycle flag	Market Operation System - Market Participant Graphical User Interface (MPI) or Application Programmers Interface (API) More information on the Market Participant Graphical User Interface can be found in the Users Guide (click here).
5.2.01	*market participant*	Submit DGD before 10:00 day-ahead. DGD is within MLP and MGBRT limits (no approval required). • *MLP* • *MGBRT* • *MGBDT* • *Maximum number of starts per day* • Combined Cycle Flag	Market Operation System - MPI or API
5.2.02	*IESO*	We receive and validate submitted DGD. We notify you via MPI of validation errors. All accepted *dispatch data* will be used in the DACP.	Market Operation System - MPI or API
5.2.03	*market participant*	Submit DGD before 10:00 day-ahead. If DGD exceeds MLP and MGBRT limits, then *IESO* approval is required. • *MLP* • *MGBRT* • *MGBDT* • *Maximum number of starts per day* • Combined cycle flag	Market Operation System - MPI or API

Ref #	Accountable Entity	Action	Tools
5.2.04	*market participant*	Notify us that DGD requires approval.	Telephone: MP calls *IESO* DACP Operator
5.2.05	*IESO*	We receive your reason and approve DGD that exceeds limits.	Market Operation System - MPI or API
5.2.06	*IESO*	We calculate *PSU* DGD based on DGD submitted for PUs associated with the *PSU*.	*IESO* Market Interface Manager (MIM)
02		Your DGD is used in the DACP.	
5.2.07	*market participant*	Submit DGD after 10:00 day-ahead and before 10:00 the next day. If DGD is within *MLP* and *MGBRT* limits, then no approval is required. • *MLP* • *MGBRT* • *MGBDT* • *Maximum number of starts per day* • Combined cycle flag	Market Operation System - MPI or API
5.2.08	*IESO*	We receive and validate submitted DGD. • You are notified via MPI of validation errors • All accepted *dispatch data* will be used in the DACP	Market Operation System - MPI or API
5.2.09	*market participant*	Submit DGD after 10:00 day-ahead and before 10:00 the next day. If DGD exceeds *MLP* and *MGBRT* limits, then *IESO* approval is required. • *Minimum loading point* • *MGBRT* • *MGBDT* • *Maximum number of starts per day* • Combined cycle flag	Market Operation System - MPI or API
5.2.10	*market participant*	You notify us that DGD requires approval.	Telephone: MP calls *IESO* DACP Operator

Ref #	Accountable Entity	Action	Tools
5.2.11	*IESO*	We receive reason from MP and approve DGD that exceeds limits.	Market Operation System - MPI or API
5.2.12	*IESO*	We calculate *PSU* DGD based on DGD submitted for PUs associated with the *PSU*.	*IESO* Market Interface Manager (MIM)
03		Your calculated DGD is used in the DACP.	

5.3 Request Segregated Mode of Operation (SMO)

As part of our *reliability* assessments during the DACP, we need to incorporate *dispatch data*[15] from all dispatchable *generation facilities* that wish to be eligible for *real time dispatch*, including those that intend to operate in *segregated mode of operation* (*SMO*). Therefore, like any other dispatchable *generator* that submits *dispatch data* to the DACP, you must submit the *offers* associated with *SMO* units by 10:00 day-ahead.

If you wish to operate your units in *SMO*, you must submit the request for *SMO* by 09:00 in order to be included in the first run of DACP. We must assess the *SMO* request by 10:00 if we receive it no later than 09:00 (for use in the 10:30 DACP run). We will assess *SMO* requests received after 09:00 and before 10:00 on a best effort basis. Since you know that *SMO* can be recalled at any time for *reliability*, you are required to have *offers* in the Ontario Market prior to 10:00 for any *SMO* generation.

SMO is treated equivalently to an export wanting to be considered in DACP. Thus *SMO* requests must be approved before 10:00 in order to be considered in the DACP.

To ensure that a request for *SMO* at Saunders can be accommodated in the DACP, we will select the Beauharnois interface to operate in the bidirectional mode unless *adequacy* assessments indicate a deficiency. Where an *adequacy* assessment indicates a deficiency, we will select the Beauharnois interface to operate in a configuration that maximizes our import capability for the hours of that deficiency, plus those hours that may be required for switching from one mode of operation to another.

