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## **Excellent Staff Assessment**

Additional submitted attachment is included below.

The 8 pages of direct quotes below represent some of the more important information that I found in the exhaustive 1200 page Staff Assessment of the Fountain Wind Project.

If the CEC commissioners need a "cliff notes" version of the Staff Assessment from the perspective of a Montgomery Creek resident who has followed this project from the very beginning here it is.

I would like to thank the CEC staff and consultants who wrote those 1200 pages. They did an awesome job and it appears they confirmed what the Shasta County Planning Commission, Shasta County Board of Supervisors and the local residents of Montgomery Creek and Round Mountain already knew.

Thanks,

John Gable

## Important Quotes from CEC Staff Assessment/Draft EIR

Page 1-1 As described in Section 1.2.1 of this Executive Summary, staff recommends the CEC deny the project application.

Page 1-4 The proposed facility has multiple significant and unavoidable impacts on the environment in the areas of Biological Resources; Cultural and Tribal Cultural Resources; Forestry Resources; Hazards, Hazardous Materials, and Wildfire; Land Use and Agriculture; and Visual Resources. In addition, the project conflicts with three local laws or ordinances regarding the allowable uses of the proposed project site. The CEC cannot certify a project under the Opt-In Program that conflicts with local laws and ordinances unless the CEC determines the project is needed for public convenience and necessity, and no more prudent and feasible alternative exists to meet that public convenience and necessity. Additionally, to approve the project under CEQA the CEC must find that the specific economic, legal, social, technological, or other benefits of the project outweigh its unavoidable environmental impacts. These determinations require specific findings regarding benefits of the project, supported by substantial evidence.

As set forth in detail in Section 11, Override Findings and Recommendations, staff recommends the CEC find (1) the project is not necessary for public convenience and necessity and that a battery energy storage system would be a more prudent and feasible alternative and (2) the project benefits do not outweigh its unavoidable environmental impacts.

These recommendations are based on the unavoidable environmental impacts taken as a whole, the public safety and general welfare purposes of the local land use ordinances, and the net contribution to the environment and protection from climate change provided by the local laws and ordinances not being outweighed by the project's relatively small contributions to the energy needs of the state and the modest potential economic interests to the local community.

Staff acknowledges the key role wind generation plays in SB 100 goals, **but concludes the** evidence is clear that this location is not compatible with this proposed facility.

Page 1-5 Biological Resources. Significant and Unavoidable Impact. Although construction related impacts would be less than significant with the implementation of staff's COCs; operation of the project would result in significant and unavoidable impacts to birds and bats from collision with the wind turbines. In addition, because the project would impair aerial firefighting, should a fire start on or near the project site it has the potential to result in substantial impacts to biological and aquatic resources on the project site and surrounding region including the adjacent National Forest Lands. Even with the implementation of staff's proposed COCs, many of the project's impacts to biological resources would remain significant and unavoidable and would not conform with most applicable LORS.

**Cultural and Tribal Cultural Resources. Significant and Unavoidable Impact.** The project would have significant and unavoidable impacts to cultural and tribal cultural resources, related to visual impacts to an identified historical resource and an identified tribal cultural landscape, but would conform with applicable LORS. With implementation of staff's proposed COCs, many of the proposed project's impacts on cultural and tribal cultural resources would be less than significant or reduced to the extent possible. However, significant and unmitigable impacts to cultural and tribal cultural resources would remain.

**Forestry Resources. Significant and Unavoidable Impact.** The proposed project would result in the permanent conversion of forest resources that are classified as Site Class I (high productivity) and II (intermediate productivity), which represents a significant and unavoidable impact. The project would not conform with applicable LORS which are intended to preserve lands within a timber production (TP) district. There is no feasible mitigation that would bring the proposed project into conformance with a TP district.

Page 1-6 Hazards, Hazardous Materials, and Wildfire. Significant and Unavoidable Impact. The proposed project wind turbines would introduce an impediment to aerial firefighting which would present a significant and unavoidable impact to wildfire emergency response. Implementation of staff's proposed COCs would reduce impacts related to wildfire emergency response to the extent feasible; however, a significant and unavoidable impact would remain. With implementation of staff's proposed COCs, the proposed project would conform with applicable LORS and have less than significant impacts related to hazards, hazardous materials and wildfire, except for impacts related to wildfire emergency response and nonconformance with Section 17.88.135 of the Shasta County Municipal Code.

**Land Use and Agriculture. Significant and Unavoidable Impact.** The proposed project would have a less-than-significant impact associated with division of an established community, and no agricultural land conversion impacts. However, the project would not conform with applicable LORS prohibiting a large wind energy system within an unincorporated area of Shasta County.

