Market Renewal Program: Energy

PUBLISHING AND REPORTING MARKET INFORMATION

Detailed Design

Issue 1.0

This document provides a detailed overview of the processes related to Publishing and Reporting that will be implemented for the Energy work stream of the Market Renewal Program including related market rules and procedural requirements.

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Disclaimer

This document provides an overview of the proposed detailed design for the Ontario Market Renewal Program (MRP) and must be read in the context of the related MRP detailed design documents. As such, the narratives included in this document are subject to on-going revision. The posting of this design document is made exclusively for the convenience of *market participants* and other interested parties.

The information contained in this design document and related detailed design documents shall not be relied upon as a basis for any commitment, expectation, interpretation and/or design decision made by any *market participant* or other interested party.

The *market rules*, *market manuals*, applicable laws, and other related documents will govern the future market.

Document Change History

Issue	Reason for Issue	Date
1.0	First publication for external stakeholder review.	March 26, 2020

Related Documents

Document ID	Document Title
DES-13	MRP High-level Design: Single Schedule Market
DES-14	MRP High-level Design: Day-Ahead Market
DES-15	MRP High-level Design: Enhanced Real-Time Unit Commitment
DES-16	MRP Detailed Design: Overview
DES-17	MRP Detailed Design: Authorization and Participation
DES-18	MRP Detailed Design: Prudential Security
DES-19	MRP Detailed Design: Facility Registration
DES-20	MRP Detailed Design: Revenue Meter Registration
DES-21	MRP Detailed Design: Offers, Bids and Data Inputs
DES-22	MRP Detailed Design: Grid and Market Operations Integration
DES-23	MRP Detailed Design: Day-Ahead Market Calculation Engine
DES-24	MRP Detailed Design: Pre-Dispatch Calculation Engine
DES-25	MRP Detailed Design: Real-Time Calculation Engine
DES-26	MRP Detailed Design: Market Power Mitigation
DES-27	MRP Detailed Design: Publishing and Reporting Market Information
DES-28	MRP Detailed Design: Market Settlements
DES-29	MRP Detailed Design: Market Billing and Funds Administration

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Table of Changes

Reference (Section and Paragraph)	Description of Change

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1   Introduction

1.1   Purpose

This document is a section of the Market Renewal Program (MRP) detailed design document series specific to the Energy work stream. This document provides the details of the business design and the requirements for *market rules*, market-facing and internal procedures, and the information flow required to support the Publishing and Reporting processes as related to the introduction of the future day-ahead market and *real-time market*. This design document will aid in the development of user requirements, business processes, *market rules* and supporting systems.

As illustrated in Figure 1–1, this document is an integral part of the MRP Detailed Design document library and will provide the design basis for the development of the governing documents and the design documents.
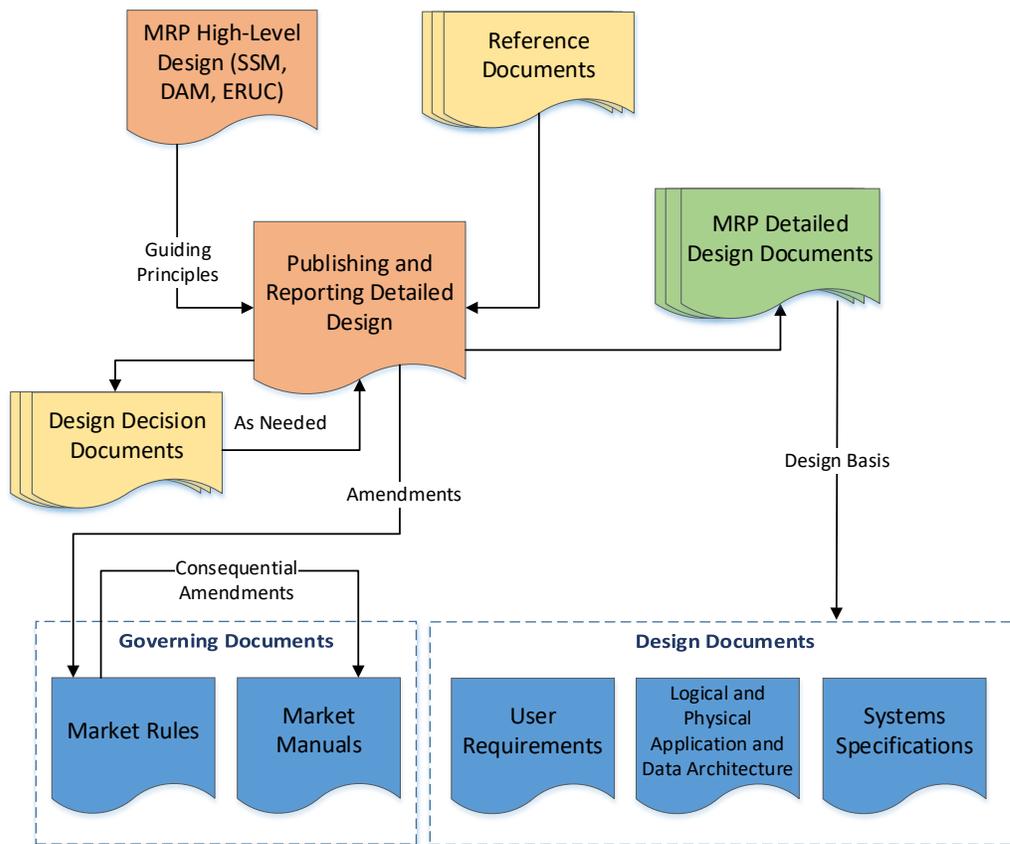
Figure 1–1: Detailed Design Document Relationships

1.2 Scope

This document describes the Publishing and Reporting changes for the future day-ahead market and *real time market*, in terms of:

- a high level inventory and description of changes and additions to reports;

- supporting *market rules* requirements;

- supporting procedural requirements; and

- business process and information flow requirements.

Various portions of this document make reference to current business practices, rules, procedures and processes of Publishing and Reporting. However, this document is not meant as a restatement of the existing design of the *Independent Electricity System Operator* (*IESO)* process. Rather, this document focuses on existing components only to the extent that they might be used in the current or amended form in support of the future day-ahead market and *real-time market*.

Reports may be created in a variety of ways.

- Automated reports are *published* in support of a process, either on a recurring frequency or triggered by the specific process, and are typically data focused. Automated reports can be *published* for public use, for specific *market participant* use (i.e. as a confidential report or notification), or for internal *IESO* use. An example of an automated report is the Adequacy report;

- Non-automated reports that are created for a specific obligation or requirement, and typically contain prose with or without supporting data. Non-automated reports may be *published* on a regular basis or only when required. An example of a non-automated report is the Reliability Outlook;

- Reports may also be created using data stores combined with reporting tools that provides the ability for the user to develop custom reports. Many internal *IESO* departments have created their own reports using various data stores and reporting tools; and

- Some reports can be created via a request initiated from a *market participant*. An example of such a report is a Meter Trouble Report where an interface is provided in the Online IESO platform.

This document focuses on the first category, automated reports, with the exception of some non-automated reports related to market power mitigation. These exceptions are noted in the Market Power Mitigation detailed design document.

This document describes reports for processes that are impacted by the MRP. When reading this document, it is important to note the following:

- Changes to inputs or information submitted by a *market participant* to the *IESO* are not covered in this document and should be addressed in the applicable detailed design document;

- Data presentation in terms of public and confidential information *published* in automated reports will be addressed in Section 6;

- No changes to the *IESO* systems and tools related to metering in the existing *energy market* are proposed for the future day-ahead market and *real-time market*, therefore metering-related reports are not included in this document; and

- Advisory notices and other electronic notifications delivered via tool platforms (currently available on the *IESO* public website under RSS feeds) are not considered reports and are therefore not included in the scope of this document.

1.3   Who Should Use This Document

This document is a public document for use by the MRP project team, pertinent *IESO* departments and external stakeholders. Portions of this document that are only pertinent to *IESO* internal processes and procedures may not be incorporated into the public version.

1.4   Assumptions and Limitations

Assumptions

While this document makes references to specific parameters that might be used for Publishing and Reporting, this document may not determine what the value of all those parameters might ultimately be. The value of such parameters will be determined through the development of the *market rules* and *market manuals*.

Limitations

The business process design presented in Sections 6 of this document provides a logical breakdown of the various sub-processes described in the detailed business design presented in Section 3. However, factors such as existing and future system boundaries and system capabilities may alter the ultimate design of these sub-processes.

1.5   Conventions

The standard conventions followed for this document are as follows:

- Title case is used to highlight process or component names; and
- Italics are used to highlight *market rule* terms that are defined in Chapter 11 of the *market rules*.

1.6   Roles and Responsibilities

This document does not impart any specific roles or responsibilities. This document provides the design basis for development of the documentation associated with the *IESO* project lifecycle that will be produced in conjunction with the MRP.

1.7   How This Document is Organized

This document is organized as follows:

- **Section 2** of this document briefly describes the current context of the *IESO* Publishing and Reporting processes, and the future context for the future day-ahead market and *real-time market*;

- **Section 3** of this document provides a high level inventory and description of changes and additions to *IESO* automated reports – public reports, confidential reports for *market participants* and internal *IESO* reports;

- **Section 4** of this document describes how the Publishing and Reporting processes will be enabled under the authority of the *market rules* in terms of existing rule provisions, amended rule provisions and additional rule provisions that will need to be developed;

- **Section 5** of this document describes how the requirements of the Publishing and Reporting process are expected to impact the market-facing manuals and procedures in terms of existing procedures, amended procedures and additional procedures that will need to be developed; and

- **Section 6** of this document provides an overview of the arrangement of *IESO* processes and information flow associated with Publishing and Reporting of automated reports in the framework described in Section 3.

– End of Section –

2   Summary of Current and Future State

2.1   Publishing and Reporting in Today's Real-Time Market

The *IESO* develops a number of automated reports for various audiences. More specifically, the *IESO publishes* automated reports that are posted on the *IESO* website. Separate automated confidential reports are also prepared for *market participant* use and for internal *IESO* use.

Automated public reports are *published* on the *IESO* website providing aggregated information relating to forecast supply and demand, reserve requirements and system adequacy.

Automated confidential reports are made available directly to individual *market participants* to inform them of resource[1] commitments, advisory schedules, metering data, and financial statements.

Internal automated reports support the *IESO* in monitoring the grid and market conditions and in making decisions.

Figure 2-1 broadly illustrates the Publishing and Reporting processes supporting the Day-Ahead Commitment process (DACP), the pre-dispatch and real-time scheduling processes and the market *settlement* and post-market processes.

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[1] In this document, the term 'resource' means a *generation unit* or a load within a *generation facility*, a storage *facility*, or a *dispatchable load.*
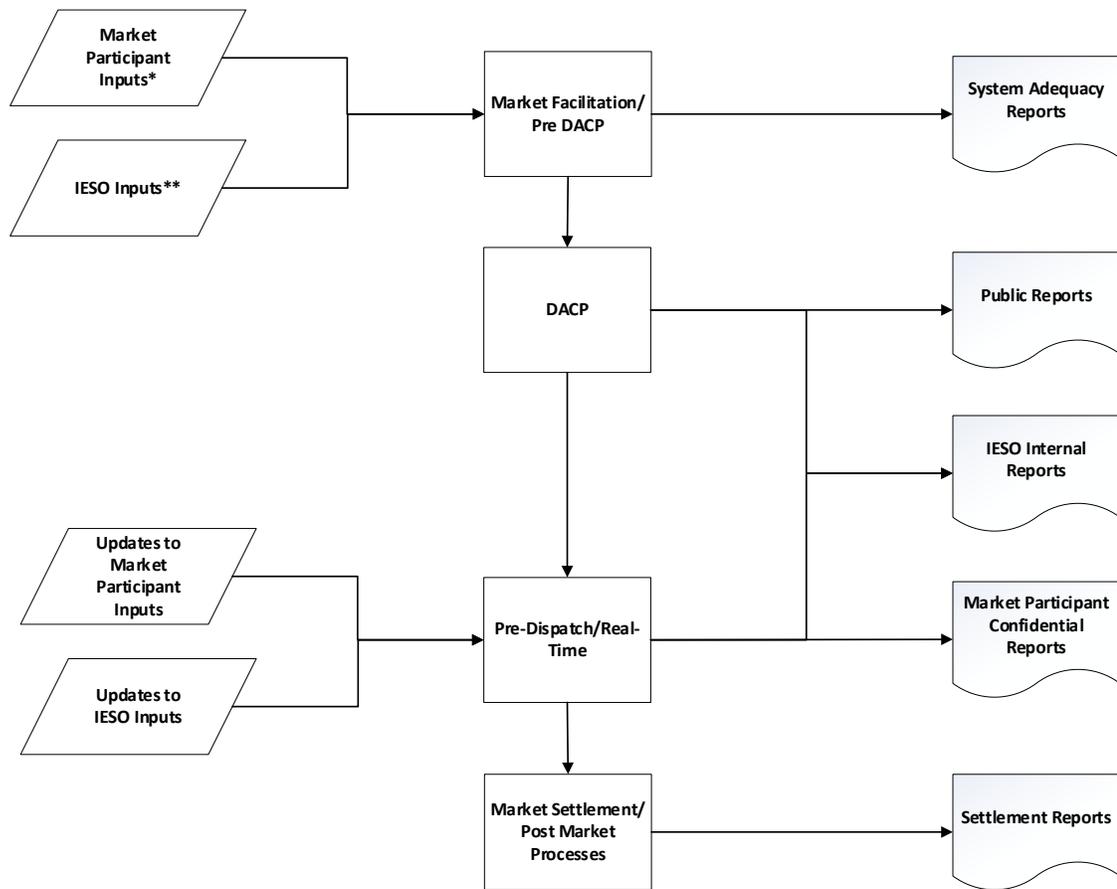
* Market participant inputs include: daily generator data (DGD), three-part *offers*, hourly *dispatch data*, *outage* data, data to provide *ancillary services* and *physical bilateral contract data*.

**IESO inputs include: *reliability* requirements, *demand* forecasts, centralized *variable generation* forecasts and the network model.

Figure 2–1: Current High-Level Publishing and Reporting Processes

2.2   Publishing and Reporting in the Future Day-Ahead Market and *Real-Time Market*

In the future day-ahead market and *real-time market*, the overall process for delivering automated reports will continue. However, the design of the future day-ahead market and *real-time market* will have an impact on the number and types of reports as well as the content within reports. These design changes include but are not limited to the following enhancements:

- Financially binding day-ahead market;

- Ex-ante market power mitigation processes;

- Single schedule market and locational marginal prices;

- Enhanced unit commitment within the pre-dispatch operating time frame; and

- New categories for *market participant* authorization types and resource types, namely: virtual transaction energy traders, price responsive loads, and virtual transaction zonal trading entities.

This detailed design document focusses on information provided in existing automated reports to assess reports that will not require any changes, reports that will be retired and reports that will be revised. This detailed design document also identifies new reports that will need to be developed.

Based on the changes required by the future market design, several *published* reports will need to be revised and some new reports will need to be created. The following are some examples of *published* reports that will need to be created or revised:

- *Demand* and *adequacy* reports will show zonal *demand* forecasts;

- Pricing reports will show five minute locational marginal prices instead of the uniform five-minute market clearing prices, required for *energy* and all classes of *operating reserve;* and

- Pricing reports will show the Ontario zonal price instead of the uniform *hourly Ontario energy price* (HOEP), required for the *settlement* of *energy* for *non-dispatchable loads*.

Below are some examples of confidential *market participant* reports and notifications that will need to be created or revised:

- Notifications will show day-ahead market financially binding schedules for each *market participant* for both *energy* and *operating reserve* once the day-ahead market has completed execution;

- Reports will show new day-ahead and pre-dispatch binding commitments for both *energy* and *operating reserve* for non-quick start *generation facilities;*

- Reports that provide notification to *market participants* of changes to *dispatch data* as a result of market power mitigation; and

- Reports that confirm a *market participant's* requested changes to input data such as operational parameters.

Some existing reports will be retained without requiring any changes, while some may no longer be required. For example, all public reports regarding the *hourly Ontario energy price* (HOEP) will be retired.

Figure 2.2 broadly illustrates the Publishing and Reporting processes supporting the future day-ahead market, enhanced pre-dispatch scheduling process, *real-time market*, and *settlement process*.

Market Participant Inputs*

IESO Inputs**

Market Facilitation/ Pre-DAM

System Adequacy Reports

Day Ahead Market

Public Reports

Updates to Market Participant Inputs

Updates to IESO Inputs

Pre-Dispatch

IESO Internal Reports

Real-Time Market

Market Participant Confidential Reports

Market Settlement/ Post Market Processes

Settlement Reports
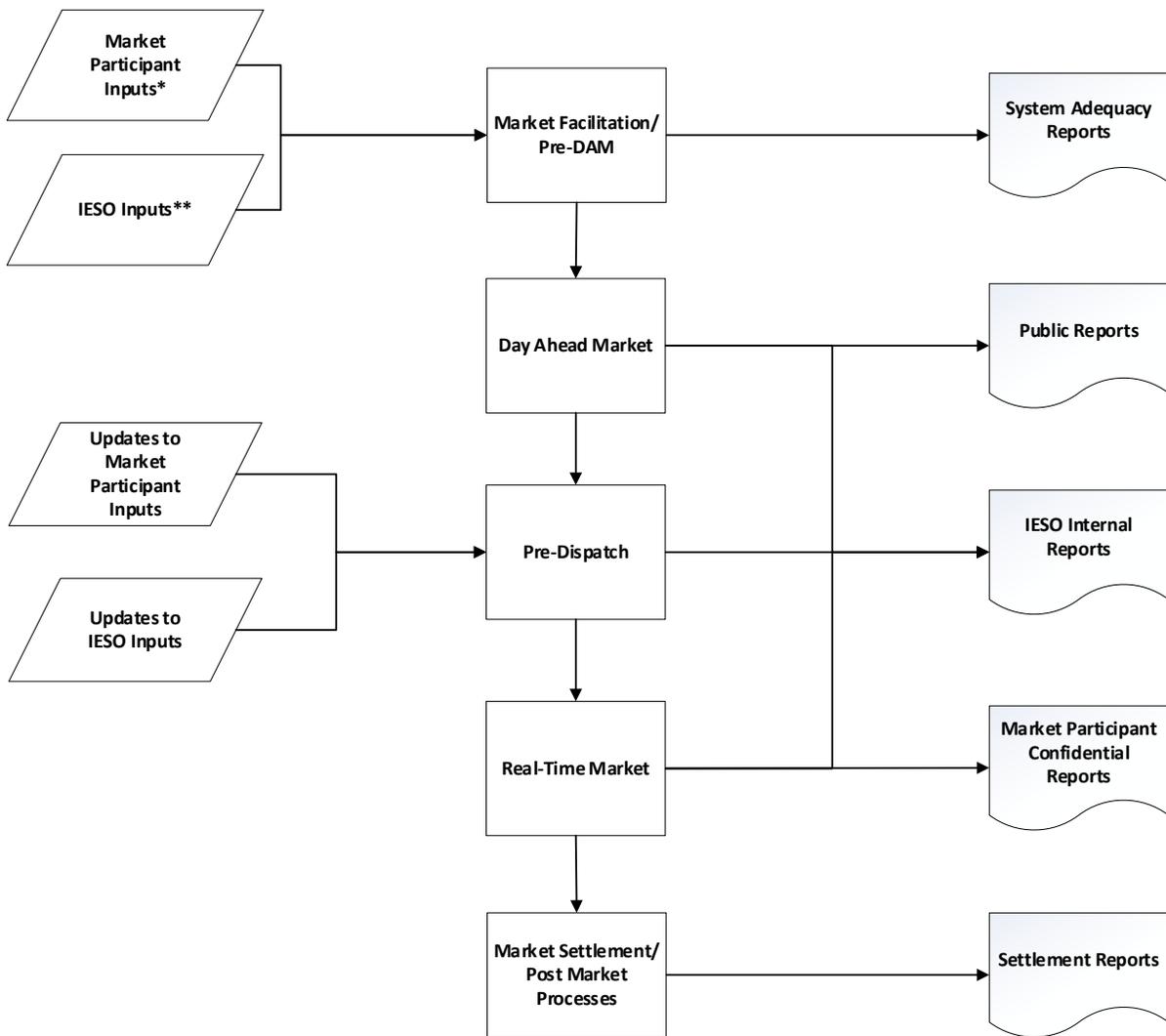
* *Market participant* inputs include: hourly and daily *dispatch data, outage* data, data to provide *ancillary services* and *physical bilateral contract data*.
**IESO inputs include: *reliability* requirements, *demand* forecasts, centralized *variable generation* forecasts, the network model, constraint violation penalty curves and market power mitigation inputs.

Figure 2–2: Future High-Level Publishing and Reporting Processes

– End of Section –

3   Functional Design

3.1   Structure of this Section

The *IESO publishes* information and issues reports to enable *market participant* participation in the *energy market* and *operating reserve market*. This section provides a brief overview of each report, the purposes it serves, the intended audience and the impact to the report as a result of changes required in implementing the future day-ahead market and *real-time market*.

Required changes from related design documents in the MRP detailed design document series were compiled and cross-referenced with the existing automated reports produced by the *IESO*. The impact to each report will be assessed as one of the following:

- Retire: The report will no longer be required;

- No change: The existing report will be maintained with no required changes;

- Revise: The report will need to be revised for content, format and / or timing; and

- New: A new report will need to be developed.

Over 130 existing automated public and *market participant* reports were assessed for MRP impact. Of these, almost half will be revised or retired, and the rest will remain unchanged. In addition to these existing reports, approximately 50 new reports will need to be developed.

The intended audience will be specified as either public, *market participant* confidential or internal *IESO*:

- Public: The report contains information that can be accessed by anyone from the data directory on *IESO* website or public section of the *IESO* report website.

- *Market Participant* Confidential: The report contains confidential information and can only be accessed by a specific *market participant;* and

- Internal *IESO*: The report is confidential for internal *IESO* use only.

The individual reports have been categorized as follows:

- System Adequacy;
- Prudential Security;
- Market Participant Input Confirmations;
- Outage Planning Guidelines;
- Scheduling, Commitment and Dispatch;
- Price;
- Demand;
- Supply;
- Operating Reserve;
- Transmission;
- Market Power Mitigation;
- Market Summary Reports;
- Settlement Reports and Calendars; and
- Invoices and Statement of Activity.

Section 3.2 discusses the timelines for issuing these reports in relation to their category. Section 3.3 is organized by these categories and lists the reports belonging to each in a table that provides the report name, audience and impact.

3.2 Timeline of Publishing & Reporting

Figure 3-1 illustrates the timeline for issuing reports by the categories listed in Section 3.1. The timeline includes multiple timeframes starting with pre-market (before the day-ahead market runs on the *pre-dispatch day*), the *pre-dispatch day*, the *dispatch day*, the *dispatch hour*, and then a post-market timeframe which includes scheduling processes and information *published* after the *dispatch hour*.

