



SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY
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DOCKET

11-EPS-1

DATE	MAR 28 2011
RECD.	MAR 28 2011

March 28, 2011

California Energy Commission
EPS Compliance
1516 Ninth Street
Sacramento, CA 95814-512
Attention: Compliance Filing

**Re: EPS Compliance Filing and Request for Commission
Evaluation of Proposed EPS Procurement of
the Southern California Public Power Authority**

Pursuant to Title 20, Chapter 11, Section 2900 et. seq., of the California Code of Regulations, adopted by the California Energy Commission (CEC) to implement Senate Bill SB 1368, the Southern California Public Power Authority (SCPPA) hereby submits the request for CEC evaluation set forth herein. Through this request, SCPPA respectfully asks that the CEC find that SCPPA's proposed Power Purchase Agreement (PPA) with Enviromission (USA), Inc. which will facilitate the purchase of renewable energy from the La Paz Solar Tower Project complies with the CEC EPS requirements.

This is to inform you that SCPPA contemplates potentially approving this Power Purchase Agreement in its final form at its meeting which is currently scheduled to take place on May 19, 2011. The contract information is as follows:

Name of Counterparty: Enviromission (USA) Inc., a Delaware Corporation

Name of Facility: the La Paz Solar Tower Project

Location of Facility: La Paz County, Arizona

Technology/Fuel: The facility entails an approximately 2400 foot high tower with a large solar energy trapping greenhouse surrounding its base. 32 wind turbines are situated internally within this greenhouse and are located within the passage ways providing ingress into the interior of the tower. The facility is contemplated to generate electricity by reason of air movement through these turbines produced by the air pressure differential between the air outside of the passages where the turbines are

located, and that exist inside the tower. This generating facility project structure produces zero emissions, employs no fossil fuels at all, and uses no water. An animated presentation reflecting the structure of the facility and the technology upon which its electrical generation is based can be viewed on You Tube, by way of the following link among others: <http://www.youtube.com/watch?v=pTkmTsKLRq0>.

Nameplate Capacity of Facility: 200 MW (SCPPA intends to subscribe to 88 MW of capacity from this 200 MW nameplate capacity facility.

Product Description: The project is dependent on solar exposure and produces as-available energy depending on diurnal conditions, cloud cover and other variable weather conditions. In addition to the forgoing, total energy production is also affected by residual heat from the ground, other heat storing mechanisms which may be in place and the natural draft action of the tower. While this is essentially a solar project, the capacity factor of the project, which has been estimated by the developer at sixty three percent, is higher than traditional solar projects because of the combination of the above factors. A more complete explanation supporting this capacity factor and a more detailed description of the nature of this energy production facility is set forth in Appendix A below.

Delivery Start Date – Delivery End Date: The energy delivery start date is at the Commercial Operation Date which is currently contemplated to be achieved on or before October 31, 2014. The energy delivery end date will occur thirty (30) years after the Commercial Operation Date.

SCPPA's Role and the SCPPA Members Participating in this Project: SCPPA is a California Joint Powers Authority created pursuant to the provisions contained in the Joint Exercise of Powers Act found in Chapter 5 of Division 7 of Title 1 of the Government Code of California. SCPPA was established by its members, which are municipalities and an irrigation district that supply, among other things, electrical energy in California, for the purpose of jointly and cooperatively undertaking, developing and contracting for projects for the generation or transmission of electric energy, including the development and implementation of systems and frameworks for the acquisition and delivery of secure, long-term reliable supplies of renewable electric energy. Seven of SCPPA's twelve member utilities are participating in the La Paz Solar Tower Project by way of an over arching Power Sales Agreement between SCPPA and each of the participating members. The Power Sales Agreements define the relationship between SCPPA and its participating members and provide a structure through which the project can be jointly managed. These Power Sales Agreements are currently being reviewed and approved by the governing bodies of each of the participating members. Each of SCPPA's participating members is a publicly owned Southern California electric utility which provides electric energy to its citizens through its municipally owned electric system. The participating SCPPA members and each of their entitlement shares and delivery points for the 88 MWs of facility output being contracted for by SCPPA, are set forth

in "Appendix K" of the Power Purchase Agreement which is being provided here by way of the appendix set out at the very end of this communication.

