Tessera Solar™
power from stirling energy systems

November 20, 2009

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California Energy Commission
Dockets Office, MS-4
RE: Docket No. 09-Renew-EO-01
1516 Ninth Street
Sacrament, CA 95814-5512

RE: Tessera Solar Comments Regarding BMP and Guidance Manual: Desert Renewable Energy Projects

To Whom This May Concern,

Tessera Solar North America (Tessera Solar) appreciates the opportunity to have reviewed *Best Management Practices & Guidance Manual: Desert Renewable Energy Projects* (CEC-700-2009-016-SD, October 2009). Tessera Solar notes that while it is useful to see these requirements all in one place, the result will likely be longer document preparation and permitting timelines. It is not clear how this helps the state and nation *rapidly* respond to the need to reduce greenhouse gas emissions resulting from our fossil based electrical system. This system has been running up against significant supply and demand issues globally for the past handful of years as oil production has been on a plateau trending downwards. Moreover; maintaining the status quo (e.g., long permitting schedules, competing regulatory direction) is likely to imperil the existence of species we seek to protect even further when viewed through the lens of climate change.

In a July 2008 US Department of Energy Report, *20% Wind Energy by 2030 – Increasing Wind Energy's Contribution to U.S. Electricity Supply*, states on page 107 Section 5.2.1:

> *A 2004 study in Nature forecast that a mid-range estimate of climate warming could cause 19% to 45% of global species to become extinct. Even with minimal temperature increases and climate changes, the study forecast that extinction of species would be in the 11%-34% range (Thomas et al. 2004).*

Agencies should consider whether there is an "acceptable and appropriate" path that is perhaps not the "best" but that will meet both our state and national environmental objectives and the overarching and urgent need to reduce our state's and nation's greenhouse gas emissions to developing alternative fuel sources. Tessera Solar believes there is an approach that would be "acceptable and appropriate" and would appreciate the opportunity to come together with other renewable developers, agencies, and NGOs to continue this dialogue in the future. Three to five – seven year (or longer) permitting timelines are unreasonable and are becoming fatal flaws for development companies. Given the scale factor to transition from fossil fuel electric generators to renewable electric generators of electricity – time is of the essence.

Please accept the following general and specific comments related to the above referenced document:

General Comments:

1. Executive Summary – line 36, page 1: National Environmental Policy Act (NEPA) is misspelled.
2. Cultural Resources – we request specific and common protocols be established by agencies early on in the process
3. It appears that not all resources/topics typically discussed in an AFC are represented in the manual (e.g., Socioeconomics, Alternatives, Cumulative, Life Cycle Analysis)
4. The guidelines do not mention benefits associated with development of an alternative site (s) feasibility study that would presumably be completed before the AFC is filed. These studies would be required by NEPA and for an Army Corps of Engineer's 404 (b) (1) Alternatives Analysis, Individual Permit. This type of an effort would clearly streamline permitting activities in the long run and is more in line with the vision of the NEPA.
5. Tessera Solar notes that generally the guidelines require what is already expected.
6. We have heard that developer/applicant changes to the project description delay permitting schedules. However, some level of changes to the project description are a fundamental component to minimizing environmental impacts and should be both allowed and encouraged during the permitting process as new information comes to light. If "typical" worst case impacts across all resource groups are defined and disclosed early on when weighed against a range of reasonable ranked alternatives, this should set the bench mark moving forward for impact disclosures. Minor changes to the project and changes that reduce impact levels should not serve to delay the process.

Specific Comments:

1) *Air Quality* - The CEC will require no net emission increase due to the Project. This means they will require offsets for Project emissions from combustion as well as dust emissions from:

    a. - mirror washing
    b. - fuel transport & preparation
    c. - delivery of consumables
    d. - Project operations

    Issue: If this requirement is successfully implemented, then every project will need offsets. There will be no exemptions and in most parts of the state PM10 offsets are extremely hard to find and thus very expensive. Offsets for other pollutants can also prove to be very expensive. We recognize that most air districts do not require offsets for construction as these emissions are temporary. This comment is directed at operation offsets. Tessera Solar would also like to inquire about renewable energy projects credited for avoided emissions for fossil fuel plants not dispatched.

2) *Air Quality* - Applicants will need to submit the Air District's PDOC with submittal of the AFC. However, the CEC may accept the ATC application with the AFC.

    Issue: Currently the ATC application is submitted at the same time as the AFC. CEC requirements for air analyses are subject to change, so it can be anticipated that new analyses will be needed for the CEC application. The local air district always wants to

see these analyses before completing the PDOC. Thus it is not practical to get a PDOC before the initial CEC review.

3) *Air Quality* - If a conformity analysis is required, the Applicant will need to provide the conformity finding with submittal of the AFC.

   Issue: This requirement unnecessarily burdens the front end of the permitting process, as the conformity analysis can reasonably occur at the same time as the CEC process. The CEC can and does make it a condition that if a conformity analysis is required it must be completed before operation can commence. Conformity Analyses usually take more than 1 year to obtain. Thus, it would be more reasonable to maintain the existing requirement that the conformity analysis be completed before operations commence.

4) *Air Quality* - Applicant will need to provide an emission inventory from a similar existing facility.

   Issue: Similar facilities may not exist, thus this may not be a feasible request.

5) *Biology* - It appears that the CEC is asking for plans and non-CEC permit applications to be done as part of the AFC submittal. Typically 404 and SBAA applications are done between the SSA and SA/FONSI since you should have the near final design included in the application. Project design changes occur during the AFC process, so it is premature to submit such applications until you have a very good idea of what is actually going to be certified by the CEC. Many of the plans/applications have been or should be conditions of certification rather than in the AFC doc phase. These new requirements will increase the AFC costs greatly and not streamline the permitting case.