5.3.1 Request SMO – Procedure

This procedure is initiated when a *quick start generation facility* that is able to connect to the TransEnergie system wishes to operate in *SMO*.

5.3.2 Workflow for Request SMO

The diagrams in this section represent the flow of work and information associated with requesting *SMO*.

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[15] As described in Section 1.3.7 of Market Manual 4.2, you must provide *dispatch data* and an *outage* request that covers each of these hours during which you intend to operate in *SMO*.

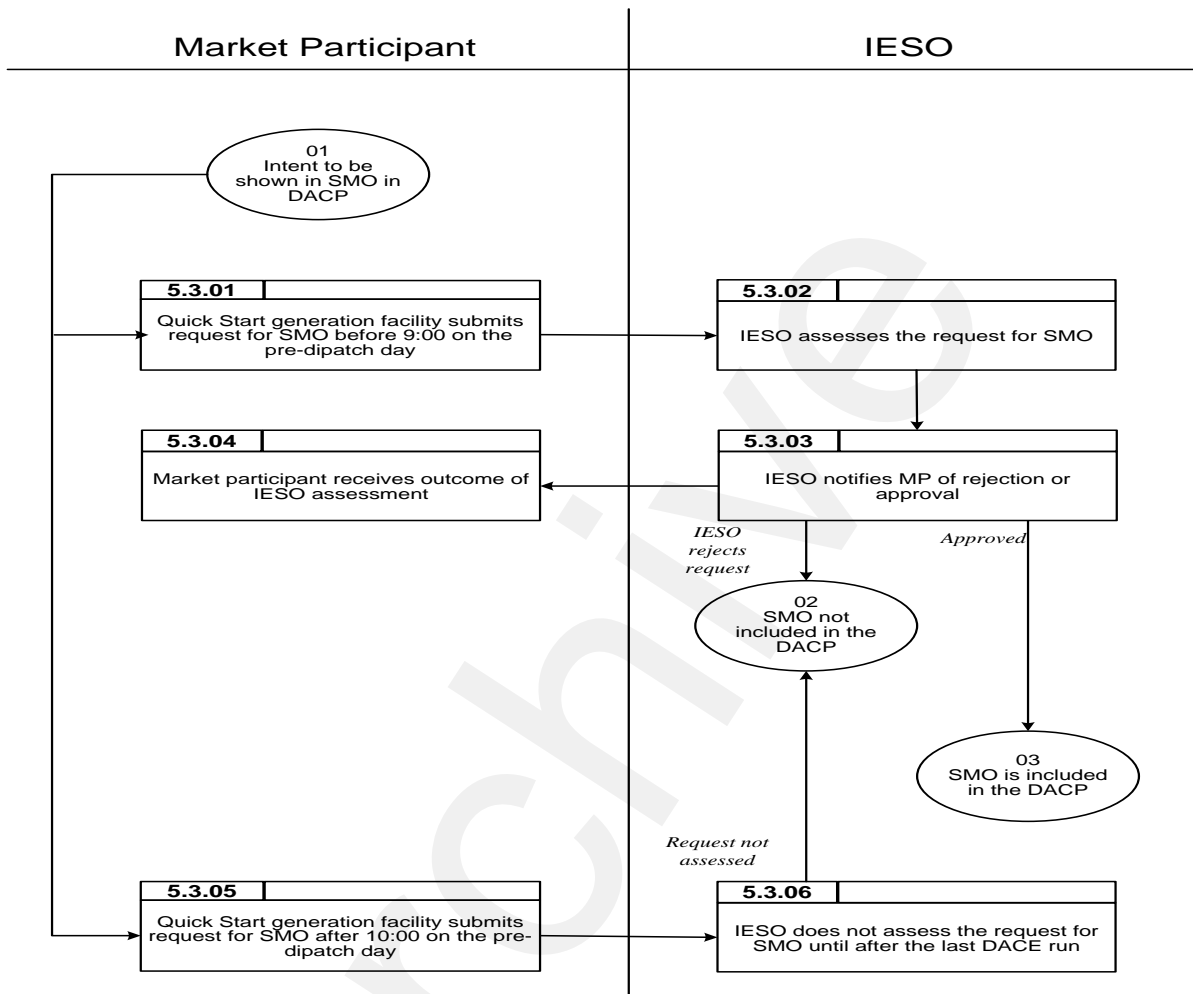See 'Table 5-3: Workflow Diagram Legend' for a description of the shapes used in 'Figure 5-4: Workflow for Request *SMO*'.

