



November 2, 2020

SENT VIA EMAIL

County of Alameda Planning Department

224 W. Winton Avenue, Room 111

Hayward, CA 94544

ATTN: Andrew Young, Senior Planner, andrew.young@acgov.

Re: Aramis Solar Energy Generation and Storage Project EIR, Alameda County Planning Application PLN2018-00117

Dear Mr. Young,

Friends of Open Space and Vineyards (FOV), a conservation organization based in Livermore, submits the following comments on the Draft Environmental Impact Report (DEIR) prepared for the Aramis Solar Energy Project (Aramis). FOV was founded in 1981 in an effort to stop uncontrolled residential development from taking over the land in the South Livermore Valley and displacing our local vineyards, wineries, and open space resources. We actively participated in the development of the South Livermore Area Plan, an innovative land use plan adopted by Alameda County in 1993, and also participated on the Citizen's Advisory Committee which assisted in the development of the South Livermore Specific Plan which was adopted by the Livermore City Council in 1997. In subsequent years, our mission has been expanded to include protection and preservation of North Livermore agriculture and open space lands.

We have reviewed the draft environmental impact report for Aramis and have identified deficiencies in the analysis and conclusions. We submit the following comments for response.

Project Description

3.4.2 Solar Photovoltaic System

The DEIR indicates that the maximum height of the solar panels in their stow position would be 8 feet. To better understand the practical ramifications of operating the panels in conjunction with sheep grazing, the EIR should be revised to specify the full range of height of the panels, the size of the panels, as well as the length of time per day the area beneath the panels will be partially to completely shaded, and the length of time per day the panels will be maintained in a stow position.

3.6.3 Water Supply During Operation

The DEIR indicates that water supply for project operations may be taken from on-site groundwater wells in the Livermore Groundwater Basin. The conservative estimate is that 12.85 acre feet of water will be needed annually. This is equivalent to 4.1 million gallons per year. FOV asks that the basis for

the calculation of water needs during operations be specified to better assess the quality of the estimates.

Groundwater is a limited resource. It should not be available for what is primarily a commercial use, especially one with an anticipated 50-year lifespan. Groundwater should be available for users whose primary business is agriculture.. This would be consistent with the ECAP which envisions North Livermore as an agricultural zone. The DEIR should be revised to exclude groundwater as a source of water for project operations.

In addition, the DEIR should be revised to specify the other sources of water supply. Currently, it references that water might be trucked in from an outside water purveyor. A specific source or sources of water should be identified in the EIR so that the public can understand where off-site water for project use will be obtained as well as the number of truckloads that would be required on a regular basis for delivery if all water was obtained from off-site sources.

4.0 Environmental Impact Analysis

Cumulative Impacts Analysis

The DEIR describes its cumulative impacts methodology as “a combination of the list and plan/projections approaches, using the land use designations of the ECAP in combination with known other relevant projects in the area.” (p. 4-3.) The referenced projects are the Oasis Fund Cannabis Grow Facility, a 1 acre project, and the Livermore Community Solar Farm, a 59 acre project. Both projects are currently pending approval.

FOV concurs with the finding of significant cumulative impacts associated with areas designated as Resource Management (RM). (p. 4.11-12.) However, we disagree that the cumulative impacts of these projects on land use planning does not have a significant impact on LPA parcels as well. As stated above, the proposed project would bring hundreds of acres of solar panels onto LPA parcels. Adding the 59 acres of the Livermore Community Solar Energy Farm to the area, located just across the street from the proposed project, creates a massive solar energy “district” in North Livermore which clearly is a fundamental change to North Livermore land uses as contemplated in the ECAP as amended by Measure D, and drastically changes the agricultural character of the area. This represents a significant cumulative impact.

The DEIR acknowledges the significant cumulative impacts at an aesthetic level from the identified projects. This goes hand in hand with the overall change in the character of the land use in the area which will be cumulatively experienced if all these projects are built.

