

# Detailed Design

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## Market Renewal Program: Energy Authorization and Participation

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### Detailed Design

### Issue 2.0

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

## 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.	November 28, 2019
2.0	Second publication after external stakeholder feedback.	January 28, 2021

## 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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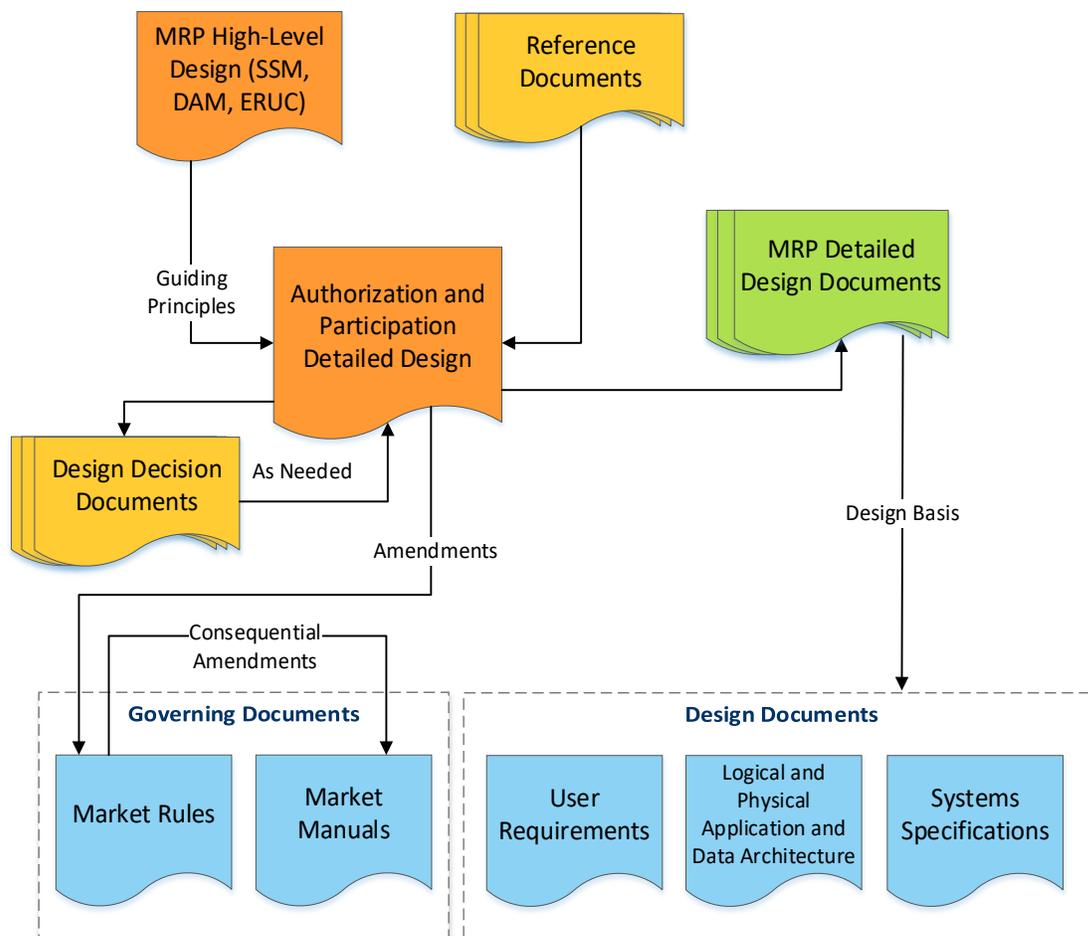
This detailed design document has been updated since version 1. For more detailed information about these changes, refer to the “MRP Energy Detailed Design - Version 2.0 Updates” document.

# 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 data flow required to support the Authorization and Participation process as related to the introduction of the future day-ahead market and *real-time market*. This design document will aid the development of user requirements, business processes, *market rules* and supporting systems.

As illustrated in Figure 1–1, this document is part of the MRP detailed design document series 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 requirements for the Authorization and Participation process for the future day-ahead market and *real-time market*, in terms of:

- detailed functional design;
- 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 Authorization and Participation. However, this document is not a restatement of the existing design of the *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*.

## 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 in the Authorization and Participation process, 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 2 and 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 set 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* Authorization and Participation process, and its future context for the future day ahead market and *real-time market*;
- **Section 3** of this document provides a detailed description of the future Authorization and Participation process;
- **Section 4** of this document describes how the Authorization and Participation process 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 Authorization and Participation 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 supporting the overall Authorization and Participation process described in section 3. This section also outlines the logical boundaries and interfaces of the various sub-processes related to the Authorization and Participation process in terms of existing processes, amended processes and additional processes that will need to be developed.

– End of Section –

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## 2. Summary of Current and Future State

### 2.1. Current State Process Overview

Anyone that intends to participate in the *IESO-administered markets* must apply to the *IESO* to become an authorized *market participant*. The Authorization and Participation process allows a prospective *market participant* to identify to the *IESO* the markets, programs and/or services that it intends to participate in. It also confirms that the prospective *market participant* satisfies the *prudential support* and other financial obligations to the *IESO-administered markets* and establishes the prospective *market participant's* technical ability to communicate with the *IESO*.

A prospective *market participant* must be authorized as a *market participant* before they can begin any trading activities or registration of *facilities* and *metering installations*.

There are two sub-processes that make up the Authorization and Participation process:

- Register Organization; and
- Registration of Participation.

The Register Organization process facilitates the *application for authorization to participate* – a series of online forms that prospective *market participants* use to submit general organization information, specify their intent for authorization and provide contact information. After the *IESO* reviews this information, the prospective *market participant* is required to sign a *participation agreement* that binds them to the *market rules*. A signed *participation agreement* also provides the prospective *market participant* access to the *IESO's* online registration system to start the Registration of Participation process.

The Registration of Participation process allows the prospective *market participant* to become authorized for one or more *market participant* authorization types, program participant authorization types and participant service provider authorization types. Additional information will be required based on the authorization type selected. For the *market participant* authorization types, this information includes:

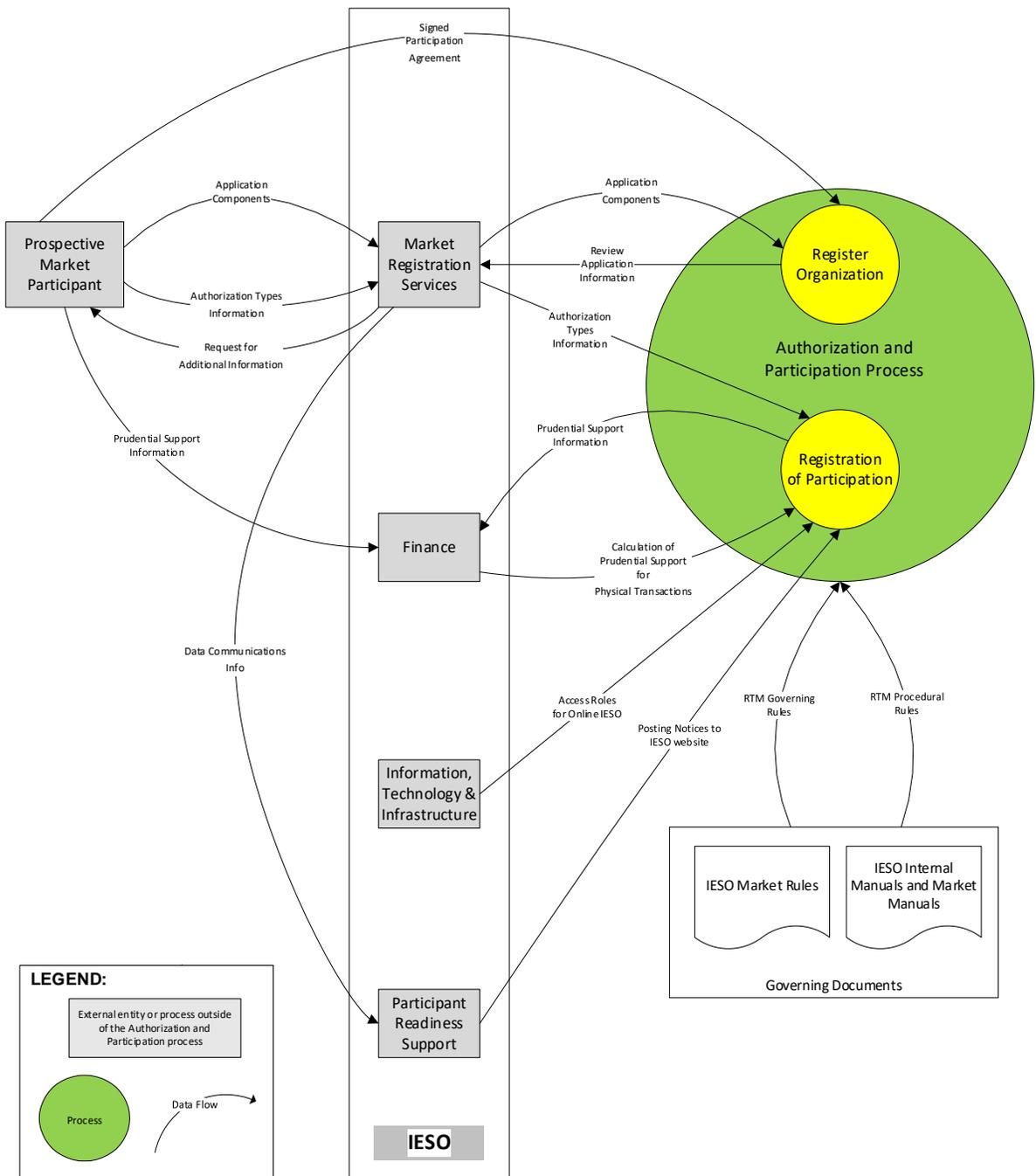
- *Ontario Energy Board (OEB)* approved application fee;
- *OEB license* (for participation in the *physical markets*);
- National Energy Board (NEB) permit (for exporting *energy*);

- *transmission rights auction (TR auction)* information (for participation in the *TR auction*);
- *prudential support* information (except for participation in the *TR auction*);
- banking information;
- emergency preparedness plans; and
- *market participant* contacts and user access roles for *IESO* online systems.

Once the authorization type is approved by the *IESO*, the prospective *market participant* must confirm its technical ability to communicate with *IESO* through its *participant workstation*, post the required level of *prudential support* and complete related *facilities* registration requirements.

Upon successful completion of these activities, the *IESO* will issue an approval for authorization, called a Registration Approval Notification (RAN) to the *market participant*. The *market participant* is then eligible to participate in the *IESO-administered markets*.

Figure 2–1 illustrates the data flows of the current Authorization and Participation process.



**Figure 2-1: Current Participant Authorization Process**

## 2.2. Future State Process Overview

The Authorization and Participation process will continue to allow a prospective *market participant* to identify to the *IESO* the markets, programs and services that it intends to participate in. It will also continue to confirm that an applicant posts adequate *prudential support* and obtain access to *IESO*-secured systems to demonstrate communication requirements before becoming authorized as a *market participant*.

The Authorization and Participation process will continue to be governed by the *application for authorization to participate* through the Register Organization and Registration of Participation sub-processes. The *application for authorization to participate* will be modified to include the ability for an existing or prospective *market participant* to become authorized to:

- participate in the day-ahead market and *real-time market* for physical trading and import/export trading;
- participate in the day-ahead market for the purpose of registering or re-registering *non-dispatchable loads* as price responsive loads; and
- engage in virtual transactions in the day-ahead market.

Existing *market participants* that are authorized for physical participation in the current *real-time market* will be automatically granted authorization for participation in the future day-ahead market. Prospective *market participants* will be authorized for participation in both the future day-ahead market and *real-time market* when applying for physical trading privileges.

Existing and prospective *market participants* intending to register or re-register a *non-dispatchable load* as a price responsive load will be required to be authorized for physical trading privileges in the day-ahead market. Price responsive loads will be a new type of *load facility* for which a *market participant* will be authorized to submit *bids* for *energy* into the day-ahead market but for which the *load facility* will remain non-dispatchable in the *real-time market*. Existing *wholesale customers* with *load facilities* registered as either *dispatchable loads* or *non-dispatchable loads* will be able to change their *load facility* registration to price responsive load via the Facility Registration process.

For virtual transactions, prospective *market participants* must become authorized as a virtual transaction *energy* trader – a class of *market participant* with virtual transaction trading privileges in only the day-ahead market.

Physical transaction and virtual transaction trading privileges will be contingent upon the posting of adequate *prudential support*. *Prudential support obligations* will be updated for physical transactions to cover day-ahead market and *real-time*

*market* activity. New *prudential support obligations* will be separately determined for virtual transactions. Prudential requirements for participation in the future day-ahead market and *real-time market* are addressed in the Prudential Security detailed design document.

Applicants will also be required to disclose organizations that have the ability to control or influence their *offer* and *bid* submissions, or control their ability to follow their *dispatch instructions*. These organizations will be referred to as market control entities.

For applicants that intend to solely participate as either an *intertie* trader or a virtual transaction *energy* trader, market control entities will be disclosed during the Registration of Participation process. Disclosure of market control entities for *market participants* authorized to participate in physical transactions will also be required; however, this disclosure will be captured on a per resource basis during the Facility Registration process.

### 2.2.1. Authorization and Participation Information Flows

The Authorization and Participation process will require several new or modified information flows and services between *market participants* and other *IESO* processes. These are discussed as input and output flows below.

#### **New or Modified Input Flows into the Authorization and Participation Process**

The new or modified input flows will be as follows:

- The information provided through Online IESO will be updated for *market participants* that intend to engage in virtual transactions;
- *Market participants* intending to register *load facilities* as price responsive loads will apply for an *application for authorization to participate* in the day-ahead market;
- Information requests will be developed for prospective *market participants* intending to become authorized as virtual transaction *energy* traders and *intertie* traders to identify any associated market control entities; and
- Separate *IESO* assessment of *prudential support obligations* for physical transactions and virtual transactions.

#### **New or Modified Outputs from the Authorization and Participation Process**

The new or modified output flows will be as follows:

- Modified prudential support obligations for physical transactions and new *prudential support* obligations for virtual transactions. Once the IESO

communicates the *prudential support* obligation to the *market participant*, the *market participant* is required to post the indicated level of *prudential support*;

- Modified minimum *prudential support* obligations for *market participants* authorized to participate in the future market solely to import/export *energy* or *operating reserve* at *boundary entities*; and
- Market control entities will be disclosed for virtual transaction *energy* traders and *inertie* traders during the Authorization and Participation process. *Market participants* registering dispatchable and non-dispatchable generation resources, *dispatchable loads*, price responsive loads and physical and virtual *hourly demand response* resources will disclose their market control entities during the Facility Registration process.

The above changes are highlighted in terms of affected information flow in Figure 2-2 and are further described in Sections 3 and 6 of this document.

