

Application No. 12-0405SPV

Direct Testimony of

MICHAEL ARGENTINE

on behalf of
FIRST SOLAR, INC.
AND
PLAYA SOLAR 2, LLC

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Michael Argentine and my business address is 135 Main Street, 6th Floor, San Francisco, California 94105.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am a Director of Project Development for First Solar, Inc. ("First Solar") and its subsidiary, Playa Solar 2, LLC ("Playa 2").

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. First Solar and Playa 2.

Q. DOES ATTACHMENT 1 ACCURATELY DESCRIBE YOUR BACKGROUND AND EXPERIENCE?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to support First Solar and Playa 2's requests for partial tax abatements for their Playa Solar 2 Project ("Project") located in Clark County, Nevada by providing an overview of the Project as well as First Solar and its business operations.

Q. ARE YOU FAMILIAR WITH THE APPLICATION FOR PARTIAL ABATEMENTS, AND ANY AMENDMENTS OR SUPPLEMENTS THERETO, FILED ON BEHALF OF THE PROJECT?

A. Yes.

Q. IS THE INFORMATION IN THAT APPLICATION, AND IN ANY AMENDMENTS OR SUPPLEMENTS THERETO, TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?

A. Yes.

Q. WHAT TYPE OF ABATEMENTS IS PLAYA 2 REQUESTING FOR THE PROJECT?

A. As provided in NRS Chapter 701A, Playa 2 is requesting a partial abatement with respect to the sales and use tax for personal property purchased to construct the Project and with respect to the property tax on the real and personal property associated with the Project.

Q. PLEASE DESCRIBE THE PROJECT IN MORE DETAIL.

A. The Project site is located on federally managed lands near Apex, Nevada in Clark County, Nevada, and will occupy approximately 1,237 acres of public lands. The Project site is very near the Apex Solar and Mountain View Solar facilities, which both received a partial abatement of tax pursuant to NRS Chapter 701A in August 2010 and March 2013, respectively.

Q. WILL ANY PUBLIC LAND OR PUBLIC FINANCING BE USED FOR THE PROJECT?

A. The Project is located on Bureau of Land Management land and has applied for all necessary federal permits. The Project continues to work with the applicable agencies to complete all project permits by the end of Q4, 2015 and will comply with any conditions required under those permits. Playa 2 has not received any public financing, nor does it anticipate receiving any in the future.

Q. WILL THE PROJECT BE OWNED OR OPERATED BY A GOVERNMENTAL ENTITY?

A. No.

Q. HAVE YOU APPLIED FOR OR ARE YOU RECEIVING ANY OTHER TAX ABATEMENT OR EXEMPTION FOR THE PROJECT?

A. No.

Q. PLEASE DESCRIBE THE PROJECT.

A. The Project is a 100 megawatt (“MW”) solar photovoltaic (“PV”) facility utilizing First Solar’s proven thin film solar PV modules and will be constructed using a single-axis horizontal tracking, ground-mounted plant design.

Large arrays of PV modules will be arranged throughout the solar field. The PV modules will convert sunlight directly into direct current (“DC”) electricity via the photoelectric effect.

The DC output from multiple rows of PV modules will be collected through one or more combiner boxes and directed to an inverter.

Inverters convert the DC power to AC power, which will then flow to a medium-voltage transformer, which “steps up” the power to the 34.5 kilovolt (“kV”) collection system voltage. Multiple medium-voltage transformers will be connected in parallel in a daisy chain configuration to the Harry Allen substation, at which point, the power will be delivered to the transmission grid. The Harry Allen substation is owned by NV Energy and located just .5 miles from the Project site.

Q. HOW LONG WILL THE PROJECT BE IN OPERATION?

A. The Project has a 20-year power purchase agreement (“PPA”) with NV Energy, which requires that the Project operate for at least the term of the PPA.

Q. WHY IS FIRST SOLAR REQUESTING PARTIAL TAX ABATEMENTS FOR THE PROJECT?

A. The availability of property and sales tax abatements was a significant factor in First Solar's decision to develop solar power plants in Nevada, including the Project. Assumptions regarding the continued availability of the financial incentives provided under Nevada law allowed First Solar to offer power at a significantly lower price.

