

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

IN THE MATTER OF:
Application of NEVADA POWER
COMPANY d/b/a NV Energy Seeking
Acceptance and Approval of the First
Amendment to the Action Plan Approved as
Part of its Triennial Integrated Resource Plan
covering the period 2010-2029, Including
three new Renewable Energy Contracts, Four
Renewable Energy Contract Amendments
and Three New Renewable Portfolio-Credit-
Only Contracts.

Docket No. 11-03_____

VOLUME 2 OF 5

APPLICATION, DRAFT NOTICE

TESTIMONY AND NARRATIVE

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**APPLICATION
AND
DRAFT NOTICE**

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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

IN THE MATTER OF:
Application of NEVADA POWER COMPANY)
d/b/a NV Energy Seeking Acceptance and)
Approval of the First Amendment to the Action)
Plan Approved as Part of its Triennial Integrated)
Resource Plan covering the period 2010-2029,) 11-03 _____
Including three new Renewable Energy Contracts,)
Four Renewable Energy Contract Amendments)
and Three New Renewable Portfolio-Credit-Only)
Contracts.)
_____ /

APPLICATION

APPLICANT, NEVADA POWER COMPANY d/b/a NV Energy (“Nevada Power” or “Company”), respectfully submits this First Amendment to its Integrated Resource Plan for supply and demand-side resources for the twenty year period of 2010 through 2029 (“2009 IRP”). This First Amendment to the 2009 IRP is filed pursuant to NRS §704.751(2), NAC §704.9503 (monitoring and amendment of action plan), NAC §704.9516 (contents of amendments to action plan), and NAC §704.9518 (approval of amendment to action plan or energy supply plan).

In this First Amendment to the 2009 IRP, Nevada Power requests approval of an update to the load forecast used for purposes of long-term resource planning, approval of three new renewable energy contracts, approval of amendments to four existing renewable energy contracts, and approval of three new renewable contracts for portfolio credits only. Nevada Power asks that the Public Utilities Commission of Nevada (“Commission”) issue an order accepting the First Amendment in accordance with NRS §704.751 and approving the First Amendment to the three-year action plan for calendar years 2010 through 2012 (“Action Plan”) pursuant to NAC §704.9518. Nevada Power respectfully requests that the Commission issue its final order on this Application within 135 days in accordance with NRS § 704.751(2).

In support of this Application, Nevada Power states as follows.

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I. GENERAL

Nevada Power is a wholly-owned subsidiary of NV Energy, Inc. (formerly Sierra Pacific Resources), a holding company incorporated under the laws of the State of Nevada. Nevada Power provides retail electric service to the public in Clark and Nye Counties, Nevada, and is a “public utility” as that term is defined and used in NRS §704.020 (definition of public utility) and subject to the jurisdiction of the Commission.

All correspondence related to this Application (including all pleadings, notices, orders and discovery requests) should be served electronically at the following web address: regulatory@nvenergy.com. Hardcopy documents should be transmitted to Nevada Power’s counsel and to the Manager, Regulatory Services, whose names and addresses are set forth below:

Trevor Dillard Manager, Regulatory Services Nevada Power Company 6100 Neil Road Reno, Nevada 89511 Tel: 775.834.5823 Fax: 775.834.4484 regulatory@nvenergy.com	Elizabeth Elliot, Esq. Associate General Counsel Nevada Power Company 6100 Neil Road Reno, Nevada 89511 Tel: 775.834.5694 Fax: 775.834.4811 belliot@nvenergy.com
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II. AUTHORITY

Nevada Power is required by NAC §704.9503(1) to continually monitor its approved Action Plan and to amend its Action Plan under the following circumstances:

- (a) The utility anticipates submitting an application for a permit to construct a utility facility pursuant to NRS 704.820 to 704.900, inclusive, which was not previously approved as part of the action plan.
- (b) The utility makes a commitment for the acquisition or construction of a facility that was not previously approved as part of the action plan.
- (c) The utility makes a commitment for a long-term purchased power obligation which was not previously approved as part of the action plan.
- (d) The utility is unable to place a resource in service or secure a resource in accordance with the schedule for the resource that is included in the action plan approved by the Commission and the modified schedule results in a significant deviation from the planned reserve margin for any period in the 3-year action plan.

1 (e) The utility makes a commitment for an option that was not
2 available at the time the action plan was approved.

3 (f) The basic data used in the formation of the plan requires significant
4 modification that affects the choice of a resource which was approved as
5 part of the action plan.

6 This First Amendment, the subject matter of which includes three new long-term
7 renewable energy contracts, amendments to four existing long-term renewable energy
8 contracts, and three new long-term portfolio-credit-only contracts, is submitted in compliance
9 with subsections (c) and (e) above.

10 Section 1(a) of NAC §704.9516 requires that an amendment to an approved action plan
11 identifies the items for which the utility is requesting specific approval. In this First
12 Amendment, Nevada Power requests Action Plan approval of the following items:

- 13 A. Updated base load forecast to be used for long term planning purposes.
- 14 B. New Renewable Purchase Power Agreements
 - 15 1. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement
16 between Nevada Power and ORNI 32, LLC, dated February 11, 2011, for a new
17 51 MW (30 MW net) geothermal project in Churchill County, Nevada.
 - 18 2. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement
19 between Nevada Power and FRV Spectrum Solar, LLC, dated February 11,
20 2011, for a new 30 MW AC solar project in Clark County, Nevada.
 - 21 3. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement
22 between Nevada Power and Mountain View Solar, LLC, dated February 11,
23 2011, for a new 20 MW AC solar project in Clark County, Nevada.
- 24 C. Amendment to Previously Approved Renewable PPAs
 - 25 1. An amended and restated Long-Term Firm Portfolio Energy Credit and
26 Renewable Power Purchase Agreement between Nevada Power and Fotowatio
27 Nevada Solar, LLC, dated February 11, 2011.
 - 28 2. An amendment to the previously approved Long-Term Firm Portfolio Energy
Credit and Renewable Power Purchase Agreement between Nevada Power and
ORNI 15, LLC, dated February 11, 2011.
 - 3. An amendment to the previously approved Long-Term Firm Portfolio Energy
Credit and Renewable Power Purchase Agreement between Nevada Power and
Enel Stillwater, dated February 16, 2011.
 - 4. An amendment to the previously approved Long-Term Firm Portfolio Energy
Credit and Renewable Power Purchase Agreement between Nevada Power and
Tonopah Solar Energy, LLC, dated March 1, 2011.

1 D. Portfolio-Credit-Only Agreements

- 2 1. A long-term portfolio credit purchase agreement between Nevada Power and
3 CNLV Solar Power Generation Station 1, LLC, dated February 11, 2011, for a
4 contracted annual supply amount of 5,957 thousand Portfolio Credits (“kPCs”).
- 5 2. A long-term portfolio credit purchase agreement between Nevada Power and
6 SCGC Solar Power Generation Station 1, LLC, dated February 11, 2011, for a
7 contracted annual supply amount of 3,515 kPCs.
- 8 3. A long-term portfolio credit purchase agreement between Nevada Power and
9 Pecos Solar Power Generation Station 1, LLC, dated February 11, 2011, for a
10 contracted annual supply amount of 2,722 kPCs.

11 The specific items for which Nevada Power is seeking approval are also set forth in the
12 Narrative accompanying this filing at Section II (Summary of Specific Approvals) and Section
13 IX (Amended Action Plan).

14 Section 1(b) of NAC §704.9516 requires that an amendment to an approved action plan
15 specifies any changes in assumptions or data that have occurred since the utility’s resource
16 plan was filed. Section 1(e) of NAC §704.9516 requires that an amendment also include a
17 current peak demand forecast. The forecast used for this filing is the same as the forecast
18 approved in Nevada Power’s 2011-2012 Energy Supply Plan Update (Docket No. 10-09003).
19 The 2011 and 2012 load forecasts were found to be “suitable for making planning decisions”
20 by order of the Commission dated December 16, 2010. This First Amendment seeks to extend
21 the approval of the forecast filed in Docket No. 10-09003 for the entire 20 year planning
22 period, 2011-2029.

23 Sections 1(c) and 1(d) of NAC §704.9516 require that amendments to approved Action
24 Plans include, as applicable information required in paragraphs (d) and (e) of subsection 1 of
25 NAC §704.9489, and subsections 3 and 4 of NAC §704.9489, as well as applicable data and
26 information pursuant to NAC §§704.922 to 704.948. For each of the three new renewable
27 energy contracts, the four renewable contract amendments, and the three new renewable
28 portfolio-credit-only contracts for which approval is sought, the information required by these
sections, commonly referred to as “the Roadmap” of applicable regulations, is found in the
Narrative at the end of the discussion of each such agreement.

1 Section (1)(f) of NAC §704.9516 requires that amendments to approved Action Plans
2 include a table indicating the current loads and resources. Loads and resources tables
3 reflecting the updated load forecast and each of the contracts addressed in this First
4 Amendment are set forth in Section IV of the Narrative.

5 Section (1)(g) of NAC §704.9516 requires that if the utility seeks an amendment related
6 to a renewable energy contract or energy efficiency contract, the amendment should include
7 information about the imputed debt mitigation. Because credit agencies rating Nevada Power’s
8 debt do not currently explicitly address the imputation of debt associated with renewable
9 energy contracts in their ratings, this information is not addressed in the First Amendment.

10 Section (2) of NAC §704.9516 applies to amendments submitted pursuant to
11 paragraphs (a) and (f) of subsection 1 of NAC §704.9503. As is set forth above, this First
12 Amendment is submitted in accordance with Section (1)(c) and (1)(e) of NAC §704.9503.
13 Thus the provisions of NAC §703.9516(2) do not apply to this First Amendment.

14
15 **III. OVERVIEW OF FILING**

16 This First Amendment is made up of five volumes and organized as follows:

- 17 • Volume 1 – Transmittal Letter, Table of Contents and Certificate of Service
- 18 • Volume 2 – Application, Draft Notice, Narrative, Testimony and Action Plan
- 19 • Volume 3 – Technical Appendix
- 20 • Volume 4 – Technical Appendix
- 21 • Volume 5 – Technical Appendix

22 Three witnesses testify in support of the Company’s direct case.

23 **Mr. Terry A. Baxter**, Manager of Load Forecasting, sponsors the load forecasting
24 discussion in the Narrative. In addition, he sponsors the Technical Appendices that relate to
25 the load forecast.

26 **Mr. Bobby J. Hollis II**, Director, Renewable Energy Planning supports and justifies
27 all three new renewable contracts, all three new renewable portfolio-credit-only contracts,
28 and the amendments to the existing Fotowatio, ORNI 15, and Tonopah Solar contracts.

1 **Mr. William K. Branch**, Director, Contract Negotiation and Administration,
2 supports the amendment to the Enel Stillwater contract.

