

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Develop an  
Electricity Integrated Resource Planning  
Framework and to Coordinate and Refine  
Long-Term Procurement Planning  
Requirements.

Rulemaking 16-02-007  
(Filed February 11, 2016)

**CLEAN COALITION COMMENTS ON THE STAFF PROPOSAL FOR  
IMPLEMENTING INTEGRATED RESOURCE PLANNING**

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June 28, 2017

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**I. INTRODUCTION**

Pursuant to the May 16, 2017 *Administrative Law Judge’s Ruling Seeking Comment on Staff proposal on Process for Integrated Resource Planning* (“ALJ Ruling”) and the June 13, 2017 *Administrative Law Judge’s Ruling Modifying Schedule*, the Clean Coalition submits these comments on the *Proposal for Implementing Integrated Resource Planning at the CPUC: An Energy Division Staff Proposal* (“Staff Proposal”).

The Clean Coalition applauds the work of California Public Utilities Commission (“Commission”) staff on the Integrated Resource Planning proceeding to date, and we support the iterative process suggested in the Staff Proposal. In addition to general support, the Clean Coalition emphasizes:

- In order to ensure cost-effective resource portfolios, the Reference System Plan (“RSP”) should include modeling considerations for each resource’s associated cost of transmission upgrades and actual transmission capacity usage. These inputs reflect significant, quantifiable values with enormous ratepayer impact (this is particularly true for distributed energy resources).
- The IRP process and all modeling efforts should make use of existing tools for evaluating and comparing energy resources, including the Distributed Energy Resources Avoided Cost (DERAC) and the Locational Net Benefits Assessment (LNBA) avoided cost calculators.

- The IRP model should evaluate a very high DER deployment future that includes recognizes avoided transmission infrastructure and central generation costs in its holistic review of potential futures.

## II. DESCRIPTION OF THE PARTY

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (“DER”)—such as local renewables, advanced inverters, demand response, and energy storage—and we establish market mechanisms that realize the full potential of integrating these solutions. The Clean Coalition also collaborates with utilities and municipalities to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

## III. COMMENTS

The Clean Coalition offers the following comments in response to the questions included in the Staff Proposal.

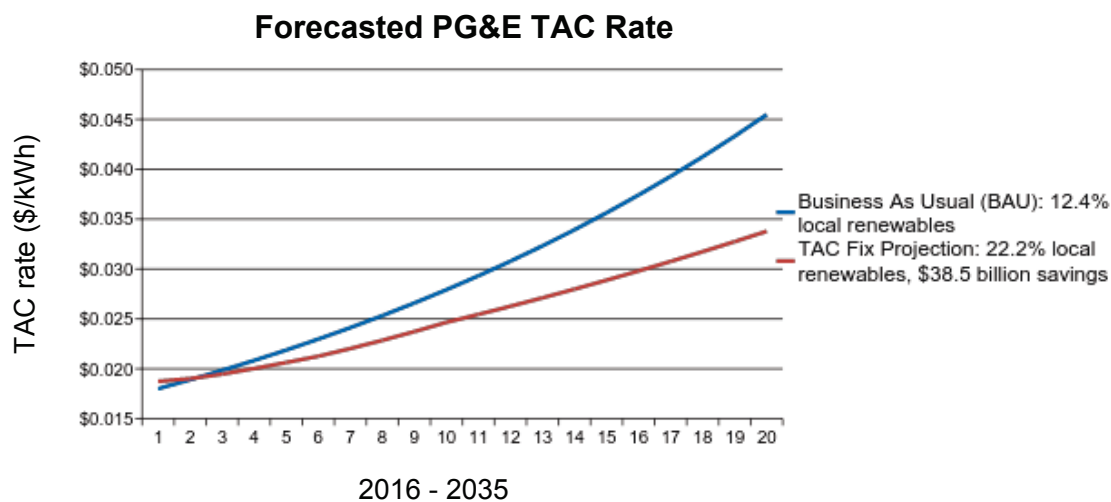
1. *Guiding Principles: Are the guiding principles for IRP articulated in Chapter 1 of the Staff Proposal adequate and appropriate for Commission policy purposes? What changes would you recommend and why?*

The Clean Coalition strongly supports the guiding principle of “providing clear market signals for existing and new resources to facilitate sufficient, timely, and cost-effective technology and infrastructure investments.” Due to the massive expense of transmission infrastructure, the Integrated Resource Planning (“IRP”) Process must incorporate market signals for resources that reduce, defer, or avoid expensive transmission investments.