Some reports occur in more than one scheduling process or timeframe and are so depicted.

Pre-Market

- System Adequacy Reports
- Prudential Security Reports
- Demand Reports (Demand Response Auction)
- Transmission Outage Reports
- Market Power Mitigation Reports (Reference Levels and Reference Quantities)
- Settlement Calendars

Pre-Dispatch Day

- System Adequacy Reports
- Prudential Security Reports
- Market Participant Input Confirmation Reports
- Outage Planning Guideline
- Day-Ahead Scheduling and Commitment Reports
- Pre-Dispatch Scheduling and Commitment Reports
- Price Reports
- Demand Reports
- Supply Reports (Variable Generation Tie-Breaking Ranking)
- Supply Reports (Variable Generation Forecast)
- Operating Reserve Reports
- Transmission Reports (Intertie Scheduling Limits)
- Transmission Outage Reports
- Transmission Constraint Reports
- Market Power Mitigation Reports (Constrained Zone Designation)
- Market Power Mitigation Reports (Mitigation Events)

Dispatch Day

- System Adequacy Reports
- Pre-Dispatch Scheduling and Commitment Reports
- Price Reports
- Supply Reports (Variable Generation Forecast Summary)
- Operating Reserve Reports
- Transmission Reports (Intertie Scheduling Limits)
- Transmission Outage Reports
- Transmission Constraint Reports
- Market Power Mitigation Reports (Mitigation Events)

Dispatch Hour

- Real-Time Scheduling and Dispatch Reports
- Price Reports
- Supply Reports (Variable Generation 5 Min Forecast)
- Operating Reserve Reports
- Transmission Reports (Intertie Scheduling Limits)
- Transmission Outage Reports
- Transmission Constraint Reports
- Market Power Mitigation Reports (Mitigation Events)

Post-Market

- Market Participant Input Confirmation Reports
- Demand Reports
- Supply Reports
- Operating Reserve Reports
- Transmission Reports (Transmission Rights Auction)
- Transmission Reports (Intertie Scheduling)
- Market Power Mitigation Reports (Mitigation Events)
- Market Summary Reports
- Settlement Statements and Data Files
- Settlement Reports
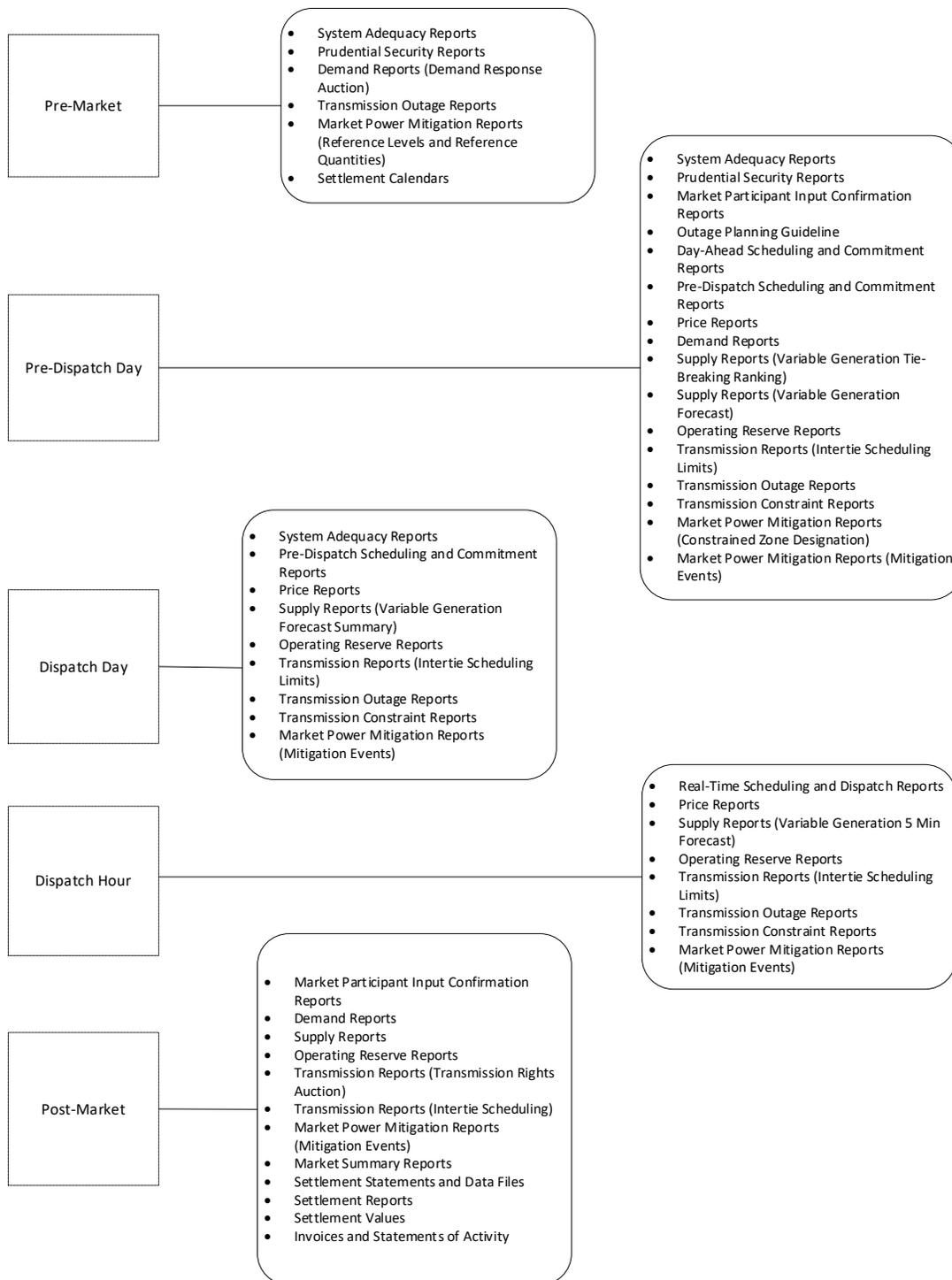- Settlement Values
- Invoices and Statements of Activity

Figure 3–1: Reports Timeline for Report Categories

3.3 Reports by Category

This section provides a high-level overview of the functional design changes needed for each of the report categories listed in Section 3.1.

3.3.1 System Adequacy Reports

System *adequacy* reports provide information on expected excess or shortfall of *energy* to meet *demand* and also help inform the *offers* and *bids* of *market participants*.

The first report listed in Table 3-1, the current *Adequacy* Report, will be revised to include zonal *demand*. The publishing time will be aligned with the day-ahead market timelines. This report will also be revised to include a new *load facility* type for price responsive loads and virtual transaction zonal trading entities for virtual transaction *energy* traders.

Table 3-1 below provides the listing of reports in the category of System Adequacy.

Table 3-1: System Adequacy Reports

No.	Report Name	Report Audience	Impact	Reference

1	Adequacy Report	Public	Revise for Timing and Content	• Add new *market participant* types;
				• Reporting timelines to be aligned with future market timelines;
				• *Published* twice per hour for *a dispatch day*, at approximately 15 minutes and 45 minutes past the hour (no change);
				• *Published* on the *pre-dispatch day* for the *dispatch day*, with the following schedule:
				  • by 05:30 and 09:00 EST (no change).
				  • at approximately 13:30 Eastern Prevailing Time (EPT)2 after successful completion of day-ahead market calculation engine run.
				  • hourly at approximately 15 minutes past the hour.
				• *Published* twice per day for days 2 to 34, at approximately 08:45 and 20:15 EST.

2	Forecast Surplus Baseload Generation Report	Public	No Change	• n/a

3.3.2 Prudential Security Reports

New prudential security reports are required in the future market. These will be required for *market participants* participating in physical transactions and virtual transactions and are also required to facilitate participation in the new day-ahead market.

Market participants participating in physical transactions in the future market will require the development of the following new reports:

- An annual report will be issued for energy rate estimates for dispatchable resources to be used in the determination of the higher of the average day-ahead LMP and average real-time LMP for the calculation of their *prudential support obligation* (PSO); and
- An annual report will be issued for energy rate estimates for *non-dispatchable loads* to be used for the determination of the higher of the average day-ahead Ontario zonal price and average real-time Ontario zonal price for the calculation of their PSO.

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2 In the future market, the day-ahead market will operate in eastern prevailing time (EPT). Pre-dispatch and real-time scheduling processes will remain in EST.

In addition to new reports, *market participants* participating in physical transactions in the future markets will also require changes to public parameters. Any further introduction of reports i.e. any day-ahead to real-time price delta reports for physical transactions will be made through provision of market rules and manuals.

Changes will be required to rate estimates for the calculation of their PSO and *actual exposure* (AE). In regards to virtual transactions, any required public parameters will be published in a manner consistent with those of *market participants* participating in physical transactions where necessary.

Market participants participating in the day-ahead market using virtual transactions will require the development of the following two new reports:

- An annual report will be issued showing one price delta that is based on all nine virtual zonal trading entities. The price delta will be used by the *market participants* to determine their initial *prudential support obligation* for their expected virtual transactions.
- A daily report will be issued with nine price deltas calculated for each of the nine virtual zonal trading entities. These price deltas will allow *market participants* to calculate *actual exposure* from their submitted but not cleared *bids* and *offers* in the day-ahead market. This calculation will allow *market participants* to determine if their submitted but not cleared *bids* and *offers* will pass screening method # 2. For more information on screening method # 2, refer to the Prudential Security detailed design document.

For more information on Prudential's for physical transactions and virtual transactions, refer to the Prudential Security detailed design document.

Table 3-2 below provides the listing of reports in the category of Prudential Security. The public parameters are not listed here.

Table 3-2: Prudential Security Reports

No.	Report Name	Report Audience	Impact	Reference
1	Physical Transaction Dispatchable Resource Energy Price Report	Public	New	• Annual report with an average day-ahead to average real-time price delta for an LMP specific to the dispatchable resource.
2	Physical Transaction Non-Dispatchable Load Energy Price Report			• Annual report with an average day-ahead to average real-time price delta for the Ontario zonal price.
3	Virtual Transaction Prudential Support Obligation (PSO) Price Delta Report			• Annual Report with one price delta calculated based on all nine virtual zonal trading entities.
4	Virtual Transaction Actual Exposure (AE-V) & Daily Screening Price Delta Report			• Daily report with nine price deltas calculated for each of the nine virtual zonal trading entities.

3.3.3 Market Participant Input Confirmation Reports

The *IESO* currently provides each *market participant* a confidential report that confirms the daily and hourly *dispatch data* that was submitted by the *market participant*.

These reports will be revised, retired and new ones created as required to capture additional *dispatch data* parameters that *market participants* will be required to submit. These reports will need to be issued to the new *market participant* authorization types which are virtual transaction energy traders and *registered market participants* for price responsive loads.

For more information, refer to Offers, Bids and Data Inputs detailed design document and Grid and Market Operations Integration detailed design document.

Table 3-3 below provides the listing of reports in the category of Market Participant Input Confirmation.

Table 3-3: Market Participant Input Confirmation Reports

No.	Report Name	Report Audience	Impact	Reference
1	Day-ahead Daily Generator Data Report	*Market Participant* Confidential	Retire	• Replaced with new report titled Dispatch Data Report for DAM Scheduling Process
2	Dispatch Data Report for DAM Scheduling Process		New	• Provide *market participants* with summary of their daily and hourly *dispatch data* submitted for the DAM scheduling process. • Reporting timelines to aligned with DAM timelines. Report will be issued at approximately 10:00 Eastern Prevailing Time.
3	Pseudo-unit Generator Data Computed Values Report		Revise for Timing and Content	• Revise report to identify both pseudo-units and physical resources for *facilities* that elect to be modelled as pseudo-units; and • Revise report to show the impact of physical unit derates and outages on corresponding pseudo-units • Initial publication timelines to be aligned with future market timelines. Report will be issued at approximately 10:00 Eastern Prevailing Time. • Additional revisions to pseudo-unit data computed values will be published hourly
4	Real-time Energy Market Bid Offer Report		Retire	• Replaced with new report titled Dispatch Data Report for PD and Real Time Scheduling Processes
5	Dispatch Data Report for PD and Real Time Scheduling Processes		New	• Provide *market participants* with summary of their final daily and hourly dispatch data submitted for pre-dispatch and real time scheduling processes. • Report will be published at approximately 6:00 EST following the *dispatch day*.
6	Real-time Operating Reserve Bid Offer Report		No Change	• n/a

No.	Report Name	Report Audience	Impact	Reference
7	Real-time Schedule Bid Offer Report	*Market Participant* Confidential		

3.3.4 Outage Planning Guidelines

The *IESO* provides a confidential *outage* planning guide to applicable *market participants* to help them avoid scheduling conflicting *outages*. No content or timing-related changes are anticipated for this report in the future market.

Table 3-4 below provides the report in the category of Outage Planning Guidelines.

Table 3-4: Outage Planning Guidelines

No.	Report Name	Report Audience	Impact
1	Outage Planning Guideline Report	Market Participant Confidential	No Change

3.3.5 Scheduling, Commitment and Dispatch Reports

These reports communicate schedules, operational commitments and *dispatch instructions* to *market participants* during the three scheduling processes which are the day-ahead scheduling process, the pre-dispatch scheduling process and the real-time scheduling process. The reports communicate the following and are discussed further below:

- Schedules are issued for an advisory purpose during the day-ahead or pre-dispatch scheduling process;

- Operational commitments are hourly obligations as a result of the day-ahead market or real time unit commitment process in the pre-dispatch scheduling process; and

- *Dispatch instructions* are physical operating instructions issued to a *registered facility* in the *real-time dispatch process* or in the *dispatch intervals* when *administrative pricing* is applied. For *boundary entities*, the *dispatch instructions* are the *interchange schedule* for that *registered facility*.

For more information, refer to the Day-Ahead Market Scheduling and Commitments Process, Pre-Dispatch Scheduling and Commitments Process and Real-Time Scheduling and Dispatch sections in the Grid and Market Operations Integration detailed design document.

Day-Ahead Scheduling and Commitment Reports

The day-ahead market reports will inform *market participants* of their financially binding schedules and commitments for the next *dispatch day*.

Certain reports will need to be revised to include new *market participant* types for price responsive load (PRL) and virtual transaction energy traders. The reporting timeline will be aligned with revised timelines for the day-ahead market.

The Availability Declaration Envelope (ADE) will be retained for the day-ahead market. An additional report will be provided as a confidential notification to the participant of approval for an expansion request of the ADE.

Table 3-5 below provides the listing of reports for the day-ahead timeframe in the category of Scheduling, Commitment and Dispatch.

Table 3-5: Day-Ahead Scheduling and Commitment Reports

No.	Report Name	Report Audience	Impact	Reference
1	Day-Ahead Schedule Report	*Market Participant* Confidential	Revise for Timing and Content	• Reports to *market participants* that will indicate their day-ahead market schedule and commitments; • DAM quantity of *energy* scheduled for withdrawal at every *delivery point* for *settlement* of *non-dispatchable loads*; • Add new *market participant* types; and • Reporting timelines to be aligned with day-ahead market timelines. The day-ahead market schedule and commitments for the next day will be provided daily at approximately 13:30 Eastern Prevailing Time after successful completion of day-ahead market calculation engine run.
2	Day-Ahead Commitments Report			
3	Day-Ahead Check Source/ADE Report		Revise for Timing	• Reporting timelines to be aligned with day-ahead market timelines. This report will be provided at approximately 13:30 Eastern Prevailing Time (EPT) after successful completion of day-ahead market calculation engine run.
4	Physical Unit Day Ahead Check Source ADE Report		Retire	• This report is specific to *market participants* who offer as *pseudo-units*. The report provides the ADE on the physical unit, converted from *pseudo-unit* ADE values*;* • ADE for physical units will not be required when eligible *market participants* offer as *pseudo-units*, as the *pseudo-unit* will be offered in all three scheduling processes. • ADE for eligible *market participants* who either participate as a *pseudo-unit*, or who elect to participate as a physical unit will be included in the Day-Ahead Check Source / ADE Report
5	ADE Expansion Request Approval		New	• Confidential notification for approval of ADE expansion request.
6	Hourly Demand Response (HDR) Standby Report		No Change	• n/a
7	Day-Ahead Constrained Totals Report (summary report)	Public	Revise for Timing and Content	• Change title to remove "constrained"; and • Reporting timelines to be aligned with day-ahead market timelines.

No.	Report Name	Report Audience	Impact	Reference
8	Day-Ahead Virtual Transactions (Aggregate)		New	• Reports showing hourly *offered*/*bid* and cleared transactions in aggregate form.

Pre-Dispatch Scheduling and Commitment Reports

The pre-dispatch calculation engine run is performed to consider changing system conditions between the day-ahead and real-time scheduling process for the look-ahead period, and will result in schedules and possible additional commitments for *market participants*.

All *market participants* who have submitted *dispatch data* into the *real-time markets* receive pre-dispatch *energy* and *operating reserve* schedules as applicable. Pre-dispatch reports will continue to be produced hourly for the look-ahead period to include all hours until the end of the day. The pre-dispatch calculation engine run starting at 20:00 will include results for the next day in addition to results for the all hours until the end of the day.

After each pre-dispatch calculation engine run, confidential *market participant* reports will be issued if the engine produces advisory schedules, pre-dispatch standalone commitments, or extensions/advancements to existing day-ahead market commitments. These reports will provide new and/or updated advisory and binding schedules as necessary.

In existing reports, all references to constrained schedules or constrained totals will be removed. Reports referencing the unconstrained schedules will no longer be required and will be retired.

Table 3-6 below provides the listing of reports for the pre-dispatch timeframe in the category of Scheduling, Commitment and Dispatch.

Table 3-6: Pre-Dispatch Scheduling and Commitment Reports

No.	Report Name	Report Audience	Impact	Reference
1	Pre-Dispatch Intertie Transactions and NQS Resource Extensions Reports	*Market Participant* Confidential	New	• This report will notify *market participants* of their *intertie* transaction schedule (both *energy* and *operating reserve*) and extension of NQS resource commitment; and • Reporting timelines will be aligned with hourly pre-dispatch calculation engine runs. Reports to be issued at approximately 15 minutes past the hour.
2	Pre-Dispatch Binding and Advisory Schedule Report	*Market Participant* Confidential	New	• This report will notify a *market participant* of their new NQS resource commitments (binding start-up instruction and operational constraints) and provide advisory schedules (both *energy* and *operating reserve*) and advisory prices for all resources; • Reporting timelines will be aligned with pre-dispatch calculation engine run with report issued at approximately 30 minutes past the hour.

No.	Report Name	Report Audience	Impact	Reference
3	Pre-Dispatch 4 Hour Energy Report		Retire	• Reports will be retired and replaced with two new reports titled Pre-Dispatch Intertie Transactions and NQS Resource Extensions Reports and Pre-Dispatch Binding and Advisory Schedule Report
4	Pre-Dispatch 4 Hour Operating Report			
5	Pre-Dispatch Constrained Energy Report			
6	Pre-Dispatch Constrained Operating Reserve Report		Retire	• Reports will be retired and replaced with two new reports titled Pre-Dispatch Intertie Transactions and NQS Resource Extensions Reports and Pre-Dispatch Binding and Advisory Schedule Report
7	Pre-Dispatch Constrained Schedules 4 Hour Report			
8	Pre-Dispatch Schedules Report			
9	Pre-Dispatch Unconstrained Schedule Reports		Retire	• Unconstrained schedule reports are not required in the future market.
10	Pre-Dispatch Market Totals Report	Public	Retire	• Unconstrained schedule reports are not required in the future market.
11	Pre-Dispatch Demand Response Schedules Report		Revise for Timing	• Reporting timelines will be aligned with *pre-dispatch schedule*.
12	Pre-Dispatch Constrained Totals Report (summary report)		Revise for Content	• Change title to remove "constrained".

Real-Time Scheduling and Dispatch Reports

The *IESO* provides confidential results for all *market participants* that are scheduled for *energy* or *operating reserve* in the real-time *dispatch hour*.

In existing reports, all references to constrained schedules or constrained totals will be removed. Reports referencing the unconstrained schedules will no longer be required and will be retired.

The Dispatch Advisory Report for non-quick start *generation facilities* that elect to be modelled as *pseudo-units* will be revised to include both physical resource representation and their pseudo-unit representation.

Table 3-7 below provides the listing of reports for the real-time timeframe in the category of Scheduling, Commitment and Dispatch.

Table 3-7: Real-Time Scheduling and Dispatch Reports

No.	Report Name	Report Audience	Impact	Reference
1	Real-Time Dispatch	*Market Participant* Confidential	Revise for Content	• Revise reports to remove reference to constrained and unconstrained schedule.
2	5-Minute Dispatch Schedule Report (Preliminary) Real-Time Dispatch			
3	Real-time Constrained Schedules 5 Minute Report (Preliminary)			
4	Real-time Schedules Report			
5	Real-Time Operating Reserve			
6	5-Minute Operating Reserve Schedule Report (Preliminary)			
7	Dispatch Advisory Report	*Market Participant* Confidential	Revise for Content	• Revise report to identify both *pseudo-units* and physical resources for non-quick start *generation facilities* that elect to be modelled as *pseudo-units.*
8	Demand Response Activation Report		No Change	• n/a
9	Real-Time Unconstrained Schedules Report – Energy		Retire	• Unconstrained schedule reports not required in the future market.
10	Real-Time Unconstrained Schedules Report - Operating Reserve			
11	Real-Time Constrained Totals Report	Public	Revise for Content	• Revise report title to remove "Constrained".
12	Real-Time Market Totals Report	Public	Retire	• Unconstrained Dispatch reports are not required in the future market.
13	Daily Energy Limit (DEL)Tracking		New	• Provide actual and forecast usage of DEL as tracked against MaxDEL and MinDEL.

No.	Report Name	Report Audience	Impact	Reference
14	Number of Starts Tracking	*Market Participant* Confidential		• Provide actual and forecast number of starts.

3.3.6 Price Reports

The existing price reports are based on the uniform province-wide *hourly Ontario energy price* (HOEP) for electricity.

The introduction of LMPs will require new reports for reporting locational prices and Ontario zonal price during the day-ahead, pre-dispatch, and real-time scheduling processes. Participation of virtual transaction energy traders will require the creation of new virtual zonal pricing reports.

All current pricing reports based on province-wide hourly HOEP will be retired.

Table 3-8, Table 3-9, and Table 3-10 below provide the listing of reports for the day-ahead market, pre-dispatch, and real-time scheduling processes respectively in the category of Price.