Further Information: Should you have further questions or need further information please contact me at 626-793-9364. The draft Power Purchase Agreement, which has not yet been finalized, will be delivered upon request by way of a separate email should further examination of this document be desired.

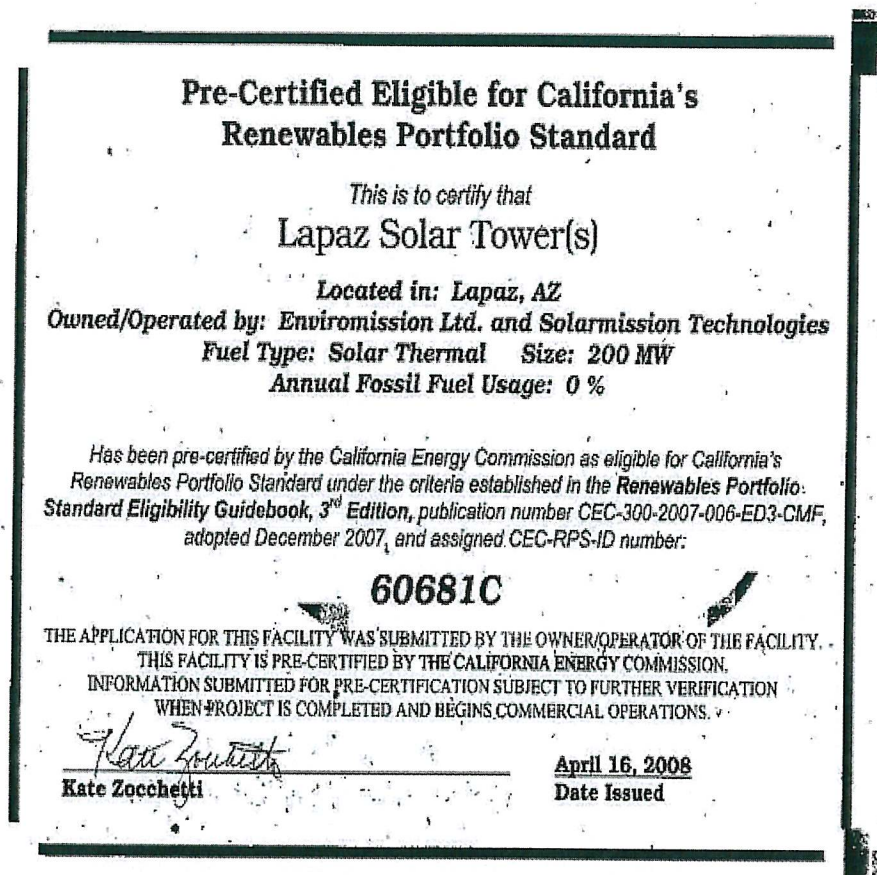
We are asking that the Commission determine this contract to be compliant with the greenhouse gases emission performance standard set forth in Chapter 11 of Title 20 of the California Code of Regulations. Specifically, SCPPA asserts herein that the facility under contract is compliant pursuant to Section §2903(b) of the regulations.

Based upon the information presented SCPPA's proposed Power Purchase Agreement for the La Paz Solar Tower Project (the Project) will facilitate the purchase of energy, capacity, capacity attributes, and environmental attributes, from an approximately 200 MW 2400 foot high convection tower generating energy through an array of turbine generators powered by air movement created by an air pressure differential between the exterior side and the interior side of the turbines for this facility. The project relies on air movement created by a combination of solar energy, residual heat and differential pressure to produce energy. It relies on no fossil fuel source and uses no water. We believe that, given this, the Project complies with the CEC's emission performance standard (EPS). For your information Enviromission (USA) has previously applied to the California Energy Commission for EPS certification and the information evidencing the previous grant of that certification is set forth below.