Q. HOW MUCH CAPITAL WILL BE INVESTED IN THE PROJECT?

A. The Project will result in a capital investment of over \$177 million in Nevada.

Q. HOW MANY PEOPLE WILL BE EMPLOYED DURING CONSTRUCTION OF THE PROJECT?

A. First Solar has not yet selected a vendor for construction labor, so exact numbers are not yet known. First Solar anticipates, however, that the Project will create approximately 335 full-time construction jobs during the construction period. Regardless of the total number of construction jobs that actually are created, the Project commits to employing more than 75 full-time employees by and during the second quarter of construction.

Q. WHAT PERCENTAGE OF THE CONSTRUCTION EMPLOYEES WILL BE NEVADA RESIDENTS?

A. During the second quarter of construction, at least 50% of the full-time construction employees will be Nevada residents. Throughout construction, we estimate that at least 168 of the 335 full-time construction employees will be Nevada residents. As indicated

above, First Solar has not yet selected a vendor for construction labor. A condition of bidding on the project, however, will be a requirement by the bidder to accept a contract term requiring compliance with Nevada Revised Statutes (“NRS”) 701A.365(1)(d)(1) and NAC 701A.590(2). Compliance with this requirement is mandatory.

Q. WHAT WILL BE THE AVERAGE HOURLY WAGE FOR CONSTRUCTION EMPLOYEES, EXCLUDING MANAGEMENT AND ADMINISTRATIVE EMPLOYEES?

A. The average hourly wage for construction employees, excluding management and administrative employees will be greater than or equal to \$36.09 per hour to be adjusted as required to comply with minimum wage levels. First Solar’s solicitation materials will expressly state that acceptance of this requirement is a condition of bidding and compliance with this condition will be a term of any contract entered into by First Solar.

Q. WILL CONSTRUCTION EMPLOYEES BE PROVIDED A HEALTH INSURANCE PLAN WITH AN OPTION FOR COVERAGE OF THE DEPENDENTS OF EMPLOYEES?

A. Yes. Benefits for construction employees and their dependents will be determined by vendors and will be required to meet or exceed the requirements of NRS 701A.365 (1) (d) (4) and NAC 701A.590(5). First Solar’s solicitation materials will expressly state that acceptance of this requirement is a condition of bidding and compliance with this condition will be a term of any contract entered into by First Solar.

Q. WILL PLAYA 2 NOTIFY THE NEVADA OFFICE OF ENERGY ONCE VENDORS ARE SELECTED SO THAT COMPLIANCE WITH NRS 701A CAN BE VERIFIED?

A. Yes. Once vendors are selected, Playa 2 will notify the Nevada Office of Energy so that compliance with the wage, benefit, residency and other requirements of NRS Chapter 701A can be verified.

Q. HOW MANY EMPLOYEES WILL BE EMPLOYED BY THE PROJECT FOR OPERATIONS AND MAINTENANCE?

A. First Solar estimates there will be at least five full time employees for operations and maintenance.

Q. WHAT WILL THE AVERAGE HOURLY WAGE BE?

A. They will have an average hourly wage of greater than or equal to \$22.68 to be adjusted as required to comply with minimum wage levels.

Q. WILL THE FINANCIAL AND EMPLOYMENT BENEFITS THE STATE OF NEVADA AND ITS RESIDENTS RECEIVE FROM THE PROJECT EXCEED THE LOSS OF TAX REVENUE THAT WILL RESULT IF THE PARTIAL ABATEMENTS ARE GRANTED?

A. Yes. Taken together, the capital investment amount, wages paid, jobs created and taxes paid will exceed the loss of tax revenue that will result from the tax abatement.

Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF FIRST SOLAR?

A. Headquartered in Tempe, Arizona, First Solar is a leading global provider of comprehensive photovoltaic solar systems that use First Solar’s advanced module and system technology. The company's integrated power plant solutions deliver an economically attractive alternative to fossil-fuel electricity generation today. From raw material sourcing through end-of-life module recycling, First Solar's renewable energy systems protect and enhance the environment. First Solar’s annual manufacturing capacity is approximately 1.3 gigawatts (“GW”).

First Solar has the core competencies to fully develop, design, construct and operate a solar project. To date, over 10 GW of First Solar modules have been installed and are currently in operation around the world. First Solar’s fully integrated solar power systems business includes (i) project development; (ii) engineering, procurement and construction (“EPC”) services; (iii) operating and maintenance (“O&M”) services; and (iv) project finance expertise.