Table 3-8: Day Ahead Market Pricing Reports

No.	Report Name	Report Audience	Impact	Reference
1	DAM Hourly Energy LMP Report	Public	New	• Report will include LMP (Energy Reference Price, Energy Congestion Price and Energy Loss Price) for every *delivery point*.
2	DAM Hourly Energy Virtual Zonal Price Report			• DAM hourly zonal price for all nine virtual zonal trading entities.
3	DAM Hourly Ontario Zone Energy Price Report			• DAM hourly price for the Ontario zone for *settlement* of *non-dispatchable loads.*
4	DAM Hourly Operating Reserve LMP Report			• LMP report for three types of *operating reserve.*
5	DAM Hourly Intertie Energy Price Report			• Report will include Intertie zone LMP, internal congestion, losses, congestion due to *intertie* limits and congestion due to NISL constraints.
6	DAM Hourly Intertie Operating Reserve Price Report			• LMP report for the 10N and 30R types of *operating reserve* at *intertie* zones.
7	Yearly Day-Ahead Market Hourly Energy and Operating Reserve price report			• Cumulative report starting January 1 of each year.

Table 3-9: Pre-Dispatch Pricing Reports

No.	Report Name	Report Audience	Impact	Reference

1	Pre-Dispatch Hourly Energy LMP Report	Public	New	• Information for *market participants*.
2	Pre-Dispatch Hourly Energy Virtual Zonal Price Report			
3	Pre-Dispatch Hourly Ontario Zone Energy Price Report			
4	Pre-Dispatch Hourly Operating Reserve LMP Report			
5	Pre-Dispatch Hourly Intertie Energy Price Report			• Reports for *settlement* of pre-dispatch binding intertie transactions.
6	Pre-Dispatch Hourly Intertie Operating Reserve Price Report			
7	Yearly Pre-Dispatch Hourly Energy, Operating Reserve and Intertie price report			• Cumulative report starting January 1 of each year.

Table 3-10: Real Time Pricing Reports

No.	Report Name	Report Audience	Impact	Reference
1	Real-Time 5-min Energy LMP Report	Public	New	• Report will include real-time LMP for every *delivery point*; • Real-time LMP at every *delivery point* for *settlement* of *non-dispatchable loads*, and • Required for *settlement* of dispatchable loads, price responsive loads, storage resources, exports and *generation units*.
2	Real-Time 5-Min Energy Virtual Zonal Price Report			• Zonal price for all nine virtual zonal trading entities.
3	Real-Time 5-min Ontario Zone Energy Price Report			• Real Time LMP for *settlement* of *non-dispatchable loads.*
4	Real-Time 5-min Operating Reserve LMP Report			• Real Time LMP for three types of *operating reserve*.
5	Real-Time 5-min Intertie Energy Price Report			• Report will include Intertie zone LMP, internal congestion, losses, congestion due to intertie limits and congestion due to NISL constraints.
6	Real-Time 5-min Intertie Operating Reserve Price Report			• LMP for the 10N and 30R classes of *operating reserve* at intertie zones.
7	Yearly Real-Time 5-min Energy and Operating Reserve price report	Public	New	• Cumulative report starting January 1 of each year.
8	Uplift and Intertie Offer Guarantee Estimates Report	Public	No change	• n/a

Table 3-11 below provides the listing of reports in the category of Price that will be retired.

Table 3-11: Price Reports to be Retired

No.	Report Name	Report Audience	Impact
1	Day Ahead Shadow Prices Report	Public	Retire
2	Hourly Ontario Energy Price (HOEP) Report		
3	Yearly Hourly HOEP OR Pre-Dispatch Report		
4	HOEP Monthly Averages Report		
5	Net Interchange Scheduling Limit Shadow Prices Report		
6	Nodal Prices Report		
7	Pre-dispatch Market Price Report		
8	Pre-dispatch Shadow Prices Report		
9	Real-time Market Disaggregated Price		
10	Real-time Market Price Report		
11	Yearly Real-time Market Price Report		
12	Real-time Shadow Prices Report		

3.3.7 Demand Reports

The *IESO* currently produces *demand* forecasts using a province-wide approach.

In the future day-ahead and *real-time market*, the *IESO* will continue to produce a *demand* forecast at the province-wide level but as the sum of four separate area *demand* forecasts. The *demand* forecasts will better reflect localized weather conditions and consumption patterns for each area

Demand forecasts for each *demand* forecast area will be reflective of anticipated *demand* at all *load facilities* inclusive of transmission losses, as they currently are for the single province-wide *demand* forecast.

As a result, the current Ontario Zonal Demand Forecast Report will be retired and replaced with two new reports. The first report will be titled the Ontario Near-Term Demand Forecast report. This report will *publish* forecasted *demand* for days 0 to 10 and will represent the four demand forecast areas (Northwest, Northeast, Southwest and Southeast). The second report will be titled the Ontario Mid-Term Demand Forecast report. This report will *publish* forecasted *demand* for days 11 to 34 and will represent the current East (Northeast, Southwest and Southeast) and West (Northwest) zones.

Additional details on the four demand forecast areas can be found in the Offers, Bids and Data Inputs detailed design document.

There will be no change required for *demand* reports relating to *demand response auctions* and *transmission tariff* peak system demand.

Table 3-12 below provides the listing of reports in the category of Demand.

Table 3-12: Demand Reports

No.	Report Name	Report Audience	Impact	Reference
1	Ontario Zonal Demand Forecast Report	Public	Retire	• East and West zones will no longer be used for days 0 to 10.
2	Ontario Near-Term Demand Forecast Report (Day 0 to 10)	Public	New	• Report for Day 0 to 10 with forecast *demand* for four forecast areas.
3	Ontario Mid-term Demand Forecast Report (Day 11 to 34)			• Report for Day 11 to 34 with forecast *demand* for the current East and West *demand* zones.
4	Hourly Demand Report	Public	No Change	• n/a
5	Demand Response Pre-Auction Report			
6	Demand Response Post-Auction Summary Report			
7	Peak System Demand Preliminary Report			
8	Peak System Demand Final Report			
9	Hourly Zonal Demand Report (Ten Electrical Zones)			
10	Demand Response Post-Auction Participant Report	*Market Participant* Confidential	No Change	• n/a
11	Industrial Load by Sector	Public	No Change	• n/a

3.3.8 Supply Reports

The *IESO* issues various *energy* supply reports such as dispatch deviation, generator output, embedded *variable generation* forecast and directly connected *variable generation* forecast. The future day-ahead market and *real-time market* will not require changes to the current supply reports.

The *IESO* will continue to provide *market participants* with a confidential Variable Generation Forecast report. For more information on Centralized Variable Generation Forecast refer to Offers, Bids and Data Inputs detailed design document.

Table 3-13 below provides the listing of reports in the category of Supply.

Table 3-13: Supply Reports

No.	Report Name	Report Audience	Impact	Reference
1	Dispatch Deviation Report	Public	No Change	• n/a
2	Generator Output by Fuel Type Hourly Report			
3	Generator Output by Fuel Type Monthly Report			
4	Generator Output and Capability Report			
5	Variable Generation Forecast Summary Report			
6	Variable Generation Tie Breaking Rankings Report			
7	Variable Generation 5-Minute Forecast Report	*Market Participant* Confidential	No change	• n/a
8	Variable Generation Forecast by Resource Report	*Market Participant* Confidential	Revise for Timing	• VG forecast report will need to be provided to *market participants* in advance of the day-ahead market submission deadline.
9	Variable Generation Embedded 2 to 7 Day Forecast Report	*Market Participant* Confidential	No change	• n/a
10	Variable Generation Embedded Forecast by Resource Report			

3.3.9 Operating Reserve Reports

The *IESO* will continue to produce reports related to *operating reserve* in terms of the amount of *operating reserve* required, scheduled, and any resulting *operating reserve* shortfalls by reserve regions during each of the three scheduling processes.

Table 3-14 below provides the listing of reports in the category of Operating Reserve.

Table 3-14: Operating Reserve Reports

No.	Report Name	Report Audience	Impact	Reference
1	Day-Ahead Area Operating Reserve Shortfalls Report	Public	Revise for Timing	• Reporting timelines to be aligned with day-ahead market timelines; and • This report will be provided daily at 13:30 Eastern Prevailing Time.
2	Day-Ahead Area Reserve Constraints Report			
3	Pre-dispatch Area Reserve Constraints Report	Public	No Change	• n/a
4	Pre-dispatch Area Operating Reserve Shortfalls Report			
5	Real-Time Area Reserve Constraints Report			
6	Real-Time Constrained Operating Reserve in Market	Public	Retire	• To be replaced by report No. 7.
7	Real-Time Operating Reserve in Market Report	Public	Revise for Content	• Remove unconstrained market information.
8	Real-Time Market Operating Reserve in Market Report	Public	Retire	• Unconstrained schedule report not required in the future market.
9	Dispatch Area Operating Reserve Shortfalls Report	Public	No Change	• n/a
10	Dispatch Area Operating Reserve: Total Scheduled and Total Energy Called Report			

3.3.10   Transmission Reports

The *IESO* will maintain the *TR auction*, *intertie* scheduling limits, and transmission *outage* reports in the future day-ahead market and *real-time market*. The majority of these reports will not require changes. The loss penalty factor report will be retired as this information can be determined from the published LMP.

The reports in this section are divided into the following five sub-sections:

- Transmission Rights Auction Reports;
- Intertie Scheduling Limits;
- Transmission Outages Reports;
- Transmission Constraint Reports; and
- Loss Penalty Factors Reports.

The Price Bias Adjustment report is presented with Transmission reports on the *IESO* website but is not listed above. This report will remain unchanged.

Transmission Rights Auction Reports

The *TR auction* produces a number of public, confidential and internal *IESO* reports. Changes to these reports are minimal; only one report will change to reflect the move to LMP.

Table 3-15 below provides the listing of Transmission Rights Auction reports in the category of Transmission.

Table 3-15: Transmission Rights Auction Reports

No.	Report Name	Report Audience	Impact	Reference
1	TR Hourly Zonal Price Report	Public	Revise for Content	• Revise report to show pre-dispatch intertie LMP instead of zonal price from Pre-dispatch Unconstrained Schedule calculation engine run.
2	Monthly TRA Financial Report	Public	No Change	• n/a
3	Monthly TRA Historical Interface Flows, Schedules, Transmission Transfer Capability			
4	TRA Pre-Auction Forecast of Transmission Transfer Capability for LT Report			
5	TRA Pre-Auction Forecast of Transmission Transfer Capability for ST Report			
6	TRA Pre-Auction MCP LT Report			
7	TRA Pre-Auction MCP ST Report			
8	TRA Post Auction MCP LT Round 1 Report (Post Auction Sales and Price Report)			
9	TRA Post Auction MCP LT Round 2 Report (Post Auction Sales and Price Report)			
10	TRA Post Auction MCP ST Report (Post Auction Sales and Price Report)			
11	Transmission Auction Participant Bid History	*Market Participant* Confidential	No Change	• n/a
12	Transmission Auction Participant Notification			

Intertie Scheduling Limits

The *intertie* scheduling limits reports that are currently *published* will not require any content change for the future day-ahead market and *real-time market*. The timing of the Day-Ahead Intertie Scheduling Limits report will be adjusted to align with the day-ahead market timelines.

Table 3-16 below provides the listing of Intertie Scheduling reports in the category of Transmission.

Table 3-16: Intertie Scheduling Limits Reports

No.	Report Name	Report Audience	Impact	Reference
1	Day-Ahead Intertie Scheduling Limits Report	Public	Revise for Timing	• Reporting timelines to be aligned with day-ahead market timelines. This report will be provided daily at 13:30 Eastern Prevailing Time.
2	Pre-Dispatch Interties Scheduling Limits Report	Public	No Change	• n/a
3	Real-Time Intertie Scheduling Limits Report			
4	Intertie Schedule and Flow Report			
5	Yearly Intertie Actual Schedule and Flow Report			

Transmission Outage Reports

The transmission *outage* reports that are currently *published* will not require any content change for the future day-ahead market and *real-time market*.

Table 3-17 below provides the listing of Transmission Outage reports in the category of Transmission.

Table 3-17: Transmission Outage Reports

No.	Report Name	Report Audience	Impact
1	Transmission Facility All in Service Limits Report (Days 0 to 34)	Public	No Change
2	Transmission Facility Outage Limits Report (Days 0 to 2)		
3	Transmission Facility Outage Limits Report (Days 3 to 34)		
4	All Transmission Outages Occurring Today		
5	Planned Transmission Outages Occurring Next 30 Days		
6	Planned Transmission Outages Occurring Next 2 to 3 Months		
7	Planned Transmission Outages Occurring Next 4 to 6 Months		

No.	Report Name	Report Audience	Impact
8	Planned Transmission Outages Occurring Next 7 to 24 Months	Public	No Change

Transmission Constraint Reports

The transmission constraint reports during each of the scheduling processes (day ahead, pre-dispatch and real-time) will continue to be *published.*

Table 3-18 below provides the listing of Transmission Constraint reports in the category of Transmission.

Table 3-18:Transmission Constraints Reports

No.	Report Name	Report Audience	Impact	Reference
1	Day-Ahead Security Constraints Report	Public	Revise for Timing	• Report will be issued after successful completion of day-ahead market calculation engine run at 13:30 Eastern Prevailing Time.
2	Pre-Dispatch Security Constraints Report			• Report will be issued 30 minutes past every hour following successful completion of pre-dispatch calculation engine run.
3	Dispatch Security Constraints Report			• Report will be issued every hour, at a 5-minute granularity, following successful completion of real time calculation engine run.

Loss Penalty Factor Reports

Loss penalty factors are used to account for the incremental change in transmission losses as a result of the change in output from a resource (including *generators*, loads and intertie connections).

In the current market, static loss penalty factors are determined annually and used in every calculation engine run. In the future market, loss penalty factors will be dynamic such that they can change with each run of the calculation engine.

The pricing pass of the calculation engine will produce the *energy* price, the congestion price and loss components. Using this information, the loss penalty factors can be determined.

Table 3-19 below provides the listing of the Loss Penalty Factor report in the category of Transmission.

Table 3-19: Loss Penalty Factor Reports

No.	Report Name	Report Audience	Impact	Reference
1	Loss Penalty Factors	Public	Retire	• Current static loss penalty factors report will be retired with the move to dynamic loss factors; and • Dynamic loss factors can be determined from price reports.

3.3.11   Market Power Mitigation Reports

The *IESO* will implement a new market power mitigation framework in the future market.

A series of new automated reports will be required to support the new market power mitigation framework. The required reports related to market power mitigation are categorized as follows:

- Constrained Area Designation;
- Reference Levels; and
- Mitigation Events.

Constrained Area Designation

The *IESO* will designate areas of the transmission grid that are expected to be frequently congested. Areas of the transmission grid that are expected to be frequently congested on a persistent basis for a significant period of time are known as narrowly constrained areas (NCAs). Areas of the transmission grid that are expected to be congested on a persistent basis for shorter periods of time are known as dynamic constrained areas (DCAs). For more information, refer to the NCA Constrained Zone Designation and DCA Constrained Zone Designation sections in the Market Power Mitigation detailed design document.

The *IESO* will also designate uncompetitive interties. For more information, refer to the Designation of Uncompetitive Interties section in the Market Power Mitigation detailed design document.

The *IESO* will *publish* a report that summarizes on a daily basis the hours in which the price and incremental import conditions were met for global market power.

Table 3-20 below provides the listing of the Constrained Area Designation reports in the category of Market Power Mitigation.

Table 3-20: Constrained Area Designation Reports

No.	Report Name	Report Audience	Impact	Reference
1	Narrowly Constrained Areas ("NCAs") Report	Public	New	• List of the constraints and resources that make up the NCA to be published at least 30 days prior to the designation taking effect.
2	Dynamic Constrained Areas ("DCAs") Report			• List of the constraints and resources that make up the DCA to be published at least 24 hours prior to

No.	Report Name	Report Audience	Impact	Reference
				designation taking effect when reasonably possible. Otherwise, posted as soon as reasonably possible.
3	Uncompetitive Interties Report	Public	New	• List of designated uncompetitive interties.
4	Global Market Power Conditions Summary			• Public summary of all of the hours in the study period when the price and import restriction conditions were met in either the day-ahead market or real-time market.

Reference Levels and Reference Quantities

Confidential reference level reports specific to each *market participant* will be provided to identify their applicable reference levels. These reports will show the reference level values for financial *dispatch data* parameters and non-financial *dispatch data* parameters for each resource and will identify the dispatch date to which those values apply.

A confidential reference quantity report specific to each *market participant* will be provided to identify their applicable reference quantities determined by the *IESO*. These reports will show the reference quantity values for each resource and will identify the dispatch date to which those values apply.

Table 3-21 below provides the listing of the Reference Levels and Reference Quantity reports in the category of Market Power Mitigation.

Table 3-21: Reference Levels and Reference Quantities

No.	Report Name	Report Audience	Impact	Reference
1	Reference Level Report	*Market Participant* Confidential	New	• *Market participant* resource-specific reference levels.
2	Reference Quantity Report			• *Market participant* resource-specific reference quantity.
3	Notice of Response to Request to Modify a Fuel Cost Report			• Report to indicate the *IESO's* approval or denial of *market participant* request to modify the fuel cost used to determine the reference levels for a specific resource.

Mitigation Events

Mitigation events are triggered when a *market participant* fails a test for mitigation. These events can occur during any of the three scheduling processes (day-ahead, pre-dispatch and real-time).

The *IESO* will *publish* a report summarizing the frequency of monthly mitigation of *dispatch data* parameters for economic withholding. These reports will be public, but will keep the participants who failed the conduct and impact test confidential by presenting the data in an aggregated form.

A confidential *market participant* event-specific report will be *published* to notify the relevant *market participant* of a failure of the mitigation test for economic withholding. This report will be *published* during the scheduling process in which the mitigation test was failed. Failures of the mitigation test in the day-ahead scheduling process will be reported with publication of the day-ahead market results. Failures of the mitigation test for a commitment in the pre-dispatch scheduling process will be reported following the issuance of a binding operational commitment. Failures of a mitigation test in

the real-time scheduling process will be reported following the interval in which the failure was determined.

A confidential *market participant* event-specific report will be *published* to notify the relevant *market participant* of a failure of the mitigation test for physical withholding. This report will be *published,* ex-post, following application of the conduct and impact test.

A confidential *market participant* event-specific report will be *published* to notify the relevant *market participant* of a failure of the mitigation test for economic withholding on an uncompetitive intertie. This report will be *published,* ex-post, following application of the conduct and impact test. For more information, refer to of the Market Power Mitigation detailed design document.

Table 3-22 below provides the listing of the Mitigation Events reports in the category of Market Power Mitigation.

Table 3-22: Mitigation Events

No	Report Name	Report Audience	Impact	Reference
1	Economic Withholding Monthly Summary Report	Public	New	• *Market participant* aggregated summary report of findings of economic withholding.
2	Notice of Mitigation of a Resource for a Price Impact	*Market Participant* Confidential	New	• *Market participant* confidential event specific report in the event that the conduct and impact test is failed for price impact.
3	Notice of Mitigation of a Resource for a Make Whole Payment Impact			• *Market participant* confidential event specific report for make whole payment impact.
4	Notice of Mitigation of a Resource on an Uncompetitive Intertie for Economic Withholding			• *Market participant* confidential event specific report for economic withholding on an uncompetitive intertie.
5	Notice of Mitigation of a Resource for Physical Withholding			• M*arket participant* confidential event specific report for physical withholding.
6	Physical Withholding Monthly Summary Report	Public	New	• *Market participant* aggregated summary report of findings of physical withholding will be issued one week after the end of the month.
7	Economic Withholding on Uncompetitive Interties Monthly Summary Report			• *Market participant* aggregated summary report of findings of economic withholding on an uncompetitive intertie will be issued one week after the end of the month.

3.3.12   Market Summary Reports

The *IESO* will continue to *publish* daily, weekly and monthly summaries of market activities. These reports provide a summary of key market data from the *IESO-administered markets*.

The summary reports will be revised to reflect the change from an *hourly Ontario energy price* to locational marginal prices and an Ontario zonal price. They will also be revised to include new participant types.

Table 3-23 below provides the listing of the Summary reports in the category of Market Summary Reports.

Table 3-23: Summary Reports

No.	Report Name	Report Audience	Impact	Reference
1	Daily Market Summary Report	Public	Revise for Content	• Reports will *capture* such changes as replacing the *hourly Ontario energy price* with locational marginal prices and an Ontario zonal price.
2	Weekly Market Summary Report			
3	Monthly Market Report	Public	Revise for Content	
4	Ontario Electricity Energy Quarterly Report			

3.3.13   Settlement Reports and Calendars

In the future market, most *settlement statements*, reports and calendars will remain unchanged, with some requiring revisions to reflect new *charge types* and new *market participant* types.

Settlement Statements and Data Files

All *settlement statements, invoices* and data files will continue to be available on the *IESO* Reports Site in the same format in the future market. Existing data files will be reviewed for relevancy in the future market and updated accordingly.

With the introduction of the day-ahead market, existing *settlement statements* and supporting data files will be updated to integrate new *settlement amounts.* In some instances, new supporting data files may be required to support the *real-time market* and day-ahead market activities. Applicable data will continue to be provided in accordance with information confidentiality guidelines.

Settlement statements and data files are not listed in this document. For more information, see the Market Settlement detailed design document.

Settlement Reports

The *IESO*'s current reports produced by the *settlement process* will require changes in the future market. Reports will continue to be provided in accordance with information confidentiality guidelines. It is anticipated that new reports will not be required. Rather, new *settlement amounts* will be integrated into the existing *settlement statements* and data files. In some instances, new supporting data files may be required to support the *real-time market* and day-ahead market activities.

Table 3-24 below provides the listing of the Settlement reports in the category of Settlement Reports and Calendars.

Table 3-24: Settlement Reports

No.	Report Name	Report Audience	Impact	Reference
1	IOG Settlements Detail Report	*Market Participant* Confidential	Revise for Content	• DAM process impacts to calculations.
2	Condense and Speed no Load Events Report	*Market Participant* Confidential	No change	• n/a
3	Hourly Uplift Charges	Public	Revise for Content	• Market design will impact charge types.
4	Daily Uplift			
5	Monthly Uplift			
6	Hourly and Monthly Charges			
7	Intertie Offer Guarantee Charges			
8	*IESO* Global Adjustment Class B Rates	Public	No change	• n/a
9	Default Levy Report	*Market Participant* Confidential	No change	• n/a

Settlement Calendars

In addition to these reports, the *settlement process* will continue to *publish* the following *IESO* Settlement Schedule & Payments Calendars *(SSPC)* to the *IESO* website.

Table 3-25 below provides the listing of the Settlement Schedule and Payment Calendar reports in the category of Settlement Reports and Calendars.