SCPPA has been recently requested by its members to provide this EPS request pursuant to the provisions of Section 2900 et seq. SCPPA has been negotiating the proposed Power Purchase Agreement with Enviromission (USA) Inc. for more than two years. We are optimistic that we will likely bring the Power Purchase Agreement to fruition soon and while this matter has been addressed by the SCPPA Board of Directors in the past, we intend to hopefully have agreed to the final version of the fully negotiated Power Purchase Agreement by the time of our May, 2011 SCPPA board meeting, which is currently scheduled for May 19, 2011. While the agenda for this specific SCPPA board meeting has not yet been prepared, the link to the SCPPA board meeting will be available on our web site at www.scppa.org under the link entitled "Board Meeting Notices" in accordance with the California Ralph M. Brown Act, Government Code section 54950 et seq. We contemplate that the full agenda will be posted approximately eight days prior to the meeting.

Section 2903(b)(1) provides that powerplants which meet the criteria of a renewable electricity generation facility, as defined by the California RPS statutes and guidelines adopted thereunder, are "determined to be compliant" with the EPS. In

this regard, as we have outlined above, the Project developer of the La Paz Solar Tower Project has previously submitted its application for precertification demonstrating that the Project satisfies the requirements of a "renewable electricity generation facility" for purposes of the California RPS Statutes. A copy of this precertification is reproduced immediately below for your reference and for your convenience:

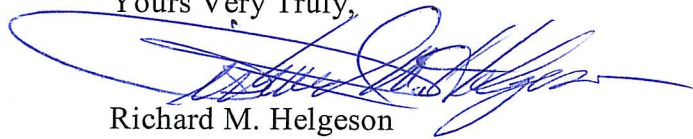


SCPPA and its members are committed to creating a lasting, long term, environmentally sustainable energy paradigm for California which will continue to grow and draw upon renewable resources. Consistent with our long-standing environmental policy objectives, we seek to assure that a fully sustainable, environmentally benign source of energy in California becomes a legacy which we will leave to our children and our children's children. The La Paz Solar Tower Project as proposed will generate electricity through a 2400 foot tall solar tower, will consume no fossil fuels, will use no water, will create no emissions, and will have no other significant environmental impacts other than those related to construction and maintenance of a facility situated in the space this facility will occupy. This renewable energy procurement project carries certain risks; however SCPPA and its members are willing to bear some of these risks, because we feel it is an essential part

of our mission as publicly owned utilities to take those measures which promise the benefits of sustainable renewable energy for future generations. It seems apparent to us that if this project succeeds it is very likely to revolutionize renewable energy procurement in the Southwestern United States and will secure a valuable technological legacy for future generations of Californians.

Upon your examination of this submission we think you will agree that if SCPPA and Enviromission (USA) Inc. can deliver this project, all of California should benefit from its contribution to renewable electric generation technology, and that this Project complies with the EPS. Please do not hesitate to contact me at 626-793-9364 if you have any questions.

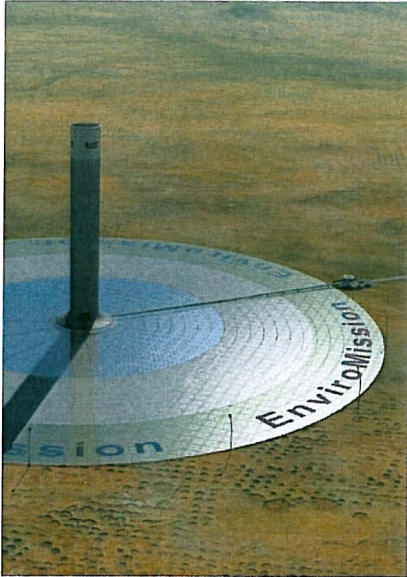
Yours Very Truly,



Richard M. Helgeson
General Counsel
Southern California Public Power Authority

APPENDIX A

Detailed Description of the La Paz Solar Tower Project and of the Characteristics of Solar Tower Technology in General



