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STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:	)	
	)	**DOCKET NO. 07-AFC-8**
	)	
	)	Community Environmental Council comments on CESF PSA
Preliminary Staff Assessment **Carrizo Energy Solar Farm**	)	

December 19, 2008
Date

Signature

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December 19, 2008

Dear Chairperson Pfannenstiel and Commissioners,

The Community Environmental Council is a regional environmental nonprofit organization founded in 1970. Our focus is now entirely on energy and climate change issues and our major campaign seeks to wean our region from fossil fuels in just one generation. We are motivated by strong concerns about climate change, air pollution, declining oil availability ("peak oil"), and national security from increasing dependency on foreign oil. We also work to highlight the many environmental and economic benefits that will result from transitioning away from fossil fuels.

We are, in concept, highly supportive of large-scale solar power facilities. We are also cautiously supportive about solar development on the Carrizo Plain, but feel that there are several unanswered questions regarding potential impacts and mitigations from the proposed Carrizo Solar Energy Farm (CSEF). Our policy is to withhold support or opposition of any given project until the final environmental review is complete. That said, we feel that any impacts from the project must be considered within the greater trends regarding energy and climate change. This project offers significant opportunities as a model of sustainable energy development and we hope to work with the stakeholders to craft an exemplary project. In light of the climate crisis and the precedent-setting nature of this project, our comments seek to improve and clarify the staff assessment by identifying impacts and benefits that may have been overlooked. We encourage a fair and reasonable assessment that is consistent with previous Energy Commission Staff Assessments.

We also feel that the tone of the PSA is unduly negative regarding the possible impacts of this project. As with all energy projects, it is imperative that potential impacts be weighed against benefits and the alternatives. As such, large solar projects, and their associated impacts, must be weighed against the status quo alternatives such as natural gas power plants, nuclear power plants and coal power plants. More specifically, as a peak power resource, large solar plants should be compared with simple cycle natural gas turbines, which are the default peak power resource in California. Large solar plants represent one of the most promising alternatives to these highly harmful status quo technologies. As the Biological Resources section states (p. 4.2-9), the biological impacts identified may be avoided or mitigated through compliance with all applicable laws, ordinances, regulations and standards (LORS). The tone of the summary would not lead a normal reader to conclude that this is the case. We recommend that the

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summary be revised to convey a better balance between impacts and benefits of the project.

We have looked at these issues in some detail in our regional energy blueprint, *A New Energy Direction* (online at www.cecsb.org) and other documents. Our blueprint's chapter on solar power includes a concise discussion of the benefits and impacts of all types of solar power projects. More recently, we have published a shorter piece on the pros and cons of small-, medium- and large-scale solar energy projects, at www.renewableenergyworld.com (attached as Appendix A). This piece provides a good overview of the tradeoffs regarding the various market segments for solar, and highlights the fact that if the state is to meet its ambitious renewable energy goals, and if we are to collectively mitigate climate change and improve our energy independence, we need all types of renewable energy projects to come online rapidly.

The balancing act that must be performed by groups like ours, and by the Commission, is to ensure that renewable energy projects are brought online where appropriate, in a reasonable timeframe, and to ensure that those projects that are brought online have impacts mitigated as much as is feasible and reasonable. We have attempted to help find such a balance with the following comments.

Summary

- The Project Area & Vicinity Description does not adequately describe the current uses or characteristics for an independent evaluation of the quality of habitat and the potential impacts.

- This lack of adequate site description has led to a discrepancy in the PSA between the Biological Resources and Land Use sections. The PSA should clarify what type of habitat exists, and if that type of habitat is suitable to support species of concern.

- The PSA fails to mention any Noteworthy Public Benefits in the biological assessment, including the local, regional, and global benefits from reducing the greenhouse gas emissions related to electricity generation.

- Similarly, the PSA fails to mention compliance with LORS regarding climate change mitigation.

- The PSA lacks information on the specific migration corridors; we encourage the Staff to withhold judgment of these corridors until the analysis has been completed.