On top of these considerations, the cumulative impacts analyses are incomplete for other reasons. The applicant has identified only two projects within the vicinity of the project site for purposes of its cumulative impacts analyses. Alameda County is in the process of developing a solar policy. This policy is expected to identify appropriate sites for solar facilities and may put other limits on the production of solar energy in Eastern Alameda County. In the absence of a policy, it is difficult to effectively analyze the cumulative impacts of the proposed project. Nevertheless, it is reasonable to expect the applicant to exercise its due diligence in identifying other feasible sites for solar facilities in the area and evaluate those sites in evaluating cumulative impacts. At minimum, it should be possible

to analyze such projects in terms of cumulative impacts on aesthetics, wildlife stewardship, and land use. For example, the DEIR repeatedly states that the proposed project site is not a high quality forage site for animals and that there is higher quality foraging on surrounding sites. If North Livermore continues to be developed with solar facilities, what will the cumulative impact be on the availability of high quality foraging areas? The prospect of additional solar facilities coming into the area is not speculative. The October 19, 2020 staff report prepared for the Board of Supervisors Transportation and Planning Committee noted that the planning department has three active solar project applications (presumably this includes the proposed project and the Livermore Community Solar Farm) with inquiries for more having been made.

(http://www.acgov.org/board/bos_calendar/documents/DocsAgendaReg_10_19_20/GENERAL%20ADMINISTRATION/Regular%20Calendar/Draft_solar_policies_AC_ECAP_10_19_20.pdf, p. 2.)

A reasonable follow-up with the Planning Department could provide additional information about possible projects, including the additional active application mentioned in the staff report, and others that may be sited in North Livermore which would greatly enhance the cumulative impacts analysis presented in the DEIR. Approval of the current project will set a precedent which will justify more such projects in the future. The public deserves to know what the realistic potential for solar development is in North Livermore and how this could affect the environment at build-out in order to fully understand what the approval of the proposed project means for North Livermore.

The cumulative impacts analysis in the Final EIR should be revised accordingly.

4.1 Aesthetics

The DEIR acknowledges that the proposed project would have a significant and unavoidable impact on a scenic vista. (See AES-1, 3 & 5.) FOV concurs with this finding. The landscape maintenance buffer planned for mitigation of view shed loss is insufficient to protect against significant detrimental effects on views from the key observation points. Landscape buffering limits the open vistas that are a key component of the viewshed in the area. The DEIR acknowledges that the project would impede the views of the Doolan Canyon Ridgelines from North Livermore Ave. and Manning Rd.

The Scenic Route Element of the Alameda County General Plan indicates that natural and scenic qualities in areas beyond the scenic corridor (which includes North Livermore Ave. and Manning Rd.) should be preserved and enhanced. The DEIR finds that the project is consistent with this principle, noting that ridgeline views would not be blocked. Nevertheless, it is clear that ridgeline views will be impeded by the project. This outcome neither preserves or enhances scenic qualities in the area surrounding the project. The finding must be revised to reflect this inconsistency.

The DEIR claims consistency with ECAP Policy 108 involving siting of development to limit visibility, including clustering if necessary. FOV disagrees with this finding. The rationale for this finding is based on proximity to the PG&E Cayetano substation and Sunwalker Solar Energy Project. This analysis begs the question as to what makes for consistency. A practice of siting multiple commercial projects in close proximity to each other does not mean the policy is being correctly applied and is certainly not consistent with the character of the area as a whole. Moreover, the Sunwalker Project has not been approved as of the time of this writing, and the County does not currently have a solar energy policy in effect that would permit siting of solar facilities in agriculture lands in close proximity. This finding must be revised to reflect that the project is not in compliance with Policy 108.

The DEIR claims consistency with ECAP Policy 215 requiring the County to manage development and conservation within East County scenic highway corridors to maintain and enhance scenic values because the County has to approve the project. This is circular reasoning. By this logic, the County should not approve the project because, by the clear findings in the EIR, the aesthetic impacts are significant and unavoidable. Therefore, the project does not maintain and enhance scenic values, and the DEIR must be revised to reflect that the project is inconsistent with Policy 215.