Table 3-25: SSPC Calendars

No.	Report Name	Report Audience	Impact
1	Physical Market Settlement Schedule and Payments Calendar	Public	No change
2	Financial Market Settlement Schedule and Payments Calendar		
3	Physical / Financial Market Holiday Schedule		
4	Real-time Generation Cost Guarantee Payment Calendar	Public	Retire

Settlement Values

Further, the *settlement process* will continue to *publish* the following *settlement* values as listed in Table 3-27 to the *IESO* website. The methodology to calculate each of these will not change in the future market.

Table 3-26 below provides the listing of the Settlement Values reports in the category of Settlement Reports and Calendars.

Table 3-26: Settlement Values

No.	Report Name	Report Audience	Impact
1	Global Adjustment – Class B GA Estimate & Actual Rates	Public	No change
2	Global Adjustment and Peak Demand Factor		
3	Global Adjustment Components and Costs		
4	Peak Demand Factor and Capacity Based Recovery Amount for Class A		

3.3.14   Invoices and Statements of Activity

The *settlement* timelines for the issuance of *invoices* as specified in the *SSPC* will be maintained with the introduction of the future day-ahead market and *real-time market*.

The *IESO* will continue to produce manual *invoices*, when required, for various costs relating to the *physical market* that are not included in the *settlement* charge types that form part of the *settlement statements*.

A manual *invoice* will continue to be issued where a successful day-ahead market *TR bidder* fails to remit to the *IESO* any payment due on account of a day-ahead market *TR* awarded.

Similarly, the Statement of Activity will remain unchanged.

For more information, refer to the Market Billing & Funds Administration detailed design document.

– End of Section –

4   Market Rule Requirements

The *market rules* govern the *IESO-controlled grid* and establish and govern the *IESO-administered markets*. The *market rules* codify obligations, rights and authorities for both the *IESO* and *market participants*, and the conditions under which those rights and authorities may be exercised and those obligations met.

This section is intended to provide an inventory of the changes to *market rule* provisions required to support the Publishing and Reporting detailed design, and is intended to guide the development of *market rule* amendments. This inventory is based on version 1.0 of the detailed design, and any revisions required to this section as a result of design changes to version 1.0 will be incorporated in the *market rule* amendment process. As a result, the inventory will not be updated after its publication in version 1.0 of this detailed design.

This inventory is not meant to be an exhaustive list of required rule changes, but is a "snapshot" in time based on the current state of design development of this specific detailed design document. Resulting *market rule* amendments will incorporate the integration of the individual design documents.

New and amended Chapter 11 defined terms: These terms will be consolidated in a single document at a later time as part of the *market rule amendment* process, and will support multiple design documents.

The inventory is developed in Table 4-1, which describes the impacts to the *market rules* and classifies them into the following three types:

- Existing – no change: Identifies those provisions of the existing *market rules* that are not impacted by the design requirements;

- Existing – requires amendment: Identifies those provisions of the existing *market rules* that will need to be amended to support the design requirements; and

- New: Identifies new *market rules* that will likely need to be added to support the design requirements.

Table 4-1: Market Rule Impacts

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
System Adequacy Reports			
Chapter 5, Sections 7.1.1, 7.1.2, 7.1.3, 7.1.5	Existing - no change	Adequacy Report	Section 7.1.1: • This section obligates the *IESO* to produce and *publish* Adequacy Reports for the period that is 0-34 days out. Section 7.1.2: • This section obligates the *IESO* to prepare the forecasts referred to in section 7.1.1 as may be specified in the applicable *market manual*.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			Section 7.1.3: • This section obligates the *IESO* to *publish* the method to be used to perform the forecasts described in section 7.1.1. **Section 7.1.5:** • This section obligates each *distributor, connected wholesale customer* and other load-serving entities, in order to enable the *IESO* to produce the forecasts referred to in section 7.1.1, to provide to the *IESO* the load forecast described in the applicable *market manual* in such form, at such time and having such resolution as may be specified in such *market manual.* • No *market rule amendments* will be necessary to reflect: (i) the new reporting timelines to be aligned with future market timelines, publication frequency; (ii) any content changes (such as new *market participant* and *facility* types). These changes will be reflected in the applicable *market manual(s).*
Chapter 7, Sections 7.2.2, 12.1.3	Existing - no change	Forecast Surplus Baseload Generation Report	**Sections 7.2.2, 12.1.3:** • These sections obligate the *IESO* to issue a system advisory notice (in accordance with section 12.1) if the *IESO* anticipates that an over-generation condition may occur. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Prudential Security Reports			
Chapter 2, Section 5C.1 NEW	New	Physical Transaction Dispatchable Resource Energy Price Report	**New Section 5C.1:** • Provision to obligate the *IESO* to publish an annual report with an average day-ahead to average real-time price delta for an LMP specific to the *dispatchable* resource. OVERLAP: Prudential Security detailed design.
Chapter 2, Section 5C.1 NEW	New	Physical Transaction Non-Dispatchable Load Energy Price Report	**New Section 5C.1:** • Provision to obligate the *IESO* to publish an annual report with an average day-ahead to average real-time price delta for the Ontario zonal price. OVERLAP: Prudential Security detailed design.
Chapter 2, Section 5C.1 NEW	New	Virtual Transaction Prudential Support Obligation	**New Section 5C.1:** • Provision to obligate the *IESO* to *publish* an annual report with one price delta calculated based on all nine virtual trading zones to establish *market participant prudential support obligations* for virtual transactions.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		(PSO) Price Delta Report	OVERLAP: Prudential Security detailed design.
Chapter 2, Section 5C.1 NEW	New	Virtual Transaction Actual Exposure (AE-V) & Daily Screening Price Delta Report	New Section 5C.1: • Provision to obligate the *IESO* to *publish*, via a daily report the nine price deltas calculated for each of the nine virtual zones to allow *market participants* to estimate their *actual exposure* when submitting *bids* and *offers* into the day-ahead market. OVERLAP: Prudential Security detailed design.
Market Participant Input Confirmation Reports			

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-ahead Daily Generator Data Report	Section 5.8.2:
			 • This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			 • The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public and private reports – the Daily Generator Data Report is one of the private reports.
			 • The Day-Ahead Daily Generator Data Report will be retired and replaced with the new report titled Dispatch Data Report for DAM Scheduling Purposes.
			 • New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			   o 3: The day-ahead market calculation engine
			     ▪ 3.1: Purpose
			     ▪ 3.2: Optimisation Objective
			     ▪ 3.3: Inputs
			     ▪ 3.4: Multiple Passes
			     ▪ 3.5: Outputs
			   o 4: Day-Ahead Market Schedules and Prices
			     ▪ 4.1: Timelines
			     ▪ 4.2: DAM Prices
			   o 5: Releasing and Publishing Day-Ahead Market Information
			     ▪ 5.1: Publishing Day-Ahead Market Information
			     ▪ 5.2: Releasing MP Specific Day-Ahead Market Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• Delete section 5 in its entirety (including section 5.8.2); New section 5.2 in chapter 7A will specify the publication requirements for *market participant* specific day-ahead market information. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.
Chapter 7A NEW, Section 5.2 NEW	New	Dispatch Data Report for DAM Scheduling Process	New Section 5.2: • This new report will provide *market participants* with a summary of their daily and hourly *dispatch data* submitted for the DAM scheduling process • New Chapter 7A: Day-Ahead Market Operations, section 5.2: Releasing MP Specific Day-Ahead Market Information will specify *publication* requirements. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Chapter 7, Section 5.8.2	Existing - requires amendment	Pseudo-unit Generator Data Computed Values Report	Section 5.8.2:
			
			• This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			• The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public and private reports – the Pseudo-unit DGD Computed Values Report is one of the private reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			    ▪ 3.1: Purpose
			    ▪ 3.2: Optimisation Objective
			    ▪ 3.3: Inputs
			    ▪ 3.4: Multiple Passes
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			    ▪ 4.1: Timelines
			    ▪ 4.2: DAM Prices
			  o 5: Releasing and Publishing Day-Ahead Market Information
			    ▪ 5.1: Publishing Day-Ahead Market Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			▪ 5.2: Releasing MP Specific Day-Ahead Market Information - Delete section 5 in its entirety (including section 5.8.2); New section 5.2 of chapter 7A will specify the publication requirements for day-ahead market information. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.
Not Applicable	Not Applicable	Real-time Energy Market Bid Offer Report	- This report does not have a corresponding *market rule.* These reports were created in 2016 as a result of decommissioning the API software. - This report will be retired.
Chapter 7, NEW Sections 4C.2 and 4F.2	New	Dispatch Data Report for PD and Real-Time Scheduling Processes	- This new report will provide *market participants* with a summary of their final daily and hourly *dispatch data* submitted for the pre-dispatch and real-time scheduling process. - The Pre-Dispatch Scheduling Process will be replaced with new sections 4A to 4C in Chapter 7. - New section 4C.2: Releasing MP Specific Pre-Dispatch Information will specify the release and *publication* requirements related to pre-dispatch. - The Real-Time Scheduling Process will be replaced with new sections 4D to 4F in Chapter 7. - New section 4F.2: Releasing MP Specific Real-Time Information will specify the release and *publication* requirements related to real-time. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch and Real-Time Market Calculation Engine design documents.
Not Applicable	Not Applicable	Real-time Operating Reserve Bid Offer Report	This report does not have a corresponding *market rule.* These reports were created in 2016 as a result of decommissioning the API software.
Not Applicable	Not Applicable	Real-time Schedule Bid Offer Report	This report does not have a corresponding *market rule.* These reports were created in 2016 as a result of decommissioning the API software.
Outage Planning Guidelines			
Chapter 5, Sections 6.4.4, 6.4.4.3	Existing - no change	Outage Planning Guideline Report	Sections 6.4.4, 6.4.4.3: These sections obligate the *IESO* to, following receipt of an *outage* submission pursuant to section 6.2.1, 6.3.1, or 6.4.1 to advise the relevant *market participant* of the existence of any conflict with a *planned outage* planned by another *market participant.*

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
DA Scheduling and Commitment Reports			

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Schedule Report	Section 5.8.2:
			
			• This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			• The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up of three sets of private reports – the Day-Ahead Schedule (Energy and Operating Reserve) Reports and the Day-Ahead Check/Source ADE Reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			    ▪ 3.1: Purpose
			    ▪ 3.2: Optimisation Objective
			    ▪ 3.3: Inputs
			    ▪ 3.4: Multiple Passes
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			    ▪ 4.1: Timelines
			    ▪ 4.2: DAM Prices
			  o 5: Releasing and Publishing Day-Ahead Market Information
			    ▪ 5.1: Publishing Day-Ahead Market Information
			    ▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			• Delete section 5 in its entirety (including section 5.8.2); New section 5.2 in chapter 7A will specify the publication requirements for market participant specific day-ahead market information.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Commitments Report	• See Above.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Check Source/ADE Report	• See Above.
Chapter 7, Section 5.8.2	Existing - requires amendment	Physical Unit Day Ahead Check Source ADE Report	• See Above.
Chapter 7A NEW, Section 5.2	New	ADE Expansion Request Approval	Section 5.2, Chapter 7A NEW: • Specify the *IESO* obligation to provide a new *market participant* notification for approval of ADE expansion requests.
Chapter 7, Section 19.4.2	Existing - no change	Hourly Demand Response (HDR) Standby Report	Section 19.4.2: • This section specifies that the *IESO* may, in accordance with the applicable *market manual*, issue a standby notice to *demand response market participants* in respect to a given *dispatch day*. • No change to *confidential market participant* report – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Constrained Totals Report	Section 5.8.2:
			
			• This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			• The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public and private reports – the Day-Ahead Constrained Totals Report is one of the public reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			
			    ▪ 3.1: Purpose
			
			    ▪ 3.2: Optimisation Objective
			
			    ▪ 3.3: Inputs
			
			    ▪ 3.4: Multiple Passes
			
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			
			    ▪ 4.1: Timelines
			
			    ▪ 4.2: DAM Prices

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

			o 5: Releasing and Publishing Day-Ahead Market Information
			
			    ▪ 5.1: Publishing Day-Ahead Market Information
			
			    ▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			
			• Delete section 5 in its entirety (including section 5.8.2); New section 5.1 will specify the publication requirements for day-ahead market information.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Chapter 7A, Section 5.1 NEW	New	Day-Ahead Virtual Transactions (Aggregate)	• New report showing hourly *offered/bid* and cleared transactions in aggregate form.
			
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			
			    ▪ 3.1: Purpose
			
			    ▪ 3.2: Optimisation Objective
			
			    ▪ 3.3: Inputs
			
			    ▪ 3.4: Multiple Passes
			
			    ▪ 3.5: Outputs
			
			  o 4: DAM Schedules and Prices
			
			    ▪ 4.1: Timelines
			
			    ▪ 4.2: DAM Prices
			
			  o 5: Releasing and Publishing Day-Ahead Market Information
			
			    ▪ 5.1: Publishing Day-Ahead Market Information
			
			    ▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			
			• Section 5.1 will specify the publication requirements of the new DAM.

Pre-Dispatch Scheduling and Commitment Reports			
Chapter 7, NEW Section 4C.2 and 4F.2	New	Pre-Dispatch Intertie Transactions and NQS Resource	New Section 4C.2: • This new report will notify *market participants* of their *intertie* transactions schedule (both *energy* and *operating reserve*) and extension of NQS resource commitment.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		Extensions Reports	• Reporting timelines will be aligned with hourly pre-dispatch calculation engine runs, and issued at approximately 15 minutes past the hour. • New section 4C.2: Releasing MP Specific Pre-Dispatch Information will specify the release and *publication* requirements related to pre-dispatch. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.
Chapter 7, Section 4C.2 NEW	New	Pre-Dispatch Binding and Advisory Schedule	Section 4C.2 NEW: • This new section will include *IESO* obligations on "Releasing Market Participant Specific Pre-Dispatch Information." • Codify *IESO* obligation to provide a report which notifies a *market participant* of their binding start-up instruction and pre-dispatch commitment. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.

Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch 4 Hour Operating Report	Sections 5.5.3:
			 • This section specifies that the *IESO* shall release to all *market participants* for each *dispatch hour*, information related to the *pre-dispatch schedule*.
			
			 • Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			   o 4A: The Pre-Dispatch Calculation Engine
			     ▪ 4A.1: Purpose
			     ▪ 4A.2: Optimisation Objective
			     ▪ 4A.3: Inputs
			     ▪ 4A.4: Multiple Passes
			     ▪ 4A.5: Outputs
			   o 4B: Pre-Dispatch Schedules and Prices
			     ▪ 4B.1: Timelines
			     ▪ 4B.2: Pre-Dispatch Prices
			   o 4C: Releasing and Publishing Pre-Dispatch Information
			     ▪ 4C.1: Publishing Pre-Dispatch Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			▪ 4C.2: Releasing MP Specific Pre-Dispatch Information • This specific pre-dispatch report will be retired; New section 4C.1 will specify the publication requirements for the *pre-dispatch schedule*. The existing Pre-Dispatch Market Totals Report will be retired and replaced. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.
Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch Constrained Energy Report	• See Above
Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch Constrained Operating Reserve Report	• See Above
Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch Constrained Schedules 4 Hour Report	• See Above
Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch Schedules Report	• See Above

Chapter 7, Sections 5.5.2, 5.5.2.2	Existing - requires amendment	Pre-Dispatch Unconstrained Schedule Reports	Sections 5.5.2/5.5.2.2:
			• These sections specify that for each *registered facility* that is a *boundary entity*, a *dispatchable load facility*, a *dispatchable generation facility* or an *hourly demand response* resource in respect of which a valid *bid* or *offer* has been submitted, that the *IESO* shall release a *market participant* confidential report which specifies the projected market schedule for that *registered facility*.
			
			• Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			  o 4A: The Pre-Dispatch Calculation Engine
			
			    ▪ 4A.1: Purpose
			
			    ▪ 4A.2: Optimisation Objective
			
			    ▪ 4A.3: Inputs
			
			    ▪ 4A.4: Multiple Passes

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

			▪ 4A.5: Outputs
			   o 4B: Pre-Dispatch Schedules and Prices
			      ▪ 4B.1: Timelines
			      ▪ 4B.2: Pre-Dispatch Prices
			   o 4C: Releasing and Publishing Pre-Dispatch Information
			      ▪ 4C.1: Publishing Pre-Dispatch Information
			      ▪ 4C.2: Releasing MP Specific Pre-Dispatch Information
			
			• The pre-dispatch unconstrained schedule report will be retired; New section 4C.2 will specify the *IESO* obligations related to *market participant confidential* reports related to pre-dispatch schedules.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.

Chapter 7, Section 5.5.3	Existing - requires amendment	Pre-Dispatch Market Totals Report	Sections 5.5.3:
			• This section specifies that the *IESO* shall release to all *market participants* for each *dispatch hour*, information related to the *pre-dispatch schedule.*
			
			• Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			   o 4A: The Pre-Dispatch Calculation Engine
			      ▪ 4A.1: Purpose
			      ▪ 4A.2: Optimisation Objective
			      ▪ 4A.3: Inputs
			      ▪ 4A.4: Multiple Passes
			      ▪ 4A.5: Outputs
			   o 4B: Pre-Dispatch Schedules and Prices
			      ▪ 4B.1: Timelines
			      ▪ 4B.2: Pre-Dispatch Prices
			   o 4C: Releasing and Publishing Pre-Dispatch Information
			      ▪ 4C.1: Publishing Pre-Dispatch Information
			      ▪ 4C.2: Releasing MP Specific Pre-Dispatch Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• The pre-dispatch market totals report will be retired; New section 4C.1 will specify the publication requirements for the *pre-dispatch schedule*. The existing Pre-Dispatch Market Totals Report will be retired and replaced. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.
Chapter 7, Sections 5.5.3, 19.4.2	Existing - requires amendment	Pre-Dispatch Demand Response Schedules Report	Section 5.5.3: • This section specifies that the *IESO* shall release to all *market participants* for each *dispatch hour*, information related to the *pre-dispatch schedule*. • Existing Section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.2. Section 19.4.2: • This section specifies when the *IESO* is obligated to issue a standby notice to a *demand response market participant*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 7, Sections 5.5.3, 5.5.3.7	Existing - requires amendment	Pre-Dispatch Constrained Totals Report	Sections 5.5.3/5.5.3.7:
			• These sections specify that the *IESO* shall release to all *market participants* for each *dispatch hour*, a list of the network constraints and *security* constraints that affect the *pre-dispatch schedule*.
			• Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			  o 4A: The Pre-Dispatch Calculation Engine
			    ▪ 4A.1: Purpose
			    ▪ 4A.2: Optimisation Objective
			    ▪ 4A.3: Inputs
			    ▪ 4A.4: Multiple Passes
			    ▪ 4A.5: Outputs
			  o 4B: Pre-Dispatch Schedules and Prices
			    ▪ 4B.1: Timelines
			    ▪ 4B.2: Pre-Dispatch Prices
			  o 4C: Releasing and Publishing Pre-Dispatch Information
			    ▪ 4C.1: Publishing Pre-Dispatch Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• 4C.2: Releasing MP Specific Pre-Dispatch Information • Delete section 5 in its entirety (including section 5.5.3); New section 4C.1 will specify the publication requirements for the network constraints and *security* constraints that affect the *pre-dispatch schedule*. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.
Real-Time Scheduling and Dispatch Reports			
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	Real-Time Dispatch	Sections 6.5.1/6.5.1.1: • These sections specify that for each *registered facility* that is a *boundary entity*, a *dispatchable load facility*, a *dispatchable generation facility* or an *hourly demand response* resource in respect of which a valid *bid* or *offer* has been submitted, that the *IESO* shall release a *market participant* confidential report which specifies the real-time schedule for that *registered facility*. • Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections: o 4D: The Real-Time Calculation Engine ▪ 4D.1: Purpose ▪ 4D.2: Optimisation Objective ▪ 4D.3: Inputs ▪ 4D.4: Multiple Passes ▪ 4A.5: Outputs o 4E: Real-Time Schedules and Prices ▪ 4E.1: Timelines ▪ 4E.2: Real-Time Prices o 4F: Releasing and Publishing Real-Time Information ▪ 4F.1: Publishing Real-Time Information ▪ 4F.2: Releasing MP Specific Real-Time Information • Section 4F.2 will specify the *IESO* obligations related to *market participant* confidential reports related to real-time schedules.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	5-Minute Dispatch Schedule report (Preliminary) Real-Time Dispatch	• See Above.
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	Real-Time constrained Schedules 5-Minute Report (Preliminary)	• See Above.
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	Real-Time Schedule Reports	• See Above.
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	Real-Time Operating Reserve	• See Above.
Chapter 7, Sections 6.5.1, 6.5.1.1	Existing - requires amendment	5-Minute Operating Reserve Schedule Report (Preliminary)	• See Above.
Chapter 7, Section 7.1.6	Existing - no change	Dispatch Advisory Report	Section 7.1.6: • This section obligates the *IESO*, on a best efforts basis, to determine and issue *dispatch* advisories for each *registered dispatchable facility*, for information purposes only. Advisories are determined and issued every 5 minutes to each *registered dispatchable facility* to provide an indication of potential future *dispatch instructions* and *operating reserve* schedules. • Dispatch advisory reports will be revised to identify both *pseudo-units* and physical resources for non-quick start *generation facilities* that elect to be modelled as a *pseudo-unit – market manual* level detail, no *market rule amendments* are proposed.
Chapter 7, Section 19.4.4	Existing - no change	Demand Response	Section 19.4.4:

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		Activation Report	• This section specifies that the *IESO* shall issue an activation notice to a *demand response market participant* in ahead of the activation period, in accordance with the applicable *market manual*. • No change to *confidential* activation report – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 7, Sections 6.5.1A	Existing - requires amendment	Real-Time Unconstrained Schedules Reports
		
		(2 reports that are currently generated on hourly basis for *energy* and *operating reserve*)
			Section 6.5.1A:
			• This section obligates the *IESO* to, within one hour after each *dispatch hour*, release to each *registered market participant* (that is a *dispatchable load facility* or a *dispatchable generation facility*) the *market schedule* for their *registered facilities* for each *dispatch interval* of that *dispatch hour*.
			• The current Real-Time Unconstrained Schedules Report (*energy* and *operating reserve*) will be retired.
			• Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections:
			• 4D: The Real-Time Calculation Engine
			• 4E: Real-Time Schedules and Prices
			   ○ 4E.1: Timelines
			   ○ 4E.2: Real-Time Prices
			• 4F: Releasing and Publishing Real-Time Information
			   ○ 4F.1: Publishing Real-Time Information
			   ○ 4F.2: Releasing MP Specific Real-Time Information
			• Delete section 6 in its entirety (including section 6.5.1A); New section 4F.2 will specify the publication requirements of the new Real-Time Energy Price Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.