Biological Resources (Section 4.3)

Site Description

The Project Area & Vicinity Description (p. 4.3-5) does not adequately describe the current uses or characteristics for an independent evaluation of the quality of habitat and the potential impacts. For example, an individual without knowledge of the site should be able to assess the accuracy of the Kit Fox Habitat Evaluation forms, whether the habitat characteristics are "fallow agricultural fields" or "intensively maintained row crops." As is, the vague description has led to the disparity between the Energy Commission/CDFG evaluation form and the applicant's evaluation form.

Additionally, the lack of adequate site description has led to incongruity between Energy Commission Biological Staff and Land Use Staff. In the biological resources section, staff refers to the site as "suitable habitat" for several special-status wildlife (pg. 4.2-11) yet in the land use section, staff refers to the site as agricultural land (pg. 4.5-4). At the PSA workshop on December 15, 2008, the County of San Luis Obispo Staff confirmed this qualification when he stated that the County deemed the loss of agricultural land as a "Significant, Class I impact" (Mr. McKinsey, 12/15/2008). It was also stated during the workshop that agricultural land was not suitable habitat (Ms. Vahidi, 12/15/2008) and this is further supported by the US Fish and Wildlife Service when they stated that they would not accept an agricultural easement as habitat compensation (pg. 4.2-15). Staff should clarify if the site is agricultural land or suitable habitat.

If the site is considered suitable habitat, the PSA should also clearly identify the difference in classification between "suitable habitat" and functional habitat. The assessment states that the site provides suitable habitat for some special-status wildlife, including the San Joaquin kit fox and the burrowing owl (pg. 4.2-11). While it is true that these species *could* exist on this land, the current uses and surrounding area are clearly incompatible with these species and create an environment that does not benefit the species, as evidenced by the description on page 4.2-6:

> A road-killed kit fox was observed beside the highway near the construction laydown area in 2007…Burrowing owls were detected on the project site in 2007 (CESF 2007), although no burrowing owls were detected in 2008 surveys. The owl burrow that was detected in 2007 had been destroyed by site preparation for planting (CESF 2008e).

Therefore, while the site may be able to support such species, it is not vital habitat in its existing form. Construction of the project on this land may, accordingly, have less significant impacts than identified.

The project description also fails to discuss the implications of the proximity to SR-58 in the existing habitat description. As such, the impacts of the construction and operations are overstated (p. 4.2-11). This also leads to inaccurate statements on the Kit Fox Habitat Evaluation form: Question 3 discusses isolation of the project, the Energy Commission, in conjunction with CDFG identified the site as "contiguous kit fox habitat…," but given the proximity of the road, the habitat is, by definition, not contiguous.

Mitigation

As discussed, we feel that the PSA's assessment of biological resources overstates the habitat benefits of the proposed project site and, as a consequence, the suggested mitigations are overly burdensome. We have visited the project site, and the surrounding Carrizo Plain region, and agree with portions of the PSA and the applicant that the project site is dry farmed land. Some sections of the PSA, however, suggest that the project site is not currently farmed. For example, page 1-8 states that the project site is "former" agricultural land. This is not the case, as this site was farmed in 2008 and 2007, and the site was only left fallow this year on direct request of the Energy Commission (Applicant statement, 12/15/2008). As the PSA also notes (p. 1-8), the current authorized and actual use of this land determines many key issues, such as:

> (1) the appropriate compensation and mitigation requirements; (2) the applicant's proposed compensation via an offer of agricultural land to offset habitat loss; (3) pronghorn highway crossing locations, and (4) the potential for impacts to avian species. In addition, the project as currently proposed conflicts with the recovery plan for the San Joaquin kit fox with respect to kit fox corridor needs.

The PSA states (p. 4.2-14) that applicant's proposed mitigation is inadequate, though staff acknowledges that many remaining issues must be addressed before a final determination is made. For example, the PSA discusses mitigation ratios for habitat loss, but does not include these ratios in the conditions for certification. We urge staff to remove any preliminary conclusions about mitigation until the required information is finalized.

More generally, mitigation measures must be feasible (CEQA Guidelines, section 15364 defines feasible as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."[1]). We fear that the PSA's suggestion that a 5:1 mitigation requirement for habitat loss (and a 4:1 requirement for the laydown area, p. 4-2.15) will be prohibitively expensive, possibly making the project itself unviable.