Q. WHAT IS FIRST SOLAR’S EXPERIENCE IN DEVELOPING AND OPERATING POWER PLANTS?

A. First Solar has a proud history of building and operating solar photovoltaic power plants both worldwide and in Nevada. First Solar is the leading solar developer in Nevada with a 1,300 MW contracted project portfolio that represents almost 7 million workhours for Nevadans. One example is the 10 MW El Dorado Solar facility, located in the El Dorado Valley Energy Zone, near Boulder City in Clark County, Nevada. Another

facility, the 48 MW Copper Mountain project, is located directly adjacent to the El Dorado facility. First Solar acted as the engineering, procurement, and construction contractor and supplied modules for Sempra Generation.

First Solar is currently acting in that same capacity for Sempra Generation on a 150 MW Copper Mountain Solar project that is now in operation.

First Solar also completed construction on and now operates the 50 MW Silver State North facility, located adjacent to the Silver State South Project near Primm, Nevada, which is also currently under construction by First Solar. Finally, First Solar is constructing the Moapa Southern Paiute Solar facility, which when completed will generate an additional 250 MW of renewable energy produced in Nevada.

In addition, First Solar has gained industry-leading capabilities across the entire solar value chain to become the world's leading provider of PV energy solutions. First Solar has:

- Developed the largest solar project pipeline in the world (currently nearly 3.3GW contracted worldwide)
- Sold PV power plants to top power producers and energy investors in the industry
- Facilitated the financing for nearly ~2.5 GW (AC) (representing approximately ~\$11 billion) of First Solar power plants
- Designed and constructed over 2 GW(AC) of PV power plants, including some of the world's largest and most advanced operational PV plants: Desert Sunlight and Topaz Solar Farms, both 550 MW facilities.
- Developed the most advanced grid integration and plant control capability in the solar industry

- Made significant balance of system improvements to optimize the entire PV power plant and reduce lifecycle costs
- Developed the industry's most advanced O&M program and world-class Operations Center
- Achieved system availabilities of over 99% for fleet of utility-scale PV plants under operation

Q. WHAT IS THE RELATIONSHIP BETWEEN FIRST SOLAR AND PLAYA 2?

A. Playa 2 is a wholly-owned subsidiary of First Solar. Playa 2 was created specifically for the purpose of financing, owning and operating the Project.

Q. HAS THE PLAYA 2 PROJECT BEEN KNOWN BY ANY OTHER NAMES?

A. No.

Q. IS PLAYA 2 QUALIFIED TO DO BUSINESS IN NEVADA AND DOES IT HOLD A NEVADA BUSINESS LICENSE?

A. Yes.

Q. HAS PLAYA 2 OBTAINED ALL REQUIRED PERMITS TO CONSTRUCT THE PROJECT?

A. Playa 2 has been working with the Bureau of Land Management and other Federal and State agencies to complete permitting on the project. The Right of Way Grant from the Bureau of Land Management was received in August 2015. The Special Use Permit from Clark County, Nevada has been completed. The Permit to Construct from the Public Utilities Commission of Nevada, required under the Utility Environmental Protection

Act, was also received on September 11, 2015. Playa 2 will continue to work with Clark County as necessary to obtain all necessary construction permits prior to start of construction expected Q1, 2016.

Q. WILL PLAYA 2 OBTAIN AND MAINTAIN ALL REQUIRED LICENSES AND PERMITS TO CONSTRUCT AND OPERATE THE PROJECT?

A. Yes.

Q. WHAT BENEFITS DO FIRST SOLAR'S SOLAR ENERGY FACILITIES BRING TO THE STATE AND COUNTIES?

A. Playa 2 will invest over \$177 million of private money in the State of Nevada. The Project will also create approximately 335 construction jobs, of which at least 168 positions will be filled by Nevada residents.

Even after the application of the tax abatements requested in this proceeding, Playa 2 will pay more than \$4 million in sales and use taxes and over \$12 million in property taxes.

The capital contribution, job creation, and added revenues from taxes after abatement will result in substantial, net-positive benefits to Nevada that far outweigh the value of revenues not recognized because of the abatement.

In addition to economic benefits, this project will generate clean, renewable energy; reduce national dependence on fossil fuels; provide a natural hedge against fossil fuel

price volatility; and advance Nevada towards regional leadership in the development of renewable energy resources.