Chapter 7, Section 6.5.3	Existing - requires amendment	Real-Time Constrained Totals Report	Sections 6.5.3: • This section obligates the *IESO*, within one hour after each *dispatch hour*, release to all *market participants* for each *dispatch interval* of that *dispatch hour* information related to the *real-time schedule*. • Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections: ○ 4D: The Real-Time Calculation Engine

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

			o 4E: Real-Time Schedules and Prices
			
			    ▪ 4E.1: Timelines
			
			    ▪ 4E.2: Real-Time Prices
			
			o 4F: Releasing and Publishing Real-Time Information
			
			    ▪ 4F.1: Publishing Real-Time Information
			
			    ▪ 4F.2: Releasing MP Specific Real-Time Information
			
			• Delete section 6 in its entirety (including section 6.5.3); New section 4F.1 will specify the publication requirements of the new Real-Time Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.

Chapter 7, Section 6.5.3	Existing - requires amendment	Real-Time Market Totals Report	Sections 6.5.3:
			
			• This section obligates the *IESO*, within one hour after each *dispatch hour*, release to all *market participants* for each *dispatch interval* of that *dispatch hour* information related to the *real-time schedule*.
			
			• Delete – this report will be retired.
			
			• Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections:
			
			o 4D: The Real-Time Calculation Engine
			
			o 4E: Real-Time Schedules and Prices
			
			    ▪ 4E.1: Timelines
			
			    ▪ 4E.2: Real-Time Prices
			
			o 4F: Releasing and Publishing Real-Time Information
			
			    ▪ 4F.1: Publishing Real-Time Information
			
			    ▪ 4F.2: Releasing MP Specific Real-Time Information
			
			• Delete section 6 in its entirety (including section 6.5.3); New section 4F.1 will specify the publication requirements of the new Real-Time Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7, Section 4F.2 NEW	New	Daily Energy Limit (DEL) Tracking	**Chapter 7, Section 4F.2 NEW:** • Section 4F.2: Releasing MP Specific Real-Time Information will codify *IESO* obligations related to providing *market participant confidential* information. OVERLAP: Facility Registration, Offers Bids & Data Inputs design documents.
Chapter 7, Section 4F.2 NEW	New	Number of Starts Tracking	**Chapter 7, Section 4F.2 NEW:** • Section 4F.2: Releasing MP Specific Real-Time Information will codify *IESO* obligations related to providing *market participant confidential* information. OVERLAP: Facility Registration, Offers Bids & Data Inputs design documents.
Price Reports - Day-Ahead Market Pricing Reports			

Chapter 7A, Section 5.1 NEW	New	DAM Hourly Energy Locational Marginal Pricing (LMP) Report	**Chapter 7A, Section 5.1 NEW:**
			
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			    ▪ 3.1: Purpose
			    ▪ 3.2: Optimisation Objective
			    ▪ 3.3: Inputs
			    ▪ 3.4: Multiple Passes
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			    ▪ 4.1: Timelines
			    ▪ 4.2: DAM Prices
			  o 5: Releasing and Publishing Day-Ahead Market Information
			    ▪ 5.1: Publishing Day-Ahead Market Information
			    ▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			
			• Section 5.1 will specify the publication requirements of the new DAM Energy Price Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7A, Section 5.1 NEW	New	DAM Hourly Energy Virtual Zonal Price Report	• See Above.
Chapter 7A, Section 5.1 NEW	New	DAM Hourly Ontario Zone Energy Price Report	• See Above.
Chapter 7A, Section 5.1 NEW	New	DAM Hourly Operating Reserve LMP Report	• See Above.
Chapter 7A, Section 5.1 NEW	New	DAM Hourly Intertie Energy Price Report	• See Above.
Chapter 7A, Section 5.1 NEW	New	DAM Hourly Intertie Operating Reserve Price Report	• See Above.
Chapter 7A, Section 5.1 NEW	New	Yearly DAM Hourly Energy and Operating Reserve Price Report	• See Above
Price Reports - Pre-Dispatch Price Reports			

Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Energy LMP Report	Section 4C.1 NEW:
			• Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			   o 4A: The Pre-Dispatch Calculation Engine
			      ▪ 4A.1: Purpose
			      ▪ 4A.2: Optimisation Objective
			      ▪ 4A.3: Inputs
			      ▪ 4A.4: Multiple Passes
			      ▪ 4A.5: Outputs
			   o 4B: Pre-Dispatch Schedules and Prices
			      ▪ 4B.1: Timelines

Market Rule Section [Chapter No.], [Section No.]			
			▪ 4B.2: Pre-Dispatch Prices o 4C: Releasing and Publishing Pre-Dispatch Information ▪ 4C.1: Publishing Pre-Dispatch Information ▪ 4C.2: Releasing MP Specific Pre-Dispatch Information • Section 4C.1 will specify the publication requirements of the new Pre-Dispatch Energy Price Reports. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.
Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Energy Virtual Zonal Price Report	• See Above.
Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Ontario Zone Energy Price Report	• See Above.
Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Operating Reserve LMP Report	• See Above.
Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Intertie Energy Price Report	• See Above.
Chapter 7, Section 4C.1 NEW	New	Pre-Dispatch Hourly Intertie Operating Reserve Price Report	• See Above.
Chapter 7, Section 4C.1 NEW	New	Yearly Pre-Dispatch Hourly Energy, Operating Reserve and Intertie Price Report	• See Above.
Price Reports - Real-Time Price Reports			

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Energy LMP Report	Section 4F.1 NEW:
			
			• Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections:
			
			   ○ 4D: The Real-Time Calculation Engine
			
			   ○ 4E: Real-Time Schedules and Prices
			
			       ▪ 4E.1: Timelines
			
			       ▪ 4E.2: Real-Time Prices
			
			   ○ 4F: Releasing and Publishing Real-Time Information
			
			       ▪ 4F.1: Publishing Real-Time Information
			
			       ▪ 4F.2: Releasing MP Specific Real-Time Information
			
			• Section 4F.1 will specify the publication requirements of the new Real-Time Energy Price Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.

Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Energy Virtual Zonal Price Report	• See Above.
Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Ontario Zone Energy Price Report	• See Above.
Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Operating Reserve LMP Report	• See Above.
Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Intertie Energy Price Report	• See Above.
Chapter 7, Section 4F.1 NEW	New	Real-Time 5-Minute Intertie Operating	• See Above.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		Reserve Price Report	
Chapter 7, Section 4F.1 NEW	New	Yearly Real-Time 5-min Energy and Operating Reserve Price Report	• See Above.
Not Applicable	Not Applicable	Uplift and Intertie Offer Guarantee Estimates Report	• This report does not have a corresponding *market rule.*
Price Reports to be Retired			
Appendix 7.5A, Section 6.12.1	Existing - requires amendment	Day Ahead Shadow Prices Report	Appendix 7.5A, Section 6.12.1: • This section obligates the *IESO* to determine *energy* and *operating reserve* prices in Pass3 that will be *published* for informational purposes. • Delete section – report is being retired. • Appendix 7.5A – The DACE Calculation Engine Process will be replaced in its entirety by the new Day-Ahead Market Calculation Engine.
Not Applicable	Not Applicable	Hourly Ontario Energy Price (HOEP) Report	• This report does not have a corresponding *market rule* – report being retired, no *market rule amendments* required.
Not Applicable	Not Applicable	Yearly Hourly HOEP OR Pre-Dispatch Report	• This report does not have a corresponding *market rule* – report being retired, no *market rule amendments* required.
Not Applicable	Not Applicable	HOEP Monthly Averages Report	• This report does not have a corresponding *market rule* – report being retired, no *market rule amendments* required.
Not Applicable	Not Applicable	Net Interchange Scheduling Limit Shadow Prices Report	• This report does not have a corresponding *market rule* – report being retired, no *market rule amendments* required. • It does, however, relate to CMSC calculations as informed by Section 3.5.1B and 3.5.1B.1 of Chapter 9. OVERLAP: Market Settlements.
Chapter 7, Sections 6.5.3, 6.5.3.3	Existing - requires amendment	Nodal Prices Report	Sections 6.5.3, 6.5.3.3:

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• These sections specify the *IESO* obligation to release to all *market participants*, for information purposes only, *energy* prices at each set of transmission nodes, decomposed into an *energy* component, a loss component, and a component for all other transmission and system constraints, and the prices of each class of *operating reserve* for this purpose. • Delete – this report will be retired. • Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new section 4F.1 - publication requirements of the new Real-Time Energy Price Reports.
Chapter 7, Sections 5.5.3, 5.5.3.9, 5.5.3.10	Existing - requires amendment	Pre-dispatch Market Price Report	Sections 5.5.3, 5.5.3.9, 5.5.3.10: • These sections obligate the *IESO* to release to all *market participants* for each *dispatch hour*, the projected uniform *market prices* of *energy* and *operating reserves* in and outside the *IESO control area.* • Delete section – report is being retired. • Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.1.
Chapter 7, Section 5.5.3B	Existing - requires amendment	Pre-dispatch Shadow Prices Report	Section 5.5.3B: • This section obligates the *IESO* to include in *pre-dispatch schedules*, for information purposes only, the projected *energy* prices at each set of transmission nodes and projected prices of each class of *operating reserve.* • Delete section – report is being retired. • Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.1.
Chapter 7, Section 6.5.2	Existing - requires amendment	Real-time Market Disaggregated Price	Section 6.5.2: • This section obligates the *IESO* to release to all *market participants*, the uniform *market prices* of *energy* and *operating reserves* related to that *dispatch interval*. • Delete section – report is being retired. • Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.2	Existing - requires amendment	Real-Time Market Price Report	Section 6.5.2: • This section obligates the *IESO* to release to all *market participants*, the uniform *market prices* of *energy* and *operating reserves* related to that *dispatch interval*. • Delete section – report is being retired.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Not Applicable	Not Applicable	Yearly Real-Time Market Price Report	• This report does not have a corresponding *market rule* – report being retired, no *market rule amendments* required..
Chapter 7, Sections 6.5.3, 6.5.3.3	Existing - requires amendment	Real-Time Shadow Prices Report	Sections 6.5.3, 6.5.3.3: • These sections obligate the *IESO* to release to all *market participants*, within one hour after each *dispatch hour* for information purposes only, *energy* prices at each set of transmission nodes, and the prices of each class of *operating reserve*. • Delete section – report is being retired. • Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Demand Reports			
Chapter 5, Sections 7.1, 7.1.1, 7.1.3	Existing - no change	Ontario Zonal Demand Forecast Report	Sections 7.1, 7.1.1, 7.1.3: • 7.1/7.1.1: These sections obligate the *IESO* to produce and *publish* the following ongoing demand forecasts for Ontario or parts thereof: -on a daily basis, a forecast of demand for each of the 34 days following the current day, by hour; and -on a quarterly basis, a forecast of demand for the next 18 months, by week. • 7.1.3: This section obligates the *IESO* to *publish* the method to be used to perform the forecasts described in section 7.1.1. Market Manual Part7.2: Near-Term Assessments and Reports, Appendix B describes the Ontario Zonal *Demand Forecast* Report. • No *market rule amendments* will be necessary to reflect timing or content changes. These changes will be reflected in the applicable *market manual(s).*
Chapter 5, Sections 7.1, 7.1.1, 7.1.3	Existing - no change	Ontario Near-Term Demand Forecast Report (Day 0 to 10)	• See Above – no market rule amendments will be required for this new report. This new report will be reflected in the applicable *market manual(s).*
Chapter 5, Sections 7.1, 7.1.1, 7.1.3	Existing - no change	Ontario Mid-Term Demand Forecast Report (Day 11 to 34)	• See Above – no market rule amendments will be required for this new report. This new report will be reflected in the applicable *market manual(s).*

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Not Applicable	Not Applicable	Hourly Demand Report	• This report does not have a corresponding *market rule*.
Chapter 7, Section 18.5.2	Existing - no change	Demand Response Pre-Auction Report	Section 18.5.2: • This section obligates the *IESO*, in accordance with the applicable *market manual* to publish a pre-auction report in advance of each *demand response auction*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 7, Section 18.8.1	Existing - no change	Demand Response Post-Auction Summary Report	Section 18.8.1: • This section obligates the *IESO*, in accordance with the applicable *market manual* to publish a post-auction report following the conclusion of a *demand response auction*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Not Applicable	Not Applicable	Peak System Demand Preliminary Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Peak System Demand Final Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Hourly Zonal Demand Report (retained for HDR *market participant* use)	• This report does not have a corresponding *market rule*.
Chapter 7, Section 18.8.2	Existing - requires amendment	Demand Response Post-Auction Participant Report	Section 18.8.2: • This section obligates the *IESO*, following the conclusion or a *demand response auction*, to issue post-auction reports to each *demand response auction participant* to detail the *demand response capacity* offers that have cleared in the *demand response auction,* and the associated *demand response capacity obligations* in accordance with the applicable *market manual*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Not Applicable	Not Applicable	Industrial Load by Sector	This report does not have a corresponding *market rule*.
Supply Reports			

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7, Section 4.2.3	Existing - no change	Dispatch Deviation Report	Section 4.2.3: • This section obligates the *IESO*, to no less than once in each calendar month, to *publish* a report listing and giving reasons for all significant differences between *dispatch instructions* issued and the results of the *dispatch algorithm*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 4, Section 7.3.4	Existing - no change	Generator Output by Fuel Type Hourly Report	Section 6.5.5: • This section obligates the *IESO* to *publish generator outage* information aggregated by fuel type based on information provided to it by *market participants*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Not Applicable	Not Applicable	Generator Output by Fuel Type Monthly Report	• This report does not have a corresponding *market rule*.
Chapter 4, Section 7.3.4	Existing - no change	Generator Output and Capability Report	Section 7.3.4: • This section obligates the *IESO* to *publish*, as soon as practicable following each *dispatch hour*, the actual *generation capacity* (in MW) and hourly *energy* production (in MWh) for each *generation unit*. *Generation capacity* and *energy* production for *generation units* with ratings less than 20MVA can be aggregated by station. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 4, Sections 7.3.5 and 7.3.6	Existing - no change	Variable Generation Forecast Summary Report	Sections 7.3.5, 7.3.6:
			• These sections obligate the *IESO*, as soon as practicable prior to provide a confidential forecast produced by the *forecasting entity*:
			  o To each *registered market participant* for each of their *variable generation facilities* as specified in the applicable *market manual*;
			  o For each *dispatch interval* in the preceding *dispatch hour*, to each *registered market participant* for each of their *variable generation facilities* as specified in the applicable *market manual*.
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Appendix 7.5, Section 2.8.4	Existing - no change	Variable Generation Tie Breaking	Appendix 7.5, Section 2.8.4: • This section obligates the *IESO* to randomly determine a daily *dispatch* order for *variable generators* that are *registered*

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		Rankings Report	*market participants*, and to regularly update and *publish* such daily *dispatch* order in accordance with the applicable *market manual*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 4, Sections 7.3.5 and 7.3.6	Existing - no change	Variable Generation 5-Minute Forecast Report	Sections 7.3.5, 7.3.6:
			• These sections obligate the *IESO*, as soon as practicable prior to provide a confidential forecast produced by the *forecasting entity*:
			  o To each *registered market participant* for each of their *variable generation facilities* as specified in the applicable *market manual*;
			  o For each *dispatch interval* in the preceding *dispatch hour*, to each *registered market participant* for each of their *variable generation facilities* as specified in the applicable *market manual*.
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 4, Sections 7.3.5 and 7.3.6	Existing - no change	Variable Generation Forecast by Resource Report	See Above. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 4, Sections 7.3.5 and 7.3.6	Existing - no change	Variable Generation Embedded 2 to 7 Day Forecast Report	See Above. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 4, Sections 7.3.5 and 7.3.6	Existing - no change	Variable Generation Embedded Forecast by Resource Report	See Above. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Operating Reserve Reports			
Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Area Operating Reserve Shortfall Report	Section 5.8.2: • This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*. • The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

			and private reports – the Day-Ahead Area Operating Reserve Shortfall Report is one of the public reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			    ▪ 3.1: Purpose
			    ▪ 3.2: Optimisation Objective
			    ▪ 3.3: Inputs
			    ▪ 3.4: Multiple Passes
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			    ▪ 4.1: Timelines
			    ▪ 4.2: DAM Prices
			  o 5: Releasing and Publishing Day-Ahead Market Information
			    ▪ 5.1: Publishing Day-Ahead Market Information
			    ▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			• Delete section 5.8 (The Day-Ahead Commitment Scheduling Process) in its entirety (including section 5.8.2); New section 5.1 will specify the publication requirements for day-ahead market information.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Area Reserve Constraints Report	• See Above.
Chapter 5, Sections 5.5.3, 5.5.3.7	Existing - requires amendment	Pre-Dispatch Area Reserve Constraints Report	Sections 5.5.3, 5.5.3.7: • These sections obligate the *IESO* to release to all *market participants* for each *dispatch hour*, a list of the network constraints and *security* constraints that affect the *pre-dispatch schedule*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.1.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7, Sections 5.5.3, 5.5.3.6	Existing - requires amendment	Pre-Dispatch Area Operating Reserve Shortfalls Report	Sections 5.5.3, 5.5.3.6: • These sections obligate the *IESO* to release to all *market participants* for each *dispatch hour*, any area *operating reserve* shortfalls. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.1.
Chapter 7, Sections 6.5.3, 6.5.3.2	Existing - requires amendment	Real-Time Constrained Operating Reserve in Market	Sections 6.5.3, 6.5.3.2: • These sections obligate the *IESO* to release to all *market participants* for each *dispatch interval* of that *dispatch hour*, area *operating reserve* requirements. • Content changes will likely not result in *market rule amendments*, due to the high level description of this report in the *market rules*. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new sections 4D, 4E, and 4F. Section 4F.1 will specify publication requirements for the *real-time market* (Publishing Real-Time Information). OVERLAP: Grid and Market Operations Integration, DAM, pre-dispatch and RT Calculation Engine Detailed Designs.
Chapter 7, Sections 6.5.3, 6.5.3.7	Existing - requires amendment	Real-Time Area Reserve Constraints Report	Sections 6.5.3, 6.5.3.7: • These sections obligate the *IESO,* within one hour after each *dispatch hour,* to release to all *market participants* for each *dispatch interval*, a list of network and *security* constraints that affected the *real-time schedule*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.3, 6.5.3.2	Existing - requires amendment	Real-Time Operating Reserve in Market Report	Sections 6.5.3, 6.5.3.2: • These sections obligate the *IESO,* within one hour after each *dispatch hour,* to release to all *market participants* for each *dispatch interval*, area *operating reserve* requirements. • No change – existing market rule provision does not specify granular detail on content of report. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 7, Sections 6.5.3, 6.5.3.2	Existing - requires amendment	Real-Time Market Operating Reserve in Market Report	Sections 6.5.3, 6.5.3.2: • These sections obligate the *IESO,* within one hour after each *dispatch hour,* to release to all *market participants* for each *dispatch interval*, area *operating reserve* requirements. • Report to be retired – existing market rule provision does not specify listing of individual reports, thus no change required. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.3, 6.5.3.6	Existing - requires amendment	Dispatch Area Operating Reserve Shortfalls Report	Sections 6.5.3, 6.5.3.6: • These sections obligate the *IESO,* within one hour after each *dispatch hour,* to release to all *market participants* for each *dispatch interval*, any area *operating reserve* shortfalls. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.3, 6.5.3.2	Existing - requires amendment	Dispatch Area Operating Reserve: Total Scheduled and Total Energy Called Report	Sections 6.5.3, 6.5.3.2: • These sections obligate the *IESO,* within one hour after each *dispatch hour,* to release to all *market participants* for each *dispatch interval*, area *operating reserve* requirements. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Transmission Reports - Transmission Rights Auction Reports			
Chapter 8, Section 4.12.1, 4.12.1.1	Existing - requires amendment	TRA Hourly Zonal Price Report	Sections 4.12.1, 4.12.1.1: • These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction:* o Hourly prices determined on the basis of the last projected *market price* for *energy published* for that hour pursuant to section 5.5.1 of Chapter 7 for each *TR zone* during the preceding twelve months or, in the case of a *TR auction* conducted less than twelve months following the *market commencement date*, since the *market commencement date.* o Market rule amendments may be required with the move to locational marginal pricing. The timing of the publication of the report and interactions with the DAM intertie schedules must also be reviewed and is also subject to change.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			OVERLAP: Grid and Market Operations Integration, DAM, Pre-Dispatch and Real-Time Calculation Engine Design Chapters.
Not applicable	Not applicable	Monthly TRA Financial Report	• This report is not changing, and does not have a corresponding *market rule.*

Chapter 8, Sections 4.12.1, 4.12.1.3, 4.12.1.4, 4.12.1.5	Existing - no change	Monthly TRA Historical Interface Flows, Schedules, Transmission Transfer Capability	Sections 4.12.1, 4.12.1.3, 4.12.1.4, 4.12.1.5:
			• These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction:*
			  o Actual and scheduled hourly flows over each *interconnection*
			  o The hourly *transmission transfer capability* of each *interconnection*
			  o Identification of *any transmission transfer capability* limits, parallel flow assumptions and other applicable constraints.
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 8, Sections 4.12.1, 4.12.1.4, 4.12.1.5	Existing - no change	TRA Pre-Auction Forecast of Transmission Transfer Capability for LT Report	Sections 4.12.1, 4.12.1.4, 4.12.1.5:
			• These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction:*
			  o Actual and scheduled hourly flows over each *interconnection*
			  o The hourly *transmission transfer capability* of each *interconnection*
			  o Identification of *any transmission transfer capability* limits, parallel flow assumptions and other applicable constraints.
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Chapter 8, Sections 4.12.1, 4.12.1.4, 4.12.1.5	Existing - no change	TRA Pre-Auction Forecast of Transmission Transfer Capability for ST Report	Sections 4.12.1, 4.12.1.4, 4.12.1.5:
			• These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction:*
			  o Actual and scheduled hourly flows over each *interconnection*
			  o The hourly *transmission transfer capability* of each *interconnection*
			  o Identification of *any transmission transfer capability* limits, parallel flow assumptions and other applicable constraints.
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Chapter 8, Sections 4.12.1, 4.12.1.2	Existing - no change	TRA Pre-Auction MCP LT Report	Sections 4.12.1, 4.12.1.2: • These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction*, the *TR market clearing price* for each *transmission right* sold during any *TR auctions* conducted in the preceding eighteen months or, in the case of a *TR auction* conducted less than eighteen months following the *market commencement date*, since the *market commencement date*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 8, Sections 4.12.1, 4.12.1.2	Existing - no change	TRA Pre-Auction MCP ST Report	Sections 4.12.1, 4.12.1.2: • These sections obligate the *IESO* to *publish*, at least thirty days prior to each *TR auction*, the *TR market clearing price* for each *transmission right* sold during any *TR auctions* conducted in the preceding eighteen months or, in the case of a *TR auction* conducted less than eighteen months following the *market commencement date*, since the *market commencement date*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 8, Sections 4.16.3, 4.16.3.1	Existing - no change	TRA Post Auction MCP LT Round 1 Report	Sections 4.16.3, 4.16.3.1: • These sections obligate the *IESO,* as soon as practicable, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, to *publish* the *TR market clearing price* for each *transmission right* sold during that round (section 4.16.3.1). • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 8, Sections 4.16.3, 4.16.3.1	Existing - no change	TRA Post Auction MCP LT Round 2 Report	Sections 4.16.3, 4.16.3.1: • These sections obligate the *IESO,* as soon as practicable, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, to *publish* the *TR market clearing price* for each *transmission right* sold during that round (section 4.16.3.1). • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 8, Sections 4.16.3, 4.16.3.1	Existing - no change	TRA Post Auction MCP ST Report	Sections 4.16.3, 4.16.3.1: • These sections obligate the *IESO,* as soon as practicable, and in any event prior to the time at which *TR bids* and *TR offers* may be submitted in respect of the next round of the *TR auction*, to *publish* the *TR market clearing price* for each *transmission right* sold during that round (section 4.16.3.1).