3
4 **IV. CONFIDENTIAL TREATMENT OF CERTAIN LIMITED INFORMATION**

5 Nevada Power is requesting confidential treatment of certain limited information
6 contained in the First Amendment pursuant to NRS §703.190(2) and NAC §§703.527 to
7 .5282, as well as the Commission’s September 15, 2010 and October 15, 2010 Orders
8 regarding the confidentiality of information related to renewable energy contracts from
9 Docket No. 10-02009. This request is being served on the Commission’s Staff and the
10 Consumer’s Advocate, pursuant to NAC §703.5274(2). The prefiled testimony of
11 witnesses Terry A. Baxter, Bobby J. Hollis II, and William K. Branch, which are
12 incorporated herein pursuant to NAC §703.710 and by reference, set forth the factual bases
13 for the Company’s limited assertions of confidentiality.

14
15 **V. DEVIATION FROM REGULATION**

16 Section 704.0097 of the Nevada Administrative Code provides that the Commission
17 may allow deviation from the provisions of NAC Chapter 704 if good cause appears, if the
18 requestor provides a specific reference for the provision from which deviation is requested, and
19 if deviation is not contrary to statute.

20 Section (1)(g) of NAC §704.9516 requires that if the utility seeks an amendment related
21 to a renewable energy contract or energy efficiency contract, the amendment should include
22 information about the imputed debt mitigation. However, credit agencies that rate Nevada
23 Power’s debt do not currently explicitly address the imputation of debt associated with
24 renewable energy contracts in their ratings. Because this information is not readily available or
25 published, Nevada Power seeks authority to deviate from this regulation and to not include this
26 information in the First Amendment. Deviation from NAC §704.9516(1)(g) is not contrary to
27 statute.

28

1 **VI. PRAYER FOR RELIEF**

2 WHEREFORE, NEVADA POWER respectfully requests that the Commission proceed
3 in the manner required by law and, in accordance with applicable statutes and, issue an
4 order that grants the following requests:

5 1. Approval of the long-term load forecast presented in Section III of the Narrative
6 included with this First Amendment as being the most accurate information upon which to base
7 planning decisions through the remainder of the Action Plan period.

8 2. Approval of a new Long-Term Portfolio Credit and Renewable Power Purchase
9 Agreement between Nevada Power and ORNI 32, LLC, dated February 11, 2001, for a new 51
10 MW (30 MW net) geothermal project in Churchill County, Nevada.

11 3. Approval of a new Long-Term Portfolio Credit and Renewable Power Purchase
12 Agreement between Nevada Power and FRV Spectrum Solar, LLC, dated February 11, 2011,
13 for a new 30 MW AC solar project in Clark County, Nevada.

14 4. Approval of a new Long-Term Portfolio Credit and Renewable Power Purchase
15 Agreement between Nevada Power and Mountain View Solar, LLC, dated February 11, 2011,
16 for a new 20 MW AC solar project in Clark County, Nevada.

17 5. Approval of an amended and restated Long-Term Firm Portfolio Energy Credit
18 and Renewable Power Purchase Agreement between Nevada Power and Fotowatio Nevada
19 Solar, LLC, dated February 11, 2011.

20 6. Approval of an amendment to the previously approved Long-Term Firm
21 Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power
22 and ORNI 15, LLC, dated February 11, 2011.

23 7. Approval of an amendment to the previously approved Long-Term Firm
24 Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power
25 and Enel Stillwater, dated February 16, 2011.

26 8. Approval of an amendment to the previously approved Long-Term Firm
27 Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power
28 and Tonopah Solar Energy, LLC, dated March 1, 2011.

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9. Approval of a new long-term portfolio credit purchase agreement between Nevada Power and CNLV Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 5,957 kPCs.

10. Approval of a long-term portfolio credit purchase agreement between Nevada Power and SCGC Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 3,515 kPCs.

11. Approval of a long-term portfolio credit purchase agreement between Nevada Power and Pecos Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 2,722 kPCs.

12. Approval of Nevada Power's request for protection of limited confidential information filed under seal.

13. Approval of Nevada Power's request for deviation from the requirements of NAC §704.9516(1)(g).

14. In accordance with NAC §704.885, §704.9494(2) and (4), issue a finding that the three new renewable energy agreements, the four amendments to existing renewable energy agreements, and the three new portfolio-credit-only agreements set forth in this First Amendment are prudent, that the costs of purchasing renewable energy and portfolio credits pursuant to these contracts are prudently incurred, and that Nevada Power may recover all just and reasonable costs of renewable energy and portfolio credits purchased pursuant to these contracts.

NEVADA POWER COMPANY
D/B/A NV ENERGY
FIRST AMENDMENT TO 2009 IRP

DRAFT NOTICE
Satisfying NAC §703.2211(5)

- I. Include a title that describes the relief requested, or proceeding scheduled pursuant to Nevada Administrative Code (“NAC”) §703.160 (4)(a.)

IN THE MATTER OF:
Application of NEVADA POWER COMPANY)
d/b/a NV Energy Seeking Acceptance and)
Approval of the First Amendment to the Action)
Plan Approved as Part of its Triennial Integrated)
Resource Plan covering the period 2010-2029,)
Including Three new Renewable Energy Contracts,)
Four Renewable Energy Contract Amendments)
and Three New Renewable Portfolio-Credit-Only)
Contracts.

Include the name of the applicant, complainant, petitioner, or the name of the agent for same pursuant to NAC §703.160 (4)(b).

Nevada Power Company, d/b/a NV Energy

- II. Include a paragraph with a brief description of the purpose of the filing or proceeding with an introductory statement in plain English understandable to a person of average knowledge and intelligence, that summarizes the relief requested or proceeding scheduled, **AND** its impact upon consumers, pursuant to NAC §703.160 (4)(c).

In this First Amendment to its 2009 IRP, Nevada Power requests approval of an update to the load forecast used for purposes of long-term resource planning, approval of three new renewable energy contracts, approval of amendments to four existing renewable energy contracts, and approval of three new renewable contracts for portfolio credits only.

- III. A declaration by the applicant, petitioner, or complainant whether a consumer session is required by Nevada Revised Statute (“NRS”) §704.069 (1). NAC §703.162 (2)

This amendment to an IRP Action Plan does require a consumer session.

- IV. If the draft notice pertains to a tariff filing, please include the tariff number **and** the section number(s) or schedule number(s) being revised.

Not applicable

TESTIMONY

TERRY A. BAXTER

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

NEVADA POWER COMPANY
d/b/a NV ENERGY
First Amendment to its 2010-2029 Integrated Resource Plan

Docket No. 11-03 _____

PRE-FILED DIRECT TESTIMONY
OF
TERRY A. BAXTER

On Behalf of Nevada Power Company

Sierra Pacific Power Company and Nevada Power Company
d/b/a NV Energy
6100 Neil Rd., P.O. Box 10100
Reno, Nevada 89520-0024

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10 **1. Q. WOULD YOU PLEASE STATE YOUR NAME, EMPLOYER, JOB**
11 **TITLE, AND BUSINESS ADDRESS?**

12 A. My name is Terry A. Baxter. I am the Manager of Load Forecasting for Nevada
13 Power Company d/b/a/ NV Energy (“Nevada Power” or “Company”) and Sierra
14 Pacific Power Company d/b/a NV Energy (“Sierra,” and together with Nevada
15 Power, the “Companies”) as Manager of Load Forecasting. My business
16 address is 6226 West Sahara Avenue, in Las Vegas, Nevada.

17
18 **2. Q. WHAT ARE YOUR RESPONSIBILITIES AS MANAGER OF LOAD**
19 **FORECASTING?**

20 A. As the Manager of Load Forecasting, my primary responsibilities include
21 forecasting sales volume, customer counts and peak demand for use in
22 development of financial budgets, energy supply plans and integrated resource
23 plans.

24
25 **3. Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**
26 **EMPLOYMENT EXPERIENCE IN THE UTILITY INDUSTRY?**

27 A. I hold a Master of Arts in Economics from the University of Arkansas located in
28 Fayetteville, Arkansas and a Bachelor of Science in Economics from the

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University of Missouri at Rolla (now Missouri University of Science and Technology) located in Rolla, Missouri. I have been employed by the Companies since July 2007. Prior to my current position, I served as the Manager of Forecasting and Economic Analysis at Alliant Energy in Cedar Rapids, Iowa, for nine years, where I was responsible for load and revenue forecasting and load research. Prior to that, I was a Group Manager with Aspen Systems Corporation (now a division of Lockheed-Martin), where for seven years I oversaw analytical consulting projects for utilities and the U.S. government. I also have served as Manager of Load Research at Midwest Resources (now MidAmerican Energy) and as the Load Research Analyst at Missouri Public Service Company (now a part of Kansas City Power and Light Co., a division of Great Plains Energy). I have submitted reports and testimony regarding load forecasting and load research before the Iowa Utilities Board, the Wisconsin Public Service Commission, the Illinois Commerce Commission, the Minnesota Department of Commerce, the California Energy Commission, the California Public Utilities Commission and the Public Utilities Commission of Nevada.

4. Q. DOES EXHIBIT BAXTER-DIRECT-1 ACCURATELY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE?

A. Yes, it does.

5. Q. WHAT IS THE PURPOSE OF YOUR PRE-FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to support the forecast of native load used in this filing. Specifically, I sponsor the load forecast for 2011-2040 (“1st Amendment Forecast”), and the following items Technical Appendix Items:

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d/b/a NV Energy
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- LF-1 Nevada Power Company’s 2011-2040 Load Forecast
- LF-2 Population Forecasts: Long Term Projections for Clark County, Nevada 2010-2050, June 2010
- LF-3 Excerpt: CBER June 2010 Economic Outlook
- LF-4 Excerpt: CBER December 2010 Economic Outlook
- LF-5 Nevada County Population Projections 2010-2030, October 2010.

6. Q. IS THIS FORECAST THE SAME AS THE LOAD FORECAST THAT WAS FILED IN DOCKET NO. 10-02009 AS PART OF NEVADA POWER’S 2010 – 2029 INTEGRATED RESOURCE PLAN (“2009 IRP FORECAST”)?

A. No. The 2009 IRP Forecast was completed in December 2009. The 1st Amendment Forecast was completed in July 2010. However, the Company included two years (2011 and 2012) of what is now the 1st Amendment Forecast in its most recent Energy Supply Plan Update, Docket No. 10-09003. The first two years of what is now the 1st Amendment Forecast was stipulated by the intervening parties and NV Energy as “meet(ing) the requirements of NAC 704.9321, NAC 704.9482, and NAC 704.922, and is suitable for making planning decisions in 2011 and 2012.... For this 1st Amendment Forecast, the inputs from the 2009 IRP Forecast were updated as follows:

- 1. The 1st Amendment Forecast uses the June 2010 IHS/Global Insight Las Vegas-Paradise Metropolitan Statistical Area (“MSA”) quarterly population, household, Real Personal Income, and Real Gross Metro Product forecasts. The 2009 IRP Forecast used the December 2009 IHS/Global Insight Las Vegas-Paradise MSA quarterly population, household, Real Personal Income, and Real Gross Metro Product forecasts. See Technical Appendix Item LF-2.