La Paz Solar Tower Project

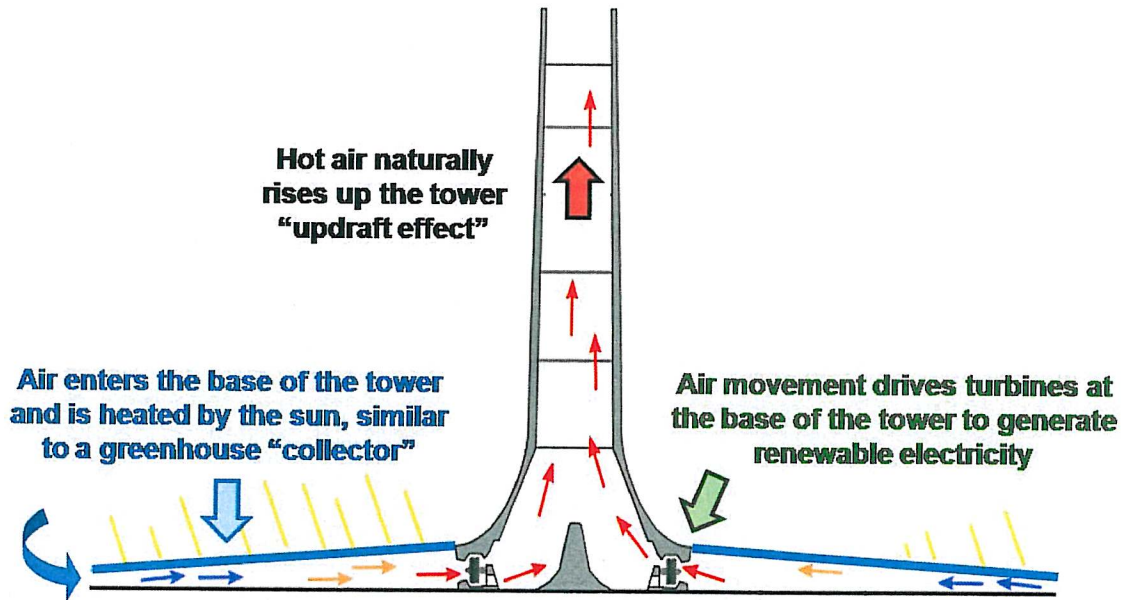
Year Built: In Development

Peak Plant Capacity: 200 MW

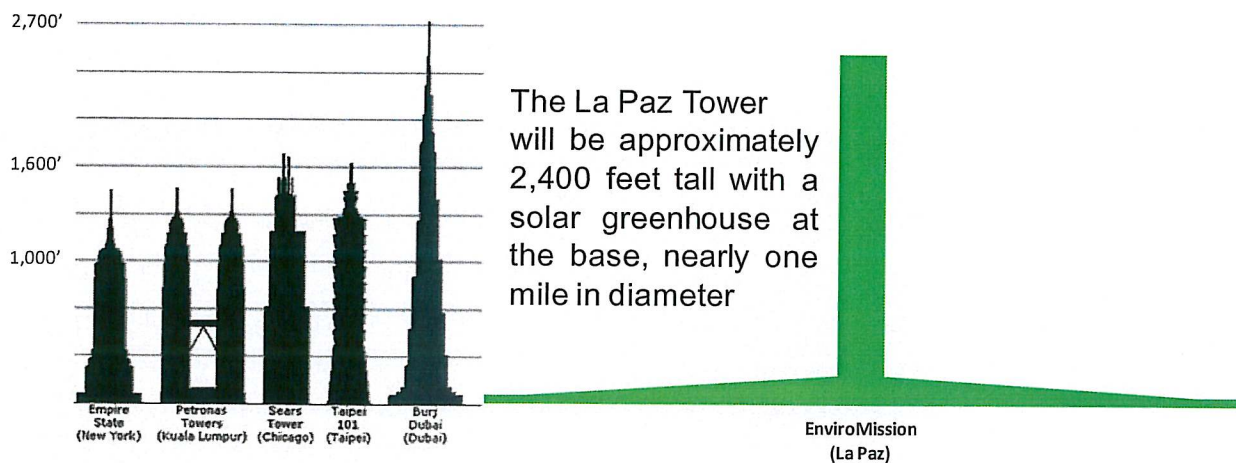
Future Plans: Construction will begin in 2012

SCPPA Participants: Anaheim, Azusa, Banning, Burbank, Glendale, Pasadena, and Riverside

