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**BEFORE THE ARIZONA POWER PLANT AND  
TRANSMISSION LINE SITING COMMITTEE**

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IN THE MATTER OF THE APPLICATION OF ARLINGTON VALLEY SOLAR ENERGY, LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES §§ 40-360.03 AND 40-360.06 *et seq.* FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF THE ARLINGTON VALLEY SOLAR ENERGY (“AVSE”) PROJECT, AN APPROXIMATELY 125 MWSOLAR GENERATING FACILITY LOCATED IN PORTIONS OF SECTIONS 20, 21 AND 28, WITH ASSOCIATED SWITCHYARDS AND GEN-TIE LINES INTERCONNECTING FROM THE AVSE PROJECT SITE TO THE EXISTING HASSAYAMPA SWITCHYARD LOCATED IN SECTION 15, ALL IN TOWNSHIP 1 SOUTH, RANGE 6 WEST, MARICOPA COUNTY, ARIZONA.

**Docket No.L-00000PP-09-0548-00153**

**Case No. 153**

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IN THE MATTER OF THE APPLICATION OF ARLINGTON VALLEY SOLAR ENERGY II, LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES §§ 40-360.03 AND 40-360.06 *et seq.* FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF THE ARLINGTON VALLEY SOLAR ENERGY II (“AVSE II”) PROJECT, AN APPROXIMATELY 125 MW SOLAR GENERATING FACILITY LOCATED IN PORTIONS OF SECTIONS 25, 26, 27, 35 AND 36, AND ASSOCIATED SWITCHYARDS AND GEN-TIE LINES INTERCONNECTING FROM THE AVSE PROJECT SITE TO THE EXISTING HASSAYAMPA SWITCHYARD LOCATED IN SECTION 15, ALL IN TOWNSHIP 1 SOUTH, RANGE 6 WEST, MARICOPA COUNTY, ARIZONA.

**Docket No. L-00000QQ-09-0549-00154**

**Case No. 154**

**CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY**

**Case No. 153: AVSE**

1 Pursuant to notice given as provided by law, the Arizona Power Plant and Transmission  
2 Line Siting Committee (the "Committee") held public hearings on January 26 and 27, 2010, in  
3 conformance with the requirements of Arizona Revised Statutes ("A.R.S.") §§ 40-360, *et seq.*,  
4 for the purpose of receiving evidence and deliberating on the Application of **Arlington Valley**  
5 **Solar Energy, LLC** ("Applicant") for a Certificate of Environmental Compatibility  
6 ("Certificate") in the above-captioned Case No.153.

7 The following members and designees of members of the Committee were present at one  
8 or more of the hearings for the evidentiary presentations and/or for the deliberations:

9 John Foreman	Chairman, Designee for Arizona Attorney General Terry Goddard
10 Paul Rasmussen	Designee for Director, Arizona Department of Environmental Quality
11 Gregg Houtz	Designee for Director, Arizona Department of Water Resources
12 Jessica Youle	Designee for Director, Energy Office, Arizona Department of Commerce
13 David Eberhart	Designee for Chairman, Arizona Corporation Commission
14 William Mundell	Appointed Member (participating on January 26, 2010)
15 Jeff McGuire	Appointed Member
16 Patricia Noland	Appointed Member
17 Michael Palmer	Appointed Member
18 Michael Whalen	Appointed Member
19 Barry Wong	Appointed Member

20 Applicant was represented by Jay Moyes and Steve Wene of Moyes Sellers & Sims,  
21 Ltd. No parties sought intervention or made a limited appearance.  
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1           At the conclusion of the hearings, the Committee, having received the Application,  
2 the appearances of the parties, the evidence, testimony, and exhibits presented at the  
3 hearings, and being advised of the legal requirements of A.R.S. §§ 40-360 to 40-360.13,  
4 upon motion duly made and seconded, voted 10 to 0 to grant Applicant this Certificate of  
5 Environmental Compatibility (Case No. 153) for the below-described Project.

