

Application No. 15-0218SPV

Direct Testimony of

**John Matt Tapp**

on behalf of

Copper Mountain Solar 4, LLC

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Matt Tapp and my business address is 1979 Lakeside Parkway, Suite 400; Tucker, GA 30084.

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

A. I am a Project Director for Amec Foster Wheeler ("Amec").

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

A. I am testifying on behalf Copper Mountain Solar 4, LLC ("Copper Mountain 4"), a Sempra Energy Company.

**Q. DOES ATTACHMENT TO YOUR TESTIMONY 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 Copper Mountain 4's request for partial tax abatements for its new 94 megawatt (MW) solar photovoltaic ("PV") electric generating and transmission facility located in Boulder City, Nevada (the "Copper Mountain 4 Project"). I will also discuss construction of the Copper Mountain 4 Project and the number, wages and residence of construction employees.

**Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF AMEC, ITS BACKGROUND AND HISTORY?**

A. Amec is a global supplier of Engineering, Construction, Project Management and Consultancy services. Our headquarters is based in the UK, and we have been in business for over 160 years. Amec currently works in over 40 countries, primarily serving the oil and gas, mining, clean energy, environmental, and infrastructure markets.

**Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE CONSTRUCTION OF THE COPPER MOUNTAIN 4 PROJECT?**

A. Amec is contracted to provide Engineering, Procurement and Construction services for the Copper Mountain 4 Project. Construction is anticipated to begin in October of 2015, with substantial completion for November of 2016. We will have three

major subcontractors performing civil, structural, and electrical work, all utilizing union labor.

**Q. HOW MANY EMPLOYEES WILL WORK ON CONSTRUCTION OF THE COPPER MOUNTAIN 4 PROJECT?**

A. We anticipate using approximately 200 construction employees on the Copper Mountain 4 Project.

**Q. HOW MANY FULL-TIME EMPLOYEES WILL BE WORKING ON THE COPPER MOUNTAIN 4 PROJECT DURING THE SECOND QUARTER OF CONSTRUCTION?**

A. We anticipate that we will employ 85 full-time employees on construction of the Copper Mountain 4 Project during the second quarter of construction.

**Q. HOW MANY OF THOSE EMPLOYEES WILL BE RESIDENTS OF NEVADA?**

A. We intend to employ most of our construction employees in Nevada and expect that most of our subcontractors will do the same. In all, we believe that approximately 68% of the construction employees will be residents of Nevada.

**Q. EXCLUDING MANAGEMENT AND ADMINISTRATIVE EMPLOYEES, WHAT WILL BE THE AVERAGE WAGE OF THE EMPLOYEES**

**WORKING ON THE CONSTRUCTION OF THE COPPER MOUNTAIN 4 PROJECT?**

A. We expect the average wage for construction employees working on the Copper Mountain 4 Project to be approximately \$64/hour.

**Q. WILL EMPLOYEES WORKING ON CONSTRUCTION OF THE COPPER MOUNTAIN 4 PROJECT BE PROVIDED A HEALTH INSURANCE PLAN, PROVIDED BY A THIRD PARTY ADMINISTRATOR, THAT INCLUDES COVERAGE FOR DEPENDENTS OF THE EMPLOYEES?**

A. Yes.

**Q. WILL THE HEALTH INSURANCE PLAN OFFERED TO EMPLOYEES COMPLY WITH ALL APPLICABLE REGULATIONS?**

A. Yes.

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

A. Yes, on both counts.

**Q. DOES AMEC HAVE A NEVADA CONTRACTOR'S LICENSE?**

A. Yes.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.

## J. Matt Tapp

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## Matt Tapp

Project Director  
Power & Process Americas

Matt has more than twenty years of experience in the construction of projects for the power and process industries. He uses proven leadership skills to achieve stakeholder's objectives. He has demonstrated the ability to consistently deliver projects safely, on schedule, and within budget. Matt has experience managing projects in excess of \$650 million.

### Education:

Masters Certificate, Project Management, ESI, an affiliate of George Washington University