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2. This 1st Amendment Forecast uses a forecast of hotel/motel room additions based on a Las Vegas Convention and Visitors Authority (“LVCVA”) construction bulletin updated for the Las Vegas Perspective in March 2010, as well as the results of recent discussions with Nevada Power’s Major Account Executives. The 2009 IRP Forecast used a forecast of hotel/motel room additions based on the LVCVA construction bulletin dated November 4, 2009, as well as the results of earlier discussions with Nevada Power’s Major Account Executives (“MAEs”). Major changes in the forecast of the hotel/motel sector from the 2009 IRP Forecast are:

- Examination of 2010 sales and hourly load data indicate that MGM City Center (“CC”) is using less than what was forecasted in the IRP Forecast. For the 1st Amendment Forecast, it is assumed that CC will use [REDACTED] GWh in 2011 and [REDACTED] GWh in 2012. The 2009 IRP Forecast assumed [REDACTED] GWh and [REDACTED] GWh for 2011 and 2012 respectively.¹
- In the 2009 IRP Forecast, the Cosmopolitan (2,998 rooms) was assumed to be completely open in December 2010. The 1st Amendment Forecast reflects a staged opening beginning in December 2010 and finishing in July 2011.
- The Sahara tower shutdown (612 rooms) was assumed to re-open in January 2012 in the 2009 IRP Forecast. In the 1st Amendment Forecast the Sahara tower is not assumed to re-open until after 2012.
- The Harmon Tower (400 rooms) at CC has been removed from the 1st Amendment Forecast due to ongoing legal disputes.

¹ Redactions to City Center load projections were necessary in order to protect confidential customer-specific information.

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3. This 1st Amendment Forecast used updated energy and peak reductions from the Company’s Demand Side Management (“DSM”) and Demand Response (“DR”) projects. The DSM reductions in the 1st Amendment Forecast are 28 GWh lower in 2011 through 2017, before rising to 7 GWh lower by 2025. The DR estimates used in the 1st Amendment Forecast are based on the 2010 DSM base budget filed in the Company’s 2010 – 2029 Integrated Resource Plan.² The reductions in the 1st Amendment Forecast are larger than those used in the 2009 IRP Forecast by 54 MW in 2011 and 24 MW in 2012. In 2015 the 2009 IRP forecast DR was 21 MW higher than the IRP 1st, but by 2020 the reductions are nearly identical. (See the Technical Appendix for further details.)

4. In the Order in Docket No. 10-05023, the Commission ruled that the Solar Generations budget applied separately to the Companies, essentially doubling the annual budget. Given the backlog of requests for Solar PV rebates, Nevada Power will dramatically increase rebates for the installation of small PV units in the next few years. Additionally, the ESP forecast included 25 MW of installed capacity for large customer (greater than 1 MW) PV installations by 2012, rising to 65 MW by 2016. Given interest expressed by Nevada Power customers in discussions with Company personnel, installation of PV units by larger customers will likely occur. Total GWh reductions by 2020 are estimated at 82 GWh for the Solar Generations program and 127 GWh for solar PV by larger customers.

² The Commission’s Order dated July 30, 2010 required that Nevada Power refile the DR program using the high case budget. The high case requires an additional 100 MW of commercial customer interruptible demand by 2012. As the Order was published after completion of the 1st Amendment Forecast, the additional 100 MW reduction is not reflected here. However, the implementation of the 100 MW is scheduled to begin in 2011 (not 2010), and the mandatory time-of-use provision for the smart metering program has been abandoned. See Q&A 10 and the Load Forecast Technical Appendix for more details. The effect of this issue is expected to be diminimus.

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5. The 1st Amendment Forecast utilized the June 2010 CBER outlook conference short term population estimates for 2011 and transitioned to the June 2010 CBER Long Term Population Forecast by 2013. Population growth for 2011 was forecasted to be 0.4% and 1% for 2012. The IRP Forecast used a short-term population forecast which was published by UNLV’s Center for Business and Economic Research (“CBER”) at their December 2009 outlook conference for 2011 and transitioned to the June 2009 CBER Long Term Population Forecast by 2013. Population growth for 2011 was forecasted to be 0.4% and 1.5% for 2012. By 2016, the 1st Amendment population growth rate is 1.8% vs. 2.4% for the IRP.
6. The 1st Amendment and 2009 IRP Forecasts assume normal weather (20-year average). This 1st Amendment Forecast uses the historical period June 1990 through May 2010. The IRP Forecast used the period December 1989 through November 2009.
7. For the 1st Amendment Forecast, reduction of 40,000 MWhs and 5-6 MW of peak demand were assumed to take place on January 1, 2011 to reflect seven City of Henderson facilities moving to distribution only service (“DOS”). This reduction was not included in the IRP forecast.
8. Updated appliance energy efficiency forecasts and energy intensity per square footage based on the Energy Information Administration’s (“EIA’s”) 2010 Annual Energy Outlook replaced the 2009 estimates used in the IRP Forecast. These estimates were not significantly different for the two forecasts for the residential class.

7. Q. WERE ANY ADJUSTMENTS MADE TO THE EIA’S DEFAULT APPLIANCE STOCKS AND EFFICIENCY ESTIMATES?

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A. Yes. The EIA produces a forecast of energy usage, including electricity use, annually by the nine census regions. Backup files include appliance saturation, efficiencies and end-use electricity use per square foot for the residential sector and end-use electricity use per square footage of various commercial business types. Nevada Power is in the Mountain Census Region, which stretches from Montana in the north to Arizona in the south. To better reflect the Nevada Power service territory, results of a mail survey of Nevada Power’s residential customers conducted in November and December of 2008, were used to modify the default regional values for appliance saturations.³ For commercial customers, a telephone survey was conducted from December 2008 through January 2009. The results of the commercial customer phone survey were used to calculate energy usage by major business category. These calculations were transferred into the Statistically Adjusted End-Use (“SAE”) modeling to better reflect the Nevada Power service territory than the EIA regional default data.

8. Q. PLEASE SUMMARIZE THE DIFFERENCES IN THE RESULTS OF THE 1ST AMENDMENT FORECAST AS COMPARED TO THE 2009 IRP FORECAST?

A. In the 1st Amendment Forecast, the 2011 peak forecast is 5,503 MW or 58 megawatts lower than the IRP Forecast. The 2012 peak forecast is 62 MW less. By 2020, the 1st Amendment Forecast is 268 MW less than the IRP forecast. The 1st Amendment Forecast is lower than the 2009 IRP Forecast due to the following:

1. The long term population forecast for Clark County produced by CBER in June 2010 used updated income, employment and gross metro product information, causing a drop in the forecast beginning in 2012. The

³ A new survey is underway as of February 2011. The survey instrument will be in the field by the middle of March.

Sierra Pacific Power Company and Nevada Power Company
 d/b/a NV Energy
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 Reno, Nevada 89520-0024

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population growth rate was 0.4% for 2011 in both the 2009 IRP and 1st Amendment Forecasts, but was reduced from 1.5% in 2012 for the 2009 IRP Forecast to 1% for the 1st Amendment Forecast based on the CBER forecast. The 1st Amendment population growth forecast is lower than the 2009 IRP growth forecast until 2020.

2. The CC load is much less than expected, causing a drop in forecasted load and peak for 2011 and 2012 of approximately [REDACTED] MW annually, or about [REDACTED] MW at peak.
3. The DR program is expected to reduce load by 54 MW more in 2011 and 24 MW more in 2012 than the IRP Forecast, but by 2020 the difference is minimal.
4. The Solar Generations program and large customer solar PV activity are expected to reduce energy by 44 GWh and 67 GWh more for 2011 and 2012 respectively than in the 2009 IRP Forecast. By 2020, the 1st Amendment Forecast assumes 127 GWh more reductions than the 2009 IRP.
5. The Harmon Tower is no longer assumed to open in December 2010 as was forecasted in the 2009 IRP Forecast and the closed towers at the Sahara are not expected to re-open by January 1, 2012. These result in relatively small reductions from the 2009 IRP Forecast (about 15 GWh and less than 5 MW of peak demand).
6. After discussions with the Company’s MAEs and Las Vegas Convention and Visitors Authority (“LVCVA”) personnel, the total hotel/motel rooms forecasted for the 1st Amendment are assumed to be 4,500 less by 2015 than the IRP due to the local economy and lack of new construction underway at present.

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9. Q. IN PREPARING THIS 1ST AMENDMENT FORECAST, DID THE COMPANY USE THE BEST ESTIMATES OF DSM AND DR AVAILABLE AT THE TIME?

A. Yes.

10. Q. HAVE CHANGES IN CONDITIONS OCCURRED SINCE THE PREPARATION OF THIS 1ST AMENDMENT FORECAST IN JULY 2010 THAT WOULD IMPACT THE REASONABLENESS OF THE 1ST AMENDMENT FORECAST?

A. While several changes in conditions are discussed in the Load Forecast Technical Appendix, they do not call into question the reasonableness of the 1st Amendment Forecast. Nor would the 1st Amendment Forecast be significantly different if updated. The main changes are:

1. As discussed above, the Commission ordered use of the high DR forecast in Docket Number 10-09003. This theoretically should have added 100 MW of reductions to the DR forecast. However, due to the elimination of the mandatory time-of-use rates and delay in implementing the large customer DR program to 2011, the DR forecasted avoided capacity is expected to be only 68 MW lower in 2011, 50 MW lower in 2012 and 24 MW lower in 2020.
2. As noted in the answer to questions 6 and 8, the population forecast is lower for the 1st Amendment Forecast than the 2009 IRP Forecast. Since the development of the 1st Amendment Forecast, CBER issued a 0.5% population growth estimate for 2012 at its December 15th 2010 Outlook Conference (*see* Technical Appendix LF-4 for a copy of that forecast). This is 0.5% lower than embedded in the 1st Amendment Forecast, so does not significantly impact the long-term forecast.

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3. The Nevada State Demographer issued a new long term low and high forecast for Clark County in October 2010 (*see* Load Forecast Technical Appendix LF-5). The State Demographer did not create a base forecast for Clark County. Therefore, the applicable long-term base forecast remains the CBER June 2010 long term forecast (*see* Load Forecast Technical Appendix LF-2).
4. The Lady Luck announced renovation of its 643 hotel rooms to begin mid-2011. The former Ritz Carlton, which closed in May 2010 (349 rooms), re-opened as the Ravella on February 11, 2011.⁴ Several small new hotels not included in the 1st Amendment Forecast are shown on the LVCVA September 2010 construction bulletin as under construction. Together these total 367 rooms opening in 2011 and 400 in 2012, but were not included in the 1st Amendment Forecast in order to offset potential further weakness in the Large Commercial and Industrial class.
5. When compared to the June 2010 economic forecast from IHS/Global Insight, the January 2011 updated economic forecast from IHS/Global Insight indicates a mixed bag with some metrics slightly higher than June 2010 and some lower. According to CBER, the Las Vegas economy appears to have stabilized but growth is still several months away.⁵ See the Load Forecast Technical Appendix for further discussion.
6. The Clark County Water Reclamation District notified Nevada Power on October 1, 2010 of its intention to transfer 75,000 MWh of annual energy and 10 MW of peak demand to the DOS tariffs. This is scheduled to occur on August 1, 2011. The City of Henderson accounts were moved from a January 1, 2011 exit date to a July 1, 2011 exit date.

