

May 17, 2012

California Energy Commission
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DOCKET	
12-IEP-1D	
DATE	<u>MAY 17 2012</u>
RECD.	<u>MAY 17 2012</u>

Re: California Energy Commission Docket No. 12-IEP-1D Lead
Commissioner Workshop on Identifying & Prioritizing Geographic
Areas for Renewable Development in California

To Whom It May Concern:

On May 10th, 2012, the California Energy Commission (“Energy Commission”) held a Lead Commissioner Workshop on Identifying & Prioritizing Geographic Areas for Renewable Development in California (“the Workshop”). The Workshop was held as part of the Energy Commission’s 2012 Integrated Energy Policy Report Update (“2012 IEPR Update”) process. Southern California Edison (“SCE”) participated in the Workshop and appreciates the opportunity to provide these written comments. The Workshop participants expressed many divergent views on priorities for identifying geographic areas for renewable development. While SCE agrees that use of disturbed or degraded land, soil productivity or other environmental criteria should be included as considerations, the paramount criterion for identifying preferred geographic areas for renewable development should be the ability of the transmission and distribution system to accommodate the additional generation. Locating a project in constrained areas will increase the complexity of the interconnection process. Thus, SCE recommends that the geographic targets being developed by the Energy Commission take these system constraints into account as a primary consideration. These issues are discussed in more detail below. Responses to the questions for Workshop Panel 1 are included as Attachment 1.

I. Transmission Capacity Should Be the Primary Criterion for Renewable Development

Of all the California utility service territories, the SCE service territory has the largest amount of renewable resources. In recent years, SCE has experienced a large influx of renewable projects, with a high percentage requesting interconnection in rural areas. Current interconnection queues reflect the fact that the amount of renewable generation waiting to

interconnect to the grid exceeds expected demand in California, and far exceeds the grid's capacity to handle this generation. As a result, SCE's rural transmission system is constrained (see Figure 1 below). No available capacity exists for project interconnection in these rural areas. Any additional generation will trigger network upgrades.

On an electric transmission system, the lack of available transmission capacity is a physical limitation that cannot be disregarded or operability and system reliability will suffer. Several network upgrade projects are planned that will make room for additional renewable generation but will take several years to complete. Moreover, the average time for the design, siting, permitting and constructing a typical transmission project is 7-10 years. Renewable development projects in the constrained areas can only be completed after the planned upgrades and therefore the interconnection will consequently be delayed.

Beyond the areas of available capacity, other priority areas (e.g., disturbed land) can be superimposed over the system constraints map to identify "preferred" areas for development. The Planning Alternative Corridors for Transmission ("PACT") project developed an interactive web-based tool which can assemble and overlay map layers that identify various attribute areas. This tool may prove useful in identifying preferred renewable development areas. A description of the tool is included in [Attachment 2](#).

