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Docket Number:	19-ERDD-01
Project Title:	Research Idea Exchange
TN #:	231340
Document Title:	Southern California Edison Company Comments - SCE Comments on EPIC Solicitation Workshop Re Climate Scenarios and Analyses
Description:	N/A
Filer:	System
Organization:	Southern California Edison Company
Submitter Role:	Public
Submission Date:	12/30/2019 11:16:11 AM
Docketed Date:	12/30/2019

Comment Received From: Southern California Edison Company
Submitted On: 12/30/2019
Docket Number: 19-ERDD-01

SCE Comments on EPIC Solicitation Workshop Re Climate Scenarios and Analyses

See attached.

Additional submitted attachment is included below.

California Energy Commission
Docket Office, MS-4
Re: Docket No. 19-ERDD-01
1516 Ninth Street
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December 30, 2019

Re: Southern California Edison Company Comments on Staff Workshop on Forthcoming Solicitation Regarding Climate Scenarios & Analyses to Support Electricity Sector Vulnerability Assessment and Resilient Planning, Docket No. 19-ERDD-01

Dear Commissioners,

Southern California Edison Company (SCE) appreciates the opportunity to provide input into the forthcoming Electric Program Investment Charge (EPIC) Grant Funding Opportunity (solicitation). SCE addresses below questions raised at the California Energy Commission's (CEC's) Staff Workshop on Forthcoming Solicitation Regarding Climate Scenarios and Analyses (Workshop) held on December 16, 2019 at the CEC's headquarters in Sacramento.

1. Scope of Solicitation Should Include Priority Climate Impacts and Probabilistic Interpretations of Projections Relevant to Utilities, Among Other Considerations

Regarding Question No. 3, SCE recommends considering background natural climate variability when developing criteria or metrics for evaluating proposed downscaling methods. The evaluation should also consider the highest possible temporal and spatial resolution.

In response to Question No. 4, SCE thinks that the goal and considerations to generate priority projections should be based on the identification of priority climate impacts. SCE recommends that model and priority selection include projected climate-driven changes to durations, and intensities (up to forecasted extremes). As an example, SCE is interested in wind-related durations and forecasted extremes. There should also be a process to convert and translate spatial and local downscaling of models for various hazards, in order to guide planners and engineers to perform appropriate planning and infrastructure design and compare any changes to current criteria and guidelines. The preferential model selection may also consider:

- Developing metrics for extreme events to determine which models provide the fullest range of options and should be prioritized. The definition of these metrics should be tailored to the needs of end-users such as utilities.
- Providing guidance and further study of less probable and/or complex extreme events, including interacting or cascading events.
- Providing guidance on incorporating policy scenarios in risk assessments. For example, policy scenarios could integrate management decisions into vegetation modeling to drive future wildfire projections.

- Providing guidance on characterizing model uncertainty in order to enable robust decision-making.

SCE recommends that the solicitation, in response to Question No. 6, reflect certain considerations about the quasi-probabilistic interpretation of projections and indicators of uncertainty. These considerations include:

- How climate data indicators of uncertainty may change with different planning horizons (e.g., 2030 versus 2040 versus 2050).
- Understanding which climate events could or should be evaluated using probabilistic data, such as in a 1-in-10 versus 1-in-100 versus 1-in-500 event.
 - Using the projected climate impacts with appropriate probabilistic estimates will help utility planners understand how these compare with current industry standards and the criteria employed to design new infrastructure.
- Guidance on capturing extreme events (e.g., tail distributions). This is especially difficult for compounding events, such as subsidence.
- Guidance on conducting an appropriate level of vulnerability assessment of existing infrastructure, considering remaining infrastructure design-life and model or projection uncertainty.

II. Solicitation Should Additionally Address Historically Validated Projections for Land Use Changes and Acknowledge an Iterative Approach to Adaptation

SCE encourages the use of historically validated projections, in response to Question No. 7, and notes that such projections may provide insightful knowledge on validating and informing climate projections. For example, greater consideration of land use, including historical changes in land use, will improve projections in urban areas that may experience urban heat islands.

Regarding ways to harmonize and integrate top-down and bottom-up approaches in Question No. 8, SCE recommends making both processes iterative. For instance, as more accurate global emissions projections and climate scenarios are developed, utilities can update their vulnerability assessments with new information. Bottom-up approaches can also help inform the development of criteria used to select climate information in adaptation. The criteria will give greater flexibility to utilities while also creating some standardization of assumptions.

III. Conclusion

SCE appreciates the CEC's consideration of the comments above on the EPIC workshop.