⁴ Las Vegas Review-Journal: December 9, 2010 for the Lady Luck and February 11, 2011 for the Ravella.

⁵See the January 2011 Las Vegas indices at <http://cber.unlv.edu/snindex.html>.

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11. Q. WHAT IS YOUR OVERALL VIEW OF THIS 1st AMENDMENT FORECAST?

A. The 1st Amendment Forecast captures the effects of the most up-to-date economic outlooks and the best estimates of DSM and DR reductions and energy efficiency reductions available at the time it was prepared. It is thus a reasonable basis upon which to make long term IRP supply planning decisions for the period 2011 through 2040.

12. Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

**STATEMENT OF QUALIFICATIONS
OF
TERRY A. BAXTER**

Education

Master of Arts	University of Arkansas, Fayetteville, AR, 1979, Economics
Bachelor of Science	University of Missouri-Rolla, Rolla, MO, 1976 Economics

Related Professional Experience

- 2007 to Present **Manager of Load Forecasting**, Nevada Power Company d/b/a NV Energy
 My primary duties are the forecasting of customers, sales, peak demand, gas therms and gas design day therms, for use in supply planning, rate cases and budgeting. Additional responsibilities include production of forecast variance reports from actual, weather adjustment of peaks and sales, and participation in local population forecasting working groups.
- 2003 to 2007 **Manager, Forecasting and Economic Analysis**, Alliant Energy
 Responsible for the direction and technical work in the areas of statistical sample design and evaluation of load research samples, peak and energy forecasting, for both the gas and electric utilities, and associated regulatory filings, including Integrated Resource Plan filings in Iowa, Illinois, Minnesota and Wisconsin. In this position, I was also responsible for the monthly sales and revenue forecast and explanations of the monthly variance analysis, including actual to budget, year-over-year, and outlook for both operating companies: Wisconsin Power and Light Company and Iowa Power and Light Company. Also responsible for rate case sales and demand forecasts in Wisconsin and Minnesota. Filed direct testimony before the Minnesota Department of Commerce.
- 2001 to 2003 **Private Consultant**
 Assisted utility companies in sample design and analysis of load research programs.
- 1998 to 2003 **Team Leader, Forecasting and Economic Analysis**, Alliant Energy
 Responsible for the direction and technical work in the areas of statistical sample design and evaluation of load research samples, peak and energy forecasting, for both the gas and electric utilities, and associated regulatory filings for IES Utilities and Interstate Power Company and its successor company, Iowa Power and Light.
- 1991 to 1998 **Group Manager**, Aspen Systems Corporation
 Responsible for the technical direction of utility consulting projects in the areas of sample design, DSM performance evaluation, market and survey research.
- 1985 to 1991 **Rate Engineer and Manager of Load Research, and Forecasting**, Iowa Power, Inc. /Midwest Energy
 Responsible for all facets of the load research program, including sample design, analysis and equipment selection, as well as sales forecasting. Filed testimony before the Iowa Utilities Board.
- 1980 to 1995 **Load Research Analyst**, Missouri Public Service Company
 Responsible for all facets of the load research program as well as class cost of service and marginal cost studies.
- 1979 to 1980 **Economic Analyst**, Illinois Commerce Commission
 Responsible for examination of utility rate and regulatory filings.

Other

- 2007 to present Steering Committee, EEI Load Forecasting Group
- 1998 to 2007 Member, AEIC Load Research Committee
Marketing sub-committee chairman from 2001-2007.

Specialized Training

Econometric Modeling Using SAS/ETS Software, February, 1991.

SAS Macro Language, August 1990.

Forecasting Techniques using SAS/ETS Software, April, 1990.

Sampling Methods and Statistical Analysis in Power Systems Load Research, April, 1989.

A.E.I.C. Seminar in Advanced Sample Design and Analysis of Load Research Data, July 1987.

Itron Statistically Adjusted End Use (SAE) Training Workshop, November 2008.

AFFIRMATION

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STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

I, TERRY A. BAXTER, do hereby swear under penalty of perjury the following:

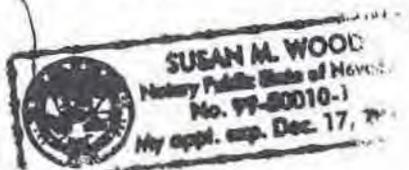
That I am the person identified in the attached Pre-filed Testimony and that such testimony was prepared by me or under my direct supervision; that the answers and information set forth therein are true to the best of my knowledge and belief; that if asked the questions set forth therein, my answers thereto would, under oath, be the same.

Terry A. Baxter
TERRY A. BAXTER

Subscribed and sworn to before me
this 7th day of March, 2011.

Susan M. Wood

NOTARY PUBLIC



Sierra Pacific Power Company and Nevada Power Company
d/b/a NV Energy
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BOBBY J. HOLLIS

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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

NEVADA POWER COMPANY
d/b/a NV ENERGY
First Amendment to its 2010-2029 Integrated Resource Plan

Docket No. 11-03 _____

PRE-FILED DIRECT TESTIMONY
OF
BOBBY J. HOLLIS II
On Behalf of Nevada Power Company

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

A. My name is Bobby J. Hollis. My business address is 6226 West Sahara Avenue in Las Vegas, Nevada.

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

A. I am Director, Renewable Energy Planning for Nevada Power Company d/b/a NV Energy (“Nevada Power” or the “Company”) and Sierra Pacific Power Company d/b/a NV Energy (“Sierra” and, together with Nevada Power, the “Companies”). I am responsible for renewable energy planning and procurement for the Companies. Prior to my present position, I served as an Assistant General Counsel supporting the Renewable Energy Department for the Companies. I joined NV Energy in January of 2009.

3. Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EMPLOYMENT EXPERIENCE.

A. I hold a Bachelor of Arts Degree with Honors from the University of Florida, and a Juris Doctorate Degree with High Honors from the University of Iowa College of Law. Before joining NV Energy, I was employed as legal counsel for Invenergy LLC, an independent power producer in Chicago, and Alliant

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Energy, an investor-owned utility operating primarily in Iowa and Wisconsin. Prior to that experience, I was in private practice at the law firms of Jenner & Block in Washington, DC and Baker & McKenzie in Chicago.

My educational background and employment experience are more fully described in **Exhibit Hollis-Direct-1**, which is my Statement of Qualifications.

4. Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA (“COMMISSION”)?

A. No, I have not.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am sponsoring Sections V, VI, VII (with the exception of the discussion of subsection C regarding Enel’s Stillwater project) and VIII of the First Amendment to the Company’s 2010-2029 Integrated Resource Plan (“First Amendment”). These sections include discussions of: (1) the Company’s Renewable Energy Planning strategy, (2) the 2010 Renewable Request for Proposals (“RFP”) and the 2010 Renewable Request for Offer (“RFO”) process for portfolio energy credits ("PCs") without energy, (3) the resulting long-term renewable power purchase agreements (“PPAs”) and long-term PC Purchase Agreements (“PCPAs”), and (4) three amendments to existing long-term renewable power purchase agreements ("PPAs"). In particular, I recommend that the Commission grant the following Action Plan approvals:

- (i) Three long-term renewable PPAs with ORNI 32, LLC, FRV Spectrum Solar, LLC and Mountain View Solar, LLC,

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- (ii) Three long-term PCPAs with CNLV Solar Power Generation Station 1 LLC, SCGC Solar Power Generation Station 1 LLC and Pecos Solar Power Generation Station 1 LLC, and
- (iii) Amendments to the previous PPAs with Fotowatio Nevada Solar, LLC (submitted herein as an amended and restated PPA), Tonopah Solar Energy, LLC and ORNI 15, LLC.

All of the new PPAs are a result of the 2010 Renewable RFP and all of the PCPAs are a result of the 2010 PC RFO. Copies of the PPAs, PCPAs and the amendments are contained in the Technical Appendix.

6. Q. PLEASE DESCRIBE HOW NEVADA POWER DETERMINES WHAT ITS RENEWABLE ENERGY REQUIREMENTS WILL BE IN THE FUTURE.

A. With the step increases in the Renewable Portfolio Standard (“RPS”) (15 percent in 2011, 18 percent in 2013, 20 percent in 2015, 22 percent in 2020, and 25 percent in 2025), and the uncertainties and risks inherent in production and schedules in renewable project development, the Company must remain vigilant in planning for its ongoing PC requirements. As described in the First Amendment, the Company has added a level of sophistication to its forecast of PC requirements by applying a Monte Carlo analysis to estimate delays in projects within its PC portfolio (and thus shortfalls in its compliance with the RPS). The Monte Carlo analysis is based on the Company’s historic PPA portfolio performance, to which a separate reduction factor for historic project cancellations has been applied. This analysis in turn has been applied to the Company’s entire portfolio of renewable PPAs, thereby avoiding singling out specific projects that may or may not fully perform under their contracts. The Company also analyzed additional available resources such as energy efficiency

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measures and the Company’s renewable incentive rebate programs, to determine the on-going renewable resource needs for RPS compliance on both a long and short-term basis. By applying the Monte Carlo analysis and project cancellation factor, the Company has identified a more realistic long-term picture for RPS compliance planning. The results of this analysis will be supplemented with on-going diligence regarding all projects in the development process to monitor real-time potential for delay or underperformance and, when necessary, to amend or cancel PPAs to reflect the accurate PC output expected from the projects and timing of their completion.

To determine specific PC requirements, Nevada Power must also consider variables other than the RPS. For example, the Company has used PCs from a pooling arrangement with Sierra that was established in 2008 (authorized by the Commission in Docket No. 08-04002 and 08-04032) that must be replenished in kind. Currently, the Company’s negative balance under the pooling agreement requires Nevada Power to over-procure at least 2.8 million kPCs (a kPC is equal to one thousand PCs) in order to satisfy its obligation to replenish Sierra’s portfolio credit account in the pool. Any shortfalls, such as Nevada Power’s 2009 shortfall, are carried forward and added to the requirement in subsequent years, so this amount must also be procured. Finally, the Companies must establish some margin for changes that cannot be anticipated such as changes in law, transmission outages, and increases in load. The Company has generally sought to attain a fifteen percent margin over the RPS to address these contingencies. After analyzing all of these factors and variables, the Company is then able to determine a reasonable approximation of how much additional renewable energy and/or PCs are needed over what time span, and plan accordingly to secure supplies sufficient to establish an expectation that it will

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be able to satisfy the RPS. Nevada Power’s renewable planning strategy is described in Section V.C. of the First Amendment.

