

# Understanding Operating Reserve

Operating Reserve (OR) is a critical component ensuring the stability and reliability of the energy grid for large energy consumers. Operating Reserve serves as a stand-by power or demand reduction that can be swiftly activated in response to unforeseen mismatches between energy generation and demand.

## HOW DOES IT WORK?

Managed by the Independent Electricity System Operator (IESO), this system ensures that additional energy supplies are readily available in case of unexpected events in the real-time energy market. The three key classes of operating reserve that dispatchable generators and loads can offer are:

### 1. 10-minute Synchronized (Spinning) Reserve:

- Activated within 10 minutes.
- It represents spinning reserves, ready to generate power instantly.

### 2. 10-minute Non-Synchronized (Non-Spinning) Reserve:

- Activated within 10 minutes.
- Represents reserves that are not actively generating power but can quickly be brought online.

### 3. 30-minute Reserve (Non-Synchronized):

- Activated within 30 minutes.
- Provides additional reserves with a slightly longer response time.



## PARTICIPANT REQUIREMENTS

For generators or loads to offer operating reserve, they must meet specific criteria:

- Provide required energy within specified time frames.
- Sustain operating reserve supply for up to one hour.
- Offer equal or greater amounts of energy into the real-time market.

## MARKET DYNAMICS

- Dispatchable participants can offer into one or all three classes of operating reserve.
- Stand-by payments are provided even if the offer is selected but not activated, without affecting their production schedule.
- Co-optimization of scheduling for operating reserve and energy in the real-time markets ensures efficiency.





## PAYMENT INCENTIVES

Payment for participating in Ontario's Operating Reserve program varies based on whether the power source is behind the meter or in front of the meter.

### ➤ Behind The Meter

- Eligible to participate in the 30 min non-spinning reserve.

Up to  
**\$40K**  
per MW  
load curtailed

### ➤ Front of Meter

- Eligible to participate all 3 streams.

Up to  
**\$80K**  
per MW  
load curtailed

## WHAT IF OUR FACILITY CANNOT REDUCE ITS LOAD?

Our experience and expertise will allow us to help you identify and quantify curtailment opportunities. Some examples of curtailment opportunities:

- Dim or reduce lighting
- Shift your production to later hours of the evening or the next day
- Pre-cool your building and allow it to float back to normal
- Install a Battery Energy Storage System
- Install NG Generators or retrofit Diesel powered generators

## EDGECOM ENERGY

At Edgecom Energy, we empower large energy consumers to take control of their energy costs and reduce emissions by harnessing the power of IoT and AI solutions. Our innovative technology helps you optimize energy usage, save money, and contribute to a greener, more sustainable future.



## GET IN TOUCH

-  1-866-434-2999
-  [info@edgecom.ai](mailto:info@edgecom.ai)
-  [www.edgecom.ai](http://www.edgecom.ai)
-  5775 Yonge St., Suite 1205.  
Toronto, ON. M2M4J1

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