The current market fails to realize this principle because transmission access charges (“TAC”) distort market signals for distributed resources. Distributed generation projects deliver energy to customers without using transmission capacity, whereas centralized projects use up transmission system capacity and incrementally increase demand for additional transmission build. However, the California Independent System Operator (“CAISO”) charges investor-owned utilities TAC on every kilowatt-hour of electricity that crosses their customers’ meters—regardless of whether that energy is actually delivered via the transmission grid. By attaching a

transmission cost to energy from distributed generation, CAISO’s method artificially makes local energy appear more expensive, artificially decreases the true transmission costs of transmission-reliant centralized resources, and decreases the value of distributed energy resources.

In order to ensure that only the most cost-effective resources are procured and that only cost-effective infrastructure is approved, the IRP should address or compensate for this market failure by including a market signal for the use of transmission capacity. Improving the accuracy of market signals for the cost of delivering energy would result in more efficient procurement outcomes and more distributed generation. The Clean Coalition estimates that improved market signals for avoided transmission use would save ratepayers over \$38.5 billion in avoided transmission investment and costs over the next 20 years. Below, we projected the increase in the TAC rate corresponding to the “business as usual” increase in transmission revenue requirements and contrast this with the estimated change in TAC rate under a corrected TAC methodology that provides more accurate market signals associated with cost causation. Correcting the market would result in more DER development and slowed growth in the demand for new transmission infrastructure. By avoiding or delaying transmission investments, correcting the market signals for transmission usage would save ratepayers billions of dollars in avoided transmission costs, represented by the area between the two curves.



In addition to the projections above, recent evidence already shows that distributed energy resources have provided major ratepayer savings from avoided infrastructure projects. For example, last year, the CAISO cancelled the \$115 million Central Valley Power Connect

project on hold due to the rapid growth of solar power in the central San Joaquin valley.<sup>1</sup> Similarly, Pacific Gas & Electric (“PG&E”) recently cancelled a \$192 million transmission project due to the impact of energy efficiency measures and the rapid growth in distributed generation.<sup>2</sup> Track 1 of the Distributed Resources Plan proceeding (R.14-08-013) is addressing estimated valuation assessment on this matter, as scoped for the LNBA Working Group for 2017. CAISO recently issued a proposed schedule for a new stakeholder initiative to investigate this issue,<sup>3</sup> and the California state legislature is also watching this issue in the context of proposed legislation Senate Bill 692 (Allen) to order CAISO to prioritize this issue.<sup>4</sup>

It is important to note that distributed generation provides these savings without market recognition of the value, and that a cost-efficient energy portfolio would incorporate significant DER and distributed generation in order to avoid or delay new infrastructure investment. Cost-effective infrastructure decisions rely on the correction of this market distortion, and we recommend that the IRP planning consider this distortion in developing the Reference System Plan. We feel the established guiding principle that would rightly direct attention to this issue.

2. *Disadvantaged communities objectives.*

The Clean Coalition has no comment at this time.

3. *Overall IRP process. Comment on the overall IRP process proposed in Chapter 2 of the Staff Proposal, beginning with the California Air Resources Board (CARB) establishing greenhouse gas planning targets for the electricity sector and ending with the Commission procurement and policy implementation. What changes would you recommend and why?*

The Clean Coalition generally supports the process laid out in the Staff Proposal. One area of potential improvement or clarity would be to include additional, actionable detail to

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<sup>1</sup> Sheehan, Tim, “Solar growth puts Fresno high-voltage line on hold,” *The Fresno Bee* (Dec. 20, 2016), available at <http://www.fresnobee.com/news/local/article122063189.html>.