Figure 5-4: Workflow for Request *SMO*

5.3.3   Procedural Steps for Request SMO

This section describes the steps required in the DACP *SMO* procedure.

See 'Table 5-4: Procedural Steps Legend' for a description of the fields used in the table of procedural steps.

Table 5-9: Procedural Steps for Request SMO

Ref #	Accountable Entity	Action	Tools
01	*market participant*	*You wish to be shown in SMO in the DACP.*	
5.3.01	*market participant*	*You submit a request for SMO before 10:00 day-ahead.*	*Request for Outage (Outage management system, web form or Email)*
5.3.02	*IESO*	*We assess request for SMO:* *Requests received before 09:00 will be assessed and either approved or rejected before 10:00.* *Requests received between 09:00 and 10:00 will be assessed on a best effort basis and may not be assessed in time for inclusion in the DACP.*	*Outage management system; Adequacy Report*
5.3.03	*IESO*	*We approve or reject your request and notify you.*	*Outage management system; Telephone*
5.3.04	*market participant*	*You receive notification before 10:00 that your request for SMO was rejected.*	*Outage management system; Telephone*
02		*SMO is not included in the DACP.*	
5.3.04	*market participant*	*You receive notification before 10:00 that your request for SMO was approved.*	*Outage management system; Telephone*
03		*SMO is included in the DACP.*	
5.3.05	*market participant*	*You submit a request for SMO after 10:00 day-ahead.*	*Request for Outage (Outage management system, web form or Email)*
5.3.06	*IESO*	*We do not assess the request for SMO until after the last DACE run.*	
02		*SMO is not included in the DACP.*	

5.4   Submit Regulation Offers

We determine the quantity of *regulation* capacity needed and *publish* this information in Market Manual 7.2: Near Term Assessments and Reports. We procure *regulation* through *ancillary services* contracts, a process that is independent of the *real-time market* or the DACP.

Each ancillary service provider must offer *regulation* capacity for the next day by 09:00 day-ahead, in response to our requirements as specified in Market Manual 7.2. We will *publish* an advisory notice to notify ancillary service providers of any change to the *regulation* capacity requirement for the day. We must process and confirm regulation schedules by 10:00. Ancillary service providers must submit regulation offers that are a number in the format of xxx.x MW and are greater than or equal to 0.0 MW.

In the hours in which your units are nominated to provide *regulation* service, they are eligible for the DA-PCG provided that we mutually agree that they are to be started specifically to provide *regulation*, and that it would not otherwise be economic to start them for *energy* and *operating reserve markets*. Any such DA-PCG payment would be applied towards, or fully satisfy the compensation provisions in the *regulation* contract for such start-ups.

5.4.1   Submit Regulation Offers – Procedure

This procedure begins when a dispatchable *generation facility* that is a contracted *regulation* provider wishes to provide *regulation* service on the next day.