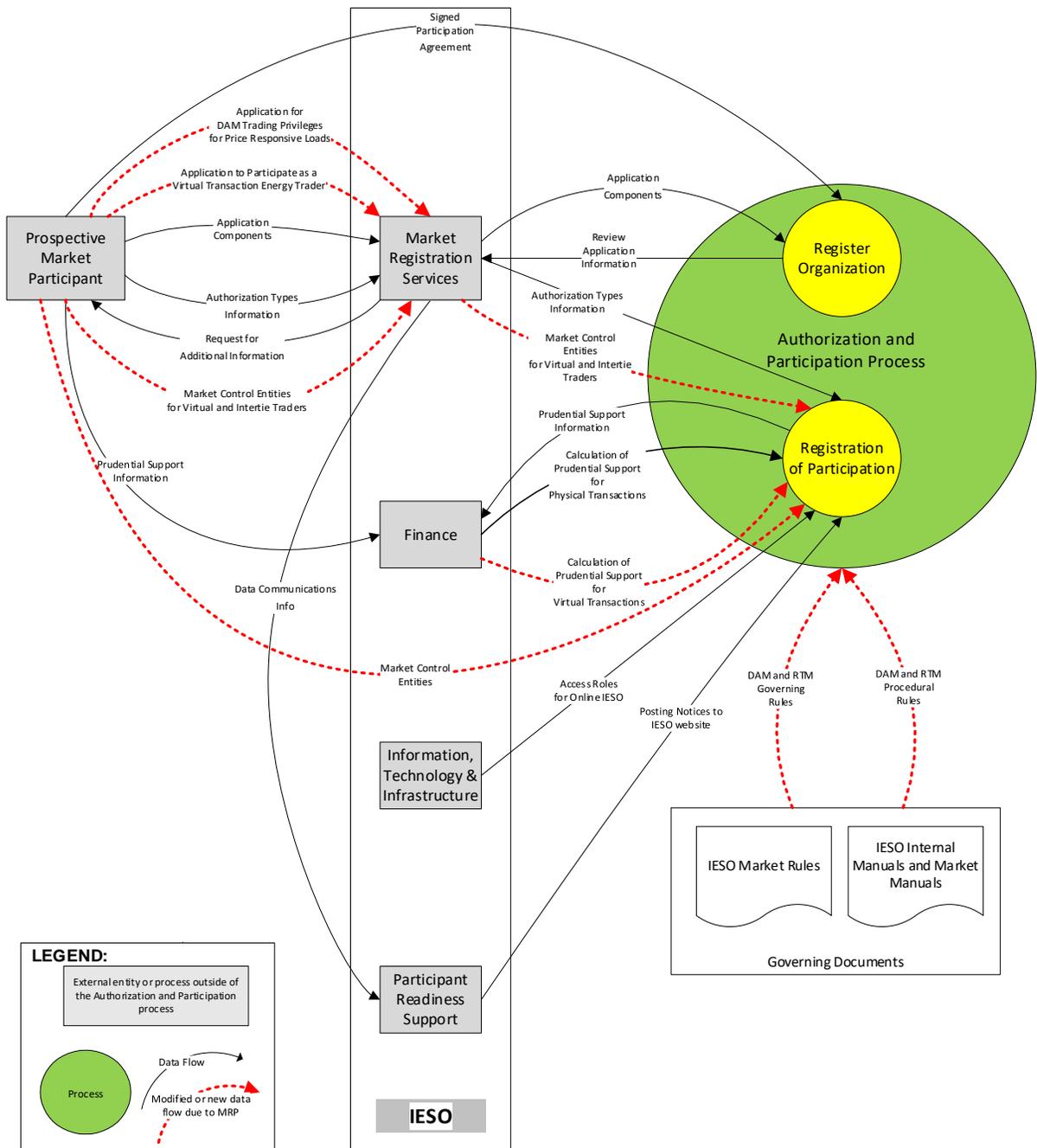


Figure 2-2: Future Participant Authorization Process

– End of Section –

## 3. Detailed Functional Design

### 3.1. Structure of this Section

This section is sub-divided along the major topic areas that are of particular interest to the Authorization and Participation process. Over the course of this section, the design of the Authorization and Participation process will be described in terms of:

- Objectives;
- Participant Authorization;
- Transition into the Facility Registration Process; and
- Dispute Resolution.

These sub-sections will generally cover the major topic areas of the MRP high-level design and specifically, the design of the Authorization and Participation process in the context described in Section 2.2 of this document.

### 3.2. Objectives

The objectives of the Authorization and Participation process for the future day-ahead market and *real-time market* include:

- Leveraging to the greatest extent possible any existing processes within the Authorization and Participation process;
- Recognizing the particular data requirements and obligations specific to the introduction of a day-ahead market within the Authorization and Participation process; and
- Confirming that a *market participant* is bound by the *market rules*.

### 3.3. Participant Authorization

Anyone planning to participate in the *IESO-administered markets* and programs, or to cause or permit electricity to be conveyed into or out of the *IESO-controlled grid* must continue to apply to the *IESO* via the Authorization and Participation process. The Authorization and Participation process allows the prospective *market participant* to register its organization and identify the markets and applicable programs in which they intend to participate. It also ensures that the prospective *market participant* will satisfy their *prudential support* and other financial

obligations to the *IESO-administered markets*, and establishes their technical ability to communicate with the *IESO*.

The Authorization and Participation process will continue to include the following two sub-processes:

- Register Organization; and
- Registration of Participation.

Once the Register Organization process has been completed, prospective *market participant* will be granted access to the Registration of Participation process. The Registration of Participation process allows the prospective *market participant* to further define their intent to become authorized as a *market participant*, a program participant, or a participant service provider. The information that is required from the prospective *market participant* for both the Register Organization and Registration of Participation processes is described in the following sub-sections.

### 3.3.1. Register Organization Process

Prospective *market participants* will continue to initiate the Register Organization process by submitting information about their organization through the Register Organization webpage. The *IESO* will continue to use this information to conduct a business registry search on the organization to establish a trust model with the prospective *market participant*. The establishment of this trust model allows that organization to be granted access to appropriate *IESO* systems. Prospective *market participant* will continue to be required to register the following information through the Register Organization process:

- Organization name, address and HST number;
- Business entity type and intent of registration;
- Mandatory organization contacts; and
- Signed *participation agreement*.

These requirements are further described below.

#### **Organization Name, Address and HST Number**

Prospective *market participants* will continue to provide the legal registered name of the organization along with an address that matches the address registered on the government business registry. Prospective *market participants* must also continue to submit to the *IESO* a registered Harmonized Sales Tax (HST) number unless the applicant intends to solely register as a *TR participant* or *demand*

*response auction participant*<sup>1</sup>. This exemption will also apply to prospective *market participants* intending to solely register as a virtual transaction *energy* trader in the future day-ahead market.

## Organization Information and Intent of Registration

Prospective *market participants* will continue to provide their business entity type, business identification number and jurisdiction of registration. The *IESO* will continue to use this information to conduct a business registry search on the organization.

Prospective *market participants* will also continue to have the opportunity to identify their intent to register for physical trading privileges in the day-ahead market and *real-time market*, import/export trading privileges in the day-ahead market and *real-time market*, and virtual trading privileges in the day-ahead market.

Current categories for the intent of registration for an organization that will continue to apply in the future day-ahead market and *real-time market* include:

- *Generator*;
- *Variable generator*;
- *Regulation* service provider;
- *Energy* trader;
- *Wholesale customer*<sup>2</sup> (load);
- *Distributor*;
- *Transmitter*;
- *Transmission rights*; and
- *Metering service provider*;

The remaining categories for the intent of registration for an organization applicable to other programs will be unchanged.

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<sup>1</sup> The *IESO* has replaced the *demand response auction* with a *capacity auction* to enable competition between additional resource types. All references to the *demand response auction* in this document should be read as reference to the *capacity auction*. Conforming changes required to align with the current or future *capacity auction* will be made during implementation via *market rules* and/or *market manuals*.

<sup>2</sup> The *IESO* Online "Register an Organization" screen currently uses the term "wholesale consumer". Along with the addition of new categories, this load category will be updated to the *market rules* term *wholesale customer* defined as a *market participant* who takes supply from the *IESO-controlled grid* for its own consumption or for sale.

Additional categories for the intent of registration for an organization will include:

- Virtual transaction *energy* trader; and
- Day ahead market price responsive load.