<sup>2</sup> Pypers Julia, “Californians just saved \$192 Million Thanks to Efficiency and Rooftop Solar,” *GreenTech Media* (May 31, 2016), available at <https://www.greentechmedia.com/articles/read/Californians-Just-Saved-192-Million-Thanks-to-Efficiency-and-Rooftop-Solar>.

<sup>3</sup> Additional information available on the California ISO’s “Review transmission access charges structure” stakeholder initiative page at <https://www.caiso.com/informed/Pages/StakeholderProcesses/ReviewTransmissionAccessChargeStructure.aspx>.

<sup>4</sup> See Senate Bill 692 (Allen).

describe how LSE-specific plans will be evaluated against the Reference System Plan (“RSP”) and what actions will follow any misalignment of an LSE plan against the RSP.

4. 2017-2018 IRP process. *Do you support the Staff Proposal’s characterization of the purpose and outcomes of the first round of IRP in 2017-2018? Why or why not?*

The Clean Coalition has no comment at this time.

5. Electric sector 2030 GHG emissions targets. *Do you support using the CARB Scoping Plan as the starting point for setting the electric sector GHG emissions target or range for 2030? Why or why not?*

The Clean Coalition has no comment at this time.

6. LSE-specific GHG emissions targets.

The Clean Coalition has no comment at this time.

7. Modeling in 2017-2018.

- a) *Do you support use of the RESOLVE modeling approach for development of a Reference System Plan in 2017-2018? Why or why not?*

The Clean Coalition supports the use of the RESOLVE modeling approach, with one additional suggestion. We suggest that the model incorporate and consider locational net benefits and avoided transmission costs to the model, such that distributed energy resources (“DERs”), particularly distributed generation, can be fairly considered.

- b) *If you prefer an alternative approach, describe it in detail.*

The Clean Coalition offers no alternative approach at this time.

8. GHG emissions scenarios to be modeled.

The Clean Coalition has no comment at this time.

9. Modeling Assumptions. *Do you have any specific changes to recommend to the modeling assumptions detailed in Chapter 4 and Appendix B of the Staff Proposal and the associated spreadsheet Scenario Tool? What are they and why? Indicate a publicly-available source of your recommended assumptions.*

As mentioned in our informal comments, the Clean Coalition recommends that the development of the Reference System Plan (“RSP”) optimization include consideration of necessary transmission upgrades associated with new, large-scale resources, as well as costs

associated with increased on-going transmission capacity usage. Transmission usage and upgrades need to be considered because transmission planning will likely invest heavily (potentially too heavily) in infrastructure to meet the RPS targets if the full transmission revenue requirement cost impacts are not accounted for in the RSP, especially when distributed energy resources may present a more net cost-effective alternative. The Renewable Energy Transmission Initiative (“RETI”) 2.0 study found that California is poised to spend \$5 billion to construct (not including financing costs and operations and maintenance) on transmission infrastructure to integrate sufficient renewables to meet the 50% RPS target.<sup>5</sup> However, not all renewables contribute to the need for new transmission lines, and the market currently fails to recognize the avoided transmission value of distributed energy resources.

