What is the Non-Wires Alternatives Demonstration Project?

A local market that uses distributed energy resources (DERs) to help power local communities. Instead of traditional wires infrastructure (e.g. new poles or wires), energy is sourced from local DERs such as thermal, energy storage, and demand response resources.

The Demonstration will operate in a simulated, test environment that is isolated from the IESO's wholesale-level market and system operations. Alectra will act as an Independent Distribution System Operator (DSO) in the Demonstration, running competitive auctions to secure DERs in the Demonstration and subsequently activate them for energy or deploy them as reserves.

What are the benefits?

New Revenue Opportunity

Participants earn revenue from both a monthly availability payment (in return for agreeing to commit their energy capacity) and by participating in Local Energy Auctions and Local Reserve Auctions in the case of reserve-capable DERs, over the 6-month summer Commitment Period. In events of contingency, resources that are reserve-capable will be paid the local reserve payment if/when their reserve-capable DER is deployed. Participants that successfully complete test activations for energy and test deployments in the case of reserve-capable DERs, will be paid a test activation payment and/or test deployment payment as well.

Local Energy Auction

An easy-to-use online platform makes participating in the Demonstration seamless and easy. Participants can start setting up their Bids/Offers two weeks in advance of the commitment period and leave them as standing Bids/Offers or change them throughout the commitment period. An online dashboard will enable participants to track their settlement throughout the commitment period.

Aging Technology Replaced with Clean Resources

With the rapid cost declines and deployment of DERs in recent years, using DERs as 'Non-Wires Alternatives (NWAs)' has the potential to be a cost-effective, reliable, and environmentally-sustainable solution to addressing system constraints and helping to defer the need for traditional wires infrastructure.

Who can participate?

The local market takes place within a designated Demonstration area of Southern York Region, Ontario, where electricity demand is forecasted to outpace system capability within the next 10 years. To participate, an organization must be an existing Alectra customer or aggregator of DERs within the <u>Demonstration Area</u>; have a valid Alectra meter; have a thermal resource, battery storage, or demand response capabilities (including commercial, industrial, institutional or residential); and a capacity ranging between 100 kW and 3,000 kW, with the ability to provide energy for up to four consecutive hours when activated or deployed (in the case of reserve-capable DERs). Contracted DERs will be activated or, if applicable, deployed to Deliver/Reduce Energy a maximum of ten (10) times during the Commitment Period.

What are the Requirements and Milestones?

Initial Registration Period	
Registration Window	Aug 25 – Sep 22, 2021
	Register the organization and DERs available for participation.
Registration Requirements	NEW! Reserve-Capable DERs: Eligible Direct DERs and Aggregator DERs may provide Reserve and participate as Reserve-Capable DER.
Local Capacity Auction	
Auction Deposit	Oct 6, 2021 Equal to \$2/kW multiplied by the eligible DER capacity.
Offer Window	Oct 20-21, 2021 Submit your capacity offer for each Eligible DER (Quantity offered cannot exceed eligible capacity. Price must stay within maximum capacity price).
Forward Period	
Contract Execution	Nov 3, 2021 – Nov 30, 2021 Return your signed contract by November 30th.
Supplemental Registration	Finalize registration of DER(s) by March 31, 2022. Full details required at this stage.
Bid/Offer Settings	You can start setting up your daily/hourly energy Bids/Offers as of April 14, 2022, in preparation for the Local Energy Auctions and Local Reserve Auctions starting on May 1, 2022.
Commitment Period, Local E	nergy Auction
Commitment Period	May 1 – Oct 31, 2022
Availability Window	12:00 – 21:00 EDT, Business Days
Notifications	 Standby Notice provided by 07:00 EDT Activation Notice provided no later than two (2) hours in advance of an Activation Reserve Notice to be issued no later than two (2) hours ahead of the first Reserve Hour
	 Deployment Notice provided 30 minutes before a Reserve Hour Test Standby Notice provided a day ahead of the
	 Test Activation day Test Activation Notice provided no later than two (2) hours ahead of the first Activation Hour of the Test Activation

How does the Local Energy Auction work?

Alectra, the acting DSO, will assess daily if a local or wholesale market energy requirement is likely to occur. If Alectra identifies a need, a Standby Notice will be issued no later than 7AM EDT, followed by an Activation Notice no later than 2 hours ahead of the activation hours.

What is Reserve in the Demonstration?

Local Reserve is stand-by power or demand reduction that can be called on with short notice (e.g. 30 minute notice in the Demonstration) to replace resources scheduled in the Local Energy Auction for energy that become unavailable as a result of an unexpected outage.

How does the Local Reserve work?

The platform will send out notification to *schedule* the reserve. Reserve will only be *deployed* in the event of a contingency (i.e., if a different participant that was supposed to provide energy service is no longer able to deliver).

How does Demand Response compare to Storage and Thermal resources?

Demand response participants will submit energy Bids identifying the price at which they are willing to reduce their energy usage. Storage resources and thermal resources will submit energy Offers identifying the price at which they are willing to deliver their energy.

Are there charges for failing to deliver on a Bid/Offer?

Participants that fail to meet their obligations under the Contract will be liable for non-performance charges which claw back payments they would have otherwise received by participating in the Demonstration.

Number of Activations or Reserve Deployments	A maximum of ten (10) events
Activation Length	Up to 4 hours
How Much Can I Earn?	Up to \$170,000/MW* for the duration of the Commitment Period, subject to local auction clearing prices.

*Estimate based on last year's capacity price of \$0.64/kW-day and assumes the max energy price of \$2/kWh, for 5 activation events of 4 hours each, and 1 test activation during the Commitment Period (May 1 to Oct 31, 2021). The estimate also assumes 5 reserve events, 2 reserve deployment events and 1 reserve test deployment. The estimate is for informational purposes and the earnings in the demonstration will depend on the results of the auctions and the performance of the DERs.

Where do I register?

Visit **YRDemo.com** to register today. Registration opens on August 25, 2021 and closes on September 22, 2021. You must register in order to participate in the Local Capacity Auction that takes place on Oct 20 & 21, 2021.

Participants that clear the Local Capacity Auction will be issued a contract by Nov 3, 2021 for participation in the associated Local Energy Auctions in the May 1 – Oct 31, 2022 Commitment Period.

Questions or comments?

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