The virtual transaction *energy* trader category will be added to support virtual *energy* trading in the day-ahead market.

Existing and prospective *market participants* seeking to register a *facility* as a price responsive load will indicate their intent to do so by registration of their organization for physical trading privileges in the day-ahead market.

### **Mandatory Organization Contacts**

Prospective *market participants* will continue to be required to provide the following mandatory contacts to maintain participation with the *IESO*:

- Authorized representative – the person(s) responsible for contractually binding the organization with the *IESO* and signing the *participation agreement*;
- Primary contact – the person(s) responsible for the organization's day-to-day activities with the *IESO*;
- Rights administrator – the person(s) responsible for submitting and managing the organization's system access requests; and
- Applicant representative – the person responsible for submitting registration requests for the organization's contacts, *facilities* and participation types.

### **Participation Agreement**

A *participation agreement* will continue to legally bind a *market participant* to comply with the *market rules* and other applicable standards, policies or procedures established by the *IESO*. The *participation agreement* also serves as certification by the prospective *market participants* of their readiness to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into or out of the *IESO-controlled grid*.

A signed *participation agreement* will continue to be required for all prospective *market participants* that intend to participate in the *IESO-administered markets*, including those applicants who expect to participate in the future day-ahead market as a virtual transaction *energy* trader.

#### **3.3.2. Registration of Participation Process**

Once the Register Organization process is complete, the organization will continue to be granted access to Online IESO to start the Registration of Participation

process. The Registration of Participation process will be updated to enable prospective *market participants* to request virtual transaction trading privileges as a virtual transaction *energy* trader in the future day-ahead market.

In addition, *market participants* that are currently authorized for participation in the *real time market* will be automatically granted authorization for participation in the future day-ahead market for physical transactions. Prospective participants will apply for authorization to participate in both the future day-ahead market and *real-time market* for physical transactions.

The Registration of Participation process will continue to allow applicants to register as one or more *market participant* authorization types, program participant authorization types and participant service provider authorization types. Based on the type of participation selected, the applicant will continue to be required to register additional information specific to that participation class and type.

Program participant authorization types currently include the Ontario Clean Energy Benefit, centralized forecasting service and smart metering cost recovery. These program authorization types will not be impacted by the future day-ahead market and *real-time market*.

The participant service provider authorization type is currently limited to a *meter data* associate. Prospective participant service providers will continue to only be required to register a *meter data* associate if they wish to retrieve *metering data*. This service provider authorization type will also not be impacted by the future day-ahead market and *real-time market*.

Prospective *market participants* will continue to be able to apply for authorization to participate in the *IESO-administered markets* or to cause or permit electricity to be conveyed into, through or out of the *IESO-controlled grid* as one or more of the following *market participant* authorization types applicable to the future day-ahead market and *real-time market*:

- *Generator*;
- *Wholesale customers (non-dispatchable load, dispatchable load, price responsive load)*;
- *Wholesale sellers and consumers (intertie traders)*;
- *Distributor*;
- *Transmitter*;
- *Demand response auction participant*; and
- *Demand response market participant*

*Financial market participant*, currently designated for *market participants* that intend to participate only in the *TR market*, will be retired as an authorization type.

*TR participant* and virtual transaction *energy* trader will be created as separate authorization types. A *market participant* that intends to register their *load facility* as a price responsive load will be registered as a *wholesale customer*.<sup>3</sup>

Table 3-1 summarizes the *market participant* authorization types and the corresponding Registration of Participation process requirements for the future day-ahead market and *real-time market*. The program and service provider authorization types are not summarized as they will not be impacted by the future day-ahead market and *real-time market*.

Each of the *market participant* related requirements are further described in the succeeding sub-sections including information on requirements that will or will not change in the in the future *energy* markets.

**Table 3-1: Registration of Participation for Market Participant Authorization Types**

Registration of Participation Requirement	Generator	Non Dispatchable load, dispatchable load, price responsive load	Intertie Trader	Distributor	Transmitter	TR Market	Virtual Transaction Energy Trader	Demand Response Auction Participant	Demand Response Market Participant
OEB-approved application fee	✓	✓	✓	✓	✓	✓	✓	✓	✓
OEB Licence	✓	✓	✓	✓	✓	x	x	x	x
NEB Permit	x	x	✓	x	x	x	x	x	x
Banking Information	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prudential Support	✓	✓	✓	✓	✓	x	✓	✓	✓
Emergency Preparedness Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓

<sup>3</sup> *Wholesale customer*, not included in the current *market manual*, will be added as *market participant* authorization types to the Participant Authorization *market manual*.

Registration of Participation Requirement	Generator	Non Dispatchable load, dispatchable load, price responsive load	Intertie Trader	Distributor	Transmitter	TR Market	Virtual Transaction Energy Trader	Demand Response Auction Participant	Demand Response Market Participant
TR Auction Information	x	x	x	x	x	✓	x	x	x
Participant Contact Roles and IESO System Access	✓	✓	✓	✓	✓	✓	✓	✓	✓
Market Control Entity <sup>4</sup>	✓	✓	✓	x	x	x	✓	x	x

Once the prospective *market participant* has satisfied the requirements for the participation type selected, the *IESO* will authorize them to participate in the *IESO-administered markets*. Authorization will continue to be provided to the *market participant* in the form of a Registration Approval Notification (RAN) document.

### OEB-approved Application Fee

All prospective *market participants*, including those applicants registering for participation as a virtual transaction *energy* trader and those applicants intending to register a *load facility* as a price responsive load, will be required to submit the *OEB*-approved application fee with their application.

### OEB Licences

The *Ontario Energy Board (OEB)* is responsible for determining licensing requirements and licensing all *market participants* in the *IESO-administered markets* including the *IESO*, *generators*, *transmitters*, *distributors*, *wholesaler sellers* and *retailers*.

*OEB* licensing requirements will continue to be required for all existing *market participant* authorization types other than *demand response auction participants*, *demand response market participants* and *TR market* participants. Prospective

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<sup>4</sup> Market control entities for *generators* and *loads* are established during the Facility Registration process.

*market participants* wishing to participate solely as virtual transaction *energy* traders will not require an *OEB licence*.

All applications for authorization must include copies of an applicant's relevant *OEB licence(s)*. *Market participants* must also provide the *IESO* with a copy of any new or updated *licences* that they obtain. *Licences* will continue be submitted to the *IESO* via Online IESO. For more information on obtaining *OEB licences*, see the *OEB* website.

## NEB Permits

The *IESO* is regulated by the National Energy Board (NEB). The *IESO* holds two permits issued by the NEB, EPE-22 and EPE-177. EPE-22 is for the transfer of circulating power and enables the *IESO* to operate in parallel with other jurisdictions in the U.S. EPE-177 is for the sale of *emergency energy* and power. EPE-177 allows the *IESO* to provide emergency support to neighbouring entities in the U.S. when a state of *emergency* is declared in those jurisdictions and commercial remedies cannot rectify the situation in a timely manner.

NEB permits are currently only required for *market participants* intending to export *energy* in the *real-time market*. Applicants intending to submit export transactions in the future day-ahead market and *real-time market* will continue to require the relevant NEB permit. NEB permits will not be required for those prospective *market participants* intending to participate as virtual transaction *energy* traders in the day-ahead market.

## Banking Information

Banking information requirements will not change for the future day-ahead market and *real-time market*. Each prospective *market participant* will continue to be required to open and maintain a *settlement account* at a bank that is named in the Schedule to the Bank Act, S.C. 1991, c. 46, located in the Province of Ontario, and capable of performing electronic funds transfers.

## Prudential Support

Prospective *market participants* currently provide information about their expected activity in the *real-time market* and the *IESO* uses this information to determine a *prudential support obligation* for the *market participant*. The *prudential support obligation* must be satisfied by the *market participant* before they are authorized to participate in the *real-time market*.