5.4.2   Workflow for Submit Regulation Offers

The diagrams in this section represent the flow of work and information for submitting *regulation offers* for consideration in the DACP.
 See 'Table 5-3: Workflow Diagram Legend' for a description of the shapes used in the workflow.
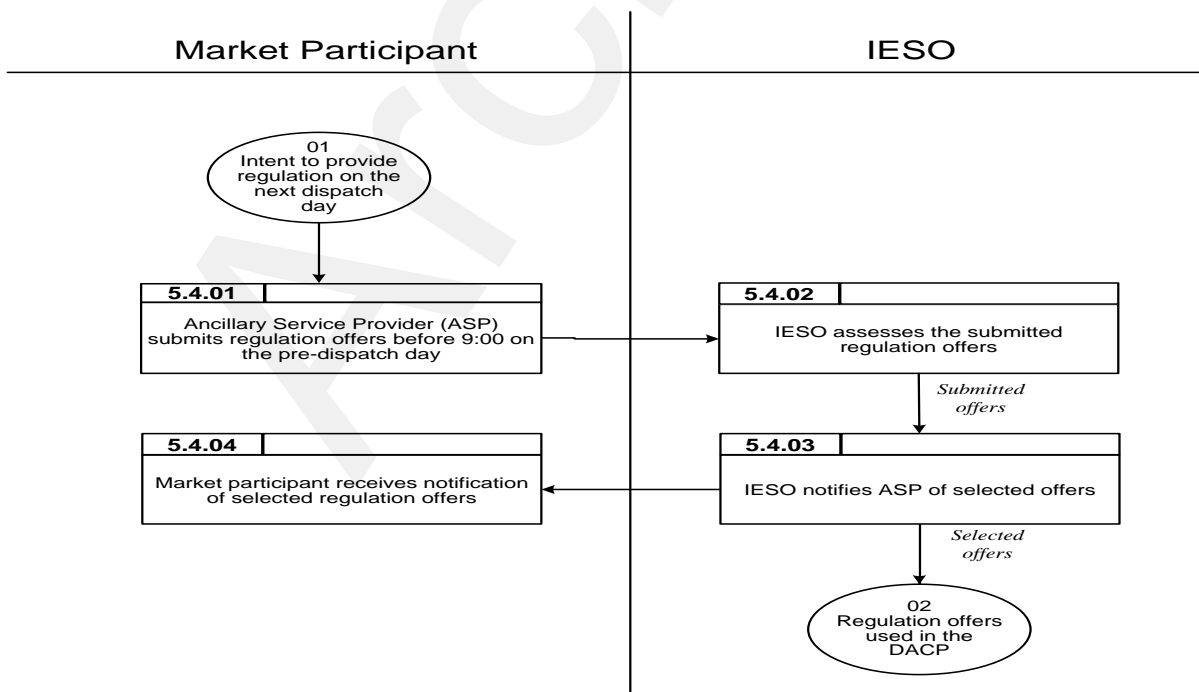

Figure 5-5: Workflow for Submit Regulation Offers

5.4.3 Procedural Steps for Submit Regulation Offers

This section describes the steps for submitting *regulation offers* to the *IESO*.

See 'Table 5-4: Procedural Steps Legend' for a description of the fields used in the table of procedural steps.

Table 5-10: Procedural Steps for Submit Regulation Offers

Ref #	Accountable Entity	Action	Tools
01	*market participant*	*You wish to provide regulation in the DACP.*	
5.4.01	*market participant*	*You submit regulation offers before 09:00 day-ahead.*	*Email or Fax*
5.4.02	*IESO*	*We assess submitted regulation offers.*	*Internal process; Advisory Notice*
5.4.03	*IESO*	*We notify you of selected regulation offers.*	*Email; Fax; Telephone*
5.4.04	*market participant*	*You receive notification of selected regulation offers.*	*Email; Fax; Telephone*

5.5 Procedure for Submitting Dispatch Data during Contingencies

When a tool failure of the *IESO* or a *market participant* causes a failure to submit *dispatch data* by 10:00, then we will attempt to use our administrative capabilities within the tools to submit/withdraw/edit *bids* and *offer*s on your behalf if the absence of *dispatch data* would result in either:

- Violation of any *applicable law*;
- Endangerment to the safety of any person;
- Damage to property or equipment; or
- Creation of *reliability* issues for the next day or future days.

When a tool failure of this nature occurs, you can provide us with your *dispatch data* by either email file or telephone. If telephone is used, it is impracticable to handle a large number of *price-quantity pairs*. Therefore, only simplified *bids*/*offers*, which include a minimum of two and a maximum of five *price-quantity pairs* for each hour, will be accepted.

In the event of a failure that affects the Participant Network, but leaves the Market Systems operational, you can e-mail a bidding file that uses Comma Separated Values (CSV) format to us. You are required to notify the DACP Operator by phone prior to sending a CSV-format bidding file via e-mail, and we will provide you with an email address.

The *IESO* administrative capabilities and procedures are published in the "Market Operator Graphical User Interface (GUI) User's Guide".

The format requirements for the bidding files are published in the "Participant Technical Reference Manual" (PTRM) Part 6, section 5.1.2 "Bidding Applications – Template Description and Samples". For contingency reasons, *market participants* are encouraged to have the *dispatch data* in CSV format readily available.

In the event of widespread problems affecting the Participant Network, the volume of e-mails would likely become unmanageable. We would be unable to handle e-mails from all MPs, and would therefore cancel the DACP.