### Years of Experience:

In the Industry: 22  
With AMEC: 2

### Select Relevant Experience:

- **Project Director, TIC/Kiewit, September 07-January 13**  
Project Director of a 500MW EPC 2x1 Combined-Cycle Project. Total responsibility for bottom line results including safety, quality, schedule and budget. Completed multiple successful AQCS projects with individual unit values up to \$163M. Received several awards to include: ENR Coal Project of the Year, TIC Southeast Project of the Year and SC&RA Rigging Project of the Year.
- **Regional Manager, CCC Group Inc, N. Las Vegas, NV, April 05-September 07**  
Responsible for every facet of beginning a new area office. Duties included performing marketing, estimating, and management of projects varying in size up to 20 million dollars.
- **Project Manager/Construction Manager, Giant Cement, Harleyville, SC, February 04-April 05**  
Responsibilities included overall management of material handling, raw mill, and finish mill portion of a 264 million dollar Cement Plant for Giant Cement. I was the first Supervisor on site and the last one to leave. Project was completed on schedule and under budget.
- **Construction Manager, SCGE, Charleston, SC, December 03-January 04**  
Responsible for overall planning and management of 2 million dollar boiler tube replacement for SCGE.
- **Project Manager/ Project Engineer, TECO, McAdams, MS, March 03-December 03**  
Responsibilities included oversight of all cost and schedule controls for a 500 million dollar power plant. The project was being performed by Nepco and TIC was brought in to assist TECO with Construction Management and oversight. Served as PM on this project approximately 30% of the time.
- **Project Manager, Lafarge, Pelham, AL, October 02-March 03**  
Total responsibility for a 200 million dollar EPC cement plant for Lafarge (formerly Blue Circle). Project was extremely successful, finishing with an outstanding safety record.
- **Laborer thru Project Manager, CDK Contracting Inc, Various, January 92-October 02**  
Began as a laborer in 1992, and progressively held all positions through Project Manager. Projects included Cement plants, material handling projects, dragline and shovel mining equipment, lime plants, oxygen and gas plants, refineries, copper mines, gypsum plants, extensive coal mine work including underground, etc. Performed on approximately 40 projects.

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Application No. 15-0218SPV

Direct Testimony of

**Travis Jones**

on behalf of

Copper Mountain Solar 4, LLC

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Travis Jones and my business address is 101 Ash Street, HQ 14, San Diego, California, 92101.

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

A. I am a Project Manager for Sempra Global Services, a Sempra Energy Company (“Sempra” or “Sempra Energy”).

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

A. I am testifying on behalf Copper Mountain Solar 4, LLC (“Copper Mountain 4”), a Sempra Energy Company.

**Q. DOES ATTACHMENT 1 TO YOUR TESTIMONY 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 Copper Mountain 4’s request for partial tax abatements for its new 94 megawatt (MW) solar photovoltaic (“PV”) electric generating and transmission facility located in Boulder City, Nevada (“Copper



Mountain 4 Project”). I will also demonstrate that the Copper Mountain 4 Project meets all of the criteria to qualify for the requested partial tax abatements by providing an overview of Copper Mountain 4, its business operations, and the success of its parent corporation, Sempra, in developing and operating solar generating and transmission facilities, as well as specific information related to the Copper Mountain 4 Project.

**Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF COPPER MOUNTAIN 4 AND SEMPRA ENERGY?**

A. Copper Mountain 4 is a Sempra Energy Company that will develop, own and operate a 94 MW (net output) solar photovoltaic electric generating and transmission facility in Boulder City, Nevada.

Sempra Energy is a Fortune 500 energy services holding company with 2014 revenues of approximately \$11 billion, headquartered in San Diego, California. Currently, Sempra companies have approximately 753 MW of PV energy facilities in operation, 94 MW under construction and more than 535 MW in the development pipeline.

**Q. HAVE YOU REVIEWED COPPER MOUNTAIN 4'S APPLICATION FOR THE PARTIAL ABATEMENTS?**

A. Yes.

**Q. IS ALL OF THE INFORMATION IN THE APPLICATION STILL ACCURATE?**

A. Yes.

**Q. WHAT TYPES OF ABATEMENTS IS COPPER MOUNTAIN 4 REQUESTING?**

A. Copper Mountain 4 is requesting partial abatements on the sales and use tax for personal property purchased to construct the Copper Mountain Project and the property tax levied pursuant to Chapter 361 of NRS for the portions of the real and personal property used for the generation and transmission of electricity produced from solar energy.

**Q. WILL ANY FUNDING BE PROVIDED BY ANY GOVERNMENTAL ENTITY IN THIS STATE FOR THE ACQUISITION, DESIGN OR CONSTRUCTION OF THE COPPER MOUNTAIN 4 PROJECT OR FOR THE ACQUISITION OF THE LAND?**

A. No.

**Q. WILL THE COPPER MOUNTAIN 4 PROJECT BE OWNED, OPERATED, LEASED OR OTHERWISE CONTROLLED, EVEN IN PART, BY A GOVERNMENTAL AGENCY?**

A. No.

**Q. HAVE YOU APPLIED FOR OR ARE YOU RECEIVING ANY OTHER TAX ABATEMENT OR EXEMPTION FOR THE COPPER MOUNTAIN 4 PROJECT?**

A. No.

**Q. HOW LONG WILL THE COPPER MOUNTAIN 4 PROJECT BE IN OPERATION?**

A. Copper Mountain 4 signed a 20-year power purchase agreement ("PPA") with the Southern California Edison.

Copper Mountain 4 will need to replace certain parts and equipment during that time, but intends to fulfill the entire 20-year term. Copper Mountain 4 is prepared to sign an abatement agreement with the State of Nevada that will ensure it operates the facility for at least ten years, continues to meet the requirements for the partial abatements, and binds the successors in interest of Copper Mountain 4, if any, for the specified period.