We agree with the habitat compensation requirement in BIO-17 (pg. 4.2-34), that mitigation land "must function at a level comparable to existing conditions." We feel this is a fair request, so long as existing conditions at the project site are adequately assessed. The PSA leaves, however, several mitigation issues unresolved in the Habitat Loss and Compensation section (pg. 4.2-15). Primarily, the PSA states that USFWS "will not accept an agricultural easement as habitat compensation" (pg. 4.2-15). It is unclear if the Commission is going to require the applicant to mitigate with land that is not agricultural land even though the existing land is classified as agricultural land (pg. 4.5-4).

Similarly, the Environmental Council feels that the PSA's statements regarding impacts to the American badger and the San Joaquin kit fox (p. 4.2-15) are over-stated. In particular, the PSA states: "The isolating nature of the large barrier posed by the construction laydown area can impact the viability of local populations, prevent juvenile dispersal, and have implications for the gene flow and viability of other populations in the region." This statement is not supported by the available evidence and seems hyperbolic in that it suggests that the laydown area may threaten the actual viability of local populations and others in the region. We do not believe this to be the case and we recommend that this statement be stricken or revised substantially.

[1] *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 376, states that the statute does not demand what is not realistically possible, given the limitation of time, energy and funds.

Noteworthy Public Benefits

The PSA fails to mention any Noteworthy Public Benefits (4.2-23) in the biological assessment. While many of the negative biological impacts of this project are localized, the biological benefits are local, regional, and global and should be fully considered alongside the negative impacts.

The climate crisis is largely attributed to rising levels of anthropogenic carbon dioxide and other greenhouse gases in our atmosphere. This crisis affects our weather, health, sea level, water supply, food production, and biodiversity. The International Panel on Climate Change (IPCC) Fourth Assessment Report found that approximately 20-30 percent of animal and plant species assessed were at increased risk of extinction if temperatures exceeded 1.5-2.5 decrees Celsius, and projected "significant extinctions" (40-70 percent of species assessed) if average temperature increases exceeds 3.5 degrees Celsius.[2] Another study found that between 15 and 37 percent of the world's plant and animal species will be at risk for extinction by 2050 due to climate change.[3] And while this project itself will not, of course, reverse the trends of climate change, it does significantly increase the amount of renewable, non GHG-emitting, electricity in San Luis Obispo County, thereby benefiting all species and reducing the risk of extinction.

The Carrizo Plain is blessed with good sunlight and readily available transmission access, as well as with some unique biological resources. The climate crisis, and other energy-related concerns, requires that all state agencies find the correct balance between traditional biological and habitat preservation concerns, and the broader concerns about climate change and national security.

Climate change mitigation is a major factor behind the state's push for more renewable energy. Concentrating solar power projects represent a major part of the state's potential to meet the Governor's 33 percent by 2020 goal. As the Governor's executive order S-14-08 states (emphasis added):

> California is committed to conserving natural communities at the ecosystem scale through the use of California's unique Natural Community Conservation Planning (NCCP) tool, coordinated by the Department of Fish and Game (DFG) and CEC, which

[2] United Nations, International Panel on Climate Change. *Fourth Assessment Report*. November 2007. http://www.ipcc.ch/ipccreports/ar4-syr.htm

[3] Thomas, C.D. et al, *Extinction risk from climate change*. Nature 427, pg. 145-148. January 8, 2004.

identifies and provides for the region-wide protection of plants, animals, and their habitats while allowing for compatible economic activities such as renewable energy generation.

Accordingly, it is official state policy that mitigating climate change will lead to biological resource public benefits. The PSA should be revised to reflect these public benefits.

Compliance with LORS

The PSA fails to recognize California's LORS regarding climate change. The Air Resources Board adopted the AB 32 Scoping Plan on December 11, which included a 33 percent by 2020 renewable portfolio standard. The Governor also issued, in November 2008, Executive Order S-14-08, requiring all agencies under his control to do what they can to facilitate the 33 percent by 2020 renewable energy goal. The state is currently at about 12 percent renewable energy, so we need to build 21 percent of our 2020 demand, from renewable sources, by 2020. This is a significant amount of renewable energy and it will require herculean efforts to reach this goal. The CESF project is a necessary part of reaching this goal and should be recognized as such. The state will need all types of renewable energy to reach this goal – small, mid-scale and large-scale. Each has its own pros and cons, but all segments have a role to play.