Internet e-mail is not secure. All risks for the confidentiality of commercial information sent to the *IESO* via e-mail are assumed by the *market participant*.

5.5.1   Submitting Dispatch Data during Contingencies – Procedure

This procedure begins when a *market participant* can't submit *dispatch data* by 10:00 as a result of a tool failure. Upon receipt of your *dispatch data*, by phone or email, we will attempt to enter the *dispatch data* on your behalf.

If the absence of *dispatch data* would result in a *reliability* issue for the next day or future days, and it cannot be submitted by 14:00, the DACP will be cancelled in accordance with Section 1.7.4 of Chapter 7 of the "Market Rules"

5.5.2   Workflow for Submitting Dispatch Data during Contingencies

Figure 5-6 represents the flow of work and information for the contingency procedure for submitting *dispatch data*.

 See 'Table 5-3: Workflow Diagram Legend' for a description of the shapes used in the workflow.
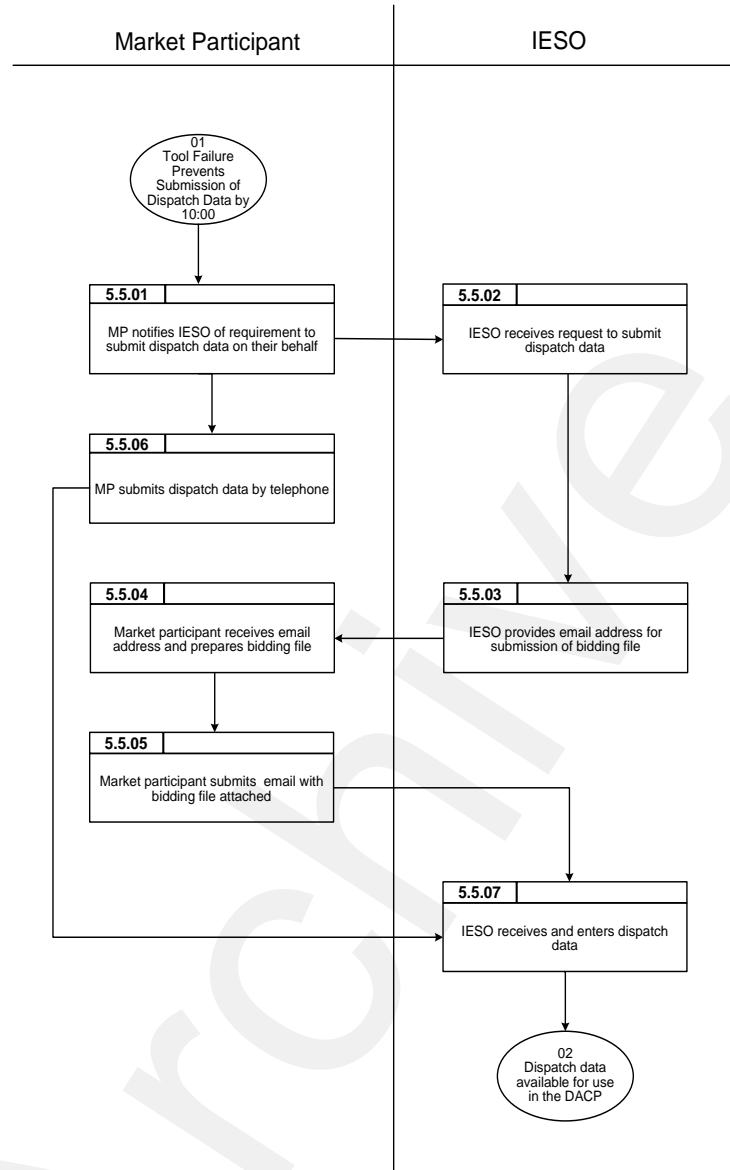
Figure 5-6: Workflow for Submitting Dispatch Data during Contingencies

5.5.3   Procedural Steps for Submitting Dispatch Data during Contingencies

This section describes the steps for the contingency procedure for submitting *dispatch data* to the *IESO*. See 'Table 5-4: Procedural Steps Legend' for a description of the fields used in the table of procedural steps.