**Q. HOW MANY EMPLOYEES WILL BE WORKING AT THE COPPER MOUNTAIN 4 PROJECT AFTER IT IS FULLY OPERATIONAL?**

A. After the Copper Mountain Project is fully operational, an affiliated service company will employ three additional full-time employees, at an average hourly wage of approximately \$31.00 per hour. As with all employees hired prior to commercial operations, all abatement requirements will be satisfied with respect to these employees, as well.

**Q. HOW MUCH OF A CAPITAL INVESTMENT WILL COPPER MOUNTAIN 4 MAKE IN THIS STATE IN CONNECTION WITH THE COPPER MOUNTAIN PROJECT?**

A. The Copper Mountain 4 Project will involve a capital investment of approximately \$236,112,000.

**Q. IS COPPER MOUNTAIN 4 QUALIFIED TO DO BUSINESS IN NEVADA AND DOES IT HOLD A NEVADA BUSINESS LICENSE?**

A. Yes, on both counts.

**Q. HAS COPPER MOUNTAIN 4 APPLIED FOR ALL REQUIRED PERMITS TO CONSTRUCT THE COPPER MOUNTAIN 4 PROJECT?**

A. Attachment 2 lists the required permits required to construct the Copper Mountain 4 Project. For those permits which have not been received, an estimated application and receipt date are shown.

**Q. PLEASE PROVIDE AN UPDATED LIST OF CONTRACTORS AND SUBCONTRACTORS.**

A. AMEC E&C is the prime contractor for the Copper Mountain 4 Project. An updated list of subcontractors will be provided at the hearing.

**Q. CAN YOU PLEASE EXPLAIN IN DETAIL THE COPPER MOUNTAIN 4 PROJECT?**

A. The Copper Mountain Project is located in Boulder City, Clark County, Nevada, on approximately 682 acres of land that is leased from the City of Boulder City. It will have a name plate capacity of 93.6 MW and a net output production capacity of 92 MW. Construction is anticipated to begin in October of 2015, with substantial completion for November of 2016.

The overall site layout includes the following components:

Copper Mountain 4 will be using polycrystalline silicon technology photovoltaic (PV) panels to convert sunlight into direct current (DC) electricity. The project

will employ single axis tracking to optimize solar energy harvest. The DC power generated by the PV panels is fed through a series of DC cables to Power Conversion Stations (PCS) where all of the DC power is converted to AC or alternating current power. The AC power is also transformed at each PCS to a higher voltage and the power is then aggregated again at electrical switching equipment called a Single Way Switchgear (SWS). Copper Mountain 4 plans to use six (6) SWS stations in all that feed the collector substation by 34.5 kV overhead conductors.

The collector substation will have a 34.5kV circuit breaker for each overhead feed. The 34.5kV breakers will feed transformers that change the voltage from 34.5kV to 230kV. The 230kV side of the transformer will be connected to electric metering equipment and an overhead tie line that serves as the generation tie between Copper Mountain 4 and the electric grid at the Merchant Switchyard, approximately 0.5 miles west of the project site.

**Q. WHAT BENEFITS WILL THE COPPER MOUNTAIN PROJECT BRING TO THE STATE AND CLARK COUNTY?**

A. The Copper Mountain Project will provide financial, employment and environmental benefits to Nevada and Clark County. For example, assuming the sales and use tax abatements are granted, by our estimates, the Copper Mountain 4 Project will pay more than \$3.8 million in sales and use taxes and \$11.4 million in property taxes to Nevada, Clark County and Boulder City over the life of the PPA,

create approximately 200 construction jobs, including 85 full-time jobs during the second quarter of construction of the facility, and three additional full-time jobs at the facility once it becomes fully operational. Not only will all of these jobs provide benefits, the Project will also serve to reduce unemployment and uninsured individuals, which will in turn help reduce costs for Nevada's unemployment insurance fund and health care programs.

**Q. WILL THE FINANCIAL AND EMPLOYMENT BENEFITS THE STATE OF NEVADA AND ITS RESIDENTS RECEIVE FROM THE COPPER MOUNTAIN 4 PROJECT EXCEED THE LOSS OF TAX REVENUE THAT WILL RESULT IF THE PARTIAL ABATEMENTS ARE GRANTED?**

A. Yes. The capital investment, the wages paid and the taxes paid will far exceed the loss of tax revenue. Additionally, the Copper Mountain 4 Project is consistent with the State Plan for Economic Development developed by the Governor's Office of Economic Development, which notes the abundant renewable energy growth opportunities in state as well as Nevada's unique ability to be a national leader in solar energy development.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.