4.2 Agriculture

The DEIR concludes that the project will not conflict with existing zoning for agricultural use or a Williamson Act contract (AG-2). This finding is based on an incorrect interpretation of the laws and regulations in place.

Under Alameda County's Uniform Rules and Procedures for local implementation of the Williamson Act, the use of solar panels is strictly limited on contracted agricultural land. Pursuant to Uniform Rule 2(I)(B)(c)(3), solar panels are cumulatively restricted to no more than 10% or 10 acres of the contracted land, whichever is less. The DEIR does not count the area covered by solar panels in its calculation of non-agricultural uses of the 101 acres under Williamson Act contract. Rule 2(E)(3)(b) states that the "area covered by the solar panels is calculated as part of the cumulative total allowed for compatible nonagricultural uses." The DEIR indicates that 38 acres of the 101 acre parcel currently under Williamson Act Contract would be developed as part of the proposed project. (Section 2.2.) The DEIR should be revised to show the calculation of the nonagricultural portion based on the total coverage area including solar panels.

The DEIR also misapplies the ECAP policies and the intent behind them as they were codified by Alameda County Measure D which was approved by voters and became effective in December 2000. As noted in the DEIR, the title of Measure D was the "Save Agriculture and Open Space Lands Initiative". This title clearly reflects the intent of the law. As stated in the preface to Measure D, which has been incorporated into the ECAP: "The purposes of this Initiative are to preserve and enhance agriculture and agricultural lands, and to protect the natural qualities, the wildlife habitats, the watersheds and the beautiful open space of Alameda County from excessive, badly located and harmful development." Measure D created a county urban growth boundary and created land use designations of Large Parcel Agriculture (LPA), Resource Management (RM) and Water Management (WM) with specifications of uses and restrictions applicable in each category.

The ECAP, as amended by Measure D, is detailed about the types of uses permitted on lands designated as Large Parcel Agriculture:

Subject to the provisions of the Initiative, this designation permits agricultural uses, agricultural processing facilities (for example wineries, olive presses), limited agricultural support service uses (for example animal feed facilities, silos, stables, and feed stores), secondary residential units, visitor-serving commercial facilities (by way of illustration, tasting rooms, fruit stands, bed and breakfast inns), recreational uses, public and quasi-public uses, solid waste landfills and related waste management facilities, quarries, windfarms and related facilities, utility corridors, and similar uses compatible with agriculture.

(ECAP, p. 47.) The proposed project consists of approximately 410 acres, 367 of which are designated as LPA, 22 acres are designated as RM, and 21 acres are designated as WM. The permitted LPA uses described above do not include industrial scale solar energy production and storage which are the fundamental purpose of the proposed project. It is reasonable to conclude that the drafters of Measure D would have listed large-scale solar energy as a permitted use had it been intended given that other energy generation uses are listed. The DEIR attempts to avoid this conclusion by analogizing the proposed project to windfarms and utility corridors. Each of these uses entails very tall “towers” that do not limit the availability of the land for agricultural cultivation and grazing beneath. The proposed project will affect the ability to graze cattle and harvest hay crops due to the significantly lower height of the solar panels. It should also be noted that utility corridors are intended for the transmission of power, not for the generation and storage of power.

Key changes in the ECAP made by Measure D make clear that industrial uses were not considered appropriate for LPA lands. Measure D deleted the following language from the ECAP listing of permitted uses: “other industrial uses appropriate for remote areas and determined to be compatible with agriculture.” (Measure D, full text, p. 8.) Had the drafters intended for industrial uses to be deemed compatible with agriculture, that specific language would not have been deleted.

The ECAP has a catch-all category for “similar uses compatible with agriculture”. The DEIR references prior decisions of the Planning Commission and County Staff to support the argument that the County has made a determination that industrial solar is compatible with agriculture. However, determinations made by the Planning Commission, a non-elected, non-legislative body, in the context of particular projects as well as interpretations of the ECAP by staff are not legal determinations and are not controlling. The clear intent of Measure D is to protect and enhance opportunities for agriculture in North Livermore. A project with a primary focus on a commercial industrial use, that covers land with solar panels and preempts the traditional agricultural activity in the area is not compatible with agriculture.