Table 5-11: Procedural Steps for Contingency Procedure for Submitting Dispatch Data

Ref #	Accountable Entity	Action	Tools
01	market participant	You determine that you can't submit dispatch data as a result of a tool problem.	MPI/API/MIM
5.5.01	market participant	You notify us that you require us to submit dispatch data on your behalf.	Telephone
5.5.02	IESO	We receive your request to submit dispatch data.	Telephone
5.5.03	IESO	We provide you with an email address to submit dispatch data by email.	Telephone
5.5.04	market participant	You receive the email address and prepare your bidding file.	MPI
5.5.05	market participant	You submit your bidding file via email.	Email
5.5.06	market participant	You submit your dispatch data by telephone.	Telephone
5.5.07	IESO	We receive your dispatch data and enter it on your behalf.	OPGUI
02	IESO	Your dispatch data is available for use by the DACE.	DACE

– End of Section –

Appendix A: Reason Codes and Valid Reasons for Change

A.1   Reason Codes

As indicated previously, you must submit a reason code with any new or revised *dispatch data* you submit during the DACP. The reason code must indicate the reasons for your submission. For example, for *dispatch data* changes as a result of a *forced outage* you must use the "FO" reason code.

Table A-1 lists the reason codes available for your selection in the MP-GUI[16].

Table A-1: MP-GUI Reason Codes

Reason Code	Used for
FO	*Forced Outage*
FD	Forced Derating
ERPO	Early Return from *planned outage*
LRPO	Late Return from *planned outage*
WITHDRAW	Withdrawal from a day-ahead commitment that is within your control
OTHER	If the OTHER reason code is selected, a free text reason must be entered in the **OTHER REASON**[17] field to provide a reason for your submission. For example, the free text you enter in the **OTHER REASON** field may be: • "IESO tool issue", • "Data submitted in *response* to *IESO's* request for additional *bids* and *offers*", • "Change to the start of a *planned outage*", • "Change to an e-Tag identifier", or • "Change to demand response capacity".

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[16] The Market Participant Graphical User Interface (MP-GUI) is the system you use to submit new or revised *dispatch data*.

[17] This is a free format field, which allows you to type the reason for your submission in your own words, using up to 128 characters.

A.2   Valid Reasons for Change

A.2.1   Submissions during the DACP seeking our approval

If you seek our approval for new or revised *dispatch data* submitted during the DACP, you must submit your data with one of the reason codes listed in Appendix A.1. To submit new or revised *dispatch data* during the DACP, you must follow the process described in 'Section 4.1 Generation Facilities and Dispatchable Loads'.

If you need to use the reason code "OTHER" along with your submission, you must provide a valid reason for change in the **OTHER REASON** field of the MP-GUI. For the reason to be valid, it must match one of the valid reasons for change listed in this section. If you do not provide a valid reason code, we will reject your *dispatch data* submission.

Dispatchable loads, dispatchable generators and HDR resources

We will approve new or revised *dispatch data* submitted during the DACP using the reason code "OTHER", if the reason for change you provide in the **OTHER REASON** field indicates that the submission is:

- In response to our request for additional *bids* and *offers*
- To reflect changes in *planned outages* (with planned, opportunity or information Priority Code) /*forced outages* (with forced or urgent Priority Code)*,* deratings, or non-performance events
- To meet environmental, legal or safety requirements

Note: Units G6 to G9 at Chats Falls are part of the Hydro Quebec power system but they can be connected radially for operation in the *IESO*-controlled markets. This means that in real-time, we will approve dispatch data submitted for Chats Falls G6-G9 even if no dispatch data was submitted for these units in the DACP. Submission of dispatch data for these units in the mandatory window in real-time is subject to the applicable requirements as specified in Market Manual 4.2.

Note: Otter Rapids GS units, as well as Chats Falls units G2 and G3, have the option of being connected to either a 115 kV or 230 kV system. For these units, OPG may request to revise offers in real-time between 115 kV and 230 KV systems without changing the quantities established in the original DACP offers. The *IESO* requires adequate time to complete a reliability assessment before approving or denying the configuration request.

Imports and exports

We will approve new or revised *dispatch data* submitted during the DACP using the reason code "OTHER" if the reason for change you provide in the **OTHER REASON** field indicates that the submission is in response to our request for additional *bids* and *offers,* or for changes to e-Tag identifiers.

– End of Document –