In the future day-ahead market and *real-time market*, new *prudential support obligations* will be determined for:

- All existing *market participants* whose authorized participation for physical transactions in the *real-time market* will now automatically include participation in the future day-ahead market;
- New *market participants* that intend to be authorized for physical transactions in the future day-ahead market and *real-time market*;
- New and existing *market participants* that intend to be authorized to participate in the future *energy market* solely to import/export *energy* or *operating reserve* at *boundary entities*; and
- Consistent with the current Registration of Participation process, these new *prudential support obligations* must be satisfied by the prospective *market participant* before they are authorized to participate in future day-ahead market and *real-time market*.

Refer to the Prudential Security detailed design document for more information on the calculation of the *prudential support obligations* for *market participants* intending to engage in physical transactions and/or virtual transactions.

### Emergency Preparedness Plan

- All applicants will continue to be required to submit an emergency preparedness plan through Online IESO and have that plan approved by the *IESO* before being authorized to participate in the future day-ahead and *real-time market*.
- Existing and prospective *market participants* seeking to register a non-*dispatchable load* as a price responsive load will be subject to the same emergency preparedness requirements as *non-dispatchable loads*.
- Prospective *market participants* that intend to register as virtual transaction *energy* traders will be required to provide a 24/7 telephone number to satisfy their emergency preparedness plans.

### Transmission Rights (TR) Auction Information

Applicants that wish to participate in the *TR market* must continue to complete the authorization process in the future market as they do in today's market. This includes their intention to *bid* in an upcoming *TR auction* by submitting a *TR market deposit*, via IESO\_FORM\_1361, *TR Auction Information*. This form is necessary for the *IESO* to determine the participant's *bidding limit*.

The TR auction information form will not change in the future day-ahead market and *real-time market*.

## Participant Contact Roles and IESO System Access

*Market participants* will continue to be required to provide to the *IESO* the names of the individuals who will serve as the primary contacts for information exchange with the *IESO* using Online IESO. *Market participants* must also provide information about all users they require to have access to the *IESO* systems using Online IESO.

The *IESO* will continue to conduct tests to demonstrate that the prospective *market participant* can communicate with the *IESO* via Online IESO and the *participant workstation*. The necessary hardware and software infrastructure is required in advance of the testing time period.

The current process for testing the *participant workstation* will be updated to include testing for prospective *market participants* intending to register as virtual transaction *energy* traders and those intending to register a *load facility* as a price responsive load. *Participant workstation* testing is required for these prospective *market participants* to ensure they are able to login to the Energy Market Interface (EMI) and confirm trading privileges for participation in the day-ahead market.

## Market Control Entities

Market control entities is a new requirement in the future day-ahead market and *real-time market*. Market control entity means, with respect to a *market participant*, any person that meets any of the following criteria:

- beneficially owns, directly or indirectly, voting securities carrying more than 10 per cent<sup>5</sup> of the voting rights attached to all voting securities of the *market participant*;
- directly or indirectly, whether through one or more subsidiaries or otherwise, is able to elect or appoint at least 10 per cent of the directors of the *market participant*, other than ex officio directors;
- is a partner in or of the *market participant*;
- has a substantial beneficial interest in the *market participant* or that serves as a trustee in the *market participant*, if the *market participant* is a trust;
- is an *affiliate* of the *market participant*, excluding *affiliates* of the *market participant* that are controlled by the *market participant*<sup>6</sup>; or

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<sup>5</sup> Similar thresholds are used in the Business Corporations Act (Ontario), Securities Act (Ontario), and the Canada Business Corporations Act.

<sup>6</sup> For example, *market participants* B and C share a parent company A and *market participant* B wholly owns a subsidiary D. Although B is an affiliate of A, C and D, only A and C would be considered market control entities for *market participant* B.

- has any form of agreement with an entity whereby: (i) the *market participant* associated with a resource confers the right or ability to determine the resource's *energy* and *operating reserve offers* and *bids* to that entity or the ability to follow the *dispatch instructions* given to the resource; and (ii) that entity is entitled to receive more than 10 per cent of the amounts paid to the *market participant* in respect of all *energy* and *operating reserve* transacted through the *energy* and *operating reserve* markets.

Prospective *market participants* undergoing the Authorization and Participation process as a virtual transaction *energy* trader or an *intertie* trader will be required to disclose their market control entities during the Registration of Participation process. All other prospective *market participants* participating in physical transactions will be required to submit market control entities as a parameter on a specific resource during the Facility Registration process. More information is provided in the Facility Registration detailed design document.

### 3.4. Transition into the Facility Registration Process

*Market participants* being authorized as *generators*, loads, *distributors* and *transmitters* will continue to be required to register their *facility* information through the Facility Registration process before their *facilities* can participate in the future day-ahead market and *real-time market*. The *facility* registration process for *distributors* and *transmitters* will not change. For *generators* and loads, the Facility Registration process will be updated to include additional registration requirements. Refer to the Facility Registration detailed design document for more information about these new requirements.

*Market participants* being authorized as *intertie* traders or virtual transaction *energy* traders will be granted access to the resources designated as *boundary entities* for *intertie* traders, and virtual transaction zonal trading entities for virtual transaction *energy* traders as part of the Facility Registration process. Refer to the Facility Registration detailed design document for more information.

### 3.5. Dispute Resolution

The *IESO* may continue to deny an *application for authorization to participate* by a prospective *market participant* that is found to be in breach of the *market rules* during the Authorization and Participation process. The prospective *market participant* may continue to dispute a denial by the *IESO* in accordance with existing *market rules*.

– 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 Authorization and Participation detailed design, and is intended to guide the development of *market rule* amendments.

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 design document. Resulting *market rule* amendments will incorporate the integration of the individual design documents.

Updates to this inventory since the publication of the Authorization and Participation detailed design version 1.0 have been made to capture material changes to section 3 – Detailed Functional Design. Please refer to *market rule* amendment proposal MR-00450: Participant Authorization on the Market Renewal Implementation Engagement page to review any further changes between this inventory and the draft *market rule* amendments.

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 Chapter 2 Impacts**

Market Rule Section	Type	Topic	Requirement
Section 1.1	Existing - no change	Introduction	<p>Section 1.1.1:</p> <ul style="list-style-type: none"> <li>• This section provides an introduction on the:                             <ul style="list-style-type: none"> <li>○ procedures pursuant to which persons may apply to the <i>IESO</i> for authorization to participate in the <i>IESO-administered markets</i>;</li> <li>○ prudential, technical and other requirements which must be met by <i>market participants</i>;</li> <li>○ fees payable by prospective <i>market participants</i>; and</li> <li>○ terms and conditions upon which a <i>market participant</i> may cease to be a <i>market participant</i>.</li> </ul> </li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>
Section 1.2	Existing - no change	Participation	<p>Section 1.2.0:</p> <ul style="list-style-type: none"> <li>• This section specifies that a person who has been issued a <i>licence</i> by the <i>OEB</i> is subject to all <i>market rules</i> relating to the activities authorized by such <i>licence</i>.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul> <p>Section 1.2.1:</p> <ul style="list-style-type: none"> <li>• This section specifies that no person shall participate in the <i>IESO-administered markets</i> unless that person has been authorized by the <i>IESO</i> to do so pursuant to this Chapter; section 1.2.1 shall not apply in respect of physical loop flows.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>