The DEIR should be revised to acknowledge the inconsistency with the ECAP and the Williamson Act rules.

The proposed project includes sheep grazing for roughly 5 months per year and commercial beekeeping as agricultural uses to support the finding that the proposed project would not convert agricultural land to nonagricultural use (AG-5). However, the Agricultural Management Plan that would provide details of how these uses would be operated is not provided. (See sections 3.6.2 and 4.4.4.2) It is unclear whether there are sheep vendors who will view grazing sheep on the project site as a commercially viable option or if commercial beekeepers have been approached about conducting a beekeeping operation on the project site. The type of forage to be planted and its suitability for sheep grazing is not identified. The number of sheep to be grazed on the property is not indicated. The DEIR also fails to specify the relative heights of the short and tall forage plants to be planted (other than a general reference to minimum and maximum heights suitable for foraging) and how long it will take for the forage areas to grow to their full height. The Agricultural Management Plan should be made a part of the EIR or, in the alternative, the DEIR should be revised to include this information so that the public and decision-makers will be able to determine if the proposed agricultural uses are viable.

4.4 Biological Resources

BIO-1 Potentially Significant Impacts on Species

California Tiger Salamander (CTS) and California Red Legged Frog (CRLF)

The DEIR confirms there is suitable dispersal habitat on the project site for CTS and CRLF. (DEIR, Table 4.4-2.) The project design includes 2 stormwater detention basins. The DEIR should evaluate whether these basins would provide dispersal habitat for these species, and whether mitigation measures are needed at the site of the detention basins during construction and operation to protect CTS and CRLF.

Raptor Foraging Habitat

The DEIR confirms that suitable foraging habitat will be provided on the project site and that raptors, in particular, will be able to forage in between solar panels based on studies conducted on Swainson's Hawks. (Section 4.4.4.2.) The DEIR fails to identify the number of rows of solar panels to be constructed, the number of acres available for foraging within the arrays, the size of the panels, and the distance between rows. In the absence of this information, it is not possible to judge the efficacy of the project for raptor foraging. Additional information should be provided.

In the absence of the availability of the Agricultural Management Plan, it is unclear how sheep grazing will impact the availability of foraging habitat. Sheep graze plants to a lower level than cows. (<https://forages.oregonstate.edu/nfgc/eo/onlineforagecurriculum/instructormaterials/availabletopics/grazing/livestock>.) It is unclear how appropriate quantities of forage at appropriate heights will be maintained year-round to provide suitable foraging habitat for raptors and other predators while sheep are on the property. The DEIR should be revised to provide more detail on this topic.

Rodenticide Use

Mitigation Measure BIO-5c.g, pertaining to the San Joaquin Kit Fox, states that if rodenticides must be used, zinc phosphide should be used because of lower toxicity to the species. However, BIO-7b, discussing mitigation for avian effects during operations specifies that no rodenticides are to be used. This contradiction should be resolved.

In addition, zinc phosphide remains highly toxic to mammal species, and poses a danger to prey species on the proposed project site and to predators. Pursuant to EPA findings:

Zinc phosphide is a very toxic substance and will kill most animals to which it is administered. Rodents are more sensitive than carnivores. Gallinaceous birds (pheasants, turkeys, other large terrestrial birds) are more sensitive than other avian species, however, some passerines (songbirds) are also sensitive. The Agency also concludes that predators or scavengers who eat a target animal that has been killed by zinc phosphide will not die, however, they may become ill, listless, and regurgitate.

(https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_PC-088601_1-Jul-98.pdf.)