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Not Applicable	Not Applicable	Transmission Auction Participant Bid History	• This report is not changing, and does not have a corresponding *market rule*.

Chapter 8, Section 4.16.1	Existing - no change	Transmission Auction Participant Notification	Sections 4.16.1:
			
			• This section obligates the *IESO,* as soon as practicable and no later than the end of the next business day following the conclusion of a round of a *TR auction*, to notify each TR bidder of the following:
			   o The number of *transmission rights* awarded during that round;
			   o The *TR market clearing price* for each *transmission right* awarded during that round
			   o The injection *TR zone* and the withdrawal *TR zone* during that round;
			   o The period for which each *transmission right* awarded to the *TR bidder* during that round is valid.
			
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Transmission Reports - Intertie Scheduling Limits Reports			

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Intertie Scheduling Limits Report	Section 5.8.2:
			
			• This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			• The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public and private reports – the Day-Ahead Intertie Scheduling Limits Report is one of the public reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			   o 3: The DAM Calculation Engine
			
			     ▪ 3.1: Purpose
			
			     ▪ 3.2: Optimisation Objective
			
			     ▪ 3.3: Inputs
			
			     ▪ 3.4: Multiple Passes
			
			     ▪ 3.5: Outputs
			
			   o 4: DAM Schedules and Prices
			
			     ▪ 4.1: Timelines

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			▪ 4.2: DAM Prices
			o 5: Releasing and Publishing Day-Ahead Market Information
			▪ 5.1: Publishing Day-Ahead Market Information
			▪ 5.2: Releasing MP Specific Day-Ahead Market Information
			• Delete section 5 in its entirety (including section 5.8.2); New section 5.1 will specify the publication requirements for day-ahead market information. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.
Chapter 7, Sections 5.5.3, 5.5.3.7	Existing - requires amendment	Pre-Dispatch Interties Scheduling Limits Report	Sections 5.5.3, 5.5.3.7: • These sections obligate the *IESO* to release, to all *market participants* for each *dispatch hour*, a list of the network constraints and *security* constraints that affect the *pre-dispatch schedule*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with new section 4C.1.
Chapter 7, Sections 6.5.3, 6.5.3.7	Existing - requires amendment	Real-Time Intertie Scheduling Limits Report	Sections 6.5.3, 6.5.3.7: • These sections obligate the *IESO* to release to all *market participants*, for each *dispatch interval* of that *dispatch hour*, a list of network and *security* constraints that affected the *real-time schedule*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.3, 6.5.3.7	Existing - requires amendment	Intertie Schedule and Flow Report	Sections 6.5.3, 6.5.3.7: • These sections obligate the *IESO* to release to all *market participants*, for each *dispatch interval* of that *dispatch hour*, a list of network and *security* constraints that affected the *real-time schedule*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Chapter 7, Sections 6.5.3, 6.5.3.7	Existing - requires amendment	Yearly Intertie Actual Schedule and Flow Report	Sections 6.5.3, 6.5.3.7: • These sections obligate the *IESO* to release to all *market participants*, for each *dispatch interval* of that *dispatch hour*, a list of network and *security* constraints that affected the *real-time schedule.* • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. • However, existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with new section 4F.1.
Transmission Reports - Transmission Outage Reports			
Chapter 5, Sections 7.4.4, 7.4.4.1.2, 7.3.1, 7.3.1.4, 7.1.1, 7.1.2	Existing - no change	Transmission Facility All in Service Limits Report (Days 0 to 34)	Sections 7.4.4, 7.4.4.1.2, 7.3.1.4: • These sections obligate the *IESO* to conduct the daily assessments referred to in section 7.3.1.4 of Chapter 5 (on a daily basis and not later than 17:00EST on each day, an assessment covering a thirty-four-day period commencing on the following day) to provide forecasts of expected transmission limits with all elements in-service. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 7.4.4, 7.4.4.1.3, 7.3.1, 7.3.1.4, 7.1.1, 7.1.2	Existing - no change	Transmission Facility Outage Limits Report (Days 0 to 2)	Sections 7.4.4, 7.4.4.1.3, 7.3.1.4: • These sections obligate the *IESO* to conduct the daily assessments referred to in section 7.3.1.4 of Chapter 5 (on a daily basis and not later than 17:00EST on each day, an assessment covering a thirty-four-day period commencing on the following day) to provide expected transmission limits with *outages*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 7.1.1, 7.1.1.2, 7.1.1.3	Existing - no change	Transmission Facility Outage Limits Report (Days 3 to 34)	Sections 7.4.4, 7.4.4.1.3, 7.3.1.4: • These sections obligate the *IESO* to conduct the daily assessments referred to in section 7.3.1.4 of Chapter 5 (on a daily basis and not later than 17:00EST on each day, an assessment covering a thirty-four-day period commencing on the following day) to provide expected transmission limits with *outages*.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 6.2.3, 7.4.4, 7.4.4.1.3, 7.3.1, 7.3.1.4, 7.1.1, 7.1.2	Existing - no change	All Transmission Outages Occurring Today	Sections 6.2.3, 7.4.4, 7.4.4.1.3, 7.3.1.4: • These sections obligate the *IESO* to conduct the daily assessments referred to in section 7.3.1.4 of Chapter 5 (on a daily basis and not later than 17:00EST on each day, an assessment covering a thirty-four-day period commencing on the following day) to provide expected transmission limits with *outages*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 6.2.3, 7.4.4, 7.4.4.1.3, 7.3.1, 7.3.1.4, 7.1.1, 7.1.2	Existing - no change	Planned Transmission Outages Occurring Next 30 Days	Sections 6.2.3, 7.4.4, 7.4.4.1.3, 7.3.1.4: • These sections obligate the *IESO* to conduct the daily assessments referred to in section 7.3.1.4 of Chapter 5 (on a daily basis and not later than 17:00EST on each day, an assessment covering a thirty-four-day period commencing on the following day) to provide expected transmission limits with *outages*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5	Existing - no change	Planned Transmission Outages Occurring Next 2 to 3 Months	Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5: • These sections obligate the *IESO* to prepare quarterly assessments reports of its findings in relation to such *reliability* assessments: • On a quarterly basis and no later than 5 *business days* prior to the end of each calendar quarter, as assessment covering an eighteen-month period commencing with the following calendar month; • As required, an assessment of the reliability of the *IESO-controlled grid*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5	Existing - no change	Planned Transmission Outages Occurring Next 4 to 6 Months	Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5: • These sections obligate the *IESO* to prepare quarterly assessments reports of its findings in relation to such *reliability* assessments: • On a quarterly basis and no later than 5 *business days* prior to the end of each calendar quarter, as assessment covering an eighteen-month period commencing with the following calendar month; • As required, an assessment of the reliability of the *IESO-controlled grid*.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 5, Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5	Existing - no change	Planned Transmission Outages Occurring Next 7 to 24 Months	Sections 6.2.3, 7.4.2, 7.3.1, 7.3.1.2, 7.3.1.5: • These sections obligate the *IESO* to prepare quarterly assessments reports of its findings in relation to such *reliability* assessments: • On a quarterly basis and no later than 5 *business days* prior to the end of each calendar quarter, as assessment covering an eighteen-month period commencing with the following calendar month; • As required, an assessment of the reliability of the *IESO-controlled grid*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Transmission Reports - Transmission Constraints Reports			

Chapter 7, Section 5.8.2	Existing - requires amendment	Day-Ahead Security Constraints Report	Section 5.8.2:
			• This section obligates the *IESO* to release the *schedule of record*, starting from 10:00EST to release no later than 15:00EST the *schedule of record*, in accordance with the applicable *market manual*.
			• The DACP *schedule of record* is *published* after the successful completion of the DACP, and is made up public and private reports – the Day-Ahead Security Constraints Report is one of the public reports.
			• New Chapter 7A: Day-Ahead Market Operations will include the following new sections:
			  o 3: The DAM Calculation Engine
			    ▪ 3.1: Purpose
			    ▪ 3.2: Optimisation Objective
			    ▪ 3.3: Inputs
			    ▪ 3.4: Multiple Passes
			    ▪ 3.5: Outputs
			  o 4: DAM Schedules and Prices
			    ▪ 4.1: Timelines
			    ▪ 4.2: DAM Prices
			  o 5: Releasing and Publishing Day-Ahead Market Information
			    ▪ 5.1: Publishing Day-Ahead Market Information

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
			• 5.2: Releasing MP Specific Day-Ahead Market Information • Delete section 5 in its entirety (including section 5.8.2); New section 5.2 in chapter 7A will specify the publication requirements for day-ahead market information. OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Day-Ahead Market Calculation Engine design documents.

Chapter 7, Sections 5.5.3, 5.5.3.7	Existing - requires amendment	Pre-Dispatch Security Constraints Report	Sections 5.5.3, 5.5.3.7:
			
			 • These sections obligate the *IESO* to release, to all *market participants* for each *dispatch hour*, a list of the network constraints and *security* constraints that affect the *pre-dispatch schedule*.
			 • Existing section 5 of Chapter 7 – The Pre-Dispatch Scheduling Process will be deleted and replaced with the following new sections:
			   o 4A: The Pre-Dispatch Calculation Engine
			
			       ▪ 4A.1: Purpose
			
			       ▪ 4A.2: Optimisation Objective
			
			       ▪ 4A.3: Inputs
			
			       ▪ 4A.4: Multiple Passes
			
			       ▪ 4A.5: Outputs
			
			   o 4B: Pre-Dispatch Schedules and Prices
			
			       ▪ 4B.1: Timelines
			
			       ▪ 4B.2: Pre-Dispatch Prices
			
			   o 4C: Releasing and Publishing Pre-Dispatch Information
			
			       ▪ 4C.1: Publishing Pre-Dispatch Information
			
			       ▪ 4C.2: Releasing MP Specific Pre-Dispatch Information
			
			 • Delete section 5 in its entirety (including section 5.5.3); New section 4C.1 will specify the publication requirements for the network constraints and *security* constraints that affect the *pre-dispatch schedule*.
			
			 OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Pre-Dispatch Calculation Engine design documents.

Chapter 7, Sections 6.5.3, 6.5.3.7	Existing - requires amendment	Dispatch Security	Sections 6.5.3, 6.5.3.7:

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement

		Constraints Report	• These sections obligate the *IESO* to release to all *market participants*, for each *dispatch interval* of that *dispatch hour*, a list of network and *security* constraints that affected the *real-time schedule*.
			• Existing section 6 of Chapter 7 – The Real-Time Scheduling Process will be deleted and replaced with the following new sections:
			   ○ 4D: The Real-Time Calculation Engine
			   ○ 4E: Real-Time Schedules and Prices
			      ▪ 4E.1: Timelines
			      ▪ 4E.2: Real-Time Prices
			   ○ 4F: Releasing and Publishing Real-Time Information
			      ▪ 4F.1: Publishing Real-Time Information
			      ▪ 4F.2: Releasing MP Specific Real-Time Information
			• Delete section 6 in its entirety (including section 6.5.3); New section 4F.1 will specify the publication requirements of the new Real-Time Energy Price Reports.
			
			OVERLAP: This section may be further assessed under the Grid and Market Operations Integration and Real-Time Calculation Engine design documents.

Loss Penalty Factor Reports			
Appendix 7.5, Section 2.4.5	Existing - requires amendment	Loss Penalty Factors	Appendix 7.5, Section 2.4.5: • This section obligates the *IESO* to estimate static transmission losses and model transmission losses using penalty factors. The *IESO* shall adjust *bid* and *offer* prices using the applicable penalty factor. The *IESO* shall notify *market participants* in a timely manner of any changes to the applicable penalty factors. • Market rule amendments may be required to: -split into up to 3 files (DAM, PD, RT) given the results could be derived individually from each calculation engine; -loss penalty factors in the scheduling passes may need to be reported separately in cases where it differs with the loss penalty factor in the pricing pass. • Alternatively, section may be deleted in its entirety if not required. OVERLAP: Day-Ahead Market, Pre-Dispatch, and Real-Time, Grid and Market Operations Integration Design Chapters.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Market Power Mitigation Reports - Constrained Area Designation Reports			
Appendix 7.8, Section X NEW	New	Narrowly Constrained Areas ("NCAs") Report	Appendix 7.8, Section X New: • Appendix 7.8 will codify the Market Power Mitigation market rules. • Publication requirements will be specified within this new Appendix. OVERLAP: Market Power Mitigation, Offers Bids & Data Inputs, Facility Registration, DAM/Pre-Dispatch/Real-Time Calculation Engines, and Market Settlement Detailed Design.
Appendix 7.8, Section X NEW	New	Dynamic Constrained Areas ("DCAs") Report	• See Above.
Appendix 7.8, Section X NEW	New	Uncompetitive Interties Report	• See Above.
Appendix 7.8, Section X NEW	New	Global Market Power Conditions Summary	• See Above.
Market Power Mitigation - Reference Levels and Reference Quantities Reports			
Appendix 7.8, Section X NEW	New	Reference Level Report	• See Above.
Appendix 7.8, Section X NEW	New	Reference Quantity Report	• See Above.
Appendix 7.8, Section X NEW	New	Notice of Response to Request to Modify a Fuel Cost Report	• See Above.
Market Power Mitigation Reports - Mitigation Events			
Appendix 7.8, Section X NEW	New	Economic Withholding Monthly Summary Report	• See Above.
Appendix 7.8, Section X NEW	New	Notice of Mitigation of a	• See Above.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
		Resource for a Price Impact	
Appendix 7.8, Section X NEW	New	Notice of Mitigation of a Resource for a Make Whole Payment Impact	• See Above.
Appendix 7.8, Section X NEW	New	Notice of Mitigation of a Resource for Uneconomic Production	• See Above.
Appendix 7.8, Section X NEW	New	Notice of Mitigation of a Resource for Uneconomic Consumption	• See Above.
Appendix 7.8, Section X NEW	New	Notice of Mitigation of a Resource for Physical Withholding	• See Above.
Appendix 7.8, Section X NEW	New	Physical Withholding Monthly Summary Report	• See Above.
Appendix 7.8, Section X NEW	New	Economic Withholding on Uncompetitive Interties Monthly Summary Report	• See Above.
Market Power Mitigation Reports - Ex-Post Cost Recovery Reports			
Appendix 7.8, Section X NEW	New	Notice of Response to Request for *Settlement* Cost Recovery	• See Above.
Market Summary Reports			

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Not Applicable	Not Applicable	Daily Market Summary Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Weekly Market Summary Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Monthly Market Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Ontario Electricity Energy Report	• This report does not have a corresponding *market rule*.
Settlement Reports and Calendars			
Not Applicable	Not Applicable	IOG Settlements Detail Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Condense AND Speed no Load Events Report	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Hourly Uplift Charges	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Daily Uplift	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Monthly Uplift	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Hourly and Monthly Charges	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	Intertie Offer Guarantee Charges	• This report does not have a corresponding *market rule*.
Not Applicable	Not Applicable	IESO Global Adjustment Class B Rates	• Section 1.2.1 of Chapter 9 obligates the *IESO* to determine, collect and remit applicable settlement amounts under any regulations (including global adjustment). • This report does not have an explicit corresponding *market rule* obligation for reporting.
Chapter 9, Sections 8.2.3,	Existing - no change	Default Levy Report	Sections 8.2.3, 8.2.4, 8.4.2, 8.4.3, 8.6.2:

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
8.2.4, 8.4.2, 8.4.3, 8.6.2			• These sections specify the *default levy* notice requirements to be issued to each *non-defaulting market participant.* • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Settlement Calendars			
Chapter 9, Section 6.2.1	Existing - no change	Physical Market Settlement Schedule and Payments Calendar	Section 6.2.1: • This section obligates the *IESO* to *publish* a draft *IESO Settlement Schedule and Payments Calendar* or *SSPC* for the following calendar year. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 9, Section 6.2.1	Existing - no change	Financial Market Settlement Schedule and Payments Calendar	Section 6.2.1: • This section obligates the *IESO* to *publish* a draft *IESO Settlement Schedule and Payments Calendar* or *SSPC* for the following calendar year. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Chapter 9, Section 6.2.1	Existing - no change	Physical/Financial Market Holiday Schedule	Section 6.2.1: • This section obligates the *IESO* to *publish* a draft *IESO Settlement Schedule and Payments Calendar* or *SSPC* for the following calendar year. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.
Not Applicable	Not Applicable	Real-Time Generation Cost Guarantee Payment Calendar	• This report does not have a corresponding *market rule.* • Calendar to be retired, no change required.
Not Applicable	Not Applicable	Global Adjustment – Class B GA Estimate & Actual Rates	• Section 1.2.1 of Chapter 9 obligates the *IESO* to determine, collect and remit applicable *settlement amounts* under any regulations (including global adjustment). • This report does not have an explicit corresponding *market rule* obligation for reporting.
Not Applicable	Not Applicable	Global Adjustment and Peak Demand Factor	• See Above.

Market Rule Section [Chapter No.], [Section No.]	Type	Topic	Requirement
Not Applicable	Not Applicable	Global Adjustment Components and Costs	• See Above.
Not Applicable	Not Applicable	Peak Demand Factor and Capacity Based Recovery Amount for Class A	• See Above
Invoices and Statements of Activity			
Chapter 9, Sections 6.3.4, 6.3.13	Existing - no change	Invoice	Section 6.3.4: • This section obligates the *IESO* to issue a *TR auction invoice* to each *market participant,* covering all *trading days* within a *billing period,* on the same *business day* it issues the *final settlement statement* for the last *trading day* of that *billing period*. Section 6.3.13: • This section obligates the *IESO* to issue one *physical market invoice* to each *market participant*, covering all *trading days* within a *billing period* on the same day it issues the *preliminary settlement statement* for the last *trading day* of that *billing period*. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document. OVERLAP: Market Billing and Funds Administration Detailed Design.
Chapter 9, Section 6.13	Existing - no change	Statement of Activity	Section 6.13: • This section obligates the *IESO*, at the end of each calendar month, to issue a *monthly confirmation notice* to each *market participant* which contain statements of the amounts received from or paid out to the *market participant* on each *market participant* payment date and *IESO payment date* in that month, as well as any payments outstanding. • No change – provisions unaffected by the design changes specified in the Publishing and Reporting design document.

– End of Section –

5   Procedural Requirements

5.1   Market-Facing Procedure Impacts

The existing *market manuals* and training materials related to publishing and reporting will be retained to the extent possible. The majority of changes result from the introduction of new participant and resource types, ex-ante market power mitigation processes, enhanced unit commitment within the pre-dispatch scheduling process and the move to a single schedule market and locational marginal prices. The documents most directly related to publishing and reporting are:

Market Manuals:

- Market Manual 2: Market Administration;

- Market Manual 4: Market Operations;

- Market Manual 5: Settlements;

- Technical Reference Manual;

- Market Manual 7: System Operations;

- Market Manual 9: Day-Ahead Commitment;

- Market Manual 11: Reliability Compliance;

- Market Manual 12: Demand Response Auction; and

- Market Manual 13: Capacity Exports

Training Material:

- Guide to Prudentials at the IESO

- IESO Quick Takes: Accessing IESO Reports Formatted in XML

- IESO Quick Takes: Retrieving Reports via the IESO Reports Site

- IESO Quick Takes: Net Interchange Schedule Limit

- IESO Quick Takes: Dispatchable Loads

- IESO Quick Takes: Scheduling for Commissioning Variable Generators

- Workbook: Settlement Statements and Invoices

- Workbook: Transmission Rights

- Training Guides: Guide to Operating Reserve

Table 5-1 identifies sections within the *market manuals* and training materials that are related but will not require changes, sections that require modification, and new sections that will need to be added to support the Publishing and Reporting process in the future market.

Table 5-1: Impacts to Market-Facing Procedures

Procedure	Type of change (no change, modification, new)	Section	Description
Market Manual 2 Market Administration, Part 2.2 - Exemption Application	No change	All	• Exemption status report on *IESO* website will remain as is.
Market Manual 2 Market Administration, Part 2.3 - Market Rule Amendment Procedure	No change	Table 3-1	• *IESO* will continue to *publish* recommendations for, and notify stakeholders of market rule amendments on its public website.
Market Manual 2 Market Administration, Part 2.5 - Maintaining Surveillance Data and Amending the Data Catalogue	No change	Appendix B	• Appendix B contains historical data, actual data and unit characteristic data as provided by *market participants* to the MSP.
Market Manual 2 Market Administration, Part 2.8 - Reliability Assessments Information Requirements	No change	Section 3 - Information Requirements Section 4 - Roles and Responsibilities Table 7-1: Procedural steps for submittal of reliability assessments information	• This market manual will not be impacted by the decisions made in this detailed design document.
Market Manual 2 Market Administration, Part 2.14 - Information Confidentiality Catalogue	Modification	Section 3.0 - Information Confidentiality Catalogue	• Catalogue updates required to reflect new reports that will be introduced as per this detailed design document; and • Changes will not be required to confidentiality classifications for existing reports.

Procedure	Type of change (no change, modification, new)	Section	Description
Market Manual 4 Market Operations, Part 4.2 - Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets	Modification	Section 1.3 - Roles and Responsibilities	• *IESO* roles and responsibilities to be updated. *IESO* will now provide notification to *market participants* of their binding commitments through the Pre-Dispatch Binding Commitment and Advisory schedule through the Pre-dispatch Binding and Advisory Schedule report. *IESO* will also provide confidential mitigation reports to *market participants* that have failed the economic withholding test during the pre-dispatch scheduling process.
	Modification	Section 2.3 - Timing of the Real-time Energy and Operating Reserve Markets Section 2.8 - Publication of Pre-dispatch schedules Appendix D: Pre-dispatch Schedule Production and Publication	• Timing updates required for reports *published* before or during the first calculation engine run of pre-dispatch (e.g. Adequacy Reports, Transmission Facility Outage Limits Report, and other referenced report names); • Updates required to reflect new pre-dispatch reports that will be *published* (e.g. the *IESO* will *publish* a binding pre-dispatch advisory schedule through the Pre-Dispatch Binding and Advisory Schedule Report; the IESO will publish NQS extensions and interchange schedules in the Pre-Dispatch Intertie Transactions and NQS Resource Extensions Reports); and • Updates required to reflect reports *published* during the pre-dispatch scheduling process to support the market power mitigation framework (e.g. confidential mitigation reports to *market participants* that have failed the mitigation test for economic withholding).
Market Manual 4 Market Operations Part 4.3 - Real Time Scheduling of the Physical Markets	Modification	Section 1.3 - Roles and Responsibilities	• *IESO* roles and responsibilities to be updated. The *IESO* will now provide confidential mitigation reports to *market* participants that have failed the mitigation test for economic withholding in the *real-time market*; and • The *IESO* will also provide a starts summary report to *market participants* to track the number of starts incurred in a day.

