

General Categories of Layers Requested for the AREA-Atlas

The following table categorizes the types of Renewable Energy and Renewable Energy-related data we are collecting for the Arctic Renewable Energy Atlas (AREA). We are interested in collecting data for various spatial resolutions and for any geographic extent that falls within the general Arctic region, however, the following categories are not broken out by such.

Biomass	Soft Wood Products						
	Hard Wood Products						
	Wood Trimmings						
	Crop Residue						
	Solid Waste						
	Landfil Gas and Biogas						
	Ethanol						
	Biodiesel						
	Biomethane						
	Biopower Plants						
	Biorefineries						
	Algea						
Geothermal	Geology						
	Volcanoes						
	Geothermal Heat Flow						
	Thermal Conductivity						
	Borehole Temperature Observations (Temperature at Depth)						
	Deep EGS						
	Shallow EGS						
	Wells and Springs						
	Hydrothermal Areas						
	GHP-related Data						
	Existing Plants						
	Developing Plants						
Permitting/ Land Ownership							
MHK		Annual	Monthly	Hourly			
	Tidal Current Speed						
	Tidal Power Density						
	Ocean Current Power Density						
	Ocean Current Speed						
	Wave Power Density						
	Significant Wave Height						
	Wave Energy Period						
	Hindcast Wave Direction						
	Ocean Depth						
	Bathymetry						
	Instream River Potential						
	Existing Hydroelectric Sites						
Wind		Onshore			Offshore		
	Wind Farm Sites						
		80m	100m	Other	80m	100m	Other
	Wind Speed						
Wind Power Class/Power Density							
Solar		Annual	Monthly	Hourly			
	GHI						
	DNI						
	DHI						
	Lat Tilt						
TMY Data							
Transportation	Fueling Stations (by Fuel Type)						
	Vehicle Density						
Power Network	Transmission Lines						

Power Network	Substations		
Generation, Market, & Demand	Fuel Cost (\$)		
	Fuel Usage (liters)		
	Peak Load Demand		
	Avg. Power Usage		
	Total Generation Per Resource		
	Generation infrastructure		
Ancillary Meteorological Data		Annual	Monthly
	Air Temperature		
	Atmospheric Pressure		
	Cooling Degree Days		
	Heating Degree Days		
	Earth Skin Temperature		
	Relative Humidity		
Exclusion Layers	Rivers		
	Lakes		
	DEM/Topography		
	Protected Lands		
	National Parks		
	Glaciers		
	Sea Ice		