Other Noteworthy Public Benefits

Similarly, the PSA fails to mention the benefits to our region in terms of grid reliability and energy security. This project will provide, at 177 megawatts, one quarter of San Luis Obispo County's electricity demand.[4] If the OptiSolar and SunPower projects are also constructed, San Luis Obispo County may become a net exporter of renewable and emissions-free electricity. In terms of energy security, in a world of extremely volatile fossil fuel prices and concerns about supplies of natural gas and oil, such benefits cannot be understated.

Moreover, the project will require minimal new transmission infrastructure because it will take advantage of the existing transmission line that runs through the Carrizo Plain. This is the not the case for many large-scale solar or wind energy projects, which will require new transmission lines. New transmission lines are highly controversial and these controversies are a major factor behind the state's failure to meet current renewable energy goals. The

[4] Assuming a 25 percent capacity factor.

state's current Renewable Portfolio Standard (RPS) requires that the investor-owned utilities achieve 20 percent renewable energy by 2010. The project will help PG&E achieve this goal, while also helping our state become less reliant on fossil fuel resources.

The Commission's own Renewable Energy Transmission Initiative ("RETI") is a major undertaking, with the Public Utilities Commission and other agencies, to identify those areas of the state that have the best renewable energy resources. The RETI process will, as its primary outcome, identify the most promising regions and direct that limited resources for new transmission lines be directed to those regions. The major advantage of the Carrizo Plain region is that it already has three major transmission lines passing through it, with significant available capacity (Carrizo North, Carrizo South and Cuyama). Other regions identified as very promising by the RETI process, such as the Imperial Valley or Tehachapi region, do not have these benefits. As a consequence, the Sunrise Powerlink transmission line proposed by San Diego Gas & Electric to access resources in the Imperial Valley is facing major opposition (we have not taken a position on the the Sunrise Powerlink project). The Carrizo Plain region presents a great resource for our region, and for the state as a whole, because it has abundant sun and existing transmission lines.

Last, the Legislature recently required that resource adequacy requirements (additional capacity to make up for unexpected shortfalls) must include a local resource adequacy requirement. This means that a certain percentage of each of the ten load centers identified on the California Independent System Operator's system must meet a certain percentage of load with local resources. The CESF project will help PG&E meet this requirement.

The PSA should describe these benefits, as well as potential negative impacts. It is only through such even-handed analysis that a true picture of the pros and cons of major solar energy projects may be accurately evaluated.

Migration Corridors

The PSA lacks information on the specific migration corridors (pg. 4.2-13), so impacts on these corridors are unknown. We encourage a corridor modeling methodology that has been approved by all stakeholders and that is specific to the habitat type and species on Carrizo Plain. Since the corridor analysis has not been completed, it is not possible to assess the adequacy of the Wildlife Corridor Impact Mitigation Plan (BIO-18, pg. 4.2-35). The analysis should be completed and carefully analyzed before any impact mitigation is assessed.

While the PSA identifies some of the Cumulative Impacts (4.2-21) and discusses the need for corridor modeling, it does not discuss the rationale for how cumulative impacts are calculated, nor how the cumulative impacts will be mitigated. A plan for mitigating cumulative impacts should be drafted in conjunction with the applicant, OptiSolar, SunPower, and PG&E (owner of the still-fenced former Arco Solar site). The impacts will be more adequately mitigated through a comprehensive plan, than piecemeal through each project's environmental assessment. We also encourage the mitigation to be proportional to the impacts and land area covered by each of the proposed solar projects.

Socioeconomics (4.8)

In many of the other sections, impacts to individuals are discussed (noise and vibration, visual resources) but the socioeconomic section fails to address the benefits to the landowners who have leased/sold their land to the applicant. This section should address the short term and long term effect of this project on the current and previous landowners. Again, without an adequate discussion of impacts and benefits, it is difficult to accurately evaluate the net impacts of the project.