There is no feasible mitigation that would bring the proposed project into conformance with the County's municipal code.

Page 1-7 Visual Resources. Significant and Unavoidable Impact. Project components exceeding 200 feet tall would be required by the Federal Aviation Administration (FAA) to install lighting and be marked (e.g., a distinguishing color). The emission of new artificial light from the installation of FAA approved air navigation and obstruction lighting systems on 50-plus structures on the project site would be a significant effect on the environment. In addition, the light trespass on surrounding properties created by the FAA-required lighting would have a significant effect on the environment. Also, the color, form, texture, scale, and motion by the wind turbines, other structures, and equipment for the project would adversely affect a "scenic vista" and have a significant effect on the environment. The project is inconsistent with the Shasta County Scenic Highways Element and Figure SH-1, objectives and policies in the Shasta County Timberlands Element, and use and requirements in the Timberland Production Zone. Finally, the project would substantially degrade the existing the visual character or quality of public view of site and its surroundings from key observation points 4 and 5 creating a significant impact on the environment. None of these impacts can be mitigated or avoided. In addition, the project would be in nonconformance with the county Scenic Highways Element, Timberlands Element, and the Timberland Production Zone.

Page 3-30 There is no plan to monitor the area immediately outside the project footprint for wildfire.

Page 4.4-12 Nacelle fires in wind turbines were the second highest incident after blade failure during this period from 1980 to 2012 (Uadiale 2014). Due to the extreme height of these turbine fires and possible inclement weather, it almost always results in a total loss of the turbine (Smith and de Vries. 2004; Uadiale 2014) and many fire departments wait for the fire to burn out or for the turbine to collapse to the ground where it could more easily be extinguished (Uadiale 2014; Cooley 2024). However, this procedure increases the risk of escalation to a wildland fire.

Page 4.4-14 With the proposed construction of four additional energy-related projects, staff is proposing that funding be provided equally by the FWP plus the other projects to build a new fire house to be located at the current Mongomery Creek Fire Station (or another location to be determined by the SCFD) for the amount of \$5M (\$1M to be provided by the FWP and each of the other projects if built) and provide full-time staffing for an annual amount of \$1.7M (\$340,000 per year provided by each project) plus a cost of living increase each period as negotiated between the firefighters and Shasta County (equally shared by each project).

Page 5.1-11 The proposed project would be in Shasta County, which is classified as a nonattainment area (transitional) for the State 1-hour and 8-hour ozone standards (AQMD 2021). The criteria air pollutants of greatest concern are ozone and PM10. The nonattainment status of the region and the Sacramento Valley Air Basin can be attributed to the region's development history and the influence of wildfire activity.

Page 5.2-1 Staff concludes that the project will result in significant and unavoidable impacts to biological resources by two distinct means. First, significant and unavoidable impacts to biological resources related to the potential for a wildfire either started on site, or coming to the site, to more quickly spread to nearby national forests and other wildlands due to the wind turbines obstructing aerial firefighting and impacting fire suppression activities. A more rapidly spreading fire can subject individual species on and off site, especially in the national forests, to direct and indirect mortality as well as destroy habitat, remove access to foraging and reduce food sources, remove important sheltering sites, alter water chemistry, and foul water ways with ash and debris. Second, significant and unavoidable impacts to biological resources related to the expected mortality of birds, bats, and insects from collisions with the turbines. The conclusions of this section related to a more rapidly spreading fire are based on the analysis and conclusions set forth in Section 5.7, Hazards, Hazardous Materials, and Wildfire. Specifically, Section 5.7, pages 5.7-17 to 5.7-18, discusses fire modeling under different scenarios including with and without the use of certain aerial firefighting assets. The modeling shows increased spread of wildfire. The modeling revealed that under the modeled scenarios of two ignition locations near the southwest corner of the project site and near the west central edge of the project, in the 6-hour period with no flight restrictions assumed scenario the fire areas range from 275 acres to 660 acres, respectively, and for the 24-hour with flight restrictions scenario the fire area grows significantly and ranges from 7,485 acres to 9,300 acres. Further, Section 5.7 at page 5.7-18 describes ember spotting, and notes it is a behavior common in severe wildfires, where embers lofted ahead of the main fire front create new ignitions. Ember spotting has allowed fires to "jump" roadways and fuel breaks in multiple California wildfires, notably including the 2024 Park Fire and the 1992 Fountain Fire. A fire that can more rapidly spread because certain aerial firefighting assets are impacted by the project's turbines, combined with conditions that favor ember spotting, risk reaching and destroying habitat in nearby national forests.

