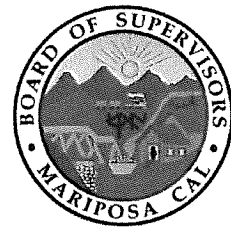


MARIPOSA COUNTY

Board of Supervisors • 209-966-3222



RESOLUTION - ACTION REQUESTED 2016-424

MEETING: August 9, 2016

TO: The Board of Supervisors

FROM: Rosemarie Smallcombe, District I Supervisor

RE: Letter of Support for Baseload and Flexible Generation Power

RECOMMENDATION AND JUSTIFICATION:

Approve a Letter of Support for an Initiative Undertaken by the California Baseload Coalition to Encourage the California Public Utilities Commission to Ensure that Baseload and Flexible Power Generation Renewables Provide a Significant Portion of the Renewable Power Needed to Meet California's 50% Renewable Portfolio Standard; and Authorize the Board of Supervisors Chair to Sign the Letter

California Senate Bill (SB) 350, the Clean Energy and Pollution Reduction Act of 2015, enacted wide-ranging changes to California's energy policies. Under this legislation, California will need to generate half of its electricity from renewable sources such as solar and wind (which are intermittent sources) as well as baseload power sources such as biomass and geothermal by 2030. The need to focus on development of baseload power sources is further driven by PG&E's decision to close the Diablo Canyon nuclear power plant in 2025. Since Diablo Canyon has provided up to 2,240 megawatts of baseload power, the State needs to identify other sources of such renewable power.

The California Baseload Coalition supports the development of geothermal, biomass and biogas as sources of renewable baseload power generation because of their benefits to local economies. These sources of flexible generation provide benefits to local jurisdictions including jobs and local tax revenues as well as air quality improvements. In Imperial and Lake counties, for example, geothermal provides the largest source of property taxes and it is also one of the largest sources in Sonoma County. The Coalition and at least 11 other California counties are calling on the California Public Utilities Commission to consider the many benefits of these renewable baseload power sources to ratepayers and the general public as they develop policies necessary to comply with SB350 and move toward an increased renewable portfolio standard.

BACKGROUND AND HISTORY OF BOARD ACTIONS:

The Board has routinely approved letters of support for issues that it believes will benefit the citizens of Mariposa County.

ALTERNATIVES AND CONSEQUENCES OF NEGATIVE ACTION:

Do not approve the letter. Individual members of the Board may write their own

letters of support.

ATTACHMENTS:

Mariposa BoS Baseload letter to CPUC (PDF)

CAO RECOMMENDATION

Requested Action Recommended



Mary Hodson, CAO

8/2/2016

RESULT: ADOPTED BY CONSENT VOTE [UNANIMOUS]

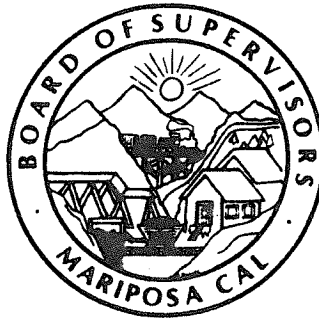
MOVER: Kevin Cann, District IV Supervisor

SECONDER: Rosemarie Smallcombe, District I Supervisor

AYES: Smallcombe, Jones, Long, Cann, Carrier

Mariposa County Board of Supervisors

District 1 ... ROSEMARIE SMALLCOMBE
District 2 MERLIN JONES
District 3 MARSHALL LONG
District 4 KEVIN CANN
District 5 JOHN CARRIER



MARY HODSON
County Administrative Officer

RENE LAROCHE
Clerk of the Board

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August 9, 2016

The Honorable Carla Peterman, Commissioner
The Honorable Anne Simon, Administrative Law Judge
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: Importance of Baseload and Flexible Generation Power to Reach a 50 Percent Renewables Portfolio Standard (SB 350, DeLeon)

Dear Commissioner Peterman and Judge Simon:

The Mariposa County Board of Supervisors is writing to urge the Commission to ensure that baseload and flexible generation renewables provide a significant portion of the renewable power needed to meet California's 50 percent RPS. Many studies have found that diversifying California's renewables portfolio as it moves beyond 33 percent will save ratepayers money and provide greater system reliability. Increasing baseload and flexible generation renewables will provide many other benefits to ratepayers and the general public that we urge the Commission to consider as it develops the policies to go from 33 to 50 percent renewables.

1. A 50 Percent RPS Requires Greater Resource Diversity.

Numerous studies over the past few years have made clear that California needs to diversify its renewables portfolio as it goes beyond 33 percent.¹ As the Commission's own analysis has shown, integration of intermittent renewables into the grid requires significant additional costs, including backup generation, costs to stabilize the grid and more. The costs of integrating solar and wind will only increase as increasing amounts will have to be curtailed. A recent study by Energy and Environmental Economics (E3) made clear that increasing the diversity of California's renewables portfolio will reduce curtailment and provide the lowest cost option to achieve a 50 percent RPS.²

¹ See, ie, National Renewable Energy Labs, *Renewable Energy Futures*, available at:

http://www.nrel.gov/analysis/re_futures/; Energy and Environmental Economics, *Investigating a Higher Renewables Portfolio Standard in California*, January 2014; Union of Concerned Scientists: *Achieving 50 Percent Renewable Electricity in California*, 2015. Available at:

<http://www.ucsusa.org/sites/default/files/attach/2015/08/Achieving-50-Percent-Renewable-Electricity-In->

California.pdf.