- Seven SCPPA members of SCPPA are parties to Power Sales Agreements with SCPPA through which SCPPA will contract by way of a Power Purchase Agreement for the potential acquisition of electric energy from Enviromission USA. Enviromission USA is currently planning to undertake the construction and to eventually operate this solar energy project in the Arizona desert.
- This is an innovative technology that relies on a Solar Tower power plant, sometimes referred to as a "Solar Chimney" or "Solar Updraft Tower."
- Solar Tower technology uses solar energy to heat air beneath a large translucent collector (greenhouse) that in turn creates a constant flow of air to drive turbines. One of the many strengths of the Solar Tower technology is its ability to generate utility scale power reliably day and night without the use of water.
- According to estimates by the developer the Solar Tower facility is anticipated to generate more than 1,000,000 MWhs of renewable energy per year.

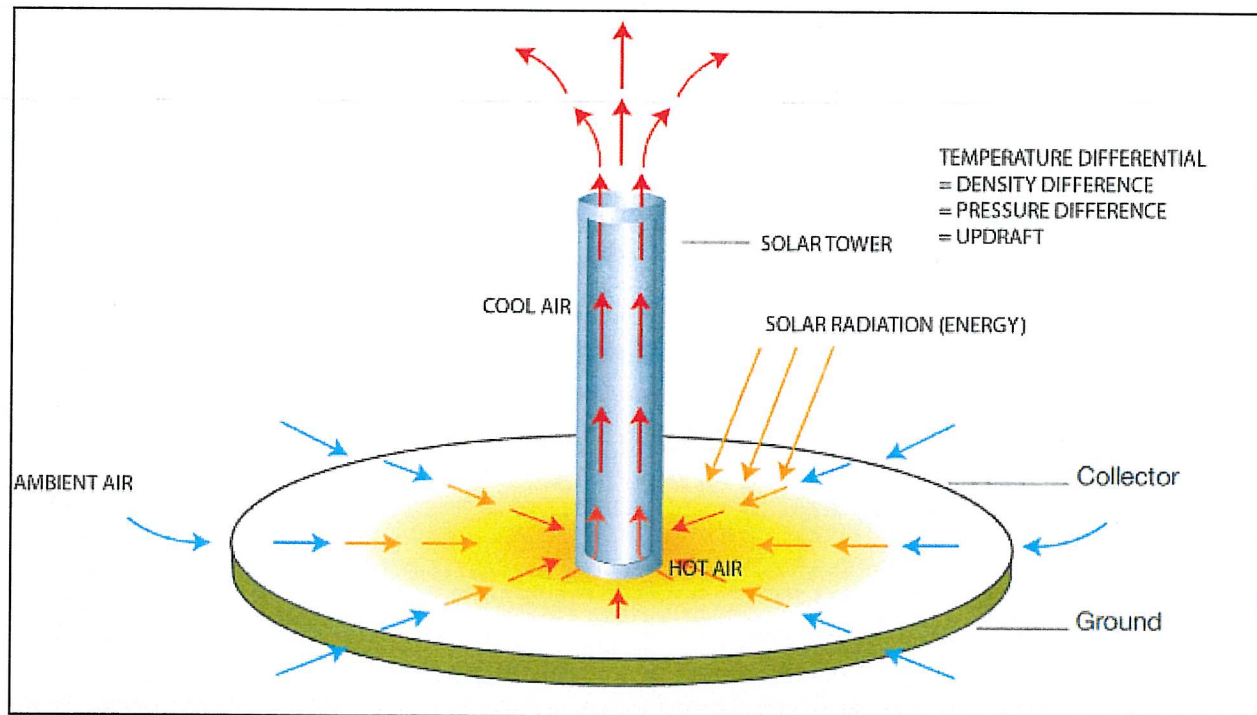


Additional information is available from the EnviroMission website including animated presentations and documentary footage, which describe the plans for this project. EnviroMission is the global licensee of SolarMission Technologies, Inc., for the development and marketing of breakthrough Solar Tower updraft technology.