Market Rule Section	Type	Topic	Requirement
			<p>Sections 1.2.2:</p> <ul style="list-style-type: none"> <li>• 1.2.2 This section specifies that no person shall be authorized by the <i>IESO</i> to participate in the <i>IESO-administered markets</i> unless the <i>IESO</i> is satisfied: <ul style="list-style-type: none"> <li>○ 1.2.2.1 on the basis of the certification, tests and inspections referred to in section 6.2, that the person satisfies the technical requirements referred to in that section;</li> <li>○ 1.2.2.3 that the person agrees to be bound by the <i>market rules</i> by executing the <i>participation agreement</i>;</li> <li>○ 1.2.2.4 that the person holds an <i>OEB licence</i> subject to certain exceptions;</li> <li>○ 1.2.2.6 that the person, if it applies as a <i>market participant</i> other than solely as one or a combination of (i) a virtual trader or (ii) a <i>TR participant</i>, is registered appropriately for tax purposes.</li> </ul> </li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul> <p>Section 1.2.3:</p> <ul style="list-style-type: none"> <li>• This section specifies that a person authorized by the <i>IESO</i> to participate in the <i>IESO-administered markets</i> may participate in the market or trading activities to which the authorization to participate relates.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>
Section 1.2	Existing - requires amendment	Participation	<p>Section 1.2.2/1.2.2.2:</p> <ul style="list-style-type: none"> <li>• This section obligates a person to satisfy the <i>prudential support</i> requirements of the <i>market rules</i> as a condition for authorization in the <i>real-time markets</i>.</li> </ul>

Market Rule Section	Type	Topic	Requirement
			<ul style="list-style-type: none"> <li>• This section needs to be expanded to include the day-ahead market.</li> <li>• Delete unnecessary detail - the specific reference to Appendix 2.3 and phrase “applicable to all <i>market participants</i> and the <i>IESO-administered markets</i> in which the person wishes to participate, or in the case of a <i>demand response market participant</i>, satisfy the <i>demand response</i> security requirements in section 5A” should be deleted. These changes will make the section broader, and specify that all relevant prudential requirements as specified by the <i>market rules</i> must be satisfied as a condition for participating in the <i>IESO-administered markets</i>.</li> </ul> <p>Section 1.2.2/1.2.2.7 <b>new</b>:</p> <ul style="list-style-type: none"> <li>• obligate a person, if it applies to participate by means of physical transactions to be authorized in both the <i>real-time market</i> and day-ahead market.</li> </ul>
Section 2	Existing - requires amendment	Classes of Market Participants	<p>Section 2.1.1:</p> <ul style="list-style-type: none"> <li>• Add new <i>market participant</i> classes for virtual traders and <i>TR participants</i>.</li> </ul>
Section 3	Existing - no change	Application for authorization	<p>Section 3.1.1:</p> <ul style="list-style-type: none"> <li>• This section obligates a person who wishes to be authorized by the <i>IESO</i> to participate in the <i>IESO-administered markets</i> to file a completed <i>application for authorization to participate</i>.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul> <p>Section 3.1.2:</p> <ul style="list-style-type: none"> <li>• This section obligates a person submitting an <i>application for authorization to participate</i> to provide:</li> </ul>

Market Rule Section	Type	Topic	Requirement
			<ul style="list-style-type: none"> <li>○ a non-refundable application fee; and</li> <li>○ unless the <i>application for authorization to participate</i> is submitted in respect of an applicant applying solely as one or a combination of (i) a virtual trader, or (ii) <i>TR participant</i>, or (iii) a <i>demand response auction participant</i>, either the federal harmonized value-added tax system registration number or such documentation exempting them from paying the federal harmonized value-added tax.</li> </ul> <ul style="list-style-type: none"> <li>● Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>
Section 4	Existing - no change	Conditional Authorization	<p>Sections 4.1, 4.2:</p> <ul style="list-style-type: none"> <li>● These sections specify the obligations for applicants to be conditionally authorized by the <i>IESO</i>, and the effect and term of order for conditional authorization.</li> <li>● Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>
Section 6	Existing - no change	Technical Requirements	<p>Sections 6.1, 6.2, 6.3:</p> <ul style="list-style-type: none"> <li>● These sections specify:                             <ul style="list-style-type: none"> <li>○ <i>Market participant</i> obligations regarding Appendix 2.2: Voice Communication, Monitoring and Control, Workstations and Re-Classification of Facilities, performance standards of Chapter 4;</li> <li>○ Certification, testing and inspection requirements for authorization; and</li> <li>○ Certification, testing and inspection requirements for registrations of <i>facilities</i>.</li> </ul> </li> <li>● Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>

Market Rule Section	Type	Topic	Requirement
Section 9	Existing - no change	Withdrawal by a Market Participant	Section 9: <ul style="list-style-type: none"> <li>• This section specifies <i>market participant</i> obligations related to the de-registration or transfer of any applicable <i>registered facilities</i>.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>
Section 10	Existing - no change	Market Participant Fees	Section 10: <ul style="list-style-type: none"> <li>• This section obligates the <i>IESO</i> to <i>publish</i> and notify <i>market participants</i> of the fees or schedule of fees payable by <i>market participants</i> and persons who apply for authorization, and specifies the obligation on <i>market participants</i> or prospective <i>market participants</i> to pay such fees to the <i>IESO</i>.</li> <li>• Provisions unaffected by the design changes specified in the Authorization and Participation design document.</li> </ul>

– End of Section –

## 5. Procedural Requirements

### 5.1. Market-Facing Procedural Impacts

The existing market *manuals* related to the Authorization and Participation process will be retained to the extent possible. The majority of changes result from the introduction of a day-ahead market, virtual transactions and price responsive loads. The documents directly related to the Authorization and Participation process are:

**Market Manuals:**

- Market Manual 1: Connecting to Ontario’s Power System, Part 1.5 – Market Registration Procedures.

Table 5-1 identifies sections within the *market manual* that are related to the Authorization and Participation process but will not require changes, as well as sections that will require modification in the future market.

Impacts to Market Manual 1: Connecting to Ontario’s Power System, Part 1.5 – Market Registration Procedures related to the Facility Registration process are listed in Table 5-1 of the Facility Registration process detailed design chapter.

**Table 5-1: Impacts to Market-Facing Procedures – Market Manual 1: Connecting to Ontario’s Power System**

Procedure	Type of change (no change, modification, new)	Section	Description
Part 1.5 – Market Registration Procedures	No change	1. Introduction	This section and its sub-sections do not require revision as they generically address the purpose and scope of the document, and generically address the roles and responsibilities of <i>market participants</i> and the <i>IESO</i> .
	No change	2. Authorize Market and Program Participation	This section does not require revision.

Procedure	Type of change (no change, modification, new)	Section	Description
Part 1.5 – Market Registration Procedures	Modification	2.1 Registering an Organization	Inclusion of disclosure of market control entities under the submission of the application components.
	No change	2.1.1 Participation Agreement	This section does not require revision.
	No change	2.1.2 Initial Access to Online IESO	This section does not require revision.
	No change	2.1.3 Manage Participation Tasks	This section does not require revision.
	Modification	2.2.1 Prerequisite Requirements for Market Participant Applicants	Required to specify that a virtual transaction <i>energy</i> trader does not need an <i>OEB licence</i> to participate in the day-ahead market.
	Modification	2.2.2 Market Participant Types	Inclusion of <i>wholesale sellers</i> , wholesale consumers, virtual transaction <i>energy</i> traders and <i>TR participants</i> under <i>market participant</i> authorization types
	No change	2.2.3 Organization Roles and Responsibilities	This section does not require revision.
	No change	2.3 Registering as a Program Participant	This section does not require revision.
	No change	2.4 Registering as a Service Provider	This section does not require revision.
	No change	2.5 IESO Notification of Participant Authorization	This section does not require revision.

Procedure	Type of change (no change, modification, new)	Section	Description
Part 1.5 – Market Registration Procedures	Modification	3 Register Equipment	Refer to Section 5 of the Facility Registration detailed design document.
	No change	4. Maintain IESO Registered Data	This section does not require revision.
	No change	4.1 Maintain Organization/ Participant Registered Data	This section does not require revision.
	Modification	4.2 Facility and Equipment Data Maintenance	Refer to Section 5 of the Facility Registration detailed design document.
	No change	5.2 Market Participant Withdrawal	This section does not require revision.
	No change	5.3.1 Termination Order	This section does not require revision.
	No change	Appendix A Organization Contact Roles	This section does not require revision.
	No change	References	This section does not require revision.