Q. ARE YOU FAMILIAR WITH THE CRITERIA IN CHAPTER 701A OF THE NEVADA REVISED STATUTES FOR A PROJECT TO BE ELIGIBLE FOR PARTIAL ABATEMENTS OF SALES AND PROPERTY TAXES?

A. Yes.

Q. DO YOU BELIEVE THE PROJECT MEETS ALL OF THE CRITERIA REQUIRED BY CHAPTER 701A OF THE NEVADA REVISED STATUTES TO QUALIFY FOR THE PARTIAL ABATEMENTS YOU ARE REQUESTING?

A. Yes.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS.

A. I recommend that Playa 2's application for the partial abatement of sales and use tax and property tax be granted. Playa 2 has demonstrated that the Project has met or will meet all the requirements for approval of the partial tax abatements set forth in NRS Chapter 710A. Lastly, the Project brings economic, employment, environmental and social benefits to the state of Nevada that far outweigh the loss in tax revenue associated with the requested abatements. First Solar has the core competencies to develop, design, and construct, and operate a solar project. Over 10 GW of First Solar modules have been installed and are in operation around the world. First Solar is the leading solar developer in Nevada with a 1,300 MW contracted project portfolio that represents almost 7 million

work hours for Nevadans. The State of Nevada can be confident that First Solar will complete the project and deliver the benefits described in First Solar's application and in the foregoing testimony.

ATTACHMENT

1

Michael A. Argentine

Professional Experience

2008 to Present First Solar Corporation San Francisco, CA
Director, Project Development

- Project Manager for 200 MW PV Playa solar project. Management responsibilities include permitting, interconnection, and PPA negotiations.
- Completed development of the 300 MW PV Stateline project in San Bernardino County California currently under construction.
- Project Manager for all development activities of the 30 MW Cimarron PV power plant in northern New Mexico. Financial close occurred in the first quarter of 2010 and project currently in operation.

2007 to 2008 FPL Energy Houston, TX
Director, Transmission and Solar Development

- Project Manager for the development of a 250 MW solar energy facility using solar thermal technology located in California City. Project certified by the California Energy Commission. Responsible for leading the project team for all phases of development including licensing, land acquisition, electrical transmission, securing PPA and maintaining relationships with project stakeholders.
- Responsible for the development of a 67-mile electrical transmission line. Responsible for leading project team and all phases of development including licensing, LGIA, land acquisition, CAISO coordination, licensing and maintaining relationships with project stakeholders. Project is currently in operation.

2001 to 2007 Calpine Corporation Folsom, CA
Director, Project Development

- Project Manager for the development of the Russell City Energy Center licensed by the California Energy Commission. The project has a PPA with PG&E. Responsible for all aspects of the project including managing the relationship with the joint venture partner.
- Submitted interconnection applications to CAISO for various projects and handled review of SIS, Facilities Studies and negotiated LGIAs.
- Responsible for the management of continuing development of various projects throughout northern and southern California.
- Prepared bid responses to renewable requests for offer.
- Managed development of two power plants currently in commercial operation totaling more than 1,300 MW capacity located in the Bay Area (Metcalf) and Southern California (Pastoria). Activities included the management of legal, interconnection, and water supply agreements. Corporate contact for all commercial arrangements including project financing and monitor costs vs. budget to mitigate cost overruns. Maintained and developed relationships with elected officials and industry leaders to facilitate power plant development. Co-chaired local advisory committee. Both projects achieved financial close and are in commercial operation.
- Conducted air quality due diligence concerning the siting of a LNG facility in California.
- Managed team of professionals and consultants for the green-field development of a 1,100 MW power plant project in the Central Valley region of California. Largest development project (1,100 MW) ever to qualify for the California Energy Commission's (CEC) 6 month expedited licensing process. Certification was granted in January of 2004. The project was certified without a Project Labor Agreement, which would have resulted in substantial savings in construction cost.
- Made presentations to the CEC, local governments, and trade organizations to introduce the

project and describe the benefits. Also responded to inquiries from the media.

- Prepared and delivered testimony to the CEC concerning the project environmental impacts.
- Interfaced with other responsible regulatory agencies regarding the project including EPA, local air pollution control district, regional water resources control board and U.S. Fish and Wildlife Service.
- Prepare project budget and cash flow.
- Prepared power-marketing plans.
- Coalition and team building.