6           The Project as approved consists of an up to 125 Megawatt (MW) nominal net  
7 output solar generating facility (the "Generation Facility") together with associated 115kV  
8 and 500kV switchyards and 115 kV and 500 kV gen-tie electric lines (collectively, the  
9 "Gen-tie Facilities") to interconnect the Generation Facility to the existing Hassayampa  
10 500kV switchyard and the electric transmission grid. (The Generation Facility and the Gen-  
11 tie Facilities collectively constitute the "Project"). The Committee acknowledges that  
12 Applicant has proposed that the Generation Facility may utilize either (1) Photovoltaic (PV)  
13 solar technology, or (2) concentrating solar thermal (CSP) technology. If CSP technology is  
14 selected, the Generation Facility may, at Applicant's option, include equipment to provide  
15 complementary firming generation capability when solar radiation is insufficient. The  
16 firming may be provided by utilizing one of either (i) solar thermal storage (STS)  
17 technology, or (ii) natural gas co-firing technology using an auxiliary boiler but no  
18 additional steam turbine. If CSP with firming is used, however, the Generation Facility's  
19 nominal output of 125MW shall not be increased, and shall not exceed 1500 hours per  
20 calendar year of generation using gas co-firing.

21           Pursuant to the jurisdiction of the Committee over the proposed CSP option  
22 Generating Facility and the proposed Gen-tie Facilities, expressly granted under A.R.S. §  
23 40-360 (9) and (10), this Certificate expressly authorizes construction of the Project using  
24 the CSP option, with or without either the STS option or the natural gas co-firing option for  
25 firming generation capability, but does not mandate the selection of any of such options for  
the Generating Facility. The Generating Facility will be located on approximately 1433  
acres comprising portions of Sections 20, 21 and 28 of Township 1 South, Range 6 West,  
G&SRB&M, Maricopa County, Arizona. Applicant may utilize either one of, or portions

1 of, either alternative corridor for the final location and construction of the Gen-tie Facilities,  
2 as identified on the location map of the Project set forth in **Exhibit A** to this Certificate;  
3 and may use a combination of single and/or double circuit principal transmission structures  
4 and configurations approximately of the types and sizes represented by the drawings  
5 attached as **Exhibit B** to this Certificate, using overhead and/or underground configurations  
6 as feasible to make the necessary incidental crossings of existing transmission lines, all to  
7 be determined by Applicant after due consultation with the affected existing transmission  
8 line owners and in accordance with sound engineering principles, governing interconnection  
9 standards and applicable safety and reliability standards.

### 11 CONDITIONS

12 This Certificate is granted upon the following conditions:

- 13 1. These conditions shall apply to Applicant, its successor(s) and assignee(s).
- 14 2. Applicant shall obtain all required approvals and permits required by the United  
15 States, the State of Arizona, the County of Maricopa, and any other  
16 governmental entities having jurisdiction necessary to construct or operate the  
17 Project.
- 18 3. Applicant shall comply with all existing applicable statutes, ordinances, master  
19 plans, county comprehensive plans, and regulations of the State of Arizona,  
20 Maricopa County, the United States, and any other governmental entities  
21 having jurisdiction over the construction and operation of the Project.
- 22 4. This authorization to construct the Project shall expire seven years from the date  
23 the Certificate is approved by the Commission; provided, however, that prior to  
24 such expiration Applicant may request that the Commission extend this time  
25 limitation.
5. In the event that the Project requires an extension of the term of this Certificate,  
Applicant shall use commercially reasonable means to directly notify by first  
class mail all landowners and residents within one mile of the Project Site, and  
all persons who made public comment at this proceeding, of the date, time and

1 place of the proceeding in which the Commission shall consider such request for  
2 extension.

- 3 6. Applicant shall comply with the most current Western Electricity Coordinating  
4 Council/North American Electric Reliability Corporation planning standards as  
5 approved by the Federal Energy Regulatory Commission, and National Electrical  
6 Safety Code construction standards.
- 7 7. Applicant shall comply with the notice and salvage requirements of the Arizona  
8 Native Plant Law (A.R.S. §§ 3-901, et seq.) and shall, to the extent feasible,  
9 minimize the destruction of native plants during Project construction.
- 10 8. If any archaeological, paleontological or historical site or object that is at least  
11 fifty years old is discovered on state, county or municipal land during Project-  
12 related activities, the person in charge shall promptly report the discovery to the  
13 Director of the Arizona State Museum and, in consultation with the Director,  
14 shall immediately take all reasonable steps to secure and maintain the  
15 preservation of the discovery, as required by A.R.S. § 41-844.
- 16 9. If human remains and/or funerary objects are encountered on private land  
17 during the course of any ground-disturbing activities relating to the  
18 development of the subject property, Applicant shall cease work on the affected  
19 area of the Project and notify the Director of the Arizona State Museum as  
20 required by A.R.S. § 41-865.
- 21 10. Applicant shall follow any published guidelines adopted by the Arizona Game  
22 and Fish Department or the United States Fish and Wildlife Service for handling  
23 contacts during the construction and operation of the Project with any species  
24 designated as endangered. Applicant shall also follow any published and  
25 adopted guidelines for handling contacts with any species of greatest  
conservation need as designated by the Arizona Game and Fish Department. If  
no published and adopted guidelines exist, Applicant shall use reasonable care to  
avoid any harm to individuals of the designated species. If the avoidance of  
harm to individuals is not possible, Applicant shall contact the Arizona Game  
and Fish Department and the United States Fish and Wildlife Service to obtain

