Oakville Hydro Distributed Energy Resource (DER) Connection Cost Guidance

Purpose of This Guidance

This document provides customers a transparent overview of how cost estimates are calculated for their distributed energy resource (DER) projects. It outlines the key components and methodology used to determine expected costs, helping customers understand the factors that may impact their total project cost.

Oakville Hydro may revise the costs outlined in this document to reflect current project cost factors. As cost factors change, this guidance will be updated to ensure the information remains accurate and up to date.

Applicants seeking an estimate should note that the value provided may differ from the costs outlined in this guidance. Variations can occur due to project-specific factors, as each estimate is tailored to the unique circumstances for each project.

At project completion, actual costs will be reconciled against the estimate. Any difference between the estimated and actual costs will be reflected in the final project billing.

Historical Projects

Below is a record of previous projects, illustrating the differences between the cost estimates initially provided to customers and the actual costs upon project completion. In each case, costs were reconciled at project completion. Customers either received a refund or were required to pay any outstanding balance, depending on whether the actual cost was lower or higher than the original estimate. The build and energization durations shown in the table below reflect the combined construction activities required by both the customer and Oakville Hydro.

DER Group/kW Size Range	Project Nameplate Size	Project Type (Exporting/ Non-exporting)	Connection Cost Estimate ($)	Actual Connection Cost ($)	Variance %	Expansion Required (Y/N)	Transfer Trip Required (Y/N)	Build & Energization duration (Months)
Micro (<12kW)	10 kW	Exporting	$ 1,194	$ 894	-25%	N	N	2.5
	10 kW	Exporting	$ 1,194	$ 1,072	-10%	N	N	4
	10 kW	Exporting	$ 1,194	$ 872	-27%	N	N	2.5
	10 kW	Exporting	$ 1,194	$ 957	-20%	N	N	3
	10 kW	Exporting	$ 1,194	$ 711	-40%	N	N	1
Small (>12kW and ≤250kW)	50 kW	Exporting	$ 31,444	$ 21,768	-31%	N	N	2
	185 kW	Exporting	$ 39,422	$ 37,908	-4%	N	N	8

Other Cost Components

Below is a summary of other common cost items that may apply across different project categories. Actual costs will vary depending on project-specific requirements, site conditions, installation complexity, and customer preparedness.

No.	Cost item	Average ($) or Cost range per kW of the nameplate capacity ($/kW to $/kW)		Note on potentially high variability factors affecting the cost item
		Micro Project (≤12kW)*	Small Project (>12kW and ≤250kW)	
1	Administration & Design	$200 - $500	$500 - $2,000	Complexity of installation and customer knowledge
2	Metering	$200 - $500	$270 - $9,000	Material variability and complexity of installation
3	Commissioning	$0 - $300	$300 – 2,500	Customer preparedness and complexity of projects
4	SCADA	N/A	$0 - $25,000	Complexity and location of project
	Total Other Connection Cost	$400 - $1,300	$1,700-38,500	

* Costs could vary for Inverters with power control systems (PCS)

CIA Fee Schedule

For projects greater than 12kW, a simplified or full Connection Impact Assessment (CIA) is required. The eligibility criteria for a simplified CIA are outlined below.

Project Type	Fees (Plus HST)
Small Generation (Simplified CIA)*	$6,000
Small Generation (Full CIA)	$9,000
Mid & Large Generation (Full CIA)**	$17,000

* Simplified CIA cost qualification factors:

1. Total site capacity:
    a. Single-phase DER:
    >12kW and ≤30kW
    b. Three-phase DER:
    >12kW and ≤50kW for <15kV
    >12kW and ≤100kW for ≥15kV
2. PCS system with a nameplate rating >12kW and export rating ≤12kW
3. No upstream assessment or upgrade required
4. Feeder does not have a significant embedded generation impact on annual peak

** Generation size >1MW will require an additional CIA with the Transmitter (Hydro One) and projects >10MW will need an SIA with the IESO. Transmitter related costs will be added to the project should they meet criteria as prescribed by HONI and IESO. Please refer to the following links to review related costs not represented in this guidance document.

- HONI Connection Impact Assessment (CIA) Fees
- HONI Guidance Document: DER Project Connection Cost Information
- IESO System Impact Assessment (SIA) Connection Process