7. Q. EXPLAIN HOW NEVADA POWER DETERMINED THE APPROPRIATE REDUCTION PERCENTAGES TO SIMULATE UNDERPERFORMANCE AND PROJECT CANCELLATIONS.

A. The Company undertook a review of all resources contracted since 2002 and their contracted output. Using past project performance data and a Monte Carlo simulation at a P-80 threshold (meaning there is only a twenty percent chance of the supply being lower), the Company projects those resources in development but not in construction will yield approximately 71% of their contracted output. Given the greater certainty that can be assumed as projects proceed through construction, geothermal projects in construction would yield 97% and landfill gas projects in construction would yield 85%. No other technologies were currently in construction. Since the Monte Carlo simulation only replicated underperformance and delays, a separate calculation was required to account for project cancellations. Using historic data for all renewable projects placed under contract since 2002, the cancellation risk factor was calculated to be 47 percent and the projected energy/credit supply was reduced by such amount to reflect the project cancellation risk. As additional data is developed over time, these numbers will be updated to reflect the evolving picture.

8. Q. EXPLAIN HOW NEVADA POWER PLANS TO MEET ITS RENEWABLE ENERGY REQUIREMENTS.

A. The Company has employed several tools to develop a diverse portfolio of resources for RPS compliance. The primary tool continues to be long-term renewable energy power purchase agreements, which largely result from the Company’s RFP process.

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Additionally, the Company has undertaken an RFO process to acquire PCs only-- without energy. While the RFO did not result in large PC deliveries from individual contracts when compared to our long-term renewable energy RFP process, it proved to be a viable tool to assist in achieving RPS compliance.

The Company also continues to develop its own renewable generation resources. Successful developments enable the Company to control development and mitigate some of the risks that cause third-party developers to eventually delay or cancel projects. At the same time, Company-owned generation enables Nevada Power to obtain expertise in the field. Moreover, because the Company is not completely reliant on independent power producers to meet the RPS, Company-owned generation acts as a check against the independent power market.

A final tool for RPS compliance is the use of short-term renewable energy purchases to “fill the gap” when long-term PPA projects are cancelled, encounter delays or have unexpected output shortfalls. The goal of short-term renewable energy purchases is to augment-- not supplant-- supplies from PPAs. With the broadening of RPS mandates nationally, the window of opportunity for such purchases may be of limited duration. However, to the extent such purchases can be made on an opportunistic basis, they help the Companies meet their RPS requirements and bridge to that point in time when more new projects have been completed and are supplying sufficient credits to surpass the RPS.

1 **9. Q. WERE THE NEW PPAS, PCPAS AND AMENDMENTS PRESENTED IN**
2 **THE IRP AMENDMENT INCORPORATED INTO THE**
3 **PLANNING PROCESS?**

4 A. Yes. Based on the information provided by project developers and the analysis
5 performed by Companies' proposal evaluation team, the Company has applied
6 its evaluation discipline to select the best projects from the RFP and RFO
7 processes for use in meeting its on-going RPS needs. We then incorporated the
8 timing and supply output from each new project profile (or revised project
9 profiles in the case of amendments) into the Company's ongoing renewable
10 energy supply analysis, which incorporates all existing resources as well as
11 placeholder projects for future needs. The placeholders were removed or
12 reduced as specific resources, such as these new PPA resources, were finalized.
13 The results of this process are described below.

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15 **10. Q. PLEASE DESCRIBE THE ORNI 32, LLC AGREEMENT.**

16 A. Nevada Power and ORNI 32, LLC entered into a Long-Term Non-Firm
17 Portfolio Energy Credit and Renewable Power Purchase Agreement dated
18 February 11, 2011. The 20 year agreement with ORNI 32 is for 51 MW. The
19 ORNI 32 PPA addresses a geothermal electric generation facility known as
20 Dixie Meadows to be constructed at a site in Churchill County, Nevada. The
21 project is expected to produce 262,508 MWh and 315,010 kPCs annually. The
22 project was selected from the 2010 Renewable RFP based on price, location,
23 and quality of developer.

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25 **11. Q. PLEASE DESCRIBE THE FRV SPECTRUM SOLAR, LLC**
26 **AGREEMENT.**

27 A. Nevada Power and FRV Spectrum Solar, LLC entered into a Long-Term Non-
28 Firm Portfolio Energy Credit and Renewable Power Purchase Agreement dated

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February 11, 2011. The 25 year agreement with Fotowatio is for 30 MW of capacity to be produced at a solar photovoltaic electric generation facility to be constructed at a site in Clark County, Nevada near the Company's Pabco substation. The project is expected to produce 73,907 MWh and 75,016 kPCs annually. The project was selected from the 2010 Renewable RFP based on price, location, and quality of developer.

12. Q. PLEASE DESCRIBE THE MOUNTAIN VIEW SOLAR, LLC AGREEMENT.

A. Nevada Power and Mountain View Solar, LLC entered into a Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement dated February 11, 2011. The 25 year agreement with Mountain View Solar is for 20 MW of capacity to be produced at a solar photovoltaic electric generation facility to be constructed at a site near Apex in Clark County, Nevada. The project is expected to produce 52,840 MWh and 53,897 kPCs annually. The project was selected from the 2010 Renewable RFP based on price, location, and quality of developer.

13. Q. WERE THE THREE PPAs DESCRIBED ABOVE SECURED THROUGH A COMPETITIVE PROCESS?

A. Yes. All three projects were bid into the 2010 Renewable RFP, a competitive solicitation process designed to identify projects that best fit the requirements of the Company's customers.

14. Q. PLEASE BRIEFLY DESCRIBE THE PROCESS USED TO EVALUATE THE PPA PROPOSALS?

A. Proposals submitted in response to Renewable RFPs are subject to a multi-stage due diligence review and analysis process to identify those projects that will

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provide the best overall value for customers. Application of this process led to the identification of short-listed bidders, with whom the Company engaged in detailed contract negotiations. The three contracts presented for approval in this filing represent the initial executed contracts from the 2010 Renewable RFP. The Company may continue to negotiate with additional bidders, and will bring any additional executed contracts to the Commission for approval in future filings.

15. Q. PLEASE DESCRIBE THE CNLV SOLAR POWER GENERATION STATION 1 LLC AGREEMENT.

A. Nevada Power and CNLV Solar Power Generation Station 1 LLC, a wholly owned subsidiary of Amonix Inc., entered into a Long-Term Portfolio Energy Credit Purchase Agreement dated February 11, 2011. The 20 year agreement with CNLV Solar Power Generation Station 1 is for the PCs to be generated from a concentrated solar photovoltaic electric generation facility to be constructed at a site in North Las Vegas, Nevada. The project will supply energy to the City of North Las Vegas’s Water Reclamation facility and PCs to Nevada Power pursuant to the PCPA. The project is expected to produce approximately 5,957 kPCs annually. The project was selected from the 2010 PC-Only RFO based on price, location, and quality of developer.

16. Q. PLEASE DESCRIBE THE SCGC SOLAR POWER GENERATION STATION 1 LLC AGREEMENT.

A. Nevada Power and SCGC Solar Power Generation Station 1, a wholly owned subsidiary of Amonix Inc., entered into a Long-Term Portfolio Energy Credit Purchase Agreement dated February 11, 2011. The 20 year agreement with SCGC Solar Power Generation Station 1 is for the PCs to be generated from a concentrated solar photovoltaic electric generation facility to be constructed at a

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site in North Las Vegas, Nevada. The facility will supply energy to the Shadow Creek Golf Course and PCs to Nevada Power pursuant to the PCPA. The Project is expected to produce approximately 3,515 kPCs annually. The project was selected from the 2010 PC-Only RFO based on price, location, and quality of developer.

17. Q. PLEASE DESCRIBE THE PECOS SOLAR POWER GENERATION STATION 1 LLC AGREEMENT.

A. Nevada Power and Pecos Solar Power Generation Station 1 LLC, a wholly owned subsidiary of Amonix Inc., entered into a Long-Term Portfolio Energy Credit Purchase Agreement dated February 11, 2011. The five year agreement with Pecos Solar Power Generation Station 1 LLC is for the PCs to be generated from a concentrated solar photovoltaic electric generation facility to be constructed at a site in North Las Vegas, Nevada. The facility will supply energy to the Amonix manufacturing facility and PCs to Nevada Power pursuant to the PCPA. The Project is expected to produce approximately 2,722 kPCs annually. The project was selected from the 2010 PC-Only RFO based on price, location, and quality of developer.

18. Q. PLEASE BRIEFLY DESCRIBE THE PROCESS USED TO EVALUATE THE PCPA PROPOSALS?

A. Like proposals for energy and PCs, proposals submitted in response to the RFO were subject to a multi-stage due diligence review and analysis process to identify those projects which will provide the most certainty and best overall value for the customers of the Company. Application of this process led to the identification of specific proposals that best met the Company's pricing and project viability requirements. Negotiations with these projects from the 2010 RFO resulted in the three PCPAs presented for approval in this filing. The

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Company may engage in negotiations with additional bidders, and if so, will bring any additional executed PCPAs to the Commission for approval in future filings.

19. Q. PLEASE DESCRIBE THE AMENDED AND RESTATED PPA WITH FOTOWATIO NEVADA SOLAR, LLC.

A. Nevada Power and Fotowatio Nevada Solar, LLC entered into a Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement dated June 24, 2009. The twenty-five year agreement with Fotowatio Nevada Solar LLC was originally for a 20.5 MW nominal nameplate facility and was approved in Docket No. 09-08020 on December 18, 2009. The project is a solar photovoltaic electric generation facility to be constructed at a site near Apex in Clark County, Nevada. The amended and restated PPA, dated February 11, 2011, addresses the supplier's inability to obtain financing based on the original terms of the PPA as disclosed in Docket No. 10-02009. Specifically, certain changes were required to reallocate the risk of changes in Nevada renewable energy law in accordance with other PPAs disclosed as part of Docket No. 10-02009. The restated PPA amends the original PPA to incorporate all recent changes in the standard PPA (as also reflected in the three new PPAs), and is expected to enable the supplier to obtain financing for the project. In exchange for these changes, Fotowatio Nevada Solar, LLC agreed to a reduction in the energy price payable by Nevada Power under the terms of the PPA.