Soil and Water Resources

We support staff's recommendation to relocate the fueling area outside the 100-year FEMA floodplain, thereby eliminating the need for two creek crossings and placement of fill in the creek channel (pg. 4.9-35).

Facility Design

In order to assess the long-term impacts of this facility, we encourage the staff and applicant to more fully discuss the Facility Closure (pg. 5.1-5) in the PSA. Decommissioning plan(s) should be required before project approval or there should be specific decommissioning requirements that obligate the developer to restore the site to pre-existing conditions or better.

Alternatives

We support the Staff assessment that this project is preferable to another location, technology (pg. 5.3-1), or no project at all (pg. 6-14). And while staff

accurately identified several problems with the No Project Alternative, the PSA does not adequately discuss the potential impacts of the project not being built (pg. 6-14):

> In the absence of the CESF project, however, other power plants could likely be constructed in the project area or in California to serve the demand that could be met with the CESF project. These plants could have greater environmental impacts than the proposed project. In the near term, the more likely result is that existing plants, many of which use non-renewable resources, could operate more.

Power plants using fossil fuels contribute to climate change, which threatens 20-30 percent of all species with extinction if temperatures rise as little as 1.5-2.5 degrees Celsius.[5] Existing fossil fuel plants, or new fossil fuel plants, also have economic repercussions that have not been addressed by the staff assessment. The cost of fossil fuel energy generation is based on the cost of the resources, and while those costs are variable, they have been consistently increasing over the last decade. By depending on these fuels, we are subject to variable and rising electricity prices. In contrast, solar electricity prices are primarily determined by the initial capital cost, which means that the costs may be fixed over the next 30 years. This introduces market stability and steady prices for electricity in the long-term.

Additionally, we encourage the Energy Commission to examine the feasibility of installing 177 MW of rooftop solar throughout San Luis Obispo County, due to the fact that we increasingly hear various parties throughout California commenting on this issue. Pertinent questions include available space, speed of installation, permitting process, quality of insolation in coastal regions, and – most importantly – cost. As discussed in our recent article (cited above) on the pros and cons of different-sized solar projects, large-scale solar projects are far less expensive than rooftop solar projects. The cost to San Luis Obispo County ratepayers and taxpayers would be more than twice the price for 177 MW of solar power from rooftop facilities, versus the proposed project (about 41 cents/kWh versus 18 c/kWh, according to our calculations, which represents the total cost separate from available rebates, tax credits and other incentives). <u>This is a substantial cost premium that should be considered in any alternatives analysis</u>.

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[5] United Nations, International Panel on Climate Change. *Fourth Assessment Report*. November 2007. http://www.ipcc.ch/ipccreports/ar4-syr.htm

Table 1. *Cost differential between rooftop solar and large-scale solar.*[6]

	Rooftop solar	CESF project
Capacity in kW	177,000	177,000
Annual kWh production	279,093,600	348,867,000
25 year cost ($)	$2,867,400,000	$1,593,000,000
Annual cost (cents)	11,469,600,000	6,372,000,000
c/kWh levelized cost	41.1	18.3

Conclusion

We strongly support renewable energy in general and solar energy in particular, and are excited about the potential for this project. We believe it is our responsibility to meet our energy needs with in-state resources in order to encourage localization of energy and economic benefits, to reduce transmission line losses, and to remind energy consumers of our consumption patterns – thus perhaps helping the state further in its energy efficiency and conservation efforts. That said, we reserve our full support for this particular project until the biological impacts are more fully assessed and the cumulative impacts are better understood. We hope that all of the stakeholders can work together so that all, or parts, of these projects can be built and that the impacts are fully mitigated.

Sincerely,

Megan Birney

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Tam Hunt

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Community Environmental Council

[6] Assuming $5,000/kW capital costs for CESF's project and $9,000/kW capital cost for rooftop solar.

Appendix A

The Goldilocks Problem

What is the best size for renewable energy projects? The answer is, of course: it depends. It depends on location, renewable energy resources (sun, wind, etc.), and costs. The bottom line is, however, that we truly do need all the renewable resources we can get. We have major crises either upon us or heading our direction that require a rapid buildout of renewable resources. At the same time, we need to vigorously pursue all available energy efficiency improvements.