The Solar Tower generates 100% of its electricity through low-temperature (less than 200 degrees F) solar thermal energy. The Solar Tower technology uses solar energy (insolation and radiation) to heat air beneath a large translucent collector (greenhouse) which in turn creates a constant flow of air to drive electricity-generating turbines. The turbines are located at the base of a tower in the center of the collector, and the movement of the heated air through these turbines is caused by the updraft effect created by the tower. One of the many strengths of the solar tower technology is the ability to incorporate low-cost heat storage to shape the power output to match demand load day and night. The ever present temperature differential and the almost base load characteristics across the entire peak result in the Solar Tower generating the type of electricity the utility industry has desired in a solar technology; low to no intermittency for extended periods.

The economic advantage and long term operational stability of the Solar Tower is a direct result of its technical design simplicity. Air beneath a low circular translucent roof (collector) open at the periphery is heated by solar radiation (greenhouse effect) and naturally rises to the highest point – the base of the tower located at the center of the collector (the collector has a gradual upward slope toward the tower).



Specially designed turbines encircle the base of the tower and efficiently generate electricity as the heated air passes through the turbines at velocities of approximately 35 miles per hour. Because there is a temperature differential between heated air at the base of the tower and the cooler ambient air at the top of the tower, the warmer air will be continuously drawn up the tower enabling the Solar Tower to generate electricity 24 hours a day. This well-established

physical principle, evidenced in everyday life (for example, air being drawn up a fireplace chimney) provides one of the most important properties in power generation – and the property absent in other wind and solar renewable technologies – capacity, the ability to generate power throughout the course of a day irrespective of naturally occurring wind or sunlight. Moreover, the Solar Tower does not use steam to drive turbines so it requires no water in power production. Due to low stress loads and few moving parts in the design of the Solar Tower, the Solar Tower has very low operating and maintenance costs and its expected useful life exceeds 75 years.

The following is an artist's rendition of the Solar Tower power station.



The Solar Tower produces power using pressure staged turbines, similar in design to hydroelectric turbines. As a result, no fresh water is used for power production. On the contrary, the Solar Tower captures fresh water via the collector through condensation and precipitation providing more than enough water for all on-site needs. The Solar Tower system

incorporates low temperature heat storage that does not use or require fossil fuel back-up. As a result, the Solar Tower can be located in areas without access to water or natural gas eliminating concerns about water and fuel supply.

Based on data collected from the extensive tests completed on the demonstration unit that successfully operated for over 8 years, increased performance of materials and power equipment since the demonstration, patented technology innovations and further engineering refinements indicate that a 200 MW Solar Tower power plant can cost effectively operate at a 60%+ capacity factor producing 1,000+ GWh of electricity annually.

APPENDIX K*
TO THE
POWER PURCHASE AGREEMENT
BETWEEN
ENVIROMISSION (USA), INC. and
SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY

SCPPA Energy Delivery Share

**Buyer Agent Shares of SCPPA Facility Capacity and
of SCPPA Facility Energy and Replacement Energy**

Points of Delivery for SCPPA Energy Delivery Share

<u>SCPPA Energy** Delivery Share</u>	<u>Buyer Agents</u>	<u>Buyer Agent Share of SCPPA Facility Capacity</u>	<u>Buyer Agent Share of SCPPA Facility Energy and Replacement Energy at Associated Point of Delivery</u>	<u>Points of Delivery for SCPPA Energy Delivery Share</u>
11.3636%	Anaheim	10 MW	11.3636%	230kV Bus at Mead Substation or as mutually agreed between Buyer and Seller.
88.6364%	Azusa Riverside Banning Burbank Glendale Pasadena	2 MW 25 MW 2 MW 27 MW 12 MW 10 MW	2.2728% 28.4091% 2.2728% 30.6818% 13.6363% 11.3636%	500kV Bus at Marketplace Substation or as mutually agreed between Buyer and Seller.

* Appendix K may be revised as provided in Section 6.1(b) and Section 7.1(b) of the Power Sales Agreement.

** SCPPA Energy Delivery Share for any Point of Delivery shall be adjusted to take account of all designations by mutual agreement by Buyer and Seller of a secondary Point of Delivery.