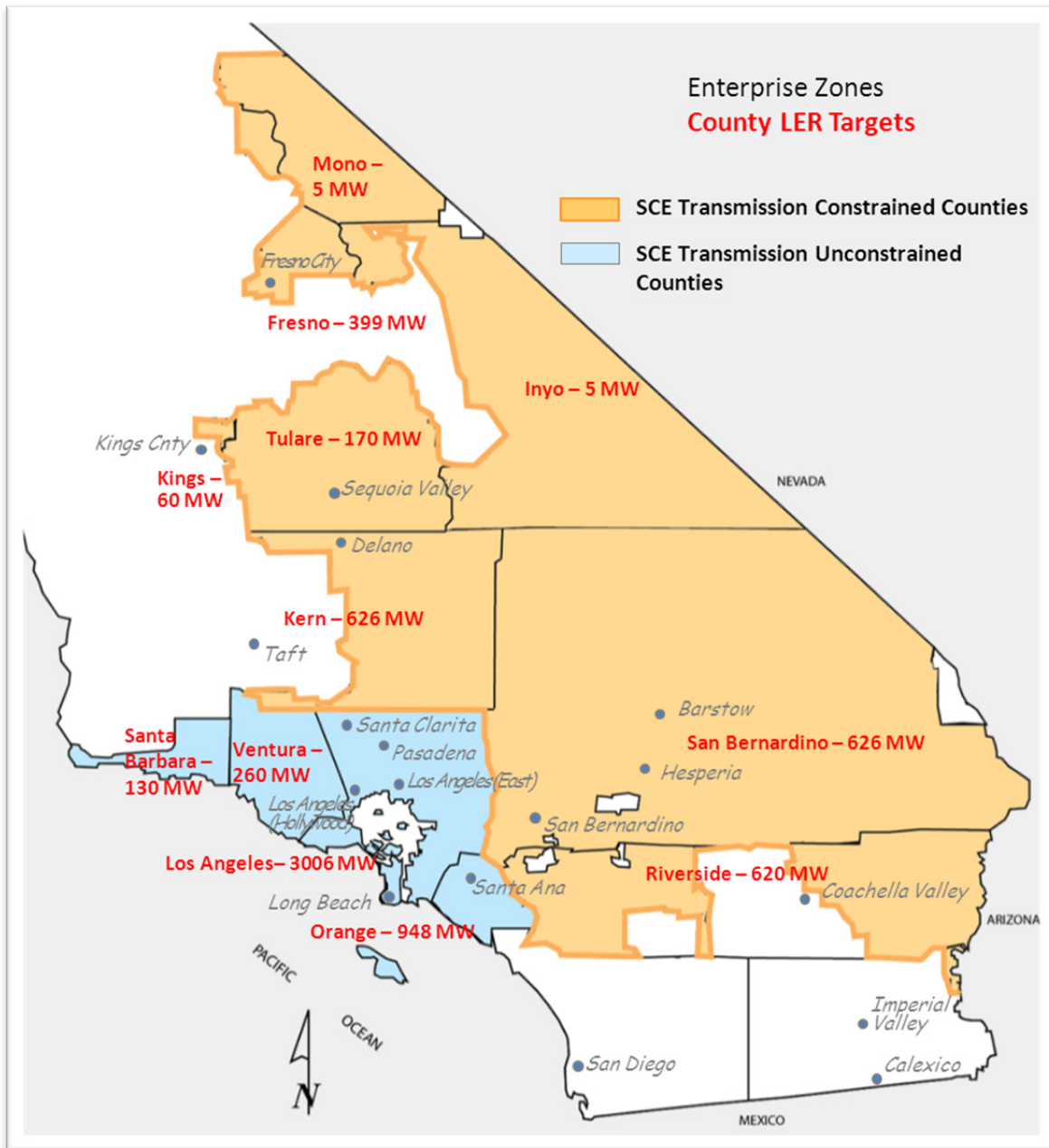


Figure 1 – SCE Territory with Proposed Targets for Localized Renewable Resources

II. Proposed County Targets for Transmission Constrained Areas Should be Adjusted

As illustrated on Figure 1 above, the Energy Commission's proposed county targets are in some of SCE's transmission constrained areas. Without the necessary transmission upgrades, implementing the targets by 2020 would be difficult. SCE recommends modifying the target methodology by accounting for the constrained transmission areas. This could include shifting

portions of the county targets away from constrained transmission areas into areas that could handle additional generation, such as preferred areas in Los Angeles and Orange County or by adjusting the timeline beyond 2020, when sufficient transmission capacity is built-out and available or reducing the target.

As always, SCE appreciates the opportunity to submit its comments. Feel free to contact me at (916) 411-2369 regarding any questions or concerns you may have.

Sincerely,

/s/ Manuel Alvarez

Manuel Alvarez, Manager
Regulatory Policy and Affairs
Southern California Edison Company

Attachment 1

Panel 1 Questions

1. From your perspective, what are the specific preferred site characteristics for the three categories and which are the highest priority? Are the three categories mutually exclusive?

The specific preferred site characteristics for interconnection include urban areas such as Los Angeles, Orange, Ventura. SCE interconnection maps should be utilized to site renewable resources in preferred project locations. The amount of generation should be evenly distributed among the identified substations and circuits. The amount of generation on a circuit should be focused on “Fast Track” project requirements to the extent possible. Generation projects selected should include adequate telemetry.

2. What data sets, information, and resources currently exist that could be useful in identifying geographic areas with preferred site characteristics? What additional data sets, information, and resources will be needed?

SCE’s interconnection map identifies:

- Areas where transmission constraints exist;
- Areas where “Available Capacity” currently exists;
- Information on “max capacity” at circuit, substation and subtransmission levels;
- Provide general circuit and substation service areas.

With an adequate level of analysis, developers can determine project sites which would not require significant transmission investment, which have a higher probability of meeting “Fast Track” requirements, and/or which may have the ability to have their project studied independently. Likewise, with proper analysis, developers can determine locations that may have lower interconnection and distribution costs.

3. Transparent, publicly available data are needed for state and local governments, utilities, and other stakeholders to make informed, integrated energy planning decisions about priority areas. What are the barriers to making needed data sets more transparent and publicly available?

SCE’s maps have shown that, with the correct level of analysis by the developers, it is possible to site LER projects at appropriate locations within SCE territory.

Interconnection applicants generally require information about circuit minimum load. This data is frequently not available due to the following issues:

- The telemetry system is not available for all line sections (as defined in Rule 21);
- An engineering assessment is required to accurately determine minimum load.