Regarding the goldilocks problem of renewable energy, it's important to be aware of the costs and feasibility of the various market segments. I divide the renewable energy market into three segments: small-scale (one megawatt and less); medium-scale (one to twenty megawatts); and large-scale (above 20 megawatts).

The advantage of small-scale renewables like rooftop solar photovoltaics is that they can be built relatively quickly due to fewer permitting hurdles. They also take advantage of rooftops or parking lots, so don't require disturbing large amounts of land. Even though there are still permitting problems in many jurisdictions, conditions have improved remarkably in recent years. At the same time, the general public has become more tolerant of seeing solar panels on rooftops. And installers have become more adept at installing small installations tastefully.

The primary downside to small-scale renewables is that they are often still relatively expensive. It also requires a lot of small-scale renewables to add up to a large-scale impact in terms of climate change mitigation or energy independence. California enacted the California Solar Initiative in 2007, with a goal of 3,000 megawatts by 2017. This sounds like a lot, but it will comprise about half of one percent of California's power needs in 2017. We need much more. The CSI is also relatively expensive. The program provides about $3 billion over ten years in rebates. Even with rebates and federal tax credits (amounting to $ billions more), rooftop solar is still in many situations significantly more expensive than other types of solar.

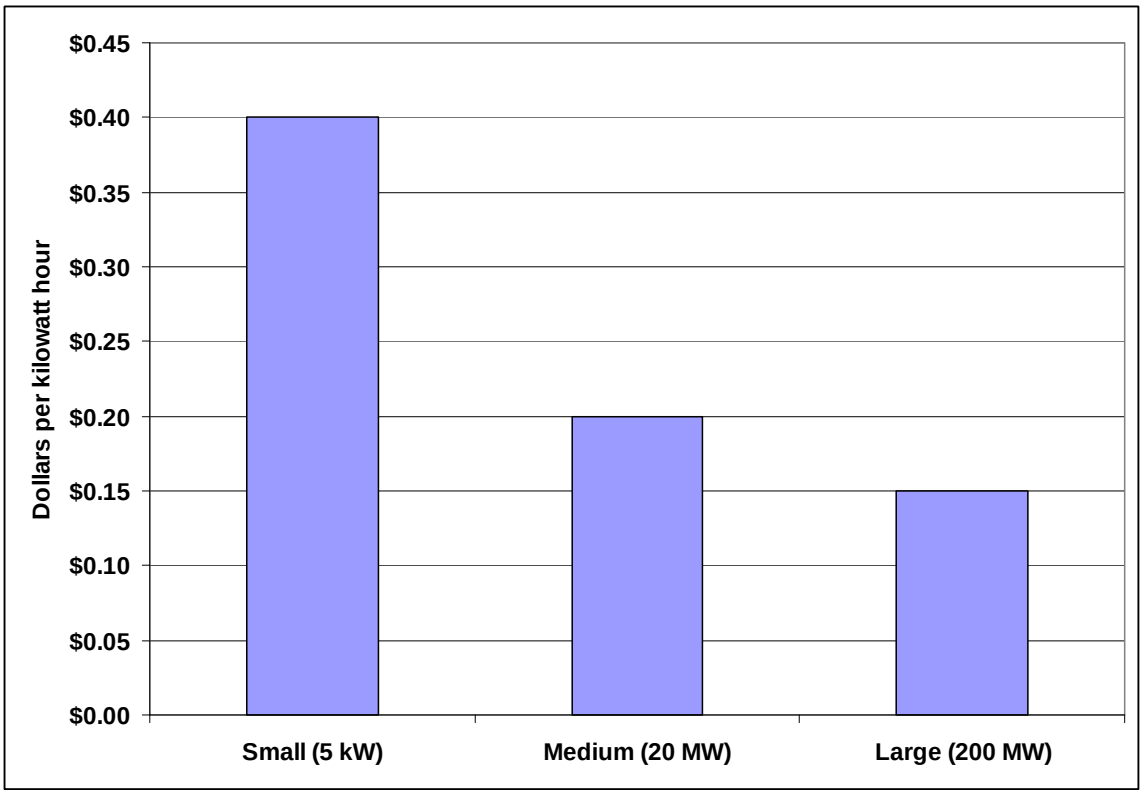
For example, medium-scale solar facilities (one to twenty megawatts) cost about half what residential solar facilities cost, on a unit basis (cents per kilowatt hour). When we're talking about thousands of megawatts, this adds up to a big difference to ratepayers and taxpayers. Medium-scale solar facilities have a major advantage in that they generally don't require any serious transmission infrastructure to be added. A recent report from the California Energy Commission's Renewable Energy Transmission Initiative found the potential for about 28 gigawatts of medium-scale solar (20 megawatts each) in California alone. This is enough for about one-fifth of our total power demand.