1 any applicable permits and appropriate guidance for removing the individual  
2 members of the species contacted from the area of the Project.

3 11. Before construction on the Gen-tie Facilities' transmission lines may commence,  
4 Applicant shall file a construction mitigation and restoration plan ("Plan") with  
5 ACC Docket Control. Where practicable, the Plan shall specify Applicant's plans  
6 for construction access and methods to minimize impacts to wildlife and to  
7 minimize vegetation disturbance outside of the Gen-tie Facilities right-of-way  
8 particularly in drainage channels and along stream banks, if any, and to re-  
9 vegetate, unless waived by the landowner, native areas of construction  
10 disturbance to their preconstruction state outside of transmission line right of way  
11 after construction has been completed. The Plan shall specify Applicant's plans  
12 for coordination with the Arizona Game and Fish Department and the State  
13 Historic Preservation Office. Applicant shall use existing roads for construction  
14 and access where practicable and the Plan shall specify the manner in which  
15 Applicant makes use of existing roads.

16 12. Within 120 days of the Commission decision granting this Certificate, Applicant  
17 will erect and maintain at the Generation Facility site a sign of not less than 4  
18 feet by 8 feet dimensions. Applicant will also post signs in public rights-of-way,  
19 to the extent authorized by law, giving notice of the Gen-tie Facilities locations.  
20 Applicant shall place signs in prominent locations at reasonable intervals such  
21 that the public is notified along the full length of the corridors until the Gen-tie  
22 Facilities are constructed. Such signage shall be no smaller than a normal  
23 roadway sign. All of the above-required signs shall advise:

- 24 (a) That the site has been approved for the construction of Project facilities;
- 25 (b) The expected date of completion of the Project facilities;
- (c) A phone number for public information regarding the Project;
- (d) The name of the Project;
- (e) The name of the Applicant; and
- (f) The website of the Project

13. Applicant shall design the Gen-tie Facilities to incorporate reasonable measures to  
minimize impacts to raptors.

- 1 14. Applicant shall use non-specular conductor and dulled surfaces for the Gen-Tie  
2 Facilities' structures.
- 3 15. In connection with the construction of the Project, Applicant shall use  
4 commercially reasonable efforts, where practicable and consistent with  
5 applicable laws, to encourage use of qualified Arizona legal resident  
6 contractors, laborers, and suppliers of goods and services. In addition,  
7 Applicant shall file, as part of its annual compliance certification requirement,  
8 (A) a report listing the number of persons who were hired during the previous  
9 calendar year for construction jobs at the Project who identify themselves, upon  
10 hiring, as legal residents of Arizona; and (B) a report listing the names of  
11 businesses in Arizona, with whom Applicant has executed during the previous  
12 calendar year substantial contracts to provide goods and services during  
13 construction of the Project, together with the total dollar payments, in the  
14 aggregate for each list of businesses, to be paid by Applicant pursuant to those  
15 contracts.
- 16 16. Applicant shall provide copies of this Certificate to the Maricopa County Department  
17 of Development Services, the Arizona State Land Department, the State Historic  
18 Preservation Office, and the Arizona Game and Fish Department.
- 19 17. Prior to the date construction commences on the Project, Applicant will provide  
20 known homebuilders and developers of record within one mile of the Project the  
21 identity, location, and a pictorial depiction of the type of power plant being  
22 constructed, accompanied by a written description, and encourage the developers  
23 and homebuilders to include this information in the developers' and homebuilders'  
24 homeowners' disclosure statements.
- 25 18. Applicant shall submit a self-certification letter annually, identifying progress  
made with respect to each condition contained in the Certificate, including which  
conditions have been met. Each letter shall be submitted to the Commission  
Docket Control on or before March 1, beginning in 2011. Attached to each  
certification letter shall be documentation explaining how compliance with each

1 condition was achieved. Copies of each letter along with the corresponding  
2 documentation shall be submitted to the Arizona Attorney General and Department  
3 of Commerce Energy Office. The requirement for the self-certification shall expire  
4 on the date the Project is placed into operation.