Page 5.2-136 Increased Risk of Wildfire. The project has the potential to increase the risk of wildfire during construction. Wildfires can be initiated during vegetation removal, grading, welding, blasting, improperly storing oiled rages, or other activities that generate sparks or heat. Fires can also start if sparks occur when vehicles or equipment drive over rocks along access roads. Parking in dried vegetation or if workers improperly dispose of cigarettes or other flammable items can also result in fires. The Applicant has proposed several measures to reduce the risk of wildfires including the use of fuel breaks and other fire safety measures.

Page 5.2-137 Based on substantial information in the proceeding's record as described in Section 5.7 the turbines would impose an obstruction that could impair aerial firefighting at the site (FWPA, TN 254875; FWPA, TN 254899). Should wildfires occur on site or come to the site during O&M activities they could spread to adjacent lands including the LNF and SNF. More importantly, should firefighting activities of such wildfires be hindered because of the large turbine heights and layout of the project it could contribute to stand replacing fires in adjacent lands including National Forest Lands. Even with the implementation of staff's COCs impacts would remain significant and unavoidable. Page 5.2-139 Although wildfires are a natural part of forest ecosystems and are often beneficial in some circumstances; stand replacing fires and large mega complex fires can kill even large trees and permanently alter landscapes. Staff considers it likely that a wildfire will occur in the region based on the existing fire history

## Page 5.2-149 The key concern for staff is how the location and design of the project hinders aerial firefighting in the project site and in the surrounding area.

Page 5.7-4 There are no specifically designated evacuation routes described in the Emergency Operation Plan, Community Wildfire Protection Plan, or the Shasta County General Plan. The area surrounding the project is a rural area with limited local access roads and with the main access road and potential evacuation route being SR 299, on the north edge of the project.

Page 8-45 The applicant has stated in its project description that the proposed project has an expected capacity factor of 26-32%. CEC wind generation data from the Hatchet Ridge Wind development, with the optimum site on top of Hatchet Ridge, indicates that the Hatchet Ridge Wind facility tends to have a lower capacity factor in the summer and higher in the winter. For example, between July and October of 2022, the monthly capacity factor ranged from 13% to 23%, with the July, August and September capacity factor averages from 2014 to 2022 being 21.7%, 21.3% and 26.1% respectively (CEC 2022b). The Hatchet Ridge Wind facility is sufficiently similar in location to the proposed facility to be instructive regarding when and how energy generation would likely serve the statewide needs. The generation is at its lowest level when statewide energy needs are at their greatest, and is not able to target the critical period of between 4:00 p.m. and 9:00 p.m. in the summer months.

Page 8-58 The applicant indicates the expected capacity factor for the project is 26-32%. This, coupled with information from the applicant that the project is serving the grid in general, evidences that the project is not intended to contribute to local reliability or specifically address the net peak time when thousands of megawatts of solar come off the system, and other sources are needed especially in the summer between 4 p.m. and 9 p.m.

A BESS Alternative can support both the local and region wide grid reliability, because a BESS offers the CAISO a reliable dispatchable energy resource to the electrical grid, especially in net peak times (Docket 01-AFC-18C, TN 248510, pp. 2 and 9.)

A BESS also provides support for the grid and renewable generation by reducing renewable energy curtailment. According to National Renewables Energy Lab (NREL), in addition to addressing temporal mismatches between renewable energy supply and electricity demand (e.g., excess wind generation in the middle of the night) that may require renewable generators to curtail their output, a BESS can help defer or circumvent the need for new grid investments by meeting peak demand with energy stored from lower-demand periods, thereby reducing congestion and improving overall transmission and distribution asset utilization. NREL notes that a BESS can provide fast response to a contingency such as a generator failure or some other real-time grid need (Bower et al. 2019). Table 8-8 summarizes the potential applications for BESS in the electricity system, as well as whether the application is currently valued in U.S. electricity markets.

Page 11-1 Staff recommends the CEC not certify the project because the project conflicts with local land use ordinances and substantial evidence supports a finding that the project is not required for public convenience and necessity. Alternatively, if the CEC finds the project is required for public convenience and necessity, staff concludes the record supports a finding that there is a more prudent and feasible means for achieving public convenience and necessity through a project alternative.

Further, the project will result in significant unmitigable environmental impacts and based on substantial evidence in the record, staff recommends the CEC not issue a statement of overriding considerations under CEQA.

Staff's recommendations are based only on the facts in this record and are not intended to be generally applicable to pending or future recommendations regarding other applications for siting certifications made to the CEC.

Page 11-2 In applying our discretion, we note first that the Commission has consistently regarded a LORS override as "an extraordinary measure which . . . must be done in as limited a manner as possible." (Commission Decision, Eastshore Energy Center, Pub. No. CEC-800-2008-004-CMF, Docket No. 06-AFC-6 (Oct. 2008), p. 453.)