The main downside to medium-scale solar is that it is still relatively expensive when compared to fossil fuel power. This is why we haven't seen a huge buildout in this segment already. As I wrote about in my last column, we need costs to come down a little and/or to provide just a few cents more policy support for medium-scale solar power and we will probably see this market take off. I'm optimistic that we'll see this happen, but it will probably still be a couple of years before new regulations are in place to achieve this change.

The large-scale renewable energy segment is the least cost segment. This should not be surprising because economies of scale, by definition, lead to lower costs. Large-scale projects cost one-fifth to one-third less than medium-scale projects, depending on a number of factors. Large-scale projects can be truly large: Clipper Windpower recently announced a new deal with BP for a 5,000 megawatt wind farm in North Dakota, to be named, appropriately, "Titan." In California, Edison and Alta announced an agreement in 2007 for a 1,500 megawatt wind farm in the Tehachapi region. And numerous solar projects have been announced around southern California, some approaching 1,000 megawatts in scale. Clearly, with a dozen or two of these types of projects in California, we can make a serious dent in greenhouse gas emissions and in improving energy security!

Figure 1 shows the approximate costs of each type of solar power, as a representative renewable energy technology. Many factors determine the actual costs at any given location, but these figures show the relative costs, which is my key point. Keep in mind that these cost figures do *not* include taxes and rebates because my figures represent the total societal costs – not just the costs paid by a homeowner, utility or other entity.

Figure 1. Approximate total societal costs for solar market segments. (Sources: California Energy Commission; Black & Veatch; E3).



The downside, of course, to these large-scale projects is that they can have large-scale impacts. One proposed solar project will cover nine square miles. And large wind farms have viewshed impacts that affect many residents and certainly have impacts on wildlife (though the actual impact is far less than detractors often claim). All of these impacts must be weighed against the alternatives – coal, nuclear, natural gas, big hydro – and it is quite clear to me, at least, that the impacts from even these very large projects are far less than the alternatives. But I can't speak for everyone and unfortunately these large projects arouse the ire of many in the communities where they are proposed.

So what should policymakers do? Which size is "just right"? Again, *we need all the renewable energy we can get – and quickly.* So while the answer does depend on many facts specific to each case, the complete answer is that no size is just right – <u>we need them all</u>. But we should also keep in mind that there are tradeoffs for each market segment.

No renewable energy project should, however, be given *carte blanche*. All projects should be as environmentally sound as possible. But when comparing different types of renewables it's very important to keep in mind the relative economics and the relative impacts of each type.

In this modern Goldilocks story, then, Goldilocks tries each bowl of porridge and declares: "They all present unique flavors and textures, and I like each in their own special way. But I'm still hungry! Can I please have some more of all three?"

Tam Hunt is Energy Program Director and Attorney for the Community Environmental Council in Santa Barbara. See www.cecsb.org for our regional energy blueprint. He is also a Lecturer in renewable energy law and policy at the Bren School of Environmental Science & Management at UC Santa Barbara.

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APPLICATION FOR CERTIFICATION FOR THE *CARRIZO ENERGY SOLAR FARM PROJECT*	**Docket No. 07-AFC-8** **PROOF OF SERVICE** **(Revised 11/25/2008)**

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

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DECLARATION OF SERVICE

I, Hilarie Anderson declare that on January 6, 2009, I deposited copies of the attached Carrizo PSA Comments in the United States mail at Sacramento, CA with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Original Signature in Dockets
Hilarie Anderson

*indicates change