20. Q. PLEASE DESCRIBE THE ORNI 15 LLC AMENDMENT.

A. Nevada Power and ORNI 15 LLC entered into a Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement dated August 18, 2006. The twenty year agreement with ORNI 15 LLC was originally for a 31.5 MW nominal nameplate facility at Buffalo Valley (subsequently relocated to the

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alternate location specified in the original PPA, named Jersey Valley), approved by the Commission in Docket No. 06-10021 on February 12, 2007. The Jersey Valley project is a geothermal electric generation facility to be constructed at a site in Pershing County, Nevada. The ORNI 15 PPA was initially amended on May 21, 2007 (approved in Docket No. 07-07013) to conform the shortfall calculation and invoicing procedures to then-existing PPAs. The Second Amendment, dated February 11, 2011, presented as part of this filing is undertaken to reduce the size of the facility to reflect the reduced resource proven at the project site and reflect extended milestone dates. In exchange for these concessions, ORNI 15 is fully relinquishing its development security. This approach enables Nevada Power to modify the PPA to reflect the actual resource in order to more accurately plan for its renewable compliance requirements and begin the project's commercial life with a clean slate. The Second Amendment also conforms with recent changes in the standard PPA for geothermal facilities, which is designed to obtain the most accurate information for planning purposes.

21. Q. PLEASE DESCRIBE THE AMENDMENT TO THE TONOPAH SOLAR ENERGY, LLC PPA.

A. Nevada Power and Tonopah Solar Energy, LLC entered into a Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and Tonopah Solar Energy, LLC dated November 4, 2009. The twenty-five year agreement with Tonopah Solar Energy LLC is for a 110 MW nominal nameplate solar thermal facility with storage, and was approved in Docket No. 10-02009 on July 30, 2010. The project is a solar thermal generation facility with storage to be constructed at a site near Tonopah in Nye County, Nevada. SolarReserve, the developer of the facility, is relying on financing from the U.S. Department of Energy in order to

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construct this facility. The First Amendment executed in July 2010 extended the Company’s right to terminate the PPA through the end of 2010. The Second Amendment to the PPA, dated February 28, 2011, presented as part of this filing is undertaken to address the inability of the supplier to obtain its DOE financing based on the original terms of the PPA as disclosed in Docket No. 10-02009. Specifically, DOE required the supplier to incorporate changes to address the risk of changes in renewable energy law revealed in other PPAs in Docket No. 10-02009. This Second Amendment incorporates the concept of a compliance cap for changes in renewable energy law, which limits the supplier’s financial exposure for a change in renewable energy law to a fixed dollar amount per year based on the size of the facility. This change parallels the language incorporated in more current PPAs, including those submitted in this filing (and previously approved by the Commission as part of PPAs with Spring Valley Wind LLC and Clayton Valley I, LLC). In exchange for this change, Tonopah Solar Energy, LLC has agreed to double the amount of its development security at risk prior to commercial operation, from \$5,000,000 to \$10,000,000.

22. Q. ARE YOU SPONSORING ALL OF THE PPA AMENDMENTS IN THIS FILING?

A. No. Since the Enel Stillwater project has already achieved commercial operation, the proposed amendment to the Enel Stillwater PPA is being sponsored by Mr. William K. Branch. Under the Company’s organizational structure, PPAs transition from my group, Renewables, to Mr. Branch’s group, Power Contracts, after they achieve commercial operation.

23. Q. ARE THE RENEWABLE ENERGY AND ASSOCIATED PORTFOLIO ENERGY CREDITS PURCHASED UNDER THE PPAS SUITABLE FOR

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INCLUSION IN THE COMPANY'S RENEWABLE ENERGY PORTFOLIO?

A. Yes. The photovoltaic facilities, solar thermal facility and geothermal facilities generate electricity from renewable sources and satisfy the statutory requirements established under Nevada law for portfolio energy credits and renewable energy systems (as codified in NRS 704.7801 et. seq.). Therefore, the facilities contracted meet the definition of renewable energy systems under NRS 704.7815 and are suitable for inclusion in the Company's renewable energy portfolio.

24. Q. ARE THE PORTFOLIO ENERGY CREDITS PURCHASED UNDER THE PCPAS SUITABLE FOR INCLUSION IN THE COMPANY'S RENEWABLE ENERGY PORTFOLIO?

A. Yes. The concentrated photovoltaic facilities generate electricity from renewable sources and satisfy the statutory requirements established under Nevada law for portfolio energy credits and renewable energy systems (as codified in NRS 704.7801 et. seq.). Therefore, the facilities represented by these contracts meet the definition of renewable energy systems under NRS 704.7815, and are suitable for inclusion in the Company's renewable energy portfolio.

25. Q. IS NEVADA POWER REQUESTING CONFIDENTIAL TREATMENT OF CERTAIN INFORMATION CONTAINED IN THE PPAS?

A. Yes. Nevada Power has agreed with ORNI 15 and ORNI 32 to request confidential treatment of specific exhibits to the PPA consistent with the determination of the Commission with respect to confidentiality in the Order for Docket No. 10-02009. ORNI 15 and ORNI 32 have stated that those sections of

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their PPA contain commercially sensitive and/or trade secret information that derive independent economic value from not being generally known.

26. Q. IS NEVADA POWER REQUESTING CONFIDENTIAL TREATMENT OF ANY OTHER INFORMATION CONTAINED IN THIS AMENDMENT?

A. Yes. NPPA-1 and PCO-1 contain commercially sensitive and/or trade secret information that derive independent economic value from not being generally known outside of the Company.

27. Q. WOULD CONFIDENTIAL TREATMENT IMPAIR THE ABILITY OF THE COMMISSION'S REGULATORY OPERATIONS STAFF ("STAFF") AND THE NEVADA ATTORNEY GENERAL'S BUREAU OF CONSUMER PROTECTION ("BCP") TO FULLY INVESTIGATE THE PPAs?

A. No. In accordance with the accepted practice in Commission proceedings, the confidential material will be provided to Staff and the BCP under standard protective agreements.

28. Q. FOR HOW LONG DOES NEVADA POWER REQUEST CONFIDENTIAL TREATMENT?

A. On behalf of ORNI 15 and ORNI 32, the requested period for confidential treatment under the PPAs is for no less than seven years. For all other information, the requested period for confidential treatment under the PPAs is for no less than five years.

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29. Q. IN SUMMARY, WHAT IS YOUR OVERALL RECOMMENDATION TO THE COMMISSION?

A. I recommend that the Commission grant Action Plan approval of the following PPAs, PCPAs and Amendments:

1. The Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and ORNI 32, LLC dated February 11, 2011.
2. The Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and Fotowatio Spectrum Solar, LLC dated February 11, 2011.
3. The Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and Mountain View Solar, LLC dated February 11, 2011.
4. The Long-Term Portfolio Credit Purchase Agreement between Nevada Power Company and CNLV Solar Power Generation Station 1 LLC dated February 11, 2011.
5. The Long-Term Portfolio Credit Purchase Agreement between Nevada Power Company and SCGC Solar Power Generation Station 1 LLC dated February 11, 2011.
6. The Long-Term Portfolio Credit Purchase Agreement between Nevada Power Company and Pecos Solar Power Generation Station 1 LLC dated February 11, 2011.
7. The Amended and Restated Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and Fotowatio Nevada Solar, LLC dated February 11, 2011.
8. The Second Amendment to the Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and ORNI 15, LLC dated February 11, 2011.

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9. The Second Amendment to the Long-Term Non-Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power Company and Tonopah Solar Energy, LLC dated March 1, 2011.

30. Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes, it does.

BOBBY J. HOLLIS II
Director, Renewable Energy Planning
NV Energy
6226 West Sahara Avenue
Las Vegas, NV 89146

EDUCATION

UNIVERSITY OF IOWA COLLEGE OF LAW, Iowa City, Iowa
Juris Doctorate with High Distinction, December 1999

Corpus Juris Secundum Award for Outstanding Performance in Contracts Law

Author, *The Unfairness of Applying Lack of Marketability Discounts to Determine Fair Value in Dissenters' Rights Cases*, JOURNAL OF CORPORATION LAW, VOL. 25, NO. 1, 1999

UNIVERSITY OF FLORIDA, Gainesville, Florida

Bachelor of Arts with Honors in English, Minor in Education, May 1996

Phi Beta Kappa Honor Society

PROFESSIONAL EXPERIENCE

NV ENERGY, Las Vegas, Nevada

Director, Renewable Energy Planning, 2010 – Present

- Manage and direct the NV Energy renewable request for proposals ("RFP") process, including development of the RFP, interface with respondents, evaluation of bids, negotiation and approvals of power purchase agreements, joint ventures and/or asset purchases with shortlisted respondents.
- Oversee and manage executed power purchase agreements until the commencement of commercial operation.
- Manage and direct renewable energy technical support and services both in NV Energy Renewables and in support of other departments within NV Energy.
- Provide oversight and support to NV Energy's renewable energy regulatory efforts in Nevada.

Assistant General Counsel – Renewable Energy and ASD, 2009 –2010

- Provide legal support to all renewable development and procurement activity for development and power procurement of utility's renewable energy portfolio, including geothermal, solar, wind and biomass generation facilities
- Provide regulatory and federal analysis with respect to development activities
- Provide legal support for company's SmartGrid deployment, including agreements with Department of Energy
- Provide legal support for company's RFP process to meet its renewable portfolio standard.

INVENERGY LLC, Chicago, Illinois

Assistant General Counsel, 2007 – 2008

- Provide legal advice and review regarding all facets of operations for energy generation company, focusing on renewable energy (wind and solar) and thermal operations
- Provided legal oversight for operations and agreements in many jurisdiction domestically and internationally.
- Oversaw development of a variety of agreements, contracts and correspondence relating to siting, regulatory approval, construction, output sales, power purchase agreements, tax abatement

and land agreements (easements, purchases and leases) in connection with generation portfolio of wind, thermal and solar assets

- Trained and advised staff regarding legal implications of various structures for project formation and development.
- Analyzed risk and benefit profiles of various projects, including direct coordination of project development with insurance consultants
- Provided legal support for project financing and on-going financing requirements
- Oversaw legal review with respect to acquisition and divestiture of various projects throughout the U.S., Canada and Europe.

ALLIANT ENERGY, Cedar Rapids, Iowa
Corporate Attorney, 2007

- Lead attorney for large capital generation construction project.
- Lead attorney for various acquisitions and divestitures.
- Assisted with corporate and securities matters.
- Review and revise commercial agreements for various internal clients.

JENNER & BLOCK LLP, Chicago, Illinois and Washington, DC
Associate, Corporate and Securities, 2000 –2004; 2005 –2007
Summer Associate, Summer 1999

- Legal counseling regarding corporate, antitrust and government contracting issues.
- Provide primary government contract consultation for contractors and the Department of Defense, FAA and Department of Energy.
- Reviewed and structured private equity documents for initial fund formations and subsequent acquisitions.
- Prepared and reviewed energy transaction documents for start-up company and major utility.
- Negotiated government contract agreements on behalf of contractors with various federal government agencies.
- Prepared various regulatory filings with state and federal agencies.
- Advised clients regarding regulatory, securities and contracts law matters.