Additionally, interconnection applicants will typically request certainty with respect to upgrade costs and construction time. These requests are difficult to accommodate for the following reasons:

- Costs of each interconnection project are uncertain.
- Cost predictions become more accurate once the engineering studies have been completed.

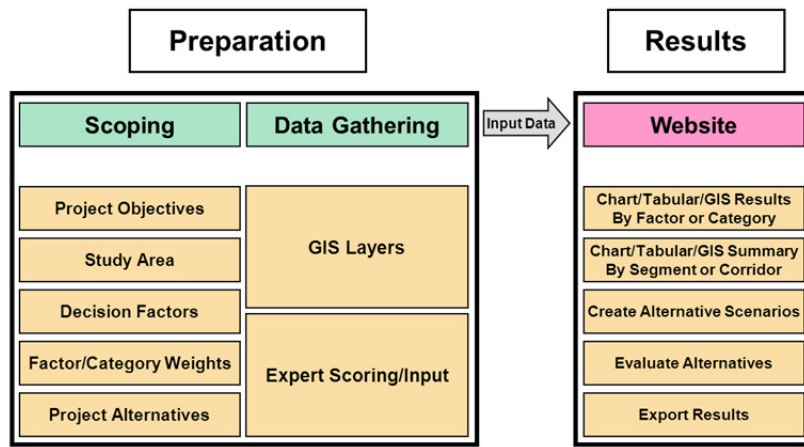
Updates to the Rule 21 tariff have been proposed to provide timelines for the study process for projects interconnecting under Rule 21. Study timelines already exist for projects interconnecting under the WDAT tariff.

4. How can more transparent publicly available data be used in the future to better inform an integrated energy planning process?

SCE plans to continue to update the interconnection maps to reflect the changes in proposed generation projects in order to continue to guide developers to the most appropriate areas within the distribution system as generation penetration increases. SCE will also publish the Rule 21 generation data as proposed in the Rule 21 update and integrate the data from the Wholesale Distribution Access Tariff (“WDAT”) queue with data from Rule 21 as an “integrated set of data.”

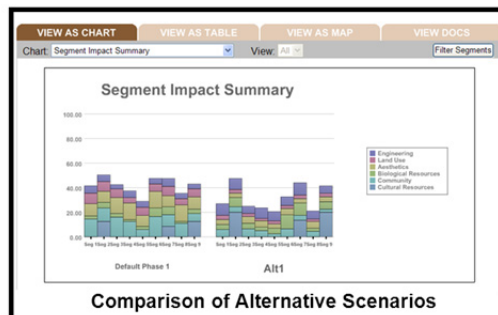
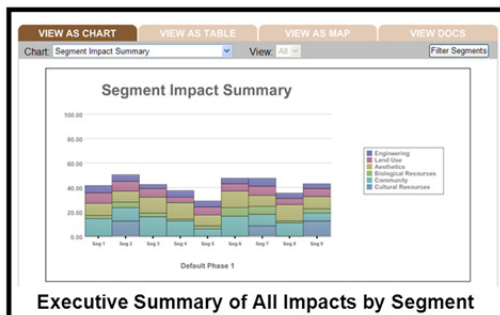
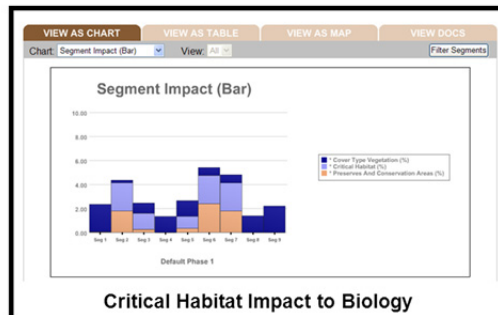
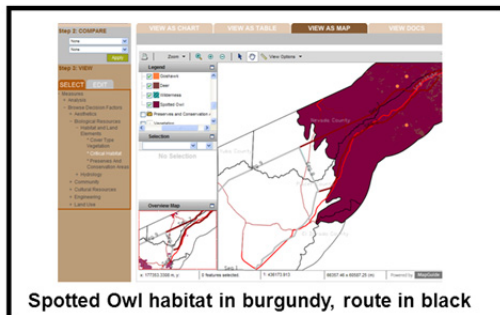
Attachment 2

The Planning Alternative Corridors for Transmission (PACT) Model can perform scenarios for analysis of routing alternatives



The PACT model is a decision support model for siting transmission facilities that incorporates environmental and engineering analysis and multiple stakeholder values

Illustration: From One Factor to Summary Impacts From One Scenario to Scenario Comparisons



PIER Final Report for the PACT Project:

<http://www.energy.ca.gov/2009publications/CEC-500-2009-079/CEC-500-2009-079.PDF>