Page 11-4 The record establishes Shasta County's express and consistent opposition to the project. Shasta County denied the Fountain Wind project and subsequently amended its zoning laws before the applicant filed an application with the CEC, and adopted additional requirements after the applicant filed its application with the CEC. The project's noncompliance with local zoning laws has not been corrected or eliminated.

Page 11-9 While project capacity, in this case 205 MW, is important when considering the project's public convenience and necessity, capacity factor is also important. As detailed in Section 4.2 Facility Reliability, the applicant has indicated in its project description that the proposed project has an expected capacity factor, or percentage of time operating at maximum output, of 26-32 percent. Data from the CEC's wind database shows this range is comparable to some other wind farms, including the nearby Hatchet Project which had an overall 2022 capacity factor of 31 percent. (Id.) The best performing wind farms in the state, located in the Tehachapi, Monterey, Altamont, San Gorgonio, and San Diego can hit an annual capacity factor of 40-50 percent. (Id.)

The proposed site location is not within one of the previously identified and established wind resources areas and the project's expected capacity factor will be lower than other projects located in the state's traditional wind resources areas. The applicant has indicated that: to the Applicant's knowledge, the Fountain Wind Project is the only greenfield, utility-scale wind energy project currently under review by any permitting entity in California. This is the case not because there is no market for wind energy in the state, but because there are very few available sites suitable for new utility-scale wind energy in California. (See Responses to Data Request ALT-01 and ALT-02, TN 250551)

Page 11-4 Based on the entire record, the present project is not designed or located to address any acute reliability needs that would reduce the risk of power loss for the local community. While the project would contribute renewable energy to the wider grid, the expectation that the facility's capacity factor will be lower in the summer, a time when grid stress is most likely to occur, supports the conclusion that reliability benefits of the project are not significant. Last, wind is an intermittent resource, and in contrast to solar and BESS resources, does not fill any specific reliability need locally or to the grid OVERRIDE FINDINGS AND RECOMMENDATIONS 11-14 Fountain Wind Project Staff Assessment beyond providing electricity when the wind is adequate. For these reasons, staff considers the reliability of the project to provide a modest benefit.

## Page 11-29 Proposed Findings of Fact Regarding CEQA Overriding Considerations

 Based on substantial evidence, significant unmitigable impacts result from the project in the areas of Biological Resources, Visual Resources, Tribal Cultural Resources, Wildfire, Forestry Resources, and Land Use.

2) California Code of Regulations, title 14, sections 15091 and 15093 require an agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

 The project may result in the mortality of birds, bats and Monarch butterflies through turbine collisions and may enhance wildfire spread impacting offsite habitat.

 The proposed wind turbines would be visually intrusive and cannot be camouflaged or screened given their size, color, and motion in comparison to the existing landscape.

5) Important tribal cultural landscapes coalesce in the drainages of Hatchet and Montgomery creeks where the applicant proposes to build the project. Modern tribal members retain their lengthy and intimate connection to this place for cultural identity. In addition, at least twenty discrete tribal cultural resources are in the proposed project site or within its viewshed.

6) The layout of the 48 turbines each up to 610 feet tall, scattered throughout the over 2800-acre project site represent aerial hazards and reduce the zones within the project site aircraft can fly to deploy fire retardant.

 Under CEQA a project that is inconsistent with established zoning laws may be considered as having a significant impact to land use and planning. 8) The project is zoned as a timber harvest district limiting the project site for timber harvesting and related activities. The project would result in the permanent conversion of 518 acres of forest land to non-forest use. Forests within the project site have high to intermediate productivity potential based on site class (primarily Site Class I, with some Site Class II).

 The project contributes to statewide renewable energy and carbon free energy goals under SB 100 and potentially displaces GHG emissions.

10) The project provides economic benefits to the county through direct and indirect construction output, temporary employment to about 70 workers per month for two years and permanent employment to eight workers during operations. According to the project's economic impact assessment, the project is estimated to generate approximately \$60 million in property tax revenues over the life of the project (2021-dollar terms), which is an average of about \$1.7 million annually.

Page 11-30 Based on substantial evidence and detailed analysis identifying multiple significant and unavoidable impacts, which includes potential injury and death to special status species, disruptive changes to the visual characteristics of the region, damage to cultural sites and interference with tribal practices, and impacts to aerial firefighting, and only moderate local and statewide benefits in the areas of renewable energy, greenhouse gas emission reductions, and local jobs, staff recommends the CEC find that on balance, the project's significant impacts are not outweighed by the project's benefits and the project should be denied.