6) *Biology* - Line 44: Page 12, Item 1 - The following statement is unclear: "Regarding mitigation of impacts to listed species, project developers should discuss with FWS and DFG approaches for developing a more comprehensive conservation strategy than merely acquiring and managing land." Perhaps reword to something like this: “Regarding mitigation of impacts to listed species, project developers are encouraged to discuss with FWS and DFG approaches for developing a comprehensive conservation strategy, which may include, when practicable, alternatives beyond acquiring and managing mitigation land”

7) *Biology* - Line 18: Page 13, Item 3 e) - The following statement is not practical given the scale of facility (1000s of acres): "Avoid severing movement and connectivity corridors and daily movement areas." Perhaps reword to something like this: “Avoid severing movement and connectivity corridors and daily movement areas to the maximum extent practicable while satisfying the project’s purpose and need.”

8) *Biology* - Line 42: Page 13, Item 7 - This BMP does not seem practicable for the AFC document phase of process. It would be more appropriate for the data request phase or post SSA phase.

9) *Biology* - Line 4: Page 14, Item 9 - This BMP should be a condition of approval.

10) *Biology* - Line 7: Page 14, Item 10 - This BMP should be a condition of approval.

11) *Biology* - Line 6: Page 15, Item 13 - Shouldn't this be determined in the SSA? Other than regional habitat conservation and plant translocation, what else would be required?

12) *Biology* - Line 10: Page 15, Item 14 - Generally, the appropriate program is - owl exclusion to avoid take. Active owl relocation has not been advised in the past.

13) *Cultural* - It appears that the CEC wants developers complete all requirements prior to submitting permit applications to the agencies. The CEC wants cultural surveys done (per protocol) prior to the application process. This may not save time/money if surveys are completed without agency guidance and direction, and may have to be re-done once permits are officially submitted. This gives the appearance that the process is being streamlined, however, there may be no saving in time at all, and in fact, this approach may prove to be more costly for the developer.

14) *Cultural* - It appears that the CEC wants Applicants/consultants to conduct the NA process, which cannot be done except by the Federal agency involved and relevant NA tribes. Furthermore, it certainly cannot be initiated before an application is submitted to a Federal agency. Following this process would prove to be time lost with no gain overall.

    Land-use - Line 34; Page 2 - "The project will not be located on lands under a Williamson Act contract, require a zoning change, or General Plan amendment." The worst case reading of this document seems to indicate that projects will not be allowed to be located on lands under Williamson Act Contract. Further clarification should be provided. Additionally, not allowing for a zoning change would put a constraint on potential sites that could otherwise be optimized by aggregation of land around the primary property location, whereby the local landowners, both public and private, would benefit from such a rezoning.

    Finally, this guideline could mean that the Williamson Act cancellation process would have to be carried out by the property owner prior to certification, as it is now. Or since it is listed under "critical activities to complete before filing applications", it could mean that cancellation is required prior to filing an AFC or ROW application with the BLM. At this point, it is unclear. It should be noted that the potential may exist for a farmer to be left with property not covered under the Williamson Act if the licensing effort is unsuccessful.

15) *Land-use* - Line 7; Page 17 - "A project on agriculture land under a Williamson Act Contract will significantly delay the siting process as the contract must be terminated by the land owner and the county following prescribed steps and lengthy time frames. Projects, including transmission lines to the first point of interconnection with the existing electric transmission system, on Williamson Act land cannot be processed in an expedient manner."

    This paragraph seems to acknowledge the difficulty of the current system which allows a Williamson Act cancellation to be carried out in conjunction with an AFC or ROW application, which may involve delays. It is unclear whether or not Williamson Act cancellation process can occur concurrently with AFC or ROW applications.

16) *Noise* - Line 3-4; Page 44 - 60 dBA seems a bit stringent, as the reader assumes it refers to the aggregate of all sound sources (both internal and external) as measured within the control room. Recent post-construction measurements within a gas-fired

turbine power plant control room showed levels in the 70 dBA range, which is consistent with planning guidance for work spaces where telephone usage and speech is expected to be infrequent. Thus, 70 dBA might be a more reasonable suggested limit to "ensure", with 60 dBA as the goal for internal noise sources (e.g., control room HVAC, equipment panel cooling fans, etc.).

17) *Noise* - Line 7; Page 49 - "Prevent" is too strong a term, in that it might be physically impossible in some situations. Would suggest the following phrase revision: "Preventing and controlling noise as measured at a receiver can be…"

18) *Noise* - Line 11; Page 49 - While there may be "acoustic design standards" in development for wind turbines, to our knowledge they do not currently exist. There are, however, acoustical measurement standards by the sample organizations listed, such as IEC 61400-11. The importance of such a standard seems to be the promotion of consistency in the methodology of wind turbine noise impact assessment.

19) *Noise* - Line 24-25; Page 53 - This BMP seems very specific, and doesn't consider the possibility of acoustical leakage in the occupied structure that is unrelated to the windows. A suggested revision is: "…install sound insulation upgrades, such as acoustical windows in structures occupied by affected parties, to improve exterior-to-interior noise reduction."

20) *Noise* Line 1; Page 43 - The wording of "limit ambient" should be replaced with "reduce operation". It seems this may have been a typo.

21) The remainder of the topics/sections seems to be fairly standard; therefore we have no comment at this time.

Tessera Solar appreciates the opportunity to provide comment to the California Energy Commission related to BMPs and Guidelines for Solar Projects in the Desert.

Regards,

Richard Knox
Permitting Director
Tessera Solar North America