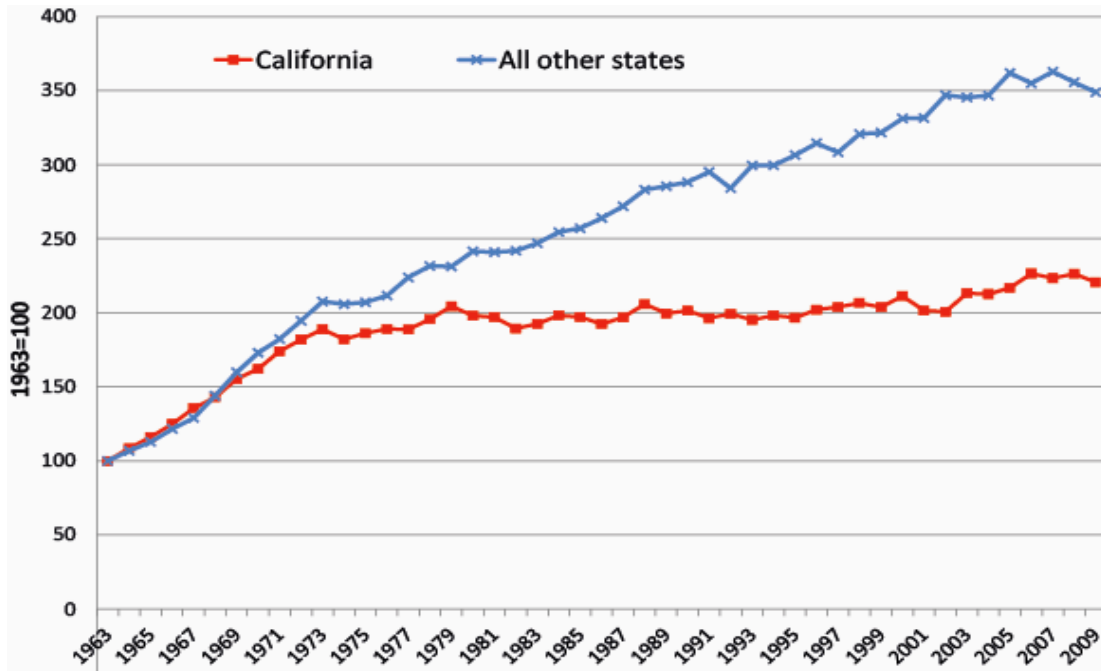
In particular, distributed generation and other distributed energy resources (“DER”) have the ability to produce energy very close to load, without requiring delivery via transmission infrastructure. Siting DER close to load produces significant ratepayer savings in the form of avoided transmission capacity requirements and associated new investment. California’s history of energy efficiency and distributed generation deployment have avoided the dramatic growth in per capita energy usage witnessed across the rest of the nation, and in doing so have already saved ratepayers billions of dollars through reduced large scale generation and transmission capacity needs, including hundreds of millions of dollars from cancelling planned transmission investments last year alone (see response to question #1 above for additional detail). In 2014, California’s per capita energy consumption ranked 49th in the nation. The state’s extensive efforts to increase energy efficiency and the implementation of alternative technologies have restrained growth in energy demand.<sup>6</sup> DER have produced tangible savings for California ratepayers, with per capita electricity expenditures among the lowest in the nation, and the market should incorporate a usable signal for that value.

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<sup>5</sup> California Energy Commission, *Renewable Energy Transmission Initiative 2.0 Plenary Report* (Dec. 16, 2016), available at [http://docketpublic.energy.ca.gov/PublicDocuments/15-RETI-02/TN214835\\_20161216T110654\\_Renewable\\_Energy\\_Transmission\\_Initiative\\_20.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/15-RETI-02/TN214835_20161216T110654_Renewable_Energy_Transmission_Initiative_20.pdf).

<sup>6</sup> California Energy Commission, *Achieving Energy Efficiency* (July 2014); U.S. Energy Information Administration, 2017; visit <https://www.eia.gov/state/print.php?sid=CA>

Figure 1. Residential Electric Usage Per Capita<sup>7</sup>



As mentioned above, the Clean Coalition is actively working to change CAISO’s transmission access charges (“TAC”) methodology so that energy generated and consumed on the same distribution grid is not subject to a charge for a system it does not use. This can be accomplished by adopting CAISO’s billing methodology that is currently in place for municipal utilities: by measuring transmission usage at the transmission energy downflow, representing the amount of energy flowing from the transmission system to the distribution system. By doing so, CAISO could erase the distortive market impacts of transmission charges on local renewables.<sup>8</sup>

The Staff Proposal also states that “[t]he IRP will identify an optimal mix of supply- and demand-side resources needed to achieve GHG reduction and other state goals.” The Clean Coalition supports this action as demand response resources and other demand-side innovations hold great potential to achieving GHG reduction without requiring new investment in generation or delivery infrastructure. Along related lines of thinking, the Clean Coalition recommends that the modeling assumptions incorporate values for locational net benefits assessment and avoided

<sup>7</sup> World Development Report 2010, Chapter 4: Energizing Development without Compromising the Climate; visit <http://siteresources.worldbank.org/INTWDRS/Resources/477365-1327504426766/8389626-1327510418796/Chapter-4.pdf>

<sup>8</sup> For additional detail on the Clean Coalition’s Transmission Access Charges Campaign, visit [www.clean-coalition.org/tac](http://www.clean-coalition.org/tac).



transmission costs so that DERs, especially distributed generation and demand-side resources, can be fairly considered in developing the optimal portfolio.