Procedure	Type of change (no change, modification, new)	Section	Description
	Modification	Section 3.0 - Determine Real-Time Schedules	• Updates required to reflect that *dispatch* advisory reports will now identify both pseudo-units and physical resources for dispatchable *generation facilities* with a non-quick start resource type; and • Updates required to reflect that a start summary report will be issued to *market participants* each time a start event occurs.
	Modification	Section 5.0 - Releasing Real-Time and Market Information	• Updates required to reflect confidential reports provided to *market participants* that have failed the mitigation test for economic withholding.
	No change	Section 7.0 - Issue Dispatch Schedule	• The timing, content and format of *dispatch* schedules provided to *market participants* at each interval of the *dispatch hour* will remain unchanged.
Market Manual 4 Market Operations, Part 4.4 - Transmission Rights Auction	No change	All sections	• The timing, content and format of pre- and post- *TR auction reports* provided to *market participants* will remain unchanged.
Market Manual 4 Market Operations, Part 4.5 - Market Suspension and Resumption	No change	All sections	• This detailed *design* document will not impact the reports mentioned in Market Manual 4.5. Market suspension and resumption reports are manual reports issued by the *IESO*.
Market Manual 5 Settlements, Part 5.1 - Settlement Schedule and Payments Calendars	No change	Section 2.0 – Procedural Work Flow Section 3.0 – Procedural Steps	• Elimination of the Real-time Generation Cost Guarantee Payment *Calendar* as well as addition of any new payment calendars will not impact the content or procedures indicated in this market manual.
Market Manual 5 Settlements, Part 5.4 - Prudential Support	Modification	Section 1.3.1 - Assessment of Prudential Support Obligation for Physical Markets	• Publication updates required to reflect Virtual Transaction Prudential Support Obligation (PSO) Price *Delta* Report).
	Modification	Section 1.3.2 - Daily Monitoring of Prudential Support	• Publication updates required to reflect Virtual *Transaction* Actual Exposure (AE-V) and Daily Screening Price Delta Report)
Guide to Prudentials at the IESO	New	New Section	• New section may be required for the *IESO* Virtual Transaction Prudential Support Obligation (PSO) Parameter Report and Virtual Transaction Actual Exposure (AE-V) and Daily Screening Price Delta Report

Procedure	Type of change (no change, modification, new)	Section	Description
Market Manual 5 Settlements, Part 5.5 - Physical Markets Settlement Statements	No change	All sections	• Settlement report updates as prescribed in this detailed design document will not impact Market Manual 5.5.
Market Manual 5 Settlements, Part 5.6 - Physical Markets Settlement Invoicing	No change	All sections	• Settlement report updates as prescribed in this detailed design document will not impact Market Manual 5.6.
Market Manual 5 Settlements, Part 5.7 - Financial Market Settlement Statements	No change	All sections	• Settlement report updates as prescribed in this detailed design document will not impact Market Manual 5.7.
Market Manual 5 Settlements, Part 5.8 - Financial Market Settlement Invoicing	No change	All sections	• Settlement report updates as prescribed in this detailed design document will not impact Market Manual 5.8.
Market Manual 5 Settlements, Part 5.9 - Settlement Payment Methods and Schedule	No change	All sections	• Settlement report updates as prescribed in this detailed design document will not impact Market Manual 5.9.
Technical Reference Manual	Modification	5.1.1 Overview of Dataflow System 5.1.2 Energy Market Application	• Updates required to reflect new day-ahead market input data for MIM web services functions (e.g. removal of daily generation data).
Market Manual 7 System Operations, Part 7.2 - Near-term Assessments and Reports	Modification	Section 2 - Adequacy and Transmission Limits Reports	• Updates required to reflect that the Ontario Zonal Demand Forecast Report will now be published as two separate reports for days 0-10 and days 11-34; and • Timing updates required for reports published prior to the day-ahead market submission deadline (e.g. Adequacy Report for Days 0 and 1).
	Modification	Appendix D - Definitions of Terms in Adequacy Reports	• Definitions of terms in Adequacy Reports to be updated. (e.g. price-responsive load to be added to forecasted *demand* section).
Market Manual 7 System Operations, Part 7.3 - Outage Management	No change	1.3 Roles and Responsibilities 3.2.5 *IESO* Reports	• Updates to these sections are not required to reflect the decisions contained in this detailed design document.

Procedure	Type of change (no change, modification, new)	Section	Description
Market Manual 9 Day-Ahead Commitment, Part 9.1 - Submitting Registration Data for the DACP	No change[3]	All sections	• This manual will be replaced by a DAM manual to reflect the elimination of the DACP. • Neither this manual nor its replacement will be impacted by decisions made in this detailed design document.
Market Manual 9 Day-Ahead Commitment, Part 9.2 - Submitting Operational and Market Data for the DACP	Modification	Section 4.2 - Imports and Exports Section 5.1 - Submit New or Revised Dispatch Data	• This manual will be replaced by a DAM manual to reflect the elimination of the DACP. • *Published* reports will need to be updated to reflect day-ahead market timelines, new *IESO* data inputs and new day-ahead market *dispatch data* submissions by existing and new *market participants.* • Day-ahead daily generator data report will be replaced with Dispatch Data Report for DAM Scheduling Process • Updates required to reflect that NQS generation facilities will be issued Pseudo-unit Generator Data Computed Values Report that is indicative of impact of any outages or derates submitted by a facility for a physical unit on a pseudo-unit
Market Manual 9 Day-Ahead Commitment, Part 9.3 - Operation of the DACP	Modification	All sections	• This manual will be replaced by a DAM manual to reflect the elimination of the DACP. • Published reports will need to be updated to reflect day-ahead market timelines, changes to *IESO* data inputs, *dispatch data* submissions by *market participants* and new *market participants*.
	Modification	Section 4.5 - Completion of the DACP and the DACP Schedule of Record	• Updates required to reflect that the confidential DACP Schedule of Record provided to *market participants* will be replaced with the Day-Ahead Schedule Report and, for certain resource types, the Day-Ahead Commitments Report. These reports will be provided only once as day-ahead market will only have one calculation engine run.
	Modification	Section 4.6.2 - Process for Applying Reliability Commitments Section 4.7.1 - Principles for Applying DACP Commitment Actions	• Updates required to reflect that DA reliability commitments will now be *published* in the Day-Ahead Reliability Unit Commitment (RUC) Output Report. This report will no longer contain restraints applied for the DA-PCG.

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[3] No change required as a result of content in the Publishing and Reporting detailed document.

Procedure	Type of change (no change, modification, new)	Section	Description
	New	Section 4.8 - DACP Reports	• To be replaced to reflect reports outlined in section 3.4.3.2 of this detailed design document. • Updates required to reflect *market participants* participating in virtual transactions for *energy* (e.g. Day-Ahead Virtual Transactions Report).
	Modification	Section 4.9 - DACP Failure Reports	• Timing of report *publishing* to be aligned with day-ahead market timelines.
	Modification	Section 4.11 - Reporting and Notifications	• Timing updates required to reflect day-ahead market processes.
	Modification	Section 4.11.1 - Retrieving DACP Reports and Notifications	• Title of section to change. Content of section will not require changes. Reports will continue to be available through the *IESO*'s public website, by using the application programmers interface or by logging onto the Market Operation System - Market Participant Graphical User Interface.
	Modification	Section 4.11.2 - Standby Notices and Reports for Hourly Demand Response Resources	• Timing updates required to standby reports issued during or before the first calculation engine run of pre-dispatch. • *Hourly demand response* resources will continue to confidentially receive an HDR Standby Report that is inclusive of a Standby Notice.
	Modification	Section 4.12 - Notification of Reliability Commitments	• Notification of reliability commitments will be provided in the Day-Ahead Reliability Unit Commitment (RUC) Output Report. This report will no longer contain restraints applied for the DA-PCG.
Market Manual 9 Day-Ahead Commitment, Part 9.4 - Real-Time Integration of the DACP	No change	All sections	• This manual will be replaced by a DAM manual to reflect the elimination of the DACP. • Neither this manual nor its replacement will be impacted by decisions made in this detailed design document..
Market Manual 9 Day-Ahead Commitment, Part 9.5 - Settlement for the DACP	Modification	Section 8.0 - Intertie Offer Guarantee (no change)	• This manual will be replaced by a DAM manual to reflect the elimination of the DACP. • Intertie Offer Guarantee will no longer be applicable in the day-ahead scheduling process.

Procedure	Type of change (no change, modification, new)	Section	Description
Market Manual 11 Reliability Compliance, Part 11.3 - Reliability Information Catalogue	Modification	Section 2.0 - Reliability Information Provided by the *IESO*	• Updates may be required to corresponding reference documents listed in table for reliability information; and • Changes are not required to the means of provision, frequency and timing of reliability information provided to *market participants.*
Market Manual 12 Demand Response Auction, Part 12.0 - Demand Response Auction	No change	Section 3.1 - Demand Response Auction Process Section 4.1 - Pre-Auction Reporting Obligations Section 5.3 - Post-Auction Reporting Obligations	• No changes will be made to the process, timing and format used by the *IESO* to prepare and *publish* pre- and post- auction reports. As a result, this detailed design document will not result in a change to this market manual.
Market Manual 13 Capacity Exports, Part 13.1 - Capacity Export Requests	No change	Section 5.6 - Congestion Review	• *IESO* reports are only referenced in Section 5.6. No change will be made to the existing congestion review process. As a result, this detailed design document will not require change to this market manual.
IESO Quick Takes: Accessing IESO Reports Formatted in XML	No Change		• Instructions for viewing, downloading and printing reports formatted in XML will not change.
IESO Quick Takes: Retrieving Reports via the IESO Reports Site	No Change		• Instructions for viewing reports via the IESO Reports site will not change.
IESO Quick Takes: Net Interchange Schedule Limit	Modification		• Update reference to NISL Shadow Price report • Remove reference to constrained and unconstrained
IESO Quick Takes: Dispatchable Loads	Modification		• Remove reference to shadow prices and replace it with LMP.
IESO Quick Takes: Scheduling for Commissioning Variable Generators	No Change		• No change required to reference to Variable Generation Forecast Report
Workbook: Settlement Statements and Invoices	No Change		• There is no change to steps in retrieving statements from IESO's confidential reports site.
Workbook: Transmission Rights	No Change		• There is no change to viewing and retrieving of reports.

Procedure	Type of change (no change, modification, new)	Section	Description
Training Guides: Guide to Operating Reserve	Modification	Section 6 Reports	• Remove reference to constrained and unconstrained

5.2 Internal Procedural Impacts

Most of the internal procedures used currently for the Publishing and Reporting process will continue to be used in the future day-ahead and *real-time market*. Similar to market facing procedures, changes to internal *IESO* procedures are required as a result of changes from the introduction of new participant types, ex-ante market power mitigation processes, enhanced unit commitment within the pre-dispatch scheduling process and the move to a single schedule market and locational marginal prices.

In addition, some areas of the current procedures heavily reference applicable *market rules* and supporting tools, most of which will be undergoing changes as a result of the new day-ahead market implementation and other solution enhancements. The existing procedures will be updated to account for the corresponding changes in the *market rules* and tools.

Changes or additions to internal *IESO* procedures are for internal *IESO* use as documented in Appendix B and are not included in the public version of this document. Appendix B details the impacts to internal procedures in terms of existing procedures that support the new market requirements, existing procedures that need to be updated, and new internal procedures that need to be created to support the future day-ahead market and *real-time market*.

– End of Section –

6   Business Process and Information Flow Overview

6.1   Market Facing Process Impacts

This section provides an overview of the processes associated with Publishing and Reporting of automated reports required to support the future day-ahead market and *real-time market*.

Figure 6-1 identifies the information and data flows between the major process areas of design for the future day-ahead market and *real-time market* and external entities in terms of public and confidential reporting.

Other *IESO-administered markets* not materially impacted by the future day-ahead and *real-time market* (specifically the *demand response auction* and the transmission rights *TR auction*) are included for completeness.

The information and data flow provided by Figure 6-1 does not include advisory notices and other electronic notifications delivered via tool platforms. This section is not meant to impart information system or technology infrastructure and thus for the purpose of this section notices and notifications are not considered reports.
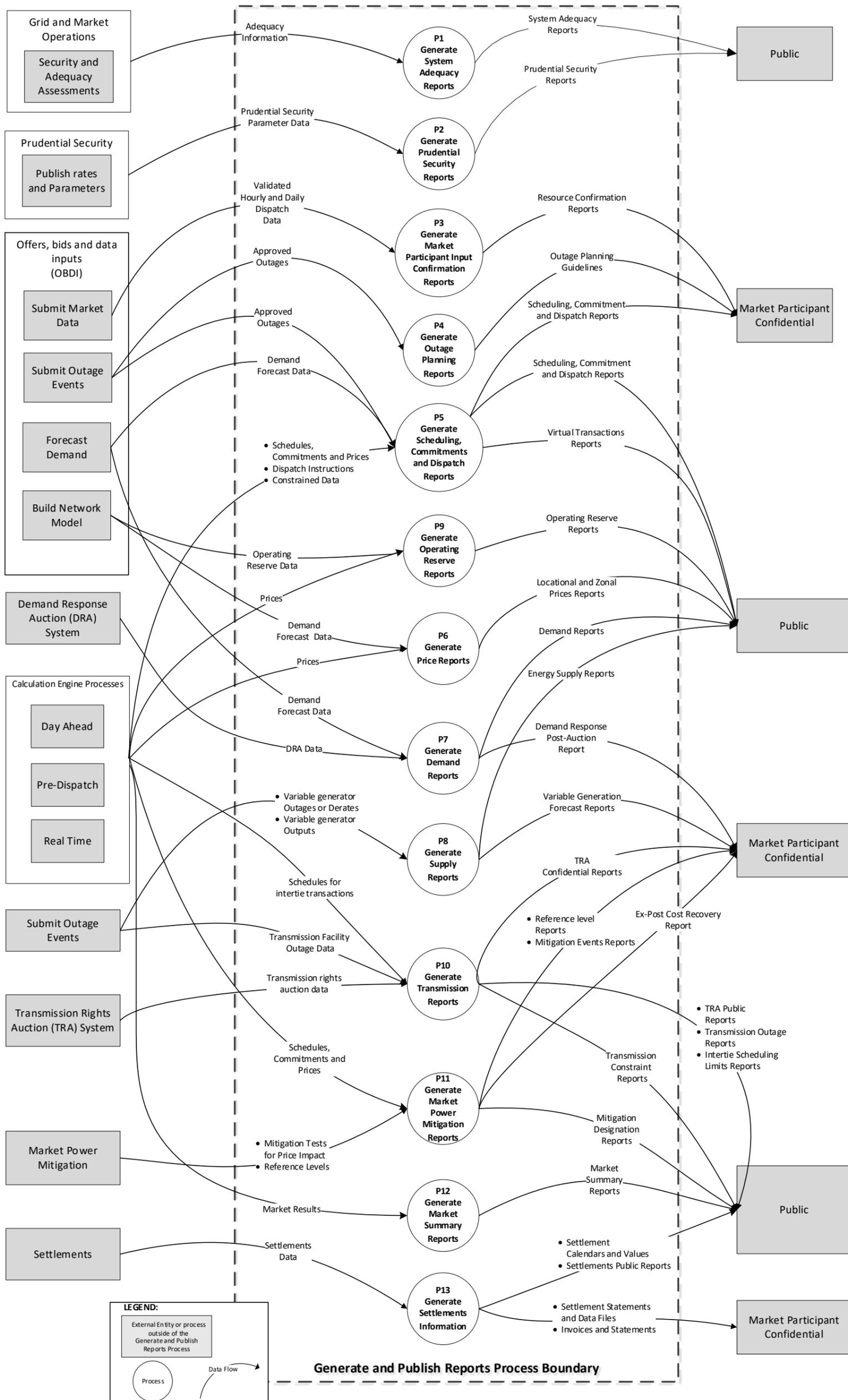
Generate and Publish Reports Process Boundary

Figure 6-1: Publishing and Reporting Data Flow Diagram – Level 1

6.1.1 Process P1 – Generate System Adequacy Reports

Description

The existing Generate System Adequacy Reports process will be leveraged. This process produces the Adequacy report as well as the Forecast Surplus Baseload Generation Report.

No process changes are required for the future market. Nevertheless, new data will be captured to produce Adequacy by Spare Capacity information.

Input and Output Data Flows

Table 6-1: Process P1 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Adequacy Information	Grid and Market Operations Integration (Security and Adequacy Assessments)	Process P1	Triggered by the different process timelines.

Description:

- *Adequacy* information contains hourly data for current or next day projected shortfalls of energy, projected surplus of energy, demand forecasts, weather forecasts, resource adequacy calculations, and unit outage details for generators greater than 400 MW. In the future market this hourly data will include zonal demand.

Flow	Source	Target Processes	Frequency
System Adequacy Reports	Process P1	Public	Triggered by the different process timelines.

Description:

- System adequacy reports will continue to be produced, and will involve the following:
  - Adequacy report provides a summary of any projected shortfall or surplus of *energy* for the current and next day. It summarizes information related to *demand*, resource, and weather forecasts for days 1 to 7 in a clear and concise format; and
  - Forecast surplus baseload generation report. Surplus baseload generation is a condition that occurs when baseload generation is expected to exceed Ontario *demand*.

6.1.2 Process P2– Generate Prudential Security Reports

Description

This process will generate price delta reports for prudential support obligation, actual exposure and submitted but not cleared calculations for market participants taking part in virtual transactions.

Input and Output Data Flows

Table 6-2: Process P2 Input and Output Data Flows

Flow	Source	Target Processes	Frequency

| Prudential Security parameter data | Prudential Security (Publish rates and parameters) | Process P2 | Daily |

Description:

- Parameters *published* related to calculating *prudential support obligation* for physical transactions:

    o Public parameters used to calculate physical transaction *minimum trading limit* and *default protection amount*;

    o Public parameters used to calculate physical transaction *maximum net exposure* and *prudential support obligation*;

    o Public parameters used to support calculation of CNS component of *actual exposure* for physical transactions.

- Parameters related to calculating the *prudential support obligation* for virtual transactions:

    o Public parameters used to calculate virtual transaction *minimum trading limit* and *default protection amount*;

    o Public parameters used to support calculation of CNS component of *actual exposure* for virtual transactions.

For more information on prudential support for physical transactions and virtual transactions, refer to the Prudential Security detailed design document.

Flow	**Source**	**Target Processes**	**Frequency**
Prudential Security Reports	Process P2	Public	Daily and yearly releases based on *market participant* needs

Description:

- IT supporting system generates the following two reports for virtual transactions:

    o Physical Transaction Prudential Support Obligation (PSO) Dispatchable Resource Energy Price Delta Report

       ▪ Annual Report with an average day-ahead to average real-time price delta for an LMP specific to the dispatchable resource

    o Physical Transaction Prudential Support Obligation (PSO) Non-Dispatchbale Load Energy Price Report

       ▪ Annual Report with an average day-ahead to average real-time price delta for the Ontario zonal price

    o Virtual Transaction Prudential Support Obligation (PSO) Price Delta Report

       ▪ Annual Report with one price delta calculated based on all nine virtual zonal trading entities.

    o Virtual Transaction Actual Exposure (AE-V) & Daily Screening Price Delta Report

       ▪ Daily report with nine price deltas calculated for each of the nine virtual zonal trading entities.

For more information on prudential support for physical transactions and virtual transactions, refer to the Prudential Security detailed design document.

6.1.3 Process P3– Generate Market Participant Input Confirmation Reports

Description

The Generate Market Participant Input Confirmation Reports is an existing process where the resource confirmation reports are produced in relation to the offers, bids and data inputs process.

No process changes are required for the future market other than the data details that will be captured for producing the reports.

Input and Output Data Flows

Table 6-3: Process P3 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Validated Hourly and Daily Dispatch Data	Offers, bids and data inputs -OBDI- (Submit Market Data)	Process P3	As Offers and Bids are received

Description:

- *Dispatch data* for supplying *energy* from *generation facilities* will continue to be submitted either as hourly or daily *dispatch data* parameters.
- New hourly and daily *dispatch data* parameters will be introduced or existing parameters will be updated. These additional parameters will be required for dispatchable NQS *generation facilities*, hydroelectric *generation facilities* and *variable generators*;
- The validated *dispatch data* will be used by *IESO* to provide each *market participant* with a confidential report that confirms the latest daily and hourly *dispatch data* that was submitted by the *market participant*, and used by the calculation engine.

Flow	Source	Target Processes	Frequency
Resource Confirmation Reports	Process P3	Market Participant Confidential	Daily

Description:

- Existing reports are produced to capture resource operating parameters, *dispatch data*, *offers*, *bids* and data input.

6.1.4 Process P4– Generate Outage Planning Reports

Description

This is an existing process that produces *outage* planning guidelines.

No process changes are required for the future market.

Input and Output Data Flows

Table 6-4: Process P4 Input and Output Data Flows

Flow	Source	Target Processes	Frequency

Approved Outages	Offers, bids and data inputs -OBDI- (Submit Outage Events)	Process P4	As required

Description:

Market participants will continue to submit submitting *outage* data through the Outage Coordination and Scheduling System (OCSS). The *IESO* will keep approving outages as part of the 'Submit Outage Events' process.

Flow	**Source**	**Target Processes**	**Frequency**
Outage Planning Guidelines	Process P4	Market Participant Confidential	As required

Description:

- The *IESO* issues confidential *outage* planning guidelines to facilitate the assessment of grid *reliability*. The purpose of these guidelines is to assist *market participants* to avoid adverse situations when scheduling *outage*s. These guidelines include the following information to *market participants:*
    - Transmission Group
    - Timeframe
    - Equipment
    - Threshold
    - Reason
    - Distribution
- The *IESO* will periodically review the outage planning guidelines and will update them as per the Baseline schedule.

6.1.5 Process P5– Generate Scheduling, Commitments and Dispatch Reports

Description

The Generate Scheduling, Commitments and Dispatch Reports existing process produces information for reporting schedules, operational commitments, and *dispatch instructions* to *market participants*.

