



THE SELECT COMMITTEE ON
ENERGY INDEPENDENCE AND GLOBAL WARMING

Dear Mr. Gallagher:

Following your appearance in front of the Select Committee on Energy Independence and Global Warming, members of the committee submitted additional questions for your attention. I have attached the document with those questions to this email. Please respond at your earliest convenience, or within 3 weeks. Responses may be submitted in electronic form, at aliya.brodsky@mail.house.gov. Please call with any questions or concerns.

Thank you,
Ali Brodsky

Ali Brodsky
Chief Clerk
Select Committee on Energy Independence and Global Warming
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1. Where are your SunCatchers manufactured? If the United States wants to enhance our energy independence, does it make sense to move from using Middle Eastern oil to using Chinese solar panels?
 - a. Approximately 95% of the SunCatcher components will be manufactured in the US and Canada, largely in the upper Midwest. Sites for manufacturing and assembling some components and subcomponents are still being decided. Final assembly of the SunCatchers from the components and sub-assemblies will take place in the US at project sites in the southwest. This North American supply chain and manufacturing base will support US energy independence. We also expect to utilize our North American supply chain and manufacturing base to export generating equipment overseas to support our international development projects.
2. What is the life cycle of the SunCatcher? Are there environmental considerations that must be examined during the disposal of waste solar panels?
 - a. SunCatchers are designed to operate for approximately 30 years. The machines are undergoing accelerated life-cycle testing now to validate those designs. The SunCatcher is a different technology from solar panels, and does not raise the same issues with respect to potential for hazardous waste. For projects that are on BLM land, the BLM requires financial security to be posted to ensure that the project and equipment can be

removed from the land at the end of their useful lives (or end of the lease) and the land can be reclaimed.

3. You make some recommendations for improving the permitting process. Can you extrapolate on your proposed reforms? How would increasing application fees and thus driving up the price of a project, be of benefit to solar companies? Do these hurdles primarily exist on federal lands and with BLM or do state and local regulatory bodies also pose significant challenges during the permitting process? How much (what percentage) do you suggest increasing the fees by? Won't this pose a similar burden as the competitive leasing model in that smaller companies with fewer financial resources would have a tougher time meeting these costs?
 - a. Increased application fees would tend to deter speculation, thus reducing the workload for BLM and allowing a greater focus on "real" projects that are willing to pay increased application fees and meet stricter milestones for development. Deterrence of speculation through increased fees would also help to address concerns that too much BLM land may be developed for Renewable Energy.
 - b. BLM has worked diligently on the permitting and environmental review process for utility scale solar projects, and Tessera Solar/SES have established a good working relationship with BLM. However, BLM has been under-resourced and we support providing greater resources to BLM to handle the workload. As a corollary, we recommend providing tighter milestones that both the BLM and the project applicants must meet in the permitting process. That is, applicants should have to meet milestones in order to keep the project "alive" in the permitting process, and BLM should similarly be required to meet permitting milestones – utilizing the enhanced resources that we recommend they be provided – to move the process toward completion.
 - c. State and local permitting varies by state but can add complexity. For instance, in California BLM has entered an MOU for permitting with the California Energy Commission, which has state jurisdiction for environmental review and permitting. The CEC and BLM are working to producing a joint state (CEQA) and federal (NEPA) document. This is a worthy goal and the agencies are working well together, but it certainly adds complexity and sometimes time to work together. Additional BLM resources would be helpful.
 - d. In February the solar industry made a proposal to BLM to require payment of a non-refundable \$75,000 fee for parcels up to 7,500 acres, with payments of \$50,000 per each additional 0-5,000 acre block. Under the proposal, this non-refundable fee would, by Congressional authorization, be used solely for staffing BLM solar energy staffing needs.

We believe that a reasonable fee increase on this order of magnitude would enable smaller companies that have serious, shovel-ready, projects to continue to participate. A competitive leasing model could drive initial costs much higher.

4. Do you support reducing the NEPA process only for solar loan guarantee projects or would the streamlining of NEPA apply to other clean energy projects as well?
 - a. We as a company and the solar industry as a whole are very supportive of NEPA, and are loathe to propose changes to NEPA that some may perceive as weakening it. That being said, there is a serious concern that applying NEPA to the Loan Guarantee process could impact the ability of otherwise shovel-ready projects to commence construction in 2010. That concern has been exacerbated by the slow start-up of the Loan Guarantee program. For instance, a project in Texas that is on private land and does not otherwise trigger NEPA (e.g. no ESA issues) can complete permitting in Texas in a matter of months. If the project seeks a Loan Guarantee, and NEPA is triggered, DOE will not even begin its NEPA process for several months (e.g. until a term sheet is offered), thus permitting and construction may be delayed. It should be possible to work out a mechanism for NEPA streamlining to be applied to clean energy projects that (i) otherwise do not trigger NEPA; and (ii) otherwise could go into construction in time to obtain the ITC grant. For instance, one possibility may be to allow access to the site for initial construction activities after the completion of the state permitting process but before completion of the DOE LG NEPA process.
5. Have you or are you planning on applying for funding provided by the American Recovery and Reinvestment Act? If so, how is that funding going to be used? Is the funding provided by the grants capital that could not be acquired through other means?
 - a. We expect to apply for DOE loan guarantees for up to three projects (still under consideration since the recently released DOE solicitation appears to limit to one application per technology per applicant). We intend to commence construction for up to three projects by the end of 2010, plus our small (1.5 MW) reference plant facility which will commence construction in fall 2009, and to seek the ITC Grant for such projects. The Grant program was intended to make up for the market failure in the tax equity market stemming from the troubles in the financial industry. We understand that the tax equity market continues to be largely closed to projects such as ours.
6. How frequently must the SunCatchers be generating electricity to be cost-competitive? Specifically, would your product be cost-competitive in regions that are not abundant with solar resources, such as Wisconsin?

- a. Initially, we will seek to develop projects in the southwestern United States, where the “direct normal insolation” or DNI is highest. Over time, as costs come down through volume, supplier optimization, and technology roadmap improvements, it may be possible to develop projects in areas with less solar resources, further north and east. Solar power can also be delivered to the north and east through expansion of the transmission grid, which will be necessary to meet renewable energy and climate goals.
7. Regarding transmission costs, you say that this should be borne by the transmission owners – in the case of your Southern California Project, you estimate a cost of \$400 million. How do you propose this occurring without the costs being transferred on to consumers?
 - a. Consumers pay either way; it is primarily a matter of timing. When new generation comes on line, network upgrades may be required to accommodate the new generation on the grid. In the case of our project with Edison, the costs of the network upgrades are estimated at \$400 million, although those upgrade will also serve other new generation projects. Under the current system, transmission customers such as a renewable developers pay the costs of the network upgrades “up-front,” and then are reimbursed by the transmission owner (e.g. the utility) over a five year period. Of course, the utility passes the costs on to consumers. This system effectively makes the renewable energy developer a banker to the utility. It is inefficient – the utility has a much lower cost of capital than the developer. And it threatens projects, since developers may be unable to come up with the funding for the transmission on top of the funding for the clean energy project. The system results from the reasonable goal that the utility only build transmission for generation projects that actually get built, to ensure that the transmission upgrades are utilized. The solution is to require the utility to pay “up-front,” when certain reasonable criteria are met – such as that the transmission upgrades would serve multiple new generation projects, and/or that there are enough potential generation projects in the area to reasonably conclude that the transmission upgrades will not become stranded assets if they are built.
8. Do you support the development of more nuclear power to satisfy baseload demand as a carbon-free source of electricity?
 - a. We do not have a company position on nuclear power at this time.