5 19. If Applicant selects the CSP technology for the Generation Facility, the Applicant  
6 shall make all commercially reasonable efforts to minimize the use of groundwater  
7 during construction and operation of the Project and such groundwater is limited to  
8 withdrawals pursuant to Type 1 rights or hydrologic testing permits. Reports to the  
9 Arizona Department of Water Resources required by applicable law with respect to  
10 the Type 1 Non-irrigation Grandfathered Rights shall also be filed with the  
11 Commission Docket Control.

12 20. If Applicant selects the CSP technology for the Generation Facility, Applicant shall  
13 enter into a land subsidence monitoring agreement with the Arizona Department of  
14 Water Resources.

15 21. Applicant shall obtain and comply with the applicable air quality permit(s) and all  
16 air emissions regulations of the Maricopa County Air Quality Control Department,  
17 Arizona Department of Environmental Quality, and United States Environmental  
18 Protection Agency.

19 22. Applicant shall allow and provide for joint ownership and/or use of the authorized  
20 new 115kV—500kV Switchyard and 500kV interconnection transmission line  
21 components of the Gen-tie Facilities (the “500kV Components”) by the party who  
22 holds a Certificate of Environmental Compatibility issued in Case No. 154, and it is  
23 acknowledged that such 500kV Components are approved as a single facility  
24 common to both generation facilities and their respective certificates, and are not  
25 intended to be nor authorized to be constructed in duplicate.



1 **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

2 This Certificate incorporates the following findings of fact and conclusions of law:

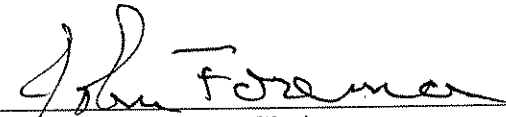
- 3 1. The Committee has the jurisdiction to approve this Application for a  
4 Certificate to build the proposed Generating Facility using CSP technology,  
5 but the Committee makes no determination of its jurisdiction to approve or  
6 deny an application for a Certificate to build a photovoltaic electrical  
7 generating facility. A.R.S. § 40-360 (9).  
8
- 9 2. Taking into consideration the factors listed in A.R.S. § 40-360.06 and 360.07,  
10 the photovoltaic electrical generating facility option would have an  
11 environmental impact similar to or less than the CSP technology Generating  
12 Facility approved in this Certificate.
- 13 3. The addition of the Generation Facility's clean energy production could offset  
14 the need for fossil-fueled generation that would otherwise produce over one  
15 hundred-fifty thousand tons per year of greenhouse gas emissions in the  
16 western United States.
- 17 4. The Gen-tie Facilities are required for the operation of the Generation Facility  
18 regardless of which Generation Facility technology option is constructed.
- 19 5. The Project will help the economy of Maricopa County and the state.
- 20 6. The Project will help meet the goal of advancing solar energy production.
- 21 7. The conditions placed on this Certificate by the Committee effectively  
22 minimize the Project's impact on the environment and ecology of the state.
- 23
- 24 8. The Project is in the public interest because the Project's contribution to  
25 meeting the need for an adequate, economical and reliable supply of renewable

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electric power outweighs the minimized impact of the Project on the environment and ecology of the state.

- 9. The conditions placed on this Certificate by the Committee resolve matters concerning the need for the Project and its impact on the environment and ecology of the state raised during the course of proceedings, and, as such, serve as the findings on the matters raised.
- 10. In light of these conditions, the balancing in the broad public interest results in favor of granting this Certificate.

THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

  
\_\_\_\_\_  
Hon. John Foreman, Chairman

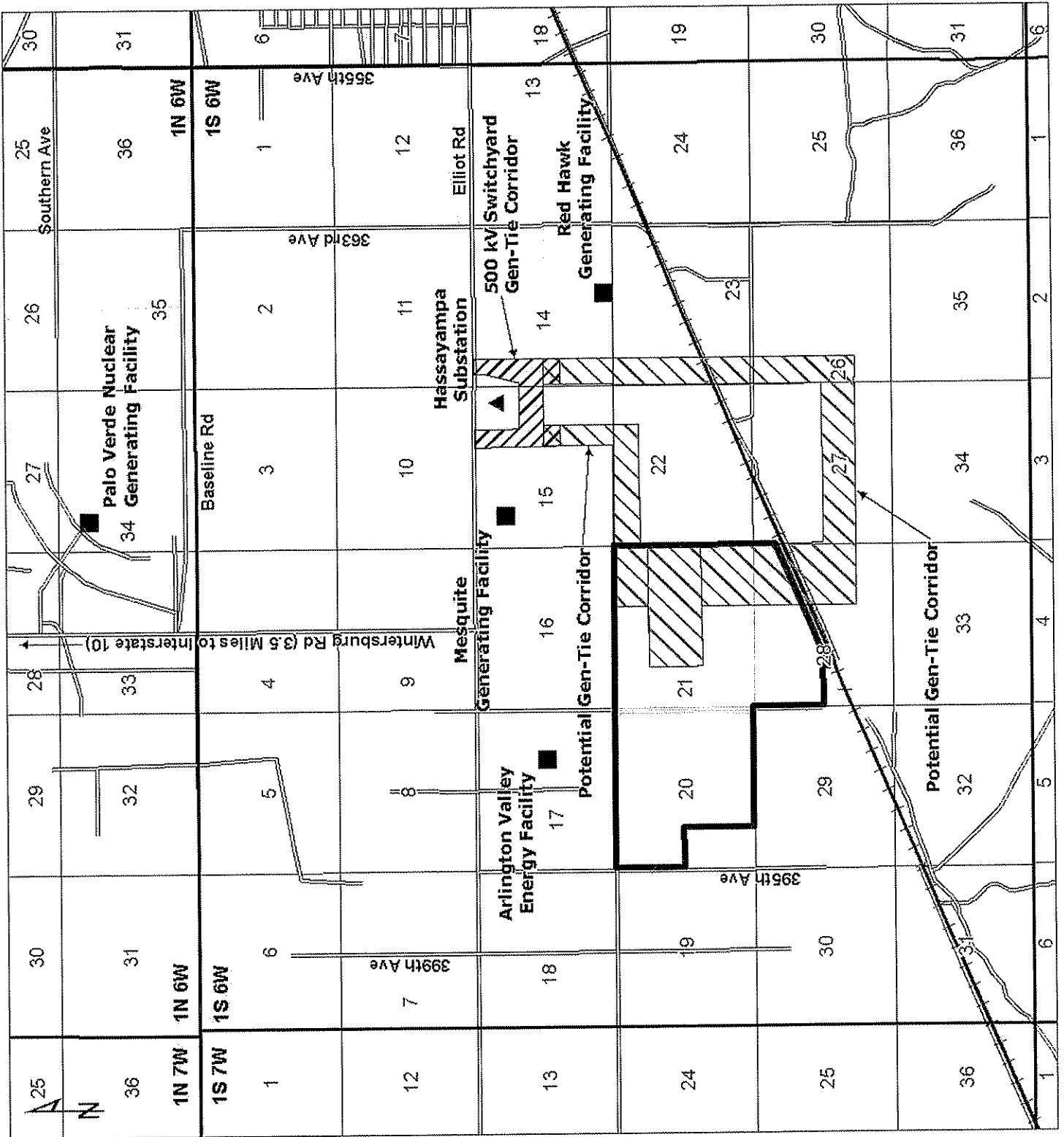
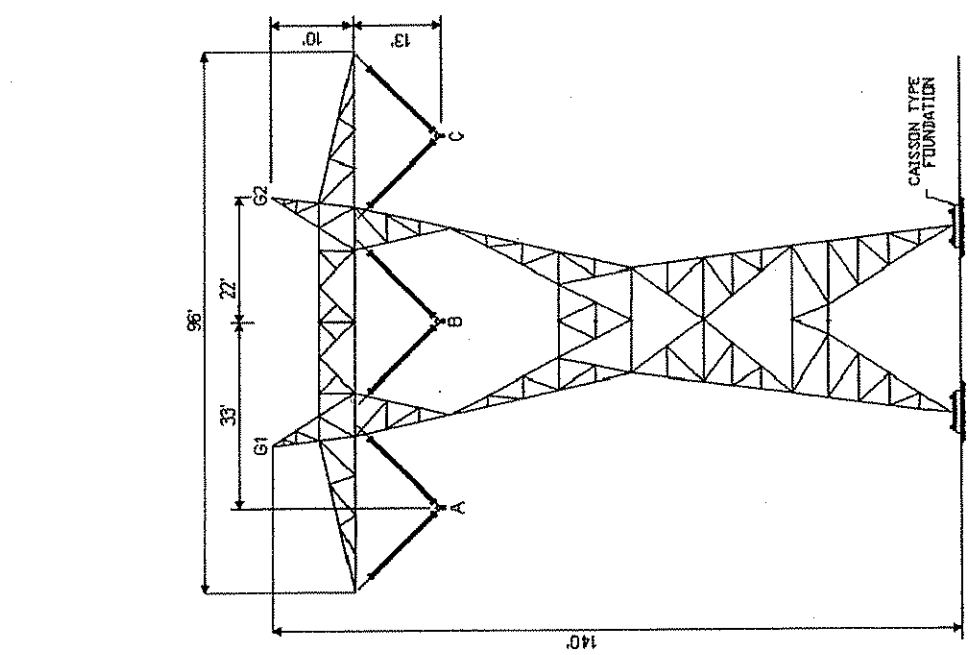