BAKER & MCKENZIE LLP, Chicago, Illinois
Corporate and Securities Associate, 2004 – 2005

- Primary responsibility for drafting and reviewing documents in connection with mergers, acquisitions and divestitures by U.S. affiliates of multinational corporations.
- Oversaw regulatory filings and risk analysis related to structure and regulatory requirements.
- Reviewed and structured private equity documents for initial fund formations and subsequent acquisitions.

RELEVANT INDUSTRY/PROFESSIONAL INFORMATION

Speaker and Panelist, Third Annual Solar Power Generations Conference, Jan. 24-25, 2010

Panelist, Eighth Annual Ballard Spahr Wall Street Energy Briefing - Innovation, Risk, and Regulation: An Energy Sector Update, November 17, 2010

Panelist, Third Annual Utility Scale Solar Summit, September 13-15, 2010

Prepared presentations for developers and project managers regarding “Land Management for Wind Projects” and “Wind Projects Construction”

Author at Jenner & Block, Client Advisories regarding Sarbanes-Oxley

Sierra Pacific Power Company and Nevada Power Company
d/b/a NV Energy
6100 Neil Rd., P.O. Box 10100
Reno, Nevada 89520-0024

AFFIRMATION

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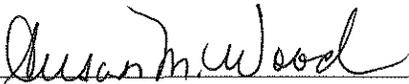
STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

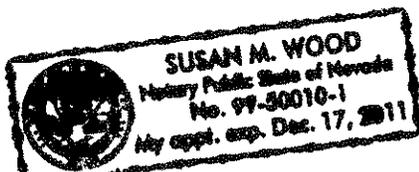
I, BOBBY J. HOLLIS, do hereby swear under penalty of perjury the following:

That I am the person identified in the attached Pre-filed Testimony and that such testimony was prepared by me or under my direct supervision; that the answers and information set forth therein are true to the best of my knowledge and belief; and that if asked the questions set forth therein, my answers thereto would, under oath, be the same.


BOBBY J. HOLLIS

Subscribed and sworn to before me
this 4 day of March, 2011.


NOTARY PUBLIC



WILLIAM K. BRANCH

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BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

NEVADA POWER COMPANY
d/b/a NV ENERGY
First Amendment to its 2010-2029 Integrated Resource Plan

Docket No. 11-03 _____

PRE-FILED DIRECT TESTIMONY
OF
WILLIAM K. BRANCH
On Behalf of Nevada Power Company

1. Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is William K. Branch. My current position is Director, Power Contracts for Nevada Power Company (“Nevada Power” or “Company”) and Sierra Pacific Power Company (“Sierra”). My business address is 6226 West Sahara Avenue, Las Vegas, Nevada.

2. Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE IN THE UTILITY INDUSTRY.

A. I have over 31 years of experience with Sierra and Nevada Power. My experience includes resource planning, rates, regulatory affairs, contract negotiations, strategic planning, and fuels. A Statement of Qualifications is attached as **Exhibit Branch-Direct-1**.

3. Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR OF POWER CONTRACTS.

A. As Director of Power Contracts my responsibilities include the negotiation of long-term power contracts, long-term natural gas supply and transportation contracts, and the administration of both power and fuel contracts. For

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renewable contracts that have reached commercial operation, my responsibilities include the administration of those contracts and the negotiation of amendments to those contracts. I report directly to Mr. Jeff Ceccarelli (Corporate Senior Vice President, Energy Supply)

4. Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA?

A. Yes. I have testified in numerous proceedings before the Commission including, most recently, Docket Nos. 09-12002, 10-03003, 10-03004, 10-03005 and 10-04002. I have also testified in proceedings at the Federal Energy Regulatory Commission and the California Public Utilities Commission.

5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the Amendment No. 3 to the Stillwater Power Purchase Agreement (“PPA”).

6. Q. PLEASE BRIEFLY DESCRIBE AMENDMENT NO. 3 TO THE STILLWATER PPA.

A. The existing Stillwater PPA between Nevada Power and Enel Stillwater, LLC (“Enel”) began commercial operation in October 2009. Due to lower-than-expected resource temperatures, this geothermal project has not performed at the level expected under the existing PPA. Amendment No. 3 accommodates Enel’s installation of approximately 20 MW of solar photovoltaic at the Stillwater plant site to supplement the geothermal output.

The Stillwater PPA Amendment is more fully described in Section VII.C. of the IRP Amendment and in the confidential economic analysis of Amendment No. 3, which is set forth in Technical Appendices as Item AMND-4. The Stillwater

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PPA Amendment No. 3 provides a net present value savings over the existing PPA.

7. Q. WHAT PORTIONS OF THE IRP FILING ARE YOU SPONSORING?

A. Yes. I am sponsoring the following portions of the IRP Amendment:

- Section VII.C., “Enel (Stillwater)”
- Item AMND-3 of the Renewables Technical Appendix [Amendment No. 3 to the Stillwater PPA]
- Item AMND-4 of the Renewables Technical Appendix [Economic Analysis of the Stillwater PPA Amendment]

8. Q. IS THE COMPANY REQUESTED CONFIDENTIAL TREATMENT OF ANY MATERIALS RELATED TO THE ENEL STILLWATER PPA AMENDMENT?

A. Yes. The Company is requesting confidential treatment of the “Economic Analysis of the Stillwater PPA Amendment (Item AMND-4 of the Renewables Technical Appendix).

9. Q. WHY IS NEVADA POWER REQUESTING CONFIDENTIAL TREATMENT OF THE ECONOMIC ANALYSIS OF THE STILLWATER PPA AMENDMENT?

A. This economic analysis is commercially sensitive and derives independent economic value from not being known generally or by Enel. Disclosure of this information to entities other than the Commission, its Staff, or the BCP, even under cloak of confidentiality, could adversely affect Nevada Power’s ability to negotiate with this or renewable projects in the future. Of course, Nevada Power will provide unredacted copies of the above-described material to the Staff and the BCP upon execution of the appropriate protective agreements.

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10. Q. FOR HOW LONG DOES THE COMPANY REQUEST CONFIDENTIAL TREATMENT?

A. The requested period for confidential treatment is for no less than five years.

11. Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

QUALIFICATIONS OF WITNESS

WILLIAM K. BRANCH DIRECTOR, POWER CONTRACTS

**NV Energy
6226 West Sahara Avenue
Las Vegas, NV 89151-001
(702) 402-5628**

My name is William K. Branch. My business address is 6226 West Sahara Avenue, Las Vegas, Reno, Nevada. My title is Director, Power Contracts for Nevada Power Company and Sierra Pacific Power Company.

I graduated from Rensselaer Polytechnic Institute (Troy, New York) in 1979 with a Bachelor of Science Degree in Mechanical Engineering.

Prior to graduation I began my utility experience with Sierra Pacific Power Company as a student engineer. I worked in the Power Production and Gas & Water Departments.

Upon graduation, I joined Sierra Pacific on a full-time basis as an assistant engineer in the Research and Development Department. In this position, my assignments involved technical and economic evaluation of geothermal, solar, and other renewable energy systems.

In 1982, I was promoted to Resource Planning Engineer, and then in 1984 to Senior Engineer. My primary responsibilities included supply side planning, integrated system planning, and the development of modeling capabilities.

In 1985, I was promoted to Supervisor of Integrated System Planning. I was responsible for demand side planning, supply side planning, and integrated system planning. In March 1990, I was named Project Manager of Resource Planning. My responsibilities included the overall coordination of the resource planning effort. I continued to directly supervise the supply side planning effort and the integration of demand/supply side options.

In May 1991, I began a rotational assignment in the Rates & Regulatory Relations Department. My assignments included support of marginal cost studies, development of revenue allocation and rate design in Sierra's California jurisdiction, the evaluation of incentive cost recovery mechanisms for DSM programs, and regulatory input on resource planning issues.

In February 1992, I was assigned to the Electric Operations Department. My responsibilities related primarily to fuel planning issues, which included participation in the development of a Strategic Fuel Plan, analysis of acquiring firm gas transportation for Sierra's power plants, oil inventory management, and coal contract reformation studies.

In February 1993, I was promoted to Manager, FERC Rates & Regulatory. My responsibilities included managing the rate and regulatory activities related to wholesale electric and transmission services provided by Sierra and interventions in FERC jurisdictional cases for electric and gas services provided to Sierra.

In February 1994, I was promoted to Director, Fuels Management. My responsibilities included directing the acquisition of fuel supplies, fuel transportation, and fuel planning for the electric and gas systems.

In August 1994, I accepted the position of Director, Gas Policy and Planning. My responsibilities included gas resource planning, gas distribution planning, gas marketing, pipeline relations and the responsibilities I previously had as Manager, FERC Rates & Regulatory.

In December 1995, I was promoted to Director, Regulatory Affairs. My responsibilities included the regulatory and pricing activities for the company's state and FERC jurisdictional services. In August 1999, I was named Director, Rates and Regulatory Affairs for Sierra Pacific and Nevada Power.

In December 2001, I was named Director, Structuring, Energy Planning, and Analysis. That title was later shortened to Director, Energy Planning and Analysis. My responsibilities included fundamental market analysis, short-term, intermediate-term, and long-term resource analysis, resource planning, and coordinating the Energy Supply division's regulatory activities.

In November 2004, I was named Director, Corporate Planning. My responsibilities included developing the corporate five year strategic plan, as well as leading various strategic projects.

In June 2007, I was named to my current position of Director, Power Contracts. My responsibilities include negotiation of long-term power and natural gas contracts and the administration of both power and fuel contracts.

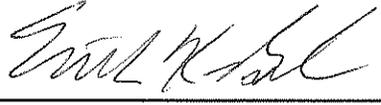
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AFFIRMATION

STATE OF NEVADA)
) ss.
COUNTY OF CLARK)

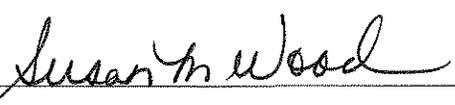
I, WILLIAM K. BRANCH, do hereby swear under penalty of perjury the following:

That I am the person identified in the attached Pre-filed Testimony and that such testimony was prepared by me or under my direct supervision; that the answers and information set forth therein are true to the best of my knowledge and belief; and that if asked the questions set forth therein, my answers thereto would, under oath, be the same.

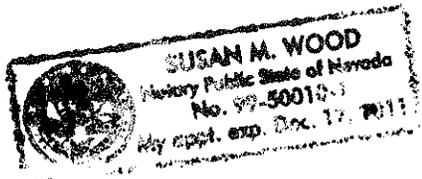


WILLIAM K. BRANCH

Subscribed and sworn to before me
this 3 day of March, 2011.



NOTARY PUBLIC



NARRATIVE

REDACTED¹
NEVADA POWER COMPANY d/b/a NV ENERGY
FIRST AMENDMENT TO THE 2010 -2029 INTEGRATED RESOURCE PLAN

30-YR LOAD FORECAST, NEW PPAS, AMENDED PPAS AND PC ONLY
CONTRACTS

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¹ The confidential material is published in the Confidential Material Volumes and is filed under seal.

