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On Draft Scoping Order for the 2020 IEPR Update

Additional submitted attachment is included below.

**STATE OF CALIFORNIA
BEFORE THE CALIFORNIA ENERGY COMMISSION**

In the matter of:)	Docket No. 20-IEPR-01
)	
Draft Scoping Order for the 2020 Integrated Energy Policy Report Update)	SMUD Comments Re: Draft Scoping Order for the 2020 Integrated Energy Policy Report Update
)	
)	January 31, 2020
)	

**Comments of SACRAMENTO MUNICIPAL UTILITIES DISTRICT on
Draft Scoping Order for the 2020 Integrated Energy Policy Report Update**

The Sacramento Municipal Utility District (SMUD) respectfully submits these comments to the California Energy Commission (CEC) regarding the proposed *Draft Scoping Order for the 2020 Integrated Energy Policy Report Update* (“Draft Scoping Order”). The Draft Scoping Order fulfills the requirement of SB 1389 (Bowen and Sher, Chapter 568, Statutes of 2002), directing the CEC to “conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices.” This shall be used to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety (Pub. Res. Code § 25301(a)).

SMUD strongly supports the State’s efforts to reduce greenhouse gas emissions (GHG), promote transportation and building electrification, and increase the development of renewable resources. We recognize the challenge for California policymakers to manage an energy sector that is shifting away from oil and natural gas and moving to a sustainable future with renewable energy resources and alternative transportation vehicles.

SMUD appreciates the thoughtful approach CEC staff has taken on the proposed scope and general schedule for the 2020 IEPR Update. Our comments and proposed solutions are provided herein.

Transportation

SMUD supports the Draft Scoping Order’s focus on transportation, the largest source of GHG emissions in the state. Accelerating the deployment of zero and near-zero emission vehicles is vital to ensure that the transportation sector contributes its fair share towards carbon neutrality by 2045. In addition to the scope that includes analyses of large vehicles, SMUD recommends that any evaluation on transportation trends should also consider public transit options for decarbonizing transportation.

In addition, SMUD urges the CEC to coordinate efforts with the California Air Resources Board (CARB) and the energy community to ensure that compliance requirements and the implementation of regulatory policies related to transportation do not occur all at once. A significant amount of codes and standards work such as proprietary communication (e.g., some automakers currently limit data streams that go to vehicles), will need to be addressed to support and sustain expanded transportation electrification. The deployment of new regulations should be suitably scheduled and adequately staggered to allow adequate time for utilities and other stakeholders to prepare for compliance. For example, compliance obligation dates should be staggered so as not to land on the same year. This is particularly important with so many ongoing, parallel proceedings.

SMUD further notes that workforce training over the next ten years will be vital to achieve California's transportation electrification goals. Our state's ambitious targets will require adequate skilled labor pools in various fields like manufacturing, design (for both vehicle and infrastructure), construction, electrical, mechanical, and grid-engineering. For example, EV-qualified mechanics, licensed electricians and electrical engineers will be in high demand to guarantee supporting structures are in place for large scale EV deployment. Since it can take years to train people in these trades and professions, the CEC should determine now what job training needs and timelines may be required later. Resources to support workforce training must be proactively identified so that human resources are available to support the desired market growth.

Additionally, workforce development will also be needed to transition to the upcoming 3 Revolutions and automation in the transportation sector. Skillsets in coding and information technology specific to vehicle platforms and automated transportation is a "must" to support the industry growth already occurring in California.

Policies that support vocational training programs funded by Low Carbon Fuel Standard (LCFS) equity revenue may help to address workforce limitations. The AB 32 Cap-and-Trade program may also afford an additional funding stream for vocational training programs--by building in additional flexibility in the Cap-and-Trade Regulations for the use of allowance proceeds (e.g., monies generated from the sale of allowances) for workforce training.

Electricity and Natural Gas Demand Forecast

SMUD strongly encourages staff's continued engagement with utility experts and other stakeholders as the CEC develops its electricity and natural gas forecasts. This ongoing coordination, particularly for photovoltaics (PVs) and battery storage adoption, is important to ensure updated and accurate projections for long term planning purposes. Alignment among the utilities' own studies and the CEC-developed adoption forecasts should include a consistent methodology, modeling approach, data inputs and assumptions, and interpretation of modeling output, to ensure an apple-to-apple comparison.

Additional questions that should be considered in electricity and natural gas demand forecast in the Draft Scoping Order might include:

- a) Impacts of accelerated transportation electrification;
- b) Effects of accelerated transition from buildings with natural gas to electricity;
- c) Future state requirements for fuel-switching policies for water and space heating.

Microgrids

The scope of the CEC's proposed assessment of microgrids may be too narrowly focused. While SMUD agrees that microgrids could play a valuable role in providing grid resiliency during short-term outages and Public Safety Power Shutoff (PSPS) events, we encourage staff to expand its assessment of microgrids beyond the PSPS benefits.

In determining policy recommendations on how microgrids can best be used to increase grid reliability, SMUD recommends that the CEC work in conjunction with the California Public Utilities Commission (CPUC). In order to avoid policy conflicts, it is vital to be cognizant of the relationship of microgrids to other proceedings and the work being done by other agencies. For example, the CEC should consider the requirements outlined in the SB 1339 microgrid proceeding (Track 1 of SB 1339 focuses on resiliency). SB 1339 tasks the CPUC with developing regulations, standards, and guidelines by December 1, 2020, to facilitate the commercialization of microgrids for customers of large electric utilities.

SMUD also recommends that the assessment of microgrids consider factors in addition to resiliency in order to address grid outages. Studies would be incomplete without delving into the economic and renewable energy drivers of microgrid development—the magnitude of these impacts are presently unknown and should be addressed in the Draft Scoping Order Update. For example, evaluations of microgrids for grid reliability should include the costs and cost effectiveness relative to value. PSPS events, while disruptive and should rightfully be addressed, are of relatively short duration (hours or days) in comparison to the total operating days in any given year.

With the eventual reduction of PSPS events over time, it is important that current evaluations of the cost effectiveness of microgrids safeguard against:

- 1) cost-shifting to non-participating customers (an explicit focus of SB 1339); and,
- 2) avoid the potential for stranded assets.

Vehicle to Building / Home Energy Transfer

During and after the 2019 PSPS events, the purchase and use of home-based gasoline generator sets increased as individuals in affected areas sought to meet their own electricity needs while the grid was down. This has resulted in growing interest in use of battery electric vehicles (instead of gasoline generators) as microgrid electricity assets for backup power during shutoffs.

Recent technology introduced at the Consumer Electronics Show could make vehicle-based energy storage more competitive than standalone battery energy storage in environments like single family homes.

This interest in vehicle-to-home technology could help accelerate the development and deployment of vehicle-based technologies, which may result in additional grid benefits like overcoming EV-related grid impacts and vehicle grid integration. The CEC should evaluate whether electric vehicle-based energy storage has benefits under these types of PSPS applications, and whether it makes sense to promote these applications under certain circumstances.

Conclusion

As California moves towards a zero-carbon future, coordination between utilities and regulators becomes ever more important. The successful integration of transportation electrification, accurate electricity and natural gas demand forecasts, and microgrids to ensure grid resiliency will depend upon continued collaboration among regulatory bodies in order to avoid policy conflicts and public confusion. With potential plans for full building electrification, state enforcement of building standards and permit compliance at the local jurisdictional level will also become increasingly relevant.

As always, SMUD appreciates the opportunity to provide comments on the Draft Scoping Order for the 2020 Integrated Energy Policy Report Update.

/s/

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cc: Corporate Files (LEG 2020-0022)