*10. Modeling outputs and metrics. Are the modeling outputs and metrics in Chapter 4 of the Staff Proposal reasonable? What changes would you suggest and why? Be as specific as possible about how to quantify your recommended metrics.*

The Clean Coalition has no comment at this time.

*11. Sensitivities. Are the sensitivities defined in Chapter 4 of the Staff Proposal reasonable? What changes would you suggest and why?*

The Clean Coalition has no comment at this time.

*12. Futures. Are the alternative futures proposed to be modeled in Chapter 4 of the Staff Proposal the appropriate ones? What changes would you suggest and why?*

The Clean Coalition supports the futures already identified by Commission staff and further recommends the modeling of a high DER scenario that includes fewer transmission and central generation resources. The impact of dramatically increased DER will very likely result in significantly decreased or deferred need for new transmission and central generation investment, and this scenario should be considered in the model. By avoiding excessive use of the transmission grid, providing a more robust market for DER energy and services, and increasing reliability of the distribution grid, a high DER scenario could very reasonably be supported and still result in significant ratepayer savings through avoided infrastructure development. A high DER penetration future must necessarily recognize the decreased demand for transmission infrastructure build, as load can be met without using transmission capacity—thus, letting the existing transmission grid meet California’s energy needs for longer. This future could offer California ratepayers enormous savings in infrastructure investment and should be considered alongside the other futures considered in the IRP process.

*13. Costs. Is the cost analysis summarized in the Staff Proposal appropriate and sufficient for the Commission to assess tradeoffs among alternative futures and choose the appropriate level of GHG emissions reductions in the electric sector by 2030 for which to plan? Explain.*

The Clean Coalition has no comment at this time.

14. Risks.

- a) *Are there any other risks or criteria that should be considered in the portfolio analysis described in the Staff Proposal?*

As described further in our response to question 20 below, Clean Coalition would add the risk of overdependence on large, centralized projects generally (in contrast to decentralized, distributed projects). Less than 4% of California's total power is produced from distributed generation, indicating a significant overreliance on centralized generation and the transmission grid. A truly diverse and balanced portfolio should incorporate a much larger portion of our energy from distributed projects in order to ensure a diverse portfolio resilient to generation and grid outages from centralized resources. This risk can be addressed through qualitative review of diversity in resource scale (e.g., specific effort to review locational diversity of resources). Additionally, this could be addressed through quantitative review of how high DER penetration would likely lead to reduced transmission infrastructure investment and overall costs by freeing up capacity on the existing transmission grid and decreasing demand for future transmission infrastructure investment.

- b) *How should the risks associated with not achieving the State goals listed in Table 4.4 of the Staff Proposal be defined and quantified? Propose an appropriate and feasible methodology and explain how the cost of reducing each risk can be quantified.*

The Clean Coalition has no comment at this time.

15. Disadvantaged communities definition.

The Clean Coalition has no comment at this time.

16. Demand-side resources.

- a) *Is the treatment of these resources in the staff's recommended approach reasonable? What changes would you suggest and why?*

The Clean Coalition has no comment at this time.

- b) *What additional information, other than modeling, might materially affect these resources? Provide specific sources of publicly available information, what question(s) the additional information would help address, and why you think the information should be used.*

The Clean Coalition has no comment at this time.