“Ingestion of zinc phosphide by non-target mammals or birds leads to the liberation of phosphine and subsequent toxicosis in the same manner that target mammals are affected. Zinc phosphide is highly toxic to sheep, cows, and goats as well as non-ruminants. . . . Secondary poisoning appears to be rare in wildlife, although it has occurred in experimental settings. Risk appears to be dependent at least in part on the consumption of the gastrointestinal tract of the poisoned animal by either a predator or scavenger. Domestic dogs and cats appear to be more likely to consume the gastrointestinal tract of poisoned prey than are wild animals.” (<http://npic.orst.edu/factsheets/archive/znpotech.html>.) The Merck Veterinary Manual also states:

Vomiting, often hemorrhagic, is a common presenting sign in animals capable of vomiting. Tachypnea, ataxia, weakness, trembling, collapse, seizures, and death may ensue. If there is no food in the stomach, undegraded zinc phosphide can be absorbed systemically. An animal surviving for 48 hr can then have liver and/or renal failure within 5–14 days due to absorption of intact zinc phosphide. Zinc phosphide is thought to block cytochrome C oxidase, leading to formation of highly reactive oxygen compounds, which cause most of the tissue injury; the most severe damage is in tissues with the highest oxygen demand, ie, brain, lungs, liver, and kidney.

(<https://www.merckvetmanual.com/toxicology/rodenticide-poisoning/zinc-phosphide>.)

Based on these considerations, it would appear that zinc phosphide poses an unreasonable risk to the endangered San Joaquin Kit fox, prey species they rely on for food, raptors that may forage on the site, as well as to sheep that may be grazing the project site. No rodenticide use should be permitted during construction or operation of the project.

4.5 Cultural and Tribal Cultural Resources

The DEIR confirms that the proposed project may cause a substantial change in the significance of an historical resource, indicating that the barn and shed on the property at 4400 North Livermore Ave. qualify as historical resources under CEQA. It further states that the “proposed project will indirectly impact these historical resources by disrupting the integrity of their setting and feeling, causing a potentially significant impact under CEQA.” The planned mitigation is to take photographs of the buildings in their natural settings as part of an historical survey (MM CUL-1). This mitigation measure is insufficient to mitigate the harm from the disruption of the site caused by construction of a large-scale solar generation plant. The harm here is the loss of open ranch land which destroys the historic context of the structures. It is akin to tearing down Disneyland, leaving only Sleeping Beauty’s Castle surrounded by solar panels, houses, freeways etc. The DEIR should be revised to acknowledge that the impact on historical resources is significant and unavoidable.

4.8 Greenhouse Gas Emissions

The DEIR discusses climate change but fails to include a discussion of the Photovoltaic Heat Island Effect. This effect has been documented to raise temperatures in the vicinity of solar energy generation facilities between 3 to 4 degrees Celsius, particularly at night. (See <https://www.nature.com/articles/srep35070>.) This effect has the potential for numerous impacts such as

contributions to climate change, risk of animal habitat loss, increased wildfire risks, and generalized temperature increases affecting the suitability of the surrounding areas for agricultural operations both during operation of the facility and after decommissioning. The DEIR should provide a discussion of the heat island effect and its environmental impacts in these areas.

4.11 Land Use and Planning

The DEIR asserts that the proposed project is consistent with the Floor Area Ratio (FAR) requirements of the ECAP. Pursuant to the ECAP, as amended by Measure D, parcels designated as Large Parcel Agriculture, such as the site of the proposed project, have a FAR of .01 for non-residential buildings, with a minimum of 20,000 square feet, with non-agricultural uses limited to a 2 acre building envelope. (ECAP, p. 47.)

Alameda County staff has historically taken the position that a “building” within the meaning of the ECAP is any structure under roof. The structure is not required to have walls. Thus, horse arenas, and open covered storage areas are buildings subject to the .01 FAR. Given this interpretation, solar panels, which can be deployed in a manner that creates a roof-like coverage area, should be subject to the FAR.