Changes will be required to produce reports for *energy* and *operating reserve* day ahead schedules, public day-ahead virtual transactions, pre-dispatch schedules, and Real-time forecast tracking information.

Input and Output Data Flows

Table 6-5: Process P5 Input and Output Data Flows

Flow	**Source**	**Target Processes**	**Frequency**
Approved Outages	Offers, bids and data inputs -OBDI- (Submit Outage Events)	Process P5	As required

Description:

Market participant will continue to submit *outage* data through the Outage Coordination and Scheduling System (OCSS). The *IESO* will continue approving *outages* as part of the 'Submit Outage Events' process.

Flow	**Source**	**Target Processes**	**Frequency**

Demand Forecast Data	Offers, bids and data inputs -OBDI- (Forecast Demand)	Process P5 Process P6 Process P7	As required

Description:

- Demand Forecast System will generate *demand* forecast data with greater granularity to drive more accurate load forecasts. The *IESO* will produce the existing province-wide *demand* forecast as the sum of separate *demand* forecasts for four *demand* forecast areas.

Flow	Source	Target Processes	Frequency
Schedules, Commitments and Prices	Calculation Engine Processes	Process P5	As required

Description:

- The calculation engines determine scheduling-run schedules and scheduling-run prices for each node on the *IESO-controlled grid*, as well as commitment statuses.

- The calculation engines will also calculate locational marginal prices (LMPs). LMPs will replace the uniform price when required and be used for settlement processes.

Flow	Source	Target Processes	Frequency
Dispatch Instructions	Calculation Engine Processes	Process P5	Every 5 minutes

Description:

- The *IESO* real-time *dispatch algorithm* runs every five minutes (*dispatch interval*) during the *dispatch hour* and determines prices and operating schedules for *registered facilities*.

- The *IESO* then issues *dispatch instructions* to *market participants for every dispatch interval instructing them of the MW required.*

Flow	Source	Target Processes	Frequency
Constrained Data	Calculation Engine Processes	Process P5	As required

Description:

- Constrained data will be produced by the calculation engines which includes constrained schedules and unit commitments.

Flow	Source	Target Processes	Frequency
Virtual Transactions Reports	Process P5	Public	As required

Description:

- Virtual transaction reports will include aggregated information on hourly offered/bid and cleared virtual transactions.

Flow	Source	Target Processes	Frequency
Scheduling, Commitment and Dispatch Reports	Process P5	Market Participant Confidential	Daily and hourly releases based on market requirements.

Description:

- The day-ahead market, pre-dispatch, and real-time calculation engines use *dispatch data*, *demand* forecasts and other inputs to issue schedules, commitments and *dispatch instructions* in the form of a report to *registered facilities.*

- These reports communicate schedules, operational commitments and *dispatch instructions* to *market participants* during the three scheduling processes which are the day-ahead scheduling process, the pre-dispatch scheduling process and the real-time scheduling process.

- The day-ahead market reports will inform *market participants* of their financially binding schedules and commitments for the next *dispatch day.*

- The pre-dispatch market reports will inform *market participants* of any advisory changes to their day-ahead schedules and commitments based on changing system conditions and withdrawals/ decommittment requests.

- The real-time market reports will provides confidential results for all *market participants* that are scheduled for *energy* or *operating reserve* in the *dispatch hour.*

Flow	Source	Target Processes	Frequency
Prices	Calculation Engine Processes	Process P6 Process P9	As required

Description:

- The calculation engines determine scheduling-run prices for each node on the *IESO-controlled grid*, as well as locational marginal prices (LMPs).

6.1.6 Process P6– Generate Price Reports

Description

The Generate Price Reports is the process where the *IESO* will *publish* pricing information based on the calculation of locational marginal prices (LMPs).

Input and Output Data Flows

Table 6-6: Process P6 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Locational and Zonal Price Reports	Process P6	Public	Hourly

Description:

- LMPs are calculated during each of the scheduling processes (day-ahead, pre-dispatch, and real-time) for every *delivery point* on the system, as the sum of three components, the energy reference price, the energy congestion price, and the energy loss price.

- The *IESO* will provide pricing reports for each of the day-ahead, pre-dispatch, and real-time scheduling processes. These pricing reports will contain hourly prices for LMPs, virtual, zones, intertie energy, and intertie operating reserve.

6.1.7 Process P7– Generate Demand Reports

Description

This is an existing process to produce information related to near-term and mid-term zonal *demand* forecast. In addition, this process generates reports regarding *demand response auctions* and *transmission tariff* peak system *demand*.

Input and Output Data Flows

Table 6-7: Process P7 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Demand Response Auction (DRA) Data	Demand Response Auction (DRA) System	Process P7	As required

Description:

- This is the data required to create the Demand Response Post-Auction Report. Specific data items include;

  - Commitment Season
  - Commitment Period
  - Obligation ID
  - Electrical Zone
  - Resource Type (Physical/Virtual)
  - DR Capacity Obligation [MW]
  - DR Auction Clearing Price [$/MW-day]
  - Obligation Period

Flow	Source	Target Processes	Frequency
Demand Response Post-Auction Report	Process P7	Market Participant Confidential	Five days after auction closure

Description:

- The *IESO* issues a confidential report for each *demand response market participant*. This report includes information regarding auction clearing price, and the *demand response capacity obligations* for each of the 10 electrical zone and *commitment period.*

Flow	Source	Target Processes	Frequency
Demand Reports	Process P7	Public	Triggered by the different process timelines.

> **Description:**
>
> - Different reports are *published* as part of the Forecast Demand process. Information reported includes:
>   - Ontario hourly and 5-minute demand forecast for Day 1 to Day 10;
>   - Pre-auction information such as *publish* demand response zonal constraints, target capacity, and Demand response auction reference price;
>   - Post-auction demand response summary information; and
>   - Transmission Tariff Peak System.

6.1.8 Process P8– Generate Supply Reports

Description

The Generate Supply Reports is an existing process where the *IESO* reports on *energy* supply matters such as dispatch deviation, *generator* output and forecast and *variable generation* forecast.

The *IESO* issues various *energy* supply reports such as dispatch deviation, generator output, embedded *variable generation* forecast and directly connected *variable generation* forecast. The future day-ahead market and *real-time market* will not require changes to the current supply reports.

Input and Output Data Flows

Table 6-8: Process P8 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Variable Generator Outages or derates	Offers, bids and data inputs (OBDI) – Submit Outage Events	Process P8	As required

> **Description:**
>
> - Outage data will continue to represent the planned or unplanned removal of equipment from service, unavailability for connection of equipment or temporary derating, restriction of use, or reduction in performance of equipment for any reason; and
>
> - The *market participant* (in this case a Variable Generator) requesting an outage will need to submit their request using the Outage Management System. If the Outage Management System is unavailable, then they would have to submit their request via telephone or email.

Flow	Source	Target Processes	Frequency
Centralized Variable Generation Outputs	Calculation Engines	Process P8	Hourly

> **Description:**
>
> - The *IESO* provides a centralized forecast to each *registered market participant* operating a *variable generation facility* prior to each *dispatch hour*. This data is used to produce generator forecast information for the day ahead, pre-dispatch and real time scheduling and commitment processes.

Flow	Source	Target Processes	Frequency

Variable Generation Forecast Reports	Process P8	Public	Hourly and daily releases based on *market participant* needs.

Description:

- As part of the Forecast Variable Generation Output process, the *IESO* produces information about the *energy* delivered and ramp forecasts for all *variable generators.*

Flow	**Source**	**Target Processes**	**Frequency**
Energy Supply Reports	Process P8	Public	Triggered by the different process timelines.

Description:

- Release information about the diverse *energy* supply mix. *Energy* supply information includes:

  - dispatch deviation, which indicates when the *IESO* is manually intervening in the output of the Calculation Engines in order to produce valid *dispatch instructions*;
  - generator output by fuel type (wind, solar, bioenergy, hydro, nuclear and natural gas-fired resources); and
  - generator output and capability, which represents the current installed *energy* capacity by fuel type on the *IESO-controlled grid*.

6.1.9 Process P9– Generate Operating Reserve Reports

Description

The Generate Operating Reserve Reports is an existing process that releases information regarding the power or *demand* reduction that must be available to help balance supply and *demand* in the event of contingencies, or errors in forecast.

Input and Output Data Flows

Table 6-9: Process P9 Input and Output Data Flows

Flow	**Source**	**Target Processes**	**Frequency**
Schedules, Commitments and Prices	Calculation Engines	Process P9	As required

Description:

- The calculation engines determine scheduling-run schedules and scheduling-run prices for each node on the *IESO-controlled grid*, as well as commitment statuses.

- The calculation engines will also calculate locational marginal prices (LMPs). LMPs will replace the uniform price when required and be used for settlement processes

Flow	**Source**	**Target Processes**	**Frequency**
Operating Reserve Data	Offers, bids and data inputs (OBDI) – Build Network Model	Process P9	As required

Description:

- The *IESO* as part of the Submit Provisions and Reliability Inputs process provides data related to *operating reserve*. This data also includes the summary of *operating reserve* provided by the suppliers as well as the price for the used *operating reserve.* This data is determined every five minutes based on *offers* in the market.

Flow	Source	Target Processes	Frequency
Operating Reserve Reports	Process P9	Public	Triggered by the different process timelines.

Description:

- Issuing of *operating reserve* reports that display information about pre-dispatch hourly data, real-time based on 5-minute intervals, constrained *dispatch data*, unconstrained dispatch data, summary of the constrained and market control action *operating reserve*.

6.1.10   Process P10– Generate Transmission Reports

Description

This is an existing process that produces information on *transmission rights* auction, intertie scheduling, transmission *outage*, constraints and loss penalty factors.

Input and Output Data Flows

Table 6-10: Process P10 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Transmission Facility Outage Data	Submit Outage Events	Process P10	Daily

Description:

- Lists reduced transmission limits for facilities within the ICG as well as intertie facilities as a result of *outages* occurring today and up to two days out.

Flow	Source	Target Processes	Frequency
Transmission Rights Auction Data	Transmission Rights Auction System	Process P10	Triggered by auction event.

Description:

- *TR auction* system submits data related to confidential TRA information related to the specific *market participant*, *TR market clearing prices*, transmission transfer capability (TTC), hourly zonal *market prices,* TR historical interface, *TR auction* results (sales and prices).

Flow	Source	Target Processes	Frequency
Schedules for intertie transactions	Calculation Engines	Process P10	As required

Description:

- The *IESO* will administer the scheduling of intertie transactions (imports and exports) in the *IESO-administered markets*.

Flow	Source	Target Processes	Frequency
TRA Confidential Reports	Process P10	Market Participant Confidential	Triggered by auction event.

Description:

- These Reports contain confidential *TR auction* information such as participant bid history, and results for the *TR auction* round.

Flow	Source	Target Processes	Frequency
TRA Public Reports	Process P10	Public	Triggered by the different process timelines.

Description:

- Submission of different Transmission Rights Auction Reports will include a new scope for including pre-dispatch LMPs. These reports contain publicly available TR auction information for the three scheduling processes (PD, DA, and RT).

Flow	Source	Target Processes	Frequency
Intertie Scheduling Limits Reports	Process P10	Public	Daily

Description:

- Information flow of intertie scheduling limits. This information considers the physical capacity of the tie-lines to transfer *energy* between each intertie zone and Ontario. This is an existing flow of information that will continue in the future market.

Flow	Source	Target Processes	Frequency
Transmission Outage Reports	Process P10	Public	Triggered by the different process timelines.

Description:

- Contains information related to internal transmission and intertie transfer capabilities within the ICG. This is an existing flow of information that will continue in the future market.

Flow	Source	Target Processes	Frequency
Transmission Constraint Reports	Process P10	Public	Triggered after completion of calculation engine event.

Description:

- This is the constraint information generated by the *IESO* for the day ahead, pre-dispatch and real-time scheduling processes

6.1.11   Process P11– Generate Market Power Mitigation Reports

Description

The Generate Market Power Mitigation Reports process is a new process that will produce automated information for constrained zone designation, reference levels, mitigation events, and ex-post cost recovery.

Input and Output Data Flows

Table 6-11: Process P11 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Schedules, Commitments and Prices	Calculation Engines	Process P11	As required

Description:

- The *IESO* through the Calculation Engines determines schedules and commitment statuses based on load and supply information. The *IESO* will determine commitments, scheduling-run schedules and scheduling-run prices for each node on the *IESO-controlled grid* based upon the inputs, and aligned to day-ahead market timelines.

- The *IESO* Calculation Engines provides also the calculation of locational marginal prices (LMPs). LMPs will replace the uniform price and be used for settlement processes. By introducing locational prices, the *IESO* assures alignment between pricing and dispatch on the system.

- The calculation engines determine scheduling-run schedules and scheduling-run prices for each node on the *IESO-controlled grid*, as well as commitment statuses.

- The calculation engines will also calculate locational marginal prices (LMPs). LMPs will replace the uniform price when required and be used for settlement processes

Flow	Source	Target Processes	Frequency
Mitigation Tests for Price Impact	Market Power Mitigation	Process P11	As required

Description:

- As part of the scheduling processes, the *IESO* applies mitigation tests for price. Data flow of the mitigation tests for price impact will be processed in the three different scheduling processes.

Flow	Source	Target Processes	Frequency
Reference levels	Market Power Mitigation	Process P11	As required

Description:

- Reference levels is data that provides the prices that reflect the approximate cost of dispatch and are calculated for each unit during the market power mitigation process.

Flow	Source	Target Processes	Frequency
Mitigation Designation Reports	Process P11	Public	As required

Description:

- New automated output reports will be *published*. Information in reports will include narrowly constrained areas, dynamic constrained areas, uncompetitive interties, as well as a global market power conditions summary.

Flow	Source	Target Processes	Frequency
Reference Level Reports	Process P11	Public	As required

Description:

- This is an augmentation of the information flow already reported as part of market power mitigation. Confidential information provided to *market participants* involves financial and non-financial reference levels.

Flow	Source	Target Processes	Frequency
Mitigation Events Reports	Process P11	Market Participant Confidential	As required

Description:

- New reports will be submitted to *market participants* including different notice of mitigations, and monthly summary reports.

Flow	Source	Target Processes	Frequency
Ex-Post Cost Recovery Report	Process P11	Market Participant Confidential	As required

Description:

- Since a new process is being created to implement an ex-post cost recovery process to reconcile the reference level used for mitigation and opportunity costs, the *IESO* will generate a new information output to notify the *market participant* about the response to request for ex-post cost recovery.

6.1.12   Process P12– Generate Market Summary Reports

Description

This is an existing process that *publishes* market results. These reports will change to include LMP information.

Input and Output Data Flows

Table 6-12: Process P12 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Market Results	Calculation Engines	Process P12	Daily

Description:

- Existing information flow reported to the public displaying a summary of key market data from the *IESO-administered markets*. Data include but is not limited to market prices, market *demand*, capacity, weather, long-term trends, global adjustment.

Flow	Source	Target Processes	Frequency
Market Summary Reports	Process P12	Public	Triggered by the different process timelines.
Description:			
• The *IESO publishes* daily and monthly report summaries of market activity.			

6.1.13   Process P13– Generate Settlements Information

Description

The Generate Settlements Information is an existing process that produces all the *settlement statements*, accompanying settlement data files, settlement reports, calendars (*SSPC)*, settlement values, and invoices for the Settlement processes.

Input and Output Data Flows

Table 6-13: Process P13 Input and Output Data Flows

Flow	Source	Target Processes	Frequency
Settlement Data	Settlements	Process P13	Triggered by the different process timelines.
Description:			
• Flow of information includes *settlement statements*, accompanying settlement data files, and settlement reports.			
Flow	**Source**	**Target Processes**	**Frequency**
Settlement Calendars and Settlement Values	Process P13	Public	Yearly
Description:			
• Process will continue to prepare and issue the Settlement Schedule and Payments Calendars (*SSPC*).			
• Process will continue to prepare and issue and settlement values for:			
o global adjustment			
o peak demand factor and capacity based recovery			
Flow	**Source**	**Target Processes**	**Frequency**
Settlement Public Reports	Process P13	Public	As required
Description:			
• Output reports to the public for informing them about uplift charges, intertie offer charges and IESO Global Adjustment Class B Rates			
• Flow	• Source	• Target Processes	• **Fre**quency

Settlement Statements and Data Files	Process P13	Market Participant Confidential	Each business day per SSPC
Description:			

- Process will continue to produce and issue *preliminary settlement statements*, *final settlement statements*, and accompanying data files to *market participants* in order to reconcile *settlement amounts*.

- Confidential settlement reports to market participants With the introduction of the DAM, existing settlement statements and supporting data files will be updated to integrate new settlement amounts.

Flow	**Source**	**Target Processes**	**Frequency**
Invoices and Statements	Process P13	Market Participant Confidential	For Financial markets – Weekly per SSPC For Physical markets – Monthly per SSPC For Manual invoices - as required per SSPC
Description:			

- This is the issuance and retrieval of invoices and statement of activity to the *market participant*.

- Information flow will include new settlements amounts to integrate the day-ahead market processes. Supporting data files will continue to be available for *market participants* and the *IESO* will maintain the current process for issuing of invoices as specified in the *SSPC*.

- The settlement process provides the settlement amounts to be invoiced to Finance. These invoices are produced and issued by Finance (Market Billing).

6.2 Internal Process Impacts

The internal processes currently used for publishing and reporting will continue to have relevance in the future *real-time market* and *day-ahead market*.

Internal *IESO* processes related to Publishing and Reporting include:

- Publish Non-Automated Operations Reports; and

- Publish Automated Document.

The above internal processes interact with various *IESO* processes as illustrated in Section 6.1. Some changes to the Publishing and Reporting process under the market renewal program will impact other internal *IESO* processes. This impact will be contingent upon the tools of the future day-ahead market and *real-time market* which will be developed during the next phases of the project.

Changes or additions to internal *IESO* processes are for internal *IESO* use as documented in Appendix C, and are not included in the public version of this document. Appendix C details the impacts to internal processes in terms of existing processes that support the new market requirements, existing activities that need to be updated, and process and information models that may need to be updated to support the future market.

– End of Section –

Appendix A: Market Participant Interfaces

The following table provides a description of the changes and additions to *IESO* technical interfaces and forms with *market participant*s that may be required to support the Publishing and Reporting process design of the future day-ahead market and *real-time market*.

Table A-1:Impacts to Market Participant Interfaces

MP Interface Name	Interface Type	Description of Impact
IESO Report Site (http://reports.ieso.ca/) and Application Programming Interface (API)	Web Client and API	• No changes to the platform, but the contents of a number of private and public reports will be updated where applicable.
IESO Website (http://www.ieso.ca)	Website	• No changes to the platform, but the contents of a number of public reports will be updated where applicable.

Appendix B: Internal Procedural Requirements *[Internal only]*

This section is confidential to the *IESO*.

– End of Section –

Appendix C: Internal Business Process and Information Requirements *[Internal only]*

This section is confidential to the *IESO*.

Appendix D: Internal *IESO* Reports *[Internal only]*

This section is confidential to the *IESO*.

– End of Section –

References

Document Name	Document ID
MRP Detailed Design: Overview	DES-16
MRP Detailed Design: Prudential Security	DES-17
MRP Detailed Design: Offers, Bids and Data Inputs	DES-21
MRP Detailed Design: Grid and Market Operations Integration	DES-22
MRP Detailed Design: Market Power Mitigation	DES-26
MRP Detailed Design: Publishing and Reporting Market Information	DES-27
MRP Detailed Design: Market Settlements	DES-28
MRP Detailed Design: Market Billing and Funds Administration	DES-29
Market Manual 2 Market Administration, Part 2.2 - Exemption Application	MDP_PRO_0019
Market Manual 2 Market Administration, Part 2.3 - Market Rule Amendment Procedure	MDP_PRO_0019
Market Manual 2 Market Administration, Part 2.5 - Maintaining Surveillance Data and Amending the Data Catalogue	MDP_PRO_0021
Market Manual 2 Market Administration, Part 2.8 - Reliability Assessments Information Requirements	MDP_PRO_0024
Market Manual 2 Market Administration, Part 2.14 - Information Confidentiality Catalogue	IMO_CAT_0002
Market Manual 4 Market Operations, Part 4.2 - Submission of Dispatch Data in the Real-Time Energy and Operating Reserve Markets	MDP_PRO_0027
Market Manual 4 Market Operations Part 4.3 - Real Time Scheduling of the Physical Markets	MDP_PRO_0034
Market Manual 4 Market Operations, Part 4.4 - Transmission Rights Auction	MDP_PRO_0029
Market Manual 4 Market Operations, Part 4.5 - Market Suspension and Resumption	MDP_PRO_0030
Market Manual 5 Settlements, Part 5.1 - Settlement Schedule and Payments Calendars	MDP_PRO_0031
Market Manual 5 Settlements, Part 5.4 - Prudential Support	MDP_PRO_0045
Market Manual 5: Settlements, Part 5.5 - Physical Markets Settlement Statements	MDP_PRO_0033
Market Manual 5 Settlements, Part 5.6 - Physical Markets	MDP_PRO_0035

Document Name	Document ID
Settlement Invoicing	
Market Manual 5 Settlements, Part 5.7 - Financial Market Settlement Statements	MDP_PRO_0046
Market Manual 5 Settlements, Part 5.8 - Financial Market Settlement Invoicing	MDP_PRO_0047
Market Manual 5 Settlements, Part 5.9 - Settlement Payment Methods and Schedule	MDP_PRO_0036
Technical Reference Manual	IMO_MAN_0024
Market Manual 7: System Operations, Part 7.2 - Near-Term Assessments and Reports	IMP_PRO_0033
Market Manual 7 System Operations, Part 7.3 - Outage Management	IMP_PRO_0035
Guide to Prudentials at the IESO	N/A
Market Manual 9 Day-Ahead Commitment, Part 9.1 - Submitting Registration Data for the DACP	IESO_MAN_0076
Market Manual 9 Day-Ahead Commitment, Part 9.2 - Submitting Operational and Market Data for the DACP	IESO_MAN_0077
Market Manual 9 Day-Ahead Commitment, Part 9.3 - Operation of the DACP	IESO_MAN_0078
Market Manual 9 Day-Ahead Commitment, Part 9.4 - Real-Time Integration of the DACP	IESO_MAN_0079
Market Manual 9 Day-Ahead Commitment, Part 9.5 - Settlement for the DACP	IESO_MAN_0080
Market Manual 11 Reliability Compliance, Part 11.3 - Reliability Information Catalogue	IESO_CAT_0011
Market Manual 12 Demand Response Auction, Part 12.0 - Demand Response Auction	MAN_44
Market Manual 13 Capacity Exports, Part 13.1 - Capacity Export Requests	PRO_357
Market Rules for the Ontario Electricity Market (Market Rules)	MDP_RUL_0002

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