

Nameplate Rating (kW)	Avangrid	Central Hudson	Consolidated Edison	National Grid	Orange and Rockland
50 kW to 500 kW					
Sample Size	6	0	See Notes		11
Average \$	\$ 5,000	N/A		-	\$ 9,844
500 kW to 1 MW					
Sample Size	17	1	See Notes		13
Average \$	\$ 5,000	\$ 15,000		\$ 12,822	\$ 16,394
1 MW to 3 MW					
Sample Size	110	15	See Notes		60
Average \$	\$ 5,000	\$ 17,507		\$ 12,822	\$ 15,738
3 MW to 5 MW					
Sample Size	38	15	See Notes		20
Average \$	\$ 5,000	\$ 16,431		\$ 12,822	\$ 14,435

Notes

(1) Con Edison Distribution Engineering CESIR Cost Guidance (effective 10/1/2019) <https://www.coned.com/-/media/files/coned/documents/save-energy-money/using-private-generation/applying-for-interconnection/cesir-guidance.pdf?la=en>

(2) National Grid includes studies performed in 2018 and 2019, however these are not the reconciled costs nor size dependent. Projects below 500 kW will be on the lower end of the cost spectrum for the most part. However, there are many other factors that determine our estimate.

(3) Avangrid requires a flat \$5,000 study deposit at the time of interconnection request.

Disclaimer: This matrix is for general reference only and the specific entries may vary on a project by project basis. The utilities (collectively the Joint Utilities) have provided this information as a high-level indication of how current processes are structured, and as such developers may experience differences for individual projects.

Items Which Impact Study Costs	Avangrid	Central Hudson	Consolidated Edison	National Grid	Orange and Rockland
External Costs (Fixed Fee)					
Consultant lump sum fee	X	X		X	X
Studying multiple DERs on same circuit		X		X	X
Existing large (>50kW) individual or aggregate DER on circuit		X			X
Effective grounding analysis					X
Multiple DER/hybrid installation (behind a single PCC recloser)		X			X
ESS component		X			X
Internal Cost (Unitized Rate)					
Utility unitized cost based on average processing times for previous studies ¹	X	X	X	X	X
Internal Cost (Variable - Potential for additional costs on a project-by-project basis)					
Size of the subject DER			X	X	
UL1741 listed equipment		X	X	X	
Potential upstream substation protection requirements		X	X		
Area/distribution system EPS voltage level			X	X	
Feeder extension, reconductoring, or voltage upgrades ²	X	X	X	X	
DER saturation on feeder/substation relative to load	X	X	X	X	
ESS component		X	X	X	
Multiple DER/hybrid installation (behind a single PCC recloser)		X	X		
Load flow modeling, extract/development, and simulations	X	X	X	X	
Protection modeling and simulations		X	X	X	
Effective grounding analysis		X	X	X	
Recloser/regulator coordination			X	X	
Network equipment upgrade or reconfiguration	X		X		

Notes

- (1) May include costs for engineering (e.g., site visits), provision of data/feedback to external consultant, and putting all findings into CESIR template.
(2) May require review and potential scoping of extending feeder to unserved location, increasing feeder from single- to three-phase, or construction replacement due to complexity.

Disclaimer: This matrix is for general reference only and the specific entries may vary on a project by project basis. The utilities (collectively the Joint Utilities) have provided this information as a high-level indication of how current processes are structured, and as such developers may experience differences for individual projects.

Items Which Impact Study Costs	Avangrid	Central Hudson Gas & Electric	Consolidated Edison	National Grid	Orange and Rockland
External Costs (Fixed Fee)					
Consultant lump sum fee	X	X		X	X
Studying multiple DERs on same circuit	X	X		X	X
Existing large (>50kW) individual or aggregate DER on circuit	X	X		X	X
ESS component	X	X		X	X
Internal Cost (Estimate)					
Hourly rate including overheads based on average processing times for previous studies		X	X	X	
General (meetings, project coordination, site visits)		X	X	X	
Includes providing data and review/feedback to consultant		X		X	
Additional time and/or department resources may impact costs based on					
Size of the subject DER			X		
UL1741 listed equipment		X	X		
Potential upstream substation protection requirements		X			
Area/ Distribution System EPS voltage level			X	X	
Feeder extension or upgrade potential		X	X		
DER saturation on feeder/substation relative to load		X	X	X	
ESS component		X	X	X	
Load flow modeling, extract/development, and simulations		X	X		
Protection modeling and simulations				X	
Volume of studies (may impact resource deliverables)		X	X		
Effective grounding analysis		X		X	
Recloser/regulator analysis			X	X	
Feeder upgrade or extension			X		
Network Equipment upgrade or reconfiguration			X		
Other issues in common					

Disclaimer: The statements and cost approximations provided in this document are for general reference only and may change on a project by project basis. The members of the Joint Utilities are not held to the values given or study procedures outlined in this document and, therefore, developers may see differences in individual projects.

Utility	Average CESIR cost and standard deviation
Central Hudson	See Next Slide
Con Edison	https://www.coned.com/-/media/files/coned/documents/save-energy-money/using-private-generation/applying-for-interconnection/cesir-guidance.pdf?la=en
National Grid	\$12,500 +/- \$3,500
NYSEG/RG&E	\$5,000 +/- \$0
O&R	\$17,250 +/- \$6,375

Central Hudson	Average CESIR cost and standard deviation
50 kW to 500 kW	N/A
500 kW to 1 MW	\$15,000 +/- \$0
1 MW to 3 MW	\$17,507 +/- \$569
3 MW to 5 MW	\$16,431 +/- \$914