## 5.2. Internal Procedural Impacts

Most of the internal procedures used currently for the Authorization and Participation 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 to reflect the introduction of the day-ahead market, virtual transactions and price responsive loads.

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 to the arrangement of processes required in order to support the overall Authorization and Participation process and the critical information flows between them.

The context diagrams presented in section 2.2 of this document are considered as level 0 data flow diagrams and represent the major flows of information into and out of the Authorization and Participation process. This section now presents the Authorization and Participation process at the next level of detail (level 1). A further break-down of the processes presented in this section (i.e. levels 2,3,4...) falls into the realm of systems design and is beyond the scope of this document.

The data flow diagram does not illustrate:

- flow of time or sequence of events (as might be illustrated in a timeline diagram);
- decision rules (as might be illustrated in Flowchart); and
- logical architecture and systems architecture (as might be illustrated in a Logical Application and Data Architecture, and/or Physical Application and Data Architecture).

What it does illustrate however, is a logical breakdown of the sub-processes that constitute a large and complex system such as the Authorization and Participation process. Specifically, the data flow diagram presented below illustrates:

- the Authorization and Participation process as a grouping of several major and tightly coupled sub-processes;
- the key information flows between each of the processes;
- external sources of key information required by the Authorization and Participation process;
- external destinations of key information from the Authorization and Participation process; and
- the same logical boundary of the Authorization and Participation process as illustrated in the level 0 context diagram presented in section 2.2 of this document.

This section is not meant to impart information systems or technology architecture, but rather to capture the entire Authorization and Participation process as a series of interrelated sub-processes.

The functional design outlined in section 3 of this document maps to the business process overview presented in this section. In any areas where there are inconsistencies between this section and the description of the business process provided in section 3, the business process described in Section 3 will take precedence.

The data flow diagram illustrated in Figure 6-1 presents the Authorization and Participation process for the future day-ahead market and *real-time market* activity. The following sections of this document will provide an overview of each of the main sub-processes of the Authorization and Participation process.

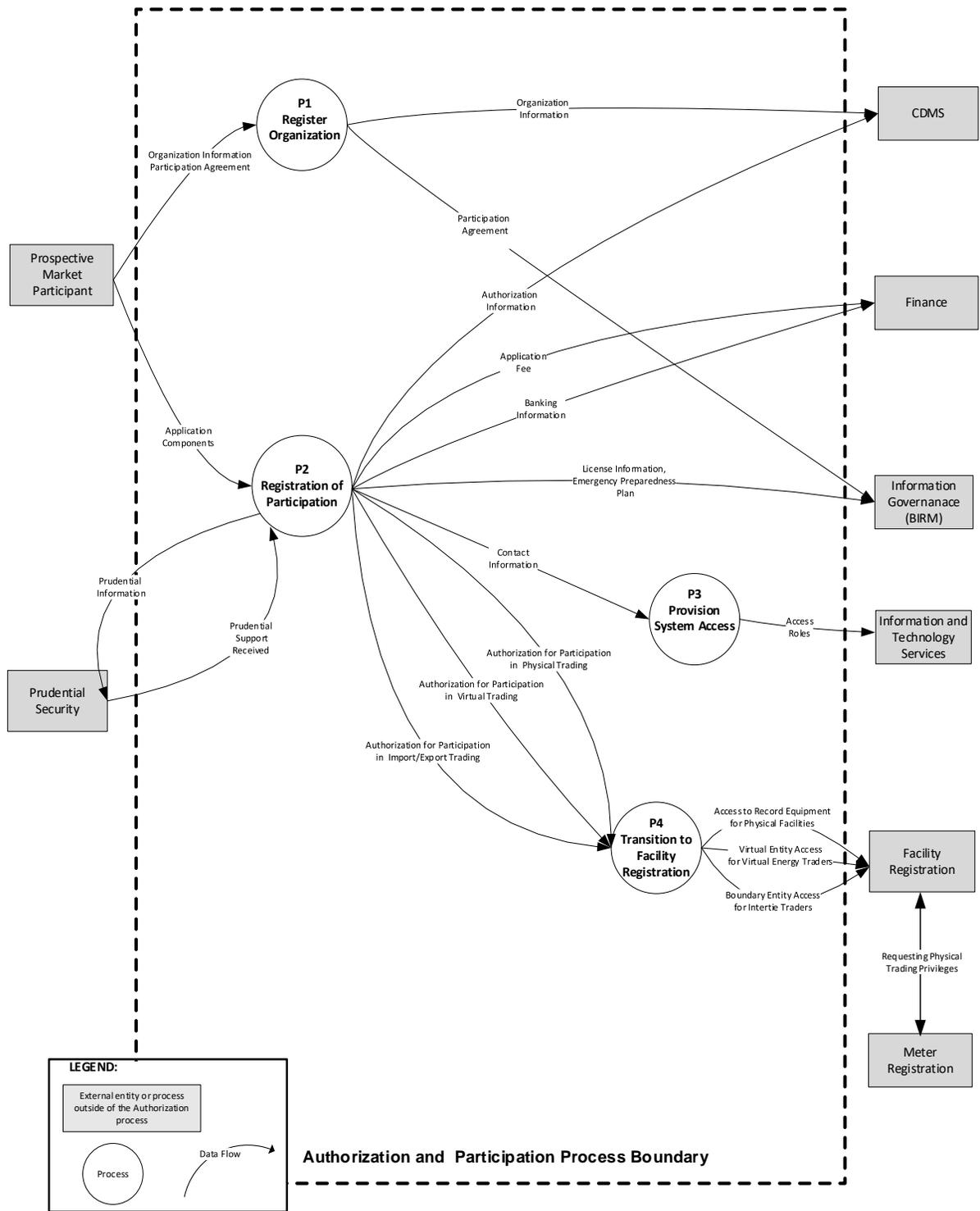


Figure 6-1: Authorization and Participation Data Flow Diagram – Level 1

### 6.1.1. Process P1 – Register Organization

#### Description

The Register Organization process facilitates the *application for authorization to participate* – an online form that prospective *market participants* use to submit general organization information, specify their intent for authorization and provide contact information.

#### Input and Output Data Flows

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

Flow	Source	Target	Frequency
Organizational Information, Participation Agreement	Prospective Market Participant	Process P1	As required
<p><b>Description:</b>                      Prospective <i>market participants</i> are registering the following information:</p> <ul style="list-style-type: none"> <li>• Organization name, address and HST number;</li> <li>• Business entity type and intent of registration;</li> <li>• Mandatory organization contacts; and</li> <li>• Signed <i>participation agreement</i>.</li> </ul>			
Flow	Source	Target	Frequency
Organization Information	Process P1	CDMS	Periodic changes to information may be required
<p><b>Description:</b>                      The following registration information is stored in the Customer Data Management System (CDMS):</p> <ul style="list-style-type: none"> <li>• Organization name, address and HST number; and</li> <li>• Mandatory organization contacts.</li> </ul>			
Flow	Source	Target	Frequency
Participation Agreement	Process P1	Information Governance (BIRM)	Once

- The signed *participation agreement* is digitally stored in the Information Governance (BIRM).

### 6.1.2. Process P2 – Registration of Participation

#### Description

Process P2 ensures the orderly receipt of data from prospective and existing *market participants*.

The key processing steps are to manage the collection process, validate data for correctness and completeness and make the necessary components of the data stream available to other sub-processes, and other pertinent *market participant* information.

This process largely relates to the collection of the application components described in section 3.