2000 to 2001 FPL Energy

Sacramento, CA

Project Development Manager

- Completed the late stage acquisition of a 520 MW late stage power plant development project in California. Managed all due diligence activities related to the acquisition. Continued as project manager during construction. Managed the project development team.
- Identified potential green-field development sites throughout California and conducted fatal flaw analyses to determine viability of developing the sites. Managed the ongoing development activities related to developing the sites including preliminary legal analysis, engineering design, environmental studies and participated in community outreach programs.
- Met with local governmental officials and presented information regarding FPLE's proposed development plans. Attended public meetings and hearings and made presentations as appropriate.
- Updated the information for FPLE's WSCC market model to ensure development projects meet financial hurdle requirements.
- Provided support during CEC hearings and assisted in the preparation of the AFC for the Rio Linda/El Verta power plant project.
- Marketed project output.

1988 to 2000 Northern California Power Agency

Roseville, CA

Manager of Combustion Turbine Facilities, Assistant Manager of Operations and Assistant to General Manager, Business Development

- Prepared responses to request for proposals related to the valuation of PG&E's hydroelectric projects. Coordinating the Agency's strategic planning effort with respect to PG&E's potential divestiture of its hydroelectric facilities.
- Assisted in the preparation of reliability must run (RMR) contract proposals to submit to California Independent System Operator. RMR contracts allow power plant owners to recover all or a portion of all operating costs.
- Prepare Scheduling Coordination (SC) Business Plan and expand SC business by adding new credit worthy customers.
- Managed the operation of five 25 megawatt "frame 5" combustion turbines (CT) and one 49.9 megawatt LM-5000 steam injected CT.
- Responsible for maintaining all Dispatch Center SCADA system hardware. The SCADA system is used to collect data from WAPA meters located at city substations enabling resources to be scheduled to meet electric load requirements.
- Reduced operations and maintenance staff by one-third to improve project economics without reducing plant availability. Availability consistently exceeded 98 percent.
- Maintained high staff morale in spite of constant fears of power plant shut down and/or sales due to competition.
- Provided technical input to power plant economic studies completed for Agency by consultant.
- Instituted computerized maintenance system for inventory control, purchasing and work order processing.
- Handled all interfaces with the various regulatory agencies for the multiple projects and developed compliance plans. Also, prepared reports to regulatory agencies and ensured

power plant compliance with all applicable laws, ordinances and standards.

1986–1988 Northern California Power Agency Roseville, CA
Assistant to the Manager of Operations and Engineering

- Managed the Operations Department, including all power plants and Dispatch as Assistant Manager of Operations during period in the absence of Manager. (The title of Manager of Operations and Engineering was ultimately changed to Assistant General Manager, Generation Services.)
- Negotiated and prepared transmission settlement agreement with PG&E for CT units thereby ensuring project capacity credits.
- Provided technical and administrative support to the Operations and Engineering Department.
- Negotiated, prepared, and administered construction and procurement contracts.
- Evaluated new business opportunities for the Department and prepared business proposals.
- Prepared specifications for power plant and steam field improvements.
- Presented budgets for all operating facilities to the NCPA Commission for approval.
- Approved payment vouchers for the entire Department as delegated by the Manager.
- Participated in labor negotiations prior to adoption of formal MOU with employee organization.

1985–1986 Northern California Power Agency Roseville, CA
Project Manager

- Managed the siting, land purchase, licensing, design, and construction of five “frame 5” CT units.
- Units were placed into service on time, within a 24-month time frame, and under budget.
- Administered construction and procurement contracts.
- Resolved engineering, construction and procurement contract claims.

1982–1985 Northern California Power Agency Roseville, CA
Project Engineer

- Successfully licensed a two-unit 110 megawatt geothermal power plant with the California Energy Commission (CEC) within a 13 month period.
- Provided written and oral testimony to the CEC concerning all project features.
- Participated in specification review and equipment procurement.
- Managed the design and construction of the NCPA main office in Roseville.

1980-1982 California Department of Water Resources Sacramento, CA
Project Manager

- Managed the Department’s South Brawley geothermal development project, including well drilling and power plant conceptual design.

1975-1980 Air Resources Board Sacramento, CA
Air Resources Engineer

- Evaluated permit applications for power plants and industrial development.

Education

California State University Sacramento, CA

- M.B.A.
- M.S. Mechanical Engineering
- B.A. Chemistry, Minor: Physics

Licenses

Registered Professional Engineer (Mechanical), California.

Licensed California Real Estate Broker.