

California Energy Commission

Re: Docket No. 13-IEP-1A



Clean Coalition Comments on the Draft 2013 IEPR Scoping Order

January 24, 2013

The Clean Coalition is a California-based nonprofit organization whose mission is to accelerate the transition to local energy systems through innovative policies and programs that deliver cost-effective renewable energy, strengthen local economies, foster environmental sustainability, and enhance energy security. To achieve this mission, the Clean Coalition promotes proven best practices, including the vigorous expansion of Wholesale Distributed Generation (WDG) connected to the distribution grid and serving local load. The Clean Coalition drives policy innovation to remove major barriers to the procurement, interconnection, and financing of WDG projects and supports complementary Intelligent Grid (IG) market solutions such as demand response, energy storage, forecasting, and communications.

We submit the following comments on the proposed scoping of the 2013 IEPR and look forward to continued participation throughout the upcoming year. Thank you for the opportunity to contribute to this important report.

General Comments

A strong emphasis is placed on the impacts of climate change in the scoping, which the Clean Coalition wholly supports. This important topic not only deserves its own workshop, but should also be addressed as a critical component within several topics covered by the IEPR. Climate change will affect both energy demand - as temperature swings become more extreme and unpredictable, and supply – as

reduced snow pack impacts hydroelectric availability and generation plants and transmission line operational efficiency is reduced by heat effects and threatened by increased frequency and intensity of storms and fires. The value of resilience in the energy system will increase correspondingly and should be made a top priority at the Energy Commission and specifically within the IEPR.

Throughout the IEPR study process, non-traditional alternatives should be actively considered alongside the usual options, whether in regard to transmission, peak power reduction, generation, or financing. As an Intelligent Grid (IG) develops and evolves, the options available to the individual as well as the utilities multiply greatly. Effective solutions are available for many of the problems currently faced by our centralized, fossil-fuel based system through the creation of an Intelligent Grid that integrates high penetrations of distributed generation with technologies such as advanced inverters, automated demand response, storage, and grid integrated electric vehicles. Big changes are coming, due to climate and economics, and the only way for government policy to actively direct that change is to stay at the forefront. It is essential that California establish the forward-looking policies and regulatory environment that drive evolution of our energy systems and create opportunities for new solutions to be employed.

Demand Response

The current scope for the demand response section of the IEPR includes the following:

“Analysis of technical, economic, and market barriers to the use of demand response, which can reduce peak energy demand and support the integration of renewable resources.”

The Clean Coalition suggests that consideration of policy also be included in this statement, as current policy can create barriers to otherwise feasible demand response solutions. Specifically, Automated Demand Response (ADR), including residential ADR and targetable aggregated control, should be explicitly considered and driven forward by policy. When combined with distributed generation, ADR can provide balancing at the local level and also contribute toward meeting Local Capacity Requirements (LCR). By locally managing much of the necessary energy balancing, less variability is passed upstream from substations. This simplifies both local and transmission-level balancing and reduces the need for inefficient ramping and curtailment, while mitigating locally variable supply and demand fluctuations.

Renewables

Only two sub-topics are listed for consideration in the renewables workshop section, and both concern bioenergy. While these are important topics, the Clean Coalition recommends that the next key policy issues for each renewable technology be explicitly included in the scoping. To the extent possible, the full spectrum of topics to cover in each workshop should be laid out in advance and we suggest the following two be added to the renewables scoping section.

- Installation of solar PV lags behind the level of interest and economic potential due to policy, procurement, and interconnection practices that have failed to extend successful Net Energy Metering procedures to provide wholesale energy to the same distribution circuits. Continued improvement in interconnection transparency and simplification are needed, as is the proliferation and expansion of Clean Local Energy Accessible Now (CLEAN) procurement programs.
- Federal subsidies have greatly assisted California's wind market in the past, but the lack of reliability and possible phase-out of these subsidies compel other solutions. The IEPR should address possible state-managed solutions. These might include expanding procurement options for distributed wind generation, an economic analysis of the value of sourcing energy from within California, or taking advantage of the natural pairing of wind and storage.

Electricity

The scoping calls for the *"Initiation of an evaluation of electricity system needs in 2030 to provide a foundation for potential interim 2030 RPS targets as California moves toward its 2050 greenhouse gas emission reduction goals."* We very strongly support the Commission in addressing the increasingly urgent need for long term RPS trajectory planning. The failure to establish clear goals beyond 2020 greatly hinders all planning and procurement beyond this rapidly approaching date. We also wish to highlight that this is an ideal topic within which to discuss Intelligent Grid technologies that will be available and how they can radically change the type of electricity system we envision and plan for. The Clean Coalition is pleased to see the inclusion of this initiative and looks forward to providing our expertise and input in support of it as a key component of the 2013 IEPR.

The state's loading order will affect the future design of our energy system, and should therefore be included in the 2013 IEPR study process. Two specific changes are recommended by the Clean Coalition: the explicit inclusion of Wholesale DG (WDG) and energy storage. The addition of storage to the loading

order has recently been proposed in LTPP proceedings. WDG has historically been combined with either retail DG or large-scale renewables in loading order considerations. Neither is appropriate, as WDG has distinct characteristics that, when properly sited, should be preferred above transmission-dependent central station resources. Consideration of locational costs and benefits is vital to proper prioritization and evaluation of alternatives, and additional attention to locational value is sorely needed.

Particular attention should be given to review of cost allocation policies related to transmission deliverability impacts where loads are permanently assigned to transmission-dependent generation of the lowest loading order. Current policies prohibit preferred local resources from serving local loads without paying for, and waiting for, the development of new, costly, and unnecessary transmission facilities to deliver the now redundant legacy generation to alternate loads. The interaction of multiple jurisdictional policies and contractual obligations giving rise to this issue is complex, and requires CEC-level coordination for effective resolution.

In recommendations for the Strategic Transmission Investment Plan, proactive consideration of non-transmission alternatives (NTA) should be included. NTA consideration should not be limited to evaluation of proposed projects. Rather, the regulatory agencies should proactively develop and evaluate NTAs at the programmatic level (such as procurement of locationally targeted energy efficiency and demand response). The increasing ability to provide ancillary services to the grid through aggregated local resources, including use of coordinated Intelligent Grid management, advanced inverter functionalities, and ADR, creates new non-transmission alternatives. Falling renewable costs, which are already included as an area of focus under the electricity section of this IEPR, and current externalities that should be internalized in cost projections, mean many non-traditional energy options are now both available and more cost effective, especially when the marginal levelized cost of such alternatives is considered.

Research, Development, and Demonstration

As in the renewables scoping section, we propose the inclusion of additional topics in this workshop, beyond the geothermal technology mentioned. We recommend a comprehensive workshop including Intelligent Grid technologies such as advanced inverters, telemetry advancements, and storage solutions. In addition, proposals for more IG demonstration projects in the state, and inclusion of lessons learned from them elsewhere, should be addressed.

With the rapid growth of small-scale, distributed generation systems, visibility of those systems to the grid operators will become increasingly critical. The IEPR should examine which telemetry policies need to be updated, both at the CAISO and within interconnection rules, to incorporate the latest communication technologies without unduly burdening the developer or owner of the generation systems.

Finally, the RD&D section of the 2013 IEPR should continue the exploration into advanced forecasting and grid modeling tools to enable not only high penetrations of DG, but also allow for automation of the study process for interconnection to the distribution grid.

Thank you for the opportunity to comment and for your continued commitment to real energy innovation in California,

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