The solar panels and supporting structures are clearly non-agricultural by nature. As non agricultural buildings they should, at minimum, be limited to the two acre building envelope. They are not appropriate in parcels designated as LPA. Any prior analysis to the contrary notwithstanding, solar facilities are commercial uses. As stated earlier in this comment letter, when the ECAP was amended by Measure D, solar facilities were not listed as an approved use, and language that had allowed industrial uses was deleted from the ECAP. Solar energy generation facilities can readily be distinguished from windfarms and utility corridors as noted above.

The DEIR fails to include the panels in the calculation of the FAR. It inappropriately concludes that an industrial scale solar project of the scale proposed is consistent with the Agricultural A Zoning District. The analysis should be revised to reflect the full extent of covered acreage and inconsistency with Measure D.

The DEIR acknowledges that the proposed project is inconsistent with the portion of the project site designated as Resource Management land because it would conflict with the intent of long term preservation of open space intent of that designation (p. 4.11-10; see ECAP Policy 53). FOV concurs with this assessment and recommends that this area be excluded from the project site.

Section 4.18 Wildfire

The proposed project is located in a moderate risk fire area in a State Responsibility area and is served by CAL FIRE with the closest station located 18 miles away in Clayton (Section 4.14.1.2, 4.18.1.2). The Alameda County Fire Department would respond to emergency fires with the closest station located in Dublin, 10 miles away. (Section 4.14.1.2.) A wildfire risk may be significant within the meaning of CEQA if it would pose a risk “due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.” (Section 4.18.2). The DEIR concludes that the proposed project would not exacerbate fire risks (FIRE-2, FIR-3.). It further acknowledges that “damage to the

overhead distribution lines from fallen trees or high wind and storm conditions could cause live wires to fall onto nearby dry grass and potentially start a fire” but determines that the project would not exacerbate the fire risk in part because of the average wind speed of 9.6 mph and because sheep will be utilized for grazing on the property. (p. 4.18-7.)

Within the past 3-4 years there have been an increasing number of high wind events in the North Livermore Area associated with climate change. An analysis based on average wind speeds as referenced in the DEIR is inadequate to assess the significance of the wild fire risk. The DEIR should be revised to reflect the risks associated with high wind events including the possibility of rapid fire expansion in view of the closest fire station being 10 miles away, risks to neighboring properties and structures, including, but not limited to, the historic barn and shed on the project site.

Further, the DEIR references that fire control will be aided by the sheep grazing on the property to control vegetation. Sheep are expected to be on site only during the growing season, from January to May. (p. 3-10.) It is unclear how sheep grazing will be an effective fire control tool given that the DEIR also indicates that appropriate forage habitat will be maintained for birds and mammals. Additional explanation is needed to explain how this will be accomplished while providing adequate fire control measures through sheep grazing.

5.0 Project Alternatives

The DEIR evaluates a no-project alternative, a Resource Management Avoidance Alternative, and a Reduced Footprint Alternative. It concludes that the proposed project, as designed, is the environmentally superior alternative primarily because it enables the production of more solar energy than the other alternatives. FOV disagrees with this assessment. Of the alternatives analyzed, the Reduced Footprint Alternative would be the environmentally superior alternative because it would allow for the generation of a still-significant 75 megawatts of energy while also protecting the environmentally sensitive RM & WM areas on the proposed project site. It provides a better balance of protection for the competing environmental interests affected by the proposed project.

Moreover, if the Reduced Footprint Alternative were to be analyzed in conjunction with a Distributed Generation Alternative (otherwise rejected as infeasible in the DEIR), it would be possible to achieve the project objective of generating 100 megawatts of solar power with fewer site-specific impacts. Under this analysis, the Reduced Footprint Alternative would provide for 75 megawatts of power while the balance could be obtained on distributed generation sites either through Intersect Power or through other power producers. This would satisfy the goal of 100 megawatts of power in total that contributes to meeting state renewable targets. FOV recommends that the Final EIR include an analysis of this “hybrid” alternative.

Conclusion

In closing, FOV appreciates the opportunity to comment on the Draft Environmental Impact Report for the Aramis Solar Energy Facility. We expect that the County will respond to these comments in the Final EIR.

Respectfully submitted,



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