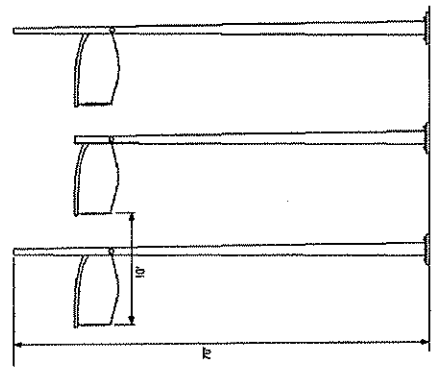
Exhibit A to Case No. 153



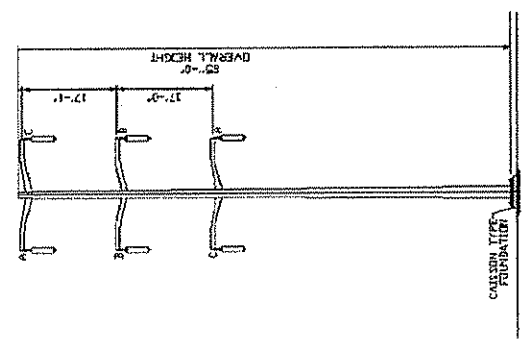
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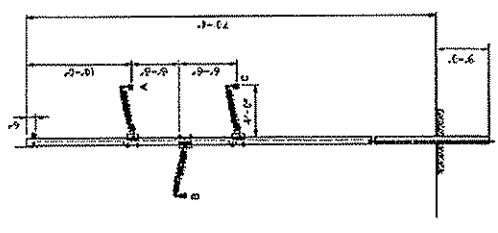
CONCEPTUAL 500KV  
SINGLE-CIRCUIT TOWER



CONCEPTUAL 115KV  
SINGLE-CIRCUIT  
DEAD-END STEEL  
THREE-POLE STRUCTURE



CONCEPTUAL 115KV  
DOUBLE-CIRCUIT POLE



CONCEPTUAL 115KV  
SINGLE-CIRCUIT POLE

**NOTES**

- 1. DRAWING NOT TO SCALE.
- 2. ALL DIMENSIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.

REV	DATE	DESCRIPTION	BY	CHECKED
B	10/21/10	DESIGN REVIEW	W. S. RICHARDS	W. S. RICHARDS
A	10/21/10	DESIGN REVIEW	W. S. RICHARDS	W. S. RICHARDS

PROJECT: TRANSMISSION STRUCTURES  
 CLIENT: ARLINGTON VALLEY SOLAR ENERGY, LLC  
 PROJECT NO: LSAV-1-SK-671-102-002  
 DRAWING NO: 102-002-002  
 SCALE: 1/4" = 1'-0"

**WorleyParsons**  
 TRANSMISSION & ENERGY  
 ARLINGTON VALLEY SOLAR ENERGY, LLC  
 TRANSMISSION STRUCTURES  
 CONCEPTUAL ELEVATIONS

DATE: 10/21/10  
 DRAWN BY: W. S. RICHARDS  
 CHECKED BY: W. S. RICHARDS

Figure G-3