**Travis Jones**

**Project Manager – Copper Mountain Solar 4**

Travis Jones is a Project Manager for Sempra U. S. Gas and Power's Engineering and Construction Group. Mr. Jones' responsibilities in this position are to lead all project related activities during the engineering, construction and commissioning phase of the project.

Prior to this role Mr. Jones worked as a Project Engineer on various Sempra U. S. Gas and Power Projects.

Prior to working at Power Engineers, Mr. Jones worked for Fluor Corporation as a process engineer where he was part of a team that designed, constructed and commissioned utility scale natural gas combined cycle and cogeneration facilities.

Mr. Jones holds a bachelor's degree in Chemical Engineering from the University of California San Diego, San Diego, CA and is a registered Chemical Engineer in the State of California.

List of Required Permits or Authorizations for the Proposed Facility

Permit or Authorization Title	Issuing Agency	Project Circumstance Requiring Permit or Authorization	Steps to Obtain Permit	Application Date	Approval Date or Expected Approval Date
<b>II. State of Nevada Permits or Authorizations</b>					
UEPA Compliance Order	Public Utilities Commission of Nevada	Renewable energy facility greater than 70 MW	Submit initial application and amended as needed.	10/8/2014	12/17/2014
UEPA Permit to Construct - Phase 1	Public Utilities Commission of Nevada	Site grading/Temporary Construction Facilities	Submit required permits for applicable phase (per Corrected Order)	7/1/2015	7/15/2015
UEPA Permit to Construct - Phase 2	Public Utilities Commission of Nevada	Substation, Gen-Tie, and Solar Field Construction.	Submit required permits for applicable phase (per Corrected Order)	8/1/2015	8/15/2015
Coverage under the General Storm water Permit for Construction Activities	Nevada Division of Environmental Protection	Construction activities impacting greater than 1 acre	Submit Notice of intent, prepare and implement a Storm Water Pollution Prevention Plan	7/6/2015	10/19/2015
Hazardous Material Permit	Nevada State Fire Marshal	Installation of fuel tanks	Submit application, undergo inspection by Fire Marshal	10/12/2015	11/9/2015
Onsite Temporary Septic Permit	Nevada Division of Environmental Protection	Construction of water line and access road	Submit initial application, complete NDEP Review, submit a Notice of intent (NOI) application, verify by letter, and engineer's stamp (Nevada P.E.), that construction of this OSDS system was completed according to the approved plans.	8/3/2015	9/7/2015
<b>III. County Permits or Authorizations</b>					
Dust Control Permit	Clark County Department of Air Quality and Environmental Management	Construction activities impacting greater than 0.1 acre	Submit application with detailed dust control plan	7/20/2015	11/2/2015



State of Nevada

Renewable Energy Tax Abatement Application

Coverage under the Clark County Multispecies Habitat Conservation Plan	Clark County (as Plan Administrator)	Ground disturbing activities on Federal lands within Clark County	Submit application for grading permit to Boulder City. Pay mitigation fee.	9/21/2015	11/2/2015
<b>IV. City Permits or Authorizations</b>					
Excavation Permit, Water Line [Ref 50-13]	Boulder City	Construction of water line and access road	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Underground Utilities, Water Line [Ref 13-029]	Boulder City	Construction of water line and access road	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Fire Underground Installation, Water Line [Ref 2013-29]	Boulder City	Construction of water line and access road	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Onsite Utilities, Water Line [Ref 13-0295]	Boulder City	Construction of water line and access road	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Excavation Permit, Access Road [Ref 71-13]	Boulder City	Construction of water line and access road	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Grading Permit [Ref 13-0190]	Boulder City	Construction of substation and gen-tie lines	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Foundations, Below Grade Conduit and Ground Grid [Ref 13-0306]	Boulder City	Construction of substation and gen-tie lines	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Transmission Line and Associated Structures, Foundations and Conductor [Ref 13-0330]	Boulder City	Construction of substation and gen-tie lines	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Set Temp Trailer - Boulder City Fire Dept [Ref 13-0303]	Boulder City	Construction of substation and gen-tie lines	Submit application for permit to Boulder City. Pay fee.	7/1/2015	7/15/2015
Grading Permit	Boulder City	Construction of solar site	Submit application for grading permit to Boulder City. Pay fee.	8/1/2015	8/25/2015
Building Permit	Boulder City	Construction of solar site	Submit application for building permit to Boulder City. Pay fee.	8/1/2015	8/25/2015
Fence Permit	Boulder City	Construction of solar site	Submit application for permit to Boulder City. Pay fee.	8/1/2015	8/25/2015