- c) *What market, regulatory, or other barriers could prevent or impede an optimal level of procurement for each resource area and type of LSE, and what solutions would you recommend to address the identified barriers? Explain your answer clearly and provide quantitative support using publicly available information wherever feasible.*

As detailed above in the response to question 1 and 9, a significant market barrier exists to identifying the true cost of using available transmission capacity. See the responses to question 1 and 9 for more detail on this barrier. Transmission usage and upgrades need to be considered because transmission planning will likely invest heavily (potentially too heavily) in infrastructure to meet the RPS targets if the full transmission revenue requirement cost impacts are not accounted for in the RSP, especially when distributed energy resources may present a more net cost-effective alternative. The Clean Coalition is actively trying to address this issue through its Transmission Access Charges (TAC) Campaign,<sup>9</sup> and we recommend that the IRP address this issue more immediately through the following means:

- Qualitative review of diversity in resource scale (e.g., specific effort to review locational diversity of resources),
- Quantitative review of how high DER penetration would lead to reduced transmission infrastructure investment and overall costs by freeing up capacity on the existing transmission grid and decreasing demand for future transmission infrastructure investment, and
- Incorporating the Distributed Energy Resources Avoided Cost (DERAC) and the Locational Net Benefits Assessment (LNBA) avoided cost calculators into all modeling in order to more fully account for the avoided cost value of various resources.

17. Supply-side resources.

- a) *Is the treatment of these resources in the staff's recommended approach reasonable? What changes would you suggest and why?*

The Clean Coalition has no comment at this time.

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<sup>9</sup> For additional detail on the Clean Coalition's Transmission Access Charges Campaign, visit [www.clean-coalition.org/tac](http://www.clean-coalition.org/tac).

b) *What additional information, other than modeling, might materially affect these resources? Provide specific sources of publicly available information, what question(s) the additional information would help address, and why you think the information should be used.*

The Clean Coalition has no comment at this time.

c) *What market, regulatory, or other barriers could prevent or impede an optimal level of procurement for each resource area and type of LSE, and what solutions would you recommend to address the identified barriers? Explain your answer clearly and provide quantitative support using publicly available information wherever feasible.*

See the response to question 16(c) above. A significant market barrier exists to identifying the true cost of using available transmission capacity. See the responses to question 1 and 9 for more detail on this barrier. Transmission usage and upgrades need to be considered because transmission planning will likely invest heavily (potentially too heavily) in infrastructure to meet the RPS targets if the full transmission revenue requirement cost impacts are not accounted for in the RSP, especially when distributed energy resources may present a more net cost-effective alternative. The Clean Coalition is actively trying to address this issue through its Transmission Access Charges (TAC) Campaign,<sup>10</sup> and we recommend that the IRP address this issue more immediately through the following means:

- Qualitative review of diversity in resource scale (e.g., specific effort to review locational diversity of resources),
- Quantitative review of how high DER penetration would lead to reduced transmission infrastructure investment and overall costs by freeing up capacity on the existing transmission grid and decreasing demand for future transmission infrastructure investment, and
- Incorporating the Distributed Energy Resources Avoided Cost (DERAC) and the Locational Net Benefits Assessment (LNBA) avoided cost calculators into all modeling in order to more fully account for the avoided cost value of various resources.

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<sup>10</sup> For additional detail on the Clean Coalition's Transmission Access Charges Campaign, visit [www.clean-coalition.org/tac](http://www.clean-coalition.org/tac).

*18. Short-term investments, actions, or procurement. Has staff identified the correct areas for analysis to determine the need for short-term investment or procurement activities, including: bulk storage, out of state wind, and geothermal resources? What changes or additions would you recommend and why?*

The Clean Coalition recommends that, if the quantity of distributed energy resources in the adopted portfolio differs from the quantities anticipated to result from existing Commission policies, the IRP process should only serve to increase—not decrease—existing quantities in existing Commission policies. As energy efficiency, demand response, and behind-the-meter solar PV all move California’s energy portfolio towards decreasing GHG emissions, the underlying goal of the IRP process would not be advanced by decreasing any existing procurement targets for those individual technologies. Rather, the existing quantities for these technologies should serve as a “floor” for procuring those technologies, which the IRP portfolio may raise but under no means decrease.

*19. Transportation electrification.*

The Clean Coalition has no comment at this time.

*20. Reference System Plan development.*

*a) What methodology should staff use to develop a recommendation for the portfolio to include in the Reference System Plan?*

The Clean Coalition has no comment at this time.

*b) If you recommend a scorecard-style approach, what weight should be given to each state goal in Table 4.4 of the Staff Proposal?*

The Clean Coalition has no comment at this time.