#### Input and Output Data Flows

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

Flow	Source	Target	Frequency
Application Components	Prospective Market Participant	Process P2	Periodic changes to information may be required
<p><b>Description:</b></p> <ul style="list-style-type: none"> <li>• The initial application components will identify an applicant’s wish to register for trading privileges including:                             <ul style="list-style-type: none"> <li>○ physical trading in the day-ahead market and <i>real-time market</i>; and/or</li> <li>○ import/export trading in the day-ahead market and <i>real-time market</i>; and/or</li> <li>○ virtual trading in the day-ahead market.</li> </ul> </li> <li>• All related documentation, such as <i>OEB</i> and <i>NEB</i> licenses, Emergency Preparedness Plan, <i>prudential support</i>, and TR certification, where applicable.</li> <li>• Virtual transaction <i>energy</i> trader or an <i>intertie</i> trader will be required to provide market control entity information.</li> </ul>			
Flow	Source	Target	Frequency
Authorization Information	Process P2	CDMS	As needed

<b>Description:</b>			
<ul style="list-style-type: none"> <li>Registration data is stored in the CDMS database</li> </ul>			
Flow	Source	Target	Frequency
Application Fee	Process P2	Finance	Once
<b>Description:</b>			
<ul style="list-style-type: none"> <li>The application fee is communicated to the finance department.</li> </ul>			
Flow	Source	Target	Frequency
Banking Information	Process P2	Finance	Periodic changes to information may be required
<b>Description:</b>			
<ul style="list-style-type: none"> <li>Banking information is forwarded to the finance department.</li> </ul>			
Flow	Source	Target	Frequency
License Information, Emergency Preparedness Plan	Process P2	Information Governance (BIRM)	Once
<b>Description:</b>			
<ul style="list-style-type: none"> <li>The licenses and Emergency Preparedness plan are filed electronically in BIRM.</li> </ul>			
Flow	Source	Target	Frequency
Contact Information	Process P2	Process P3	Periodic changes to information may be required
<b>Description:</b>			
<ul style="list-style-type: none"> <li>Request for IT system access for individuals identified in contact information submitted by the prospective <i>market participant</i>.</li> </ul>			
Flow	Source	Target	Frequency
Authorization for Participation for Physical Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b>			
<ul style="list-style-type: none"> <li>Prospective <i>market participants</i> wishing to participate in the physical day-ahead market and <i>real-time market</i> are identified to the Facility Registration process.</li> </ul>			

Flow	Source	Target	Frequency
Authorization for Participation for Virtual Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Prospective <i>market participants</i> wishing to participate in virtual trading in the day-ahead market are identified to the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Authorization for Participation for Import/Export Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Prospective <i>market participants</i> wishing to participate in physical import/export trading in the day-ahead market and <i>real-time market</i> are identified to the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Prudential Support Information	Process P2	Prudential Security	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>The process P2 makes available the <i>prudential support</i> information which is used to calculate <i>prudential support obligations</i> for both physical transactions and virtual transactions.</li> </ul>			
Flow	Source	Target	Frequency
Prudential Support Received	Prudential Security	Process P2	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>The Prudential Security process ensures the <i>prudential support</i> has been received so that the authorization of prospective <i>market participant</i> can continue.</li> </ul>			

### 6.1.3. Process P3 – Provision System Access

#### Description

Depending on the participation type the prospective *market participant* will require access to *IESO* IT systems relevant to their participation type. Process P3 provisions system access for individuals identified in contact information.

#### Input and Output Data Flows

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

Flow	Source	Target	Frequency
Contact Information	Process P2	Process P3	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Request for IT system access for individuals identified in contact information submitted by the prospective <i>market participant</i>.</li> </ul>			
Flow	Source	Target	Frequency
Access Roles	Process P3	Information and Technology Service	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Pass through of the grant access request to Information and Technology Service to implement access in relevant IT systems.</li> </ul>			

### 6.1.4. Process P4 – Transition to Facility Registration

#### Description

Process P4 ensures that authorized *market participants* have access to Facility Registration process.

## Input and Output Data Flows

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

Flow	Source	Target	Frequency
Authorization for Participation for Physical Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Prospective <i>market participants</i> authorized for physical transactions in day-ahead market and <i>real-time market</i> are identified to the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Authorization for Participation for Virtual Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Prospective <i>market participants</i> authorized for virtual transactions in the day-ahead market are identified to the Facility Registration process.</li> </ul>			
Authorization for Participation for Import/Export Trading	Process P2	Process P4	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li>Prospective <i>market participants</i> authorized for physical import/export trading in the day-ahead market and <i>real-time market</i> are identified to the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Access to Record Equipment for Physical Facilities	Process P4	Facility Registration	Periodic changes to information may be required
<b>Description:</b> <ul style="list-style-type: none"> <li><i>Market participants</i> being authorized as <i>generators</i>, loads, <i>distributors</i> and <i>transmitters</i> will continue to be required to register their <i>facility</i> information through the Facility Registration process before their <i>facilities</i> can participate in the future day-ahead market and <i>real-time market</i></li> </ul>			

Flow	Source	Target	Frequency
Virtual Entity Access for Virtual Energy Traders	Process P4	Facility Registration	Periodic changes to information may be required
<p><b>Description:</b></p> <ul style="list-style-type: none"> <li>Market participants authorized as virtual transaction <i>energy</i> traders will be granted access to the resources designated as virtual transaction zonal trading entities as part of the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Boundary Entity Access for Intertie Traders	Process P4	Facility Registration	Periodic changes to information may be required
<p><b>Description:</b></p> <ul style="list-style-type: none"> <li>Market participants authorized as <i>intertie</i> traders will be granted access to the resources designated as <i>boundary entities</i> as part of the Facility Registration process.</li> </ul>			
Flow	Source	Target	Frequency
Request for Physical Trading Privileges	Facility Registration	Meter Registration	Periodic changes to information may be required
<p><b>Description:</b></p> <ul style="list-style-type: none"> <li>The Facility Registration process identifies any metering requirements to the Revenue Meter Registration process.</li> </ul>			

## 6.2. Internal Process Impacts

The internal Authorization and Participation process will continue to have relevance in the future *real-time market* and *day-ahead market*.

The internal *IESO* processes related to Authorization and Participation include:

- Register Organization, and
- Authorize Market and Program Participation.

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 that support the new market requirements, existing activities that need to be updated, and process

and information models that may need to be updated in order to support the future state markets.

**End of Section**

## Appendix A: Market Participant Interfaces

The following table provides a description of the changes to *IESO* technical interfaces with *market participants* that may be required to support the Authorization and Participation process for 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
Register Organization webpage	Web page	Intent of registration section to be updated: <ul style="list-style-type: none"> <li>• Include virtual transaction <i>energy</i> trader;</li> <li>• <i>Energy</i> trader should be changed to <i>intertie</i> trader to make clear distinction from a virtual transaction <i>energy</i> trader</li> </ul>
Online IESO (Participant Authorization Module)	Web client	This module of Online IESO will have a workflow introduced for applicants intending to become authorized as virtual transactions <i>energy</i> traders. Workflow to capture the following requirements: <ul style="list-style-type: none"> <li>• Payment of <i>OEB</i>-approved application fee</li> <li>• Banking information</li> <li>• <i>Prudential support</i> requirements</li> <li>• 24/7 contact number as part of emergency preparedness plan</li> <li>• Participant contact roles and system access</li> <li>• Disclosure of market control entities</li> <li>• Testing of <i>participant workstation</i></li> </ul>

– End of Appendix –



## Appendix B: Internal-Facing Procedural Requirements [Internal only]

**This section is confidential to the *IESO*.**

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

**This section is confidential to the *IESO*.**

## References

Document Name	Document ID
MRP Detailed Design: Overview	DES-16
MRP Detailed Design: Prudential Security	DES-17
MRP Detailed Design: Facility Registration	DES-19
Market Manual 1: Connecting to Ontario's Power System Part 1.5: Market Registration Procedures	PRO-408
Market Manual 6: Participant Technical Reference Manual	IESO_MAN_0024
Market Rules for the Ontario Electricity Market (Market Rules)	MDP_RUL_0002

– End of Document –