

## Demand Response – DR3 Program

### Background:

In August of this year the Ontario Power Authority (“OPA”) announced a new demand response program referred to as DR3. The Program Rules are in the process of being finalized. The DR3 program is referred to as a “contractual” DR program as opposed to the existing DR1 program which is referred to as a voluntary program.

Features of the DR3 program are as follows:

- Program is available to Direct Participants and Aggregators with a demand response capability of 5.0 MW and 25.0 MW respectively during the summer months. The winter and shoulder months have lower requirements as detailed in the table below.
- There is a minimum per facility demand response capability requirement of 0.5 MW for a Direct Participant and of 50 kW for an Aggregator.
- Participants must make their DR capability available (on standby) for approximately 1,600 hours per year as per the table below. A participant may be notified to curtail up to a maximum of either 100 hours (Option A) or 200 hours (Option B). The participant chooses Option A or Option B. When asked to curtail, the minimum duration is for 4 hours.
- There is an option of a 1, 3, or 5 year term. The greater the term, the greater the standby payment rate. There are also premiums and discounts paid depending upon the location in the province. The GTA for example is a premium zone, while the Niagara region is a discount zone.
- DR3 will target hours when the IESO has identified either general or localized supply constraints. Notification will be either “Day Ahead” or “Day Of”.
- By contractual obligation, participants are required to provide 95 percent of their contracted load shed. A participant’s load shed will be measured every 5 minutes using interval meter data to ensure compliance. Participants failing to meet their contractual obligation will be subject to financial offsets.

Season	Date Range	Hours of Availability (Business Days)	Minimum DR Capability	
			Direct Participant	Aggregator
Winter	December 1 to March 31	4:00 p.m. to 9:00 p.m. EST	4.0 MW	20.0 MW
Summer	June 1 to September 30	12:00 p.m. to 9:00 p.m. EST	5.0 MW	25.0 MW
Shoulder	April, May, October, November	4:00 p.m. to 9:00 p.m. EST	3.3 MW	16.5 MW

The table on the following page provides an example of the potential annual benefit of DR3 for a 1.0 MW load in a premium zone, with a 5-year contract. The potential benefit is \$230,000. The equivalent load, operating 200 hours with a \$100 Strike Price under the DR1 voluntary program would provide a benefit of approximately \$40,000. The DR3 program can be quite lucrative – focused on a relatively low number of hours and rewarding highly reliable load shed capability.

<b>DR3 Example Benefit</b>		
Capacity (MW)	<input type="text" value="1"/>	
Number of years	<input type="text" value="5"/>	
Number of hours	<input type="text" value="200"/>	
Participation Zone	<input type="text" value="Premium"/>	
Payment per hour	\$ 100	Availability Rate of \$100/MW
Capacity Payment	\$ 160,000	Availability Rate X ~ 1,600 hrs
Utilization Payment	\$ 40,000	Utilization Rate of \$200 X 200 hours
<b>Total Annual Revenue</b>	<b>\$ 200,000</b>	
Electricity Savings	\$ 30,000	Based on \$150 per MW
<b>Total Annual Benefit</b>	<b>\$ 230,000</b>	

### Opportunity for Energy Advantage Clients:

Energy Advantage expects several companies to be acting as DR3 aggregators. The service offering will vary amongst aggregators. Most will likely offer a turnkey service in exchange for a percentage of the OPA payment. Some may install controls equipment at their cost (recovering the investment by taking a larger share of the savings), or offer operating flexibility that would be made possible through the “portfolio” approach of the aggregator. We expect the aggregators will facilitate a migration from DR1 to DR3.

Energy Advantage will work with its clients to ensure competitive contractual terms and pricing for DR3 services. On your behalf, Energy Advantage can:

- Qualify DR3 aggregators
- Review contractual terms
- Obtain competitive pricing and terms through a tendering process
- Ensure fair value for our customers.

Certain aggregators have asked customers to sign Letters of Intent, committing to work with that aggregator on an exclusive basis. Our recommendation is to not sign such a document, as it could limit your ability to source a competitive solution.

Please contact your Business Service representative or Don McLean, P.Eng. at (905) 319-1717, ext. #246 to discuss how Energy Advantage can assist you in benefiting from DR3.