*c) Are there any additional criteria, apart from the goals listed in Table 4.4 of the Staff Proposal, that staff should also include? If so, why?*

In further developing state goals 1 and 2 of “Identifying a diverse and balanced portfolio” and “Meeting state GHG targets” respectively, the Clean Coalition would emphasize the risk of overdependence on large, centralized projects generally (in contrast to decentralized, distributed projects). Less than 4% of California’s total power is produced from distributed generation, indicating a significant overreliance on centralized generation and the transmission grid. A truly diverse and balanced portfolio should incorporate a much larger portion of our energy from distributed projects in order to ensure a diverse portfolio resilient to generation and grid outages

from centralized resources. This risk can be approached through ensuring that the qualitative review of portfolio diversity include specific effort to review locational diversity of resources.

In addition, the state goal #4 of “Ensuring just and reasonable rates for customers of electrical corporations” is subject to a risk for overinvestment in transmission infrastructure. The transmission access charges (“TAC”) market distortion we describe in our response to question 1 most directly impacts customers of electrical corporations, particularly customers of investor-owned utilities (“IOUs”). This is because transmission costs in the form of TAC attach to all energy consumed in IOU service territory rather than only the energy delivered via the transmission system. For this reason, IOUs have no market incentive to avoid eating up transmission capacity and produce excessive demand for new transmission investments. The Clean Coalition recommends specifically noting the risk of “excessive demand for new transmission investments” as a risk to state goal #4. This risk should be approached by incorporating a quantitative analysis of transmission access charges and wheeling access charges (the TAC equivalent for municipal utilities and intra-state balancing authorities) and use of transmission capacity. This will help ensure that the Reference System Plan and subsequent LSE-specific plans optimize resources so as to prevent overinvestment in transmission infrastructure when more cost-effective alternatives exist.

*d) Are there any additional questions or studies that staff should address in the Reference System Plan? If so, describe each question or study and explain why you think it should be included, considering the limited time and resources available.*

The Clean Coalition has no comment at this time.

*21. LSE filing process. Do you support the approach to LSE IRP filing outlined in Chapter 5 of the Staff Proposal? Why or why not?*

The Clean Coalition has no comment at this time.

*22. General LSE filing requirements.*

The Clean Coalition has no comment at this time.

*23. Technical LSE filing requirements.*

The Clean Coalition has no comment at this time.

24. LSE IRP Filing Template. Describe any changes you recommend to the Staff-recommended template in Appendix C and explain why.

The Clean Coalition has no comment at this time.

25. Standard and Alternative IRPs. Do you support the staff proposal for standard and alternative IRP filings? What changes would you suggest, either to the overall approach or to the specific requirements for each, and why?

The Clean Coalition has no comment at this time.

26. For individual LSEs.

Not applicable to the Clean Coalition; no comment at this time.

27. Individual LSE load determination. How should the Commission determine what load to assign to each LSE for IRP filing purposes? Describe your preferred method in detail, such that it can be readily reproduced using publicly available information.

Not applicable to the Clean Coalition; no comment at this time.

28. For individual LSEs.

Not applicable to the Clean Coalition; no comment at this time.

29. Marginal GHG abatement cost/planning price: Is it appropriate and feasible for the Commission to use the results of the IRP analysis to inform the inputs for certain cost-effectiveness analysis, such as in the Integrated Distributed Energy Resource proceeding evaluation of the societal cost test for demand-side resources? Why or why not?

The Clean Coalition has no comment at this time.

30. Relationship between IRPs and procurement.

a) Describe your reaction to the Staff Proposal's characterization of how IRP development and approval will lead to actual resource procurement in the next few years.

The Clean Coalition is generally supportive of the Staff Proposal's characterization of IRP development and approval. However, as mentioned in our informal comments submitted on August 31, 2016, the Clean Coalition recommends that the IRP should only have the authority to raise procurement targets. This notion should apply not only to individual procurement targets set in separate proceedings, but also in reviewing the procurement plans of each load-serving entity against the Reference System Plan ("RSP"). Individual procurement targets and the RSP should act as a floor for procurement of specific technologies, and the IRP can then define the cost-effective goals for resources *above* the previously defined targets. We note, however, that

targets should generally be technology-neutral and focused on results, allowing for flexibility in achieving the most effective solution for each LSE. Technology specific goals should be limited to support for technology maturation and market development where these have not already been achieved.