² Id, Table 5, page 22.

The National Renewable Energy Labs (NREL) reached the same conclusion when it considered the feasibility of the United States moving to 80 percent renewables by midcentury. Like E3, NREL found that an 80 percent RPS is feasible, but only if we significantly increase the production of baseload and flexible generation renewables.³

2. Baseload and Flexible Generation Resources Provide Many Additional Ratepayer and Public Benefits.

In addition to providing many benefits to the grid, baseload and flexible generation renewables provide many important benefits to ratepayers and the public. These benefits are particularly important in rural counties, which are some of the most economically disadvantaged in the state.

a) Geothermal Power

Geothermal power is concentrated in Imperial, Lake, Sonoma, Mono and Inyo Counties where it is an important part of the local economies. In Imperial and Lake Counties, geothermal constitutes the largest source of property taxes and is one of the largest sources in the other counties as well. Geothermal is a non-carbon energy source and would help meet California's GHG reduction goals. Utilizing a much smaller footprint than solar, geothermal power provides other environmental benefits such as compatibility with agricultural operations and wildlife habitat. Geothermal power also provides:

- Proven/reliable technology with over 90% capacity factor.
- Diversification of the energy portfolio to balance intermittent resources.
- Maximizes utilization of transmission resources with 2-3 times as much energy delivered per MW capacity when compared to wind or solar.
- More than 3,000 permanent jobs in California.

Finally, increasing geothermal capacity in Imperial County is a critical piece of the Salton Sea restoration plan, which will protect air quality and critical wildlife habitat in Imperial and Riverside Counties.

b) Biomass

Increasing biomass power generation is critical to address the tree mortality crisis in many parts of the state. As the Governor's Emergency Proclamation makes clear, this crisis is a threat to public safety and important infrastructure, including utility infrastructure. CalFire and the Sierra Nevada Conservancy have also made clear that excess vegetation is a long-term crisis and that forest biomass power is an important piece of the solution as it is the most beneficial end-use of the forest biomass that must be removed to address the Governor's Emergency Proclamation as well as to restore long term forest health and create jobs in rural areas.

³ NREL, footnote 1, above.

In addition to protecting public safety – which is the Commission’s highest responsibility - forest biomass helps to protect utility infrastructure which is increasingly vulnerable to wildfire. The Valley Fire alone caused more than \$150 million in damages to utility infrastructure in Lake and Sonoma Counties. The Rim Fire and other catastrophic fires have also caused tens of millions of dollars in damage to utility infrastructure. Future fires may also threaten reservoirs and hydropower facilities.

Wildfire is also a major source of air pollution, black carbon and greenhouse gas emissions, impacts on water quality and supply and serious impacts on our local economies. Increasing forest biomass is a critical tool to protect our local communities. Aside from helping to address the tree mortality crisis, biomass plants also have significant environmental benefits in agricultural areas. These facilities generate carbon neutral renewable energy by converting hundreds of thousands of tons of agricultural residues per year from orchard removals, tree trimmings, and prunings, which have only increased in recent years due to the severity of the drought and the need to replace more water-intensive crops.

In the absence of biomass, we could expect a sharp rise in open field burning, the impact of which is significant in communities where air quality is already a serious problem. According to the San Joaquin Valley Air Pollution Control District, one ton of almond orchard wood produces seven pounds of particulate matter when open burned. Biomass facilities can eliminate up to 95% of such emissions though the use of emission control technologies.

c) Biogas

Biogas can provide the greatest benefits to the grid because it can be used to provide flexible generation power, peak power and even energy storage. In addition, increasing biogas production can address the largest sources of methane in the state, which are dairy waste, landfills, wastewater and other organic waste. Increasing biogas production from organic waste can also help our counties to meet the state’s landfill diversion goals and reduce open field burning of agricultural waste. Biogas holds particular promise for the capture and beneficial use of dairy methane emissions in Kern, Tulare, Kings and other counties in the San Joaquin Valley, which face significant air quality challenges. And, according to the California Air Resources Board, biogas generated from organic waste is also the only fuel that is actually carbon negative because it reduces Short-Lived Climate Pollutants (the most potent climate pollutants) and greenhouse gas emissions from fossil fuel burning.

3. Need Specific Policies to Promote Baseload and Flexible Generation Power.

We urge the Commission to adopt specific policies to increase baseload and flexible generation power. Those policies should include:

- A specific requirement or portfolio standard for baseload and flexible generation

that ensures that these resources provide at least 3,500 additional megawatts of baseload and flexible generation. This could be similar to the energy storage portfolio standard to ensure that a variety of baseload and flexible generation technologies help to achieve the requirement. It will also help California prepare for the closure of the Diablo Canyon nuclear generating facility in 2025.

- Increase the megawatt allocation for existing biomass projects under the Governor's Emergency Proclamation.
- Make changes to the BioMAT and interconnection rules to facilitate forest biomass project development, also called for by the Emergency Proclamation.
- Allocate a portion of EPIC funding to baseload and flexible generation power to better quantify the grid, economic and environmental benefits of baseload and flexible generation power.

We thank the Commission for your consideration of these comments and look forward to working with the Commission to achieve the important benefits of baseload and flexible generation power described above.

Sincerely,

A handwritten signature in black ink, appearing to read "John Carrier". The signature is fluid and cursive, with a large initial "J" and a long, sweeping tail.

John Carrier,
Board Chair