SCE's

Distributed Energy Resource Interconnection Map (DERiM) Southern California Edison's Distributed Energy Resource Interconnection Map aims to connect developers with the SCE system data needed to enable strategic distributed energy resource siting.

The following attributes can be found in DERiM at various levels:

Existing Generation (MW)

This value represents the amount of generating resources currently connected to the SCE system. The existing generation attribute includes all downstream resources. For example, the existing generation at the substation includes all existing generation connected to circuits downstream.

Queued Generation (MW)

This value represents the amount of generating resources currently requesting interconnection to the SCE system, but not yet online and operating. Queued Generation includes all downstream resources. For example, Queued Generation at a substation includes all Queued Generation connected to all circuits fed from that substation.

Total Generation (MW)

This value represents the sum of both Existing and Queued Generation. Total Generation includes all downstream resources. For example, Total Generation at a substation includes all Existing and Queued Generation connected to all circuits fed from that substation.

15% Penetration Capacity (Rule 21 Screen M; GIP Screen 6.5.2) (MW)

To satisfy Rule 21 Screen M, or GIP Screen 6.5.2, generation must not exceed a 15% penetration level. The 15% Penetration Capacity represents the amount of generation that could potentially satisfy Rule 21 Screen M or GIP Screen 6.5.2 requirements. This value does not imply or guarantee Fast Track eligibility or success.

Maximum Remaining Generation Capacity (MW)

This value represents the maximum amount of generation that the system may be capable of supporting within existing planning guidelines and criteria. The maximum remaining generation capacity often requires system upgrades to be fully realized.

Current Penetration Level (%)

This value represents the ratio of generating resources to peak load, expressed as a percentage. For example, if a circuit has a peak load of 10 MW, along with 4 MW of Total Generation (this includes existing and queued generation), the current penetration level is 40%.

Projected Load (MW)

This value represents the maximum forecasted load.

Integration Capacity, Generation (MW)

This value represents the amount of generation the system may be capable of supporting in its current configuration.

Integration Capacity, Load (MW)

This value represents the amount of load the system may be capable of supporting in its current configuration.



The following attributes can be found in SCE's Demo A and Demo B layers. All demo project files can be downloaded at http://on.sce.com/drpdemos.

DRP Demonstration Project A Definitions:

Distribution Planning Area (DPA)

The distribution planning area (DPA) is a subset of circuits and substations within SCE's service territory.

Customer Type Breakdown (Agricultural, Commercial, Industrial, Residential, Other)

These values represent the breakdown, in percentage, of different customer types.

Integration Capacity, Uniform Generation (MW)

This value represents the amount of certified inverter-based generation the system may be capable of supporting in its current configuration. For ICA results by limitation category, please refer to the project files at <u>http://on.sce.com/drpdemos</u>.

Integration Capacity, Uniform Load (MW)

This value represents the amount of load the system may be capable of supporting in its current configuration. For ICA results by limitation category, please refer to the project files at <u>http://on.sce.com/drpdemos</u>.

Integration Capacity, Typical PV System (MW)

This value represents the amount of certified inverter-based, fixed-axis solar photovoltaic generation the system may be capable of supporting in its current configuration. This value is derived from the uniform generation hourly profile in combination with typical PV system performance. Please refer to <u>SCE's ICA Translator</u> for a description of typical PV system performance.

DRP Demonstration Project B Definitions:

2025 DER Coincident Peak (MW)

This value represents the maximum distributed energy resource (DER) power output at the time of the circuit's peak demand.

LNBA Results Timeframe (Short-term, Mid-term, Long-term)

Short-term refers to SCE infrastructure projects with an expected operating date within 0-3 years. Mid-term refers to SCE infrastructure projects with an expected operating date within 3-5 years. Long-term refers to SCE infrastructure projects with an expected operating date within 5-10 years.

Grid Services

Various services necessary to provide safe, reliable electric service to customers. Some examples include distribution capacity and voltage support.

DER Growth Scenario, Planning

The DER growth scenario as used in SCE's distribution planning process.

DER Growth Scenario, Very High

DER growth scenario 3, as developed for SCE's 2015 Distribution Resource Plan (DRP) filing.

Disclaimer:

Integration Capacity values do not imply or guarantee that no distribution upgrades will be required. While Southern California Edison makes every effort to ensure the accuracy of DERiM, the data provided is for information only. Southern California Edison makes no guarantee, expressly or implied, for the outcome of an interconnection request.



Exporting DERiM using ESRI Open Data

1. Open a web browser and go to: http://on.sce.com/derim



- 2. Click the "Info" icon
- 3. Click "More Details..."





Exporting DERiM using ESRI Open Data

4. Click "Export DERiM using ESRI Open Data"

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DERiM Web Map Overview		
Southern California Edison's Distributed Energy Resource Interconnection Map by derimapp Last Modified: August 15, 2016	Open in Map Viewer Open in ArcGIS for Desktop	
Description	Details **** 5 ratings, 18,229 views Created: June 22, 2015 Size: 14 KB II	
Southern California Edison's Distributed Energy Resource Interconnection Map (DERiM) aims to connect developers with the SCE system data needed to enable strategic distributed energy resource siting.		
SCE is continually looking for ways to improve DERiM data and customer experience. Stay tuned for additional map content! DERiM User Guide	Owner	
Export DERiM using ESRI Open Data	Tags DERIM, SCE, Southern California	

- 5. Click the download icon for the layer you wish to export
- 6. Click the file format you would like to export. The file will begin downloading.





Generating Charts with the DERiM WebApp

To access the DERiM Web Application, open a web browser and go to: <u>http://on.sce.com/derimwebapp</u>. To view load profile charts for DPA's, substations, and circuits, select one of the three chart icons to launch the corresponding chart widget, as indicated in the figure below:

- 1. DPA Load Profiles
- 2. Substation Load Profiles
- 3. Circuit Load Profiles





Generating Charts with the DERiM WebApp

As an example, we have selected the chart widget for circuits:

<u></u>	DERiM Web Map	with Web AppBuilder for ArcGIS	
≣	+ Esri World Geo	coder Q Carson City Eldorado National Forest	2
\$	Rosa Napa Vac Fairfield A Concorde	Circuit Chart Click one of the following task items to execute chart.	×
	San c Francisco Fre	Alloy Aluminum	>
	COASTA	Aquifer Aurora	> N
	Sali	Begonia Billings	> De- Nat
		Bingo	>
	114	District	
		Clear	

This presents the user with an alphabetical list of circuits. For this example, we will select the Paige circuit.



Generating Charts with the DERiM WebApp

Simply clicking "Apply" in the top right will generate a dual line chart of the typical maximum load and minimum load. Hover over the data points to view actual values.