- b) *Are there any alternative approaches to IRP-based procurement that the Commission should consider? If so, describe the approach in detail and explain which specific problems it would address with reference to the statutory requirements for IRP, while not conflicting with other Commission non-IRP statutory requirements.*

The Clean Coalition has no comment at this time.

- c) *What existing rules should the Commission consider studying to improve the ability of the IRP process to achieve its goals (e.g., Renewable Energy Credit banks, Renewables Portfolio Standard content categories, etc.)? What approaches or methodologies should the Commission consider using to study the costs and benefits of your proposals?*

The Clean Coalition has no comment at this time.

- d) *How should the Commission ensure that LSEs comply with their approved IRPs? Describe your preferred approach in detail, with reference to the IRP statutory requirements.*

The Clean Coalition has no comment at this time.

31. Relationship between IRPs and bundled procurement plans.

The Clean Coalition has no comment at this time.

32. Disadvantaged communities impacts in procurement.

The Clean Coalition has no comment at this time.

33. Cost allocation and cost recovery.

The Clean Coalition has no comment at this time.

34. Alignment of IRP process with other Commission resource proceedings.

- a) *Are there obvious opportunities for alignment across Commission proceedings that the staff should consider in developing a process alignment workplan?*

The most apparent opportunities for alignment across Commission proceedings at this stage include making use of tools developed or currently under development in other Commission proceedings, including the Distributed Energy Resources Avoided Cost (DERAC)



and the Locational Net Benefits Assessment (LNBA) avoided cost calculators from the Renewable Portfolio Standard (R.11-05-005, R.15-02-020), Integrated Distributed Energy Resources (R14-10-003), and Distribution Resource Plan (R.14-08-013) proceedings. These tools could aid Commission staff in the IRP process by providing more precise review of costs and benefits associated with various resource types and scales (e.g., central versus distributed scale). resources). In particular, incorporating tools associated with evaluating the value of distributed energy resources from the from the Renewable Portfolio Standard (R.11-05-005, R.15-02-020), Integrated Distributed Energy Resources (R14-10-003), and Distribution Resource Plan (R.14-08-013) proceedings would aid the Commission in comparing DERs to centralized resources.

*b) What would be the benefits to coordinating proceedings to align based on these opportunities?*

As mentioned above, the benefits to coordinating proceeding would be significant, particularly by not “reinventing the wheel” with respect to developing methods to cross-compare the costs and benefits associated with various resource types and scales. The most significant benefit would be in ensuring accurate comparison of distributed energy resources to centralized resources. In order to ensure that more of the value stack of DER is recognized in these cross-comparisons, the Clean Coalition urges the Commission to make use of the Avoided Cost Calculator and the Locational Net Benefits Assessment.

*c) Identify any barriers to coordination.*

Barriers to coordination would be minimal. The primary responsibility would be for Commission staff (with the aid of parties well-versed in related proceedings) to spend a brief amount of time understanding tools from other proceedings that may aid in providing tools to cross-compare resource types.

*35. Preferred System Plan. Is the Staff Proposal’s recommendation to utilize a Commission-approved Preferred System Plan as the basis for input into the IEPR and TPP processes appropriate and workable? What changes would you recommend and why?*

The Clean Coalition has no comment at this time.

*36. Alignment with CEC's Integrated Energy Policy Report (IEPR) and California Independent System Operator's (CAISO's) Transmission Planning Process (TPP).*

The Clean Coalition has no comment at this time.

*37. Regional Planning. How should the IRP process and analysis take into account the potential for CAISO regionalization?*

The Clean Coalition has no comment at this time.

**IV. CONCLUSION**

Thank you for the opportunity to comment on this important step forward in the IRP process, and the Clean Coalition looks forward to working with the Commission and other stakeholders on these issues.

Respectfully submitted,



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Dated: June 28, 2017