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I. INTRODUCTION

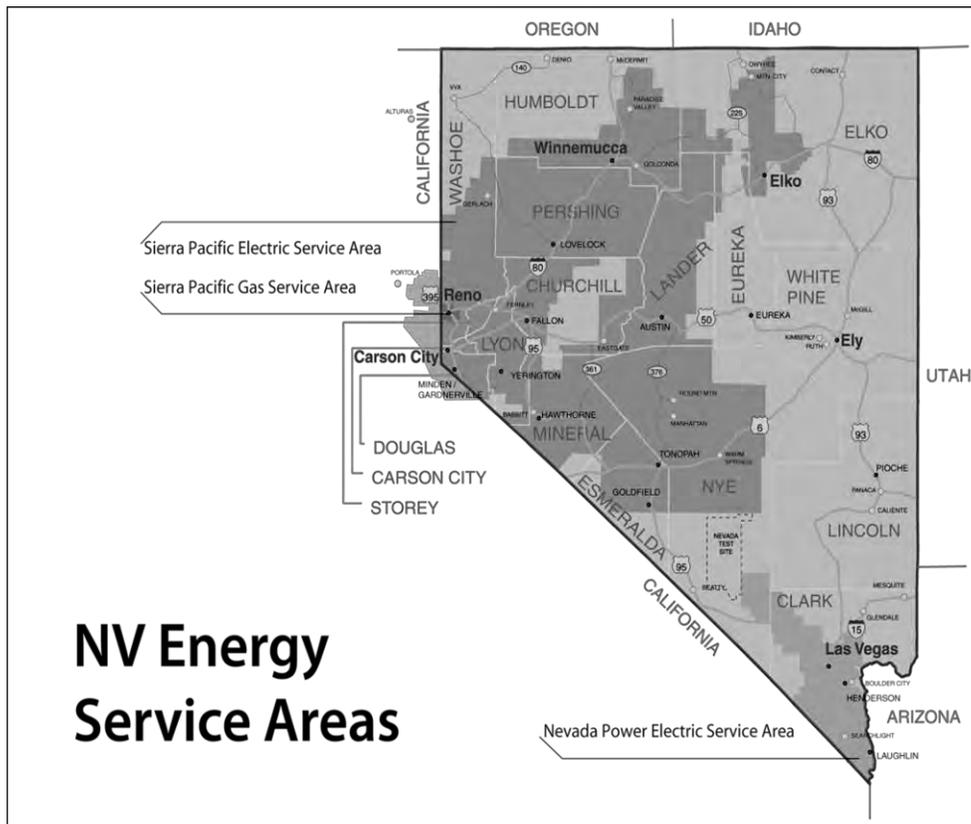
A. CORPORATE OVERVIEW

Nevada Power d/b/a NV Energy (“Nevada Power” or the “Company”) is a wholly-owned subsidiary of NV Energy, Inc. (“NVE”), a publicly held utility holding company. NVE has two utility subsidiaries: Nevada Power and Sierra Pacific Power Company (“Sierra”, and together with Nevada Power, the “Companies”).

Nevada Power generates, transmits and distributes electric energy to approximately 827,000 customers in Las Vegas, North Las Vegas, Henderson, Searchlight, Laughlin, and adjoining areas, including Nellis Air Force Base and the Department of Energy’s Nevada Test Site in Nye County. Nevada Power is regulated by the Public Utilities Commission of Nevada (“Commission”) and the Federal Energy Regulatory Commission (“FERC”).

Figure-1 shows a map of the Companies’ service territories.

**FIGURE-1
NV ENERGY SERVICE TERRITORIES**



B. RESOURCE PLANNING STRATEGY

Nevada Power continues to pursue a three-part strategy for providing clean, safe, reliable electricity to its customers at reasonable and predictable prices:

1. Increasing investment in energy efficiency and conservation programs, also known as demand side management (“DSM”) programs;
2. Increasing investment in renewable energy initiatives, including transmission needed to serve renewable development; and
3. Reducing reliance on volatile wholesale markets by constructing new conventional generating plants.

On February 1, 2010, Nevada Power filed its 2010-2029 Integrated Resource Plan (“2009 IRP”) with the Commission, which was designated as Docket No. 10-02009. The Commission approved the 2009 IRP in its order dated July 28, 2010, and accepted NPC’s proposal to issue annual RFPs for proposals to fulfill its RPS requirements². This First Amendment to the 2009 IRP requests approval of contracts that resulted from RFPs for Renewable Purchase Power Agreements and Portfolio Credit Only Purchase Agreements authorized in the 2009 IRP.

² Order, Docket 10-02009 (July 28, 2010), paragraph 328.

II. SUMMARY OF SPECIFIC APPROVALS

In this First Amendment, Nevada Power requests Action Plan approval of the following items:

- A. Updated base load forecast to be used for long term planning purposes.
- B. New Renewable Purchase Power Agreements (~~-PPAs~~)
 - 1. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and ORNI 32, LLC, dated February 11, 201, for a new 51 MW (30 MW net) geothermal project in Churchill County, Nevada.
 - 2. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and FRV Spectrum Solar, LLC, dated February 11, 2011, for a new 30 MW AC solar project in Clark County, Nevada.
 - 3. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and Mountain View Solar, LLC, dated February 11, 2011, for a new 20 MW AC solar project in Clark County, Nevada.
- C. Amendment to Previously Approved Renewable PPAs
 - 1. An amended and restated Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Fotowatio Nevada Solar, LLC, dated February 11, 2011.
 - 2. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and ORNI 15, LLC, dated February 11, 2011.;
 - 3. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Enel Stillwater, dated February 16, 2011.
 - 4. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Tonopah Solar Energy, LLC, dated March 1, 2011.
- D. Portfolio Credit (~~-PC~~) Only Purchase Agreements (~~-PCPAs~~)
 - 1. A long-term portfolio credit purchase agreement between Nevada Power and City of North Las Vegas (~~-CNLV~~) Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 5,957 Thousand Portfolio Credits (~~-kPCs~~).

2. A long-term portfolio credit purchase agreement between Nevada Power and Shadow Creek Golf Course (“SCGC”) Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 3,515 kPCs.
3. A long-term portfolio credit purchase agreement between Nevada Power and Pecos Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 2,722 kPCs.

Nevada’s aggressive Renewable Portfolio Standard (“RPS”) requires the Company to generate, acquire or save electricity from portfolio energy systems or efficiency measures in amounts that are prescribed by statute. Those amounts increase from 12 percent of retail sales through 2010 to 15 percent of retail sales in 2011 and 2012, 18 percent of retail sales in 2013 and 2014, 20 percent of retail sales between 2015 and 2019, 22 percent of retail sales between 2020 and 2024, and 25 percent of retail sales in 2025. The RPS thus requires that the Company increase its investment in renewable energy even during periods of relatively flat load growth.

This First Amendment sets forth the Company’s activities and planning undertaken to meet the RPS.

III. LONG TERM LOAD FORECAST

A. SUMMARY OF FORECAST RESULTS

The forecast used for this filing is the same as the one approved in Nevada Power’s 2011-2012 Energy Supply Plan Update (Docket No. 10-09003). The 2011 and 2012 load forecasts were found to be ‘suitable for making planning decisions’ by order of the Commission dated December 16, 2010. This First Amendment seeks approval of the updated load forecast for the entire 20 year planning period, 2011-2029.

Historical Data. In the past, Nevada Power experienced some of the strongest demand growth in the country. From 1998 until 2008, weather-normalized system peak demand grew by an average of 4.3 percent per year, with normalized system peak demand increasing from 3,762 MW in 1998 to 5,724 MW in 2008. Over that same period, the number of residential customers grew on average 4.4 percent per year. In 2008, Nevada Power experienced a significant downward shift in economic activity. This downturn worsened in 2009 and economic growth is not expected to occur until sometime in 2011. In 2010, Nevada Power’s weather normalized summer peak demand grew 30 MW (0.5 percent) and residential customers grew at a modest 0.6 percent. Figure-2 shows weather-normalized historical peak demand and energy from 1998 through 2010.

FIGURE-2

HISTORICAL PEAKS, SALES, COMPANY USE AND LOSSES

Year	Coincident Peak Demand (MW) Weather Normalized				Annual Sales (MWH) Weather Normalized	% Grwth	Estimated Losses (MWH)	Company Use (MWH)
	Winter		Summer					
	(Dec - Feb)	% Grwth	(Jun - Sep)	% Grwth				
1998	2,004		3,762		14,527,753		794,410	16,068
1999	2,098	4.7%	3,957	5.2%	15,613,151	7.5%	857,314	14,987
2000	2,208	5.2%	4,388	10.9%	16,284,655	4.3%	922,141	36,044
2001	2,227	0.9%	4,324	-1.5%	16,487,443	1.2%	875,333	39,792
2002	2,261	1.5%	4,591	6.2%	17,458,081	5.9%	773,230	41,122
2003	2,290	1.3%	4,781	4.1%	17,875,459	2.4%	881,775	38,128
2004	2,408	5.2%	4,944	3.4%	18,593,408	4.0%	795,997	35,669
2005	2,571	6.8%	5,234	5.9%	20,066,831	7.9%	852,656	33,800
2006	2,673	4.0%	5,568	6.4%	20,839,343	3.8%	1,118,734	33,127
2007	2,742	2.6%	5,657	1.6%	21,216,108	1.8%	1,003,788	27,639
2008	2,800	2.1%	5,724	1.2%	21,324,663	0.5%	1,199,502	33,745
2009	2,819	0.7%	5,485	-4.2%	20,929,137	-1.9%	778,560	28,355
2010	2,623	-7.0%	5,515	0.5%	20,800,522	-0.6%	732,815	23,178

Note: The 2010 losses and company use are estimated.

The updated long term peak load forecast used in this filing is flat in the near term, with weather normalized annual average growth of only 0.2 percent from 2010-2015. System energy grows a little faster at 0.5 percent annual average for the same time period. From 2015 to 2030, peak growth averages 1.2 percent per year while system energy averages 1.4 percent per year. The growth rate differences are mainly due to demand response programs affecting peak more than system energy.

Figure-3 is a 30 year summary of the peak demand, system energy forecast and load factor developed for this First Amendment.

FIGURE-3
SYSTEM ENERGY (GWH)³ AND PEAK DEMAND FORECAST (MW)⁴

Year	Summer Peak MW	Winter Peak MW	Energy GWh	Load Factor
2011	5,503	2,628	21,512	44.62%
2012	5,466	2,654	21,703	45.20%
2013	5,447	2,664	21,784	45.65%
2014	5,500	2,702	22,025	45.71%
2015	5,537	2,760	22,252	45.88%
2016	5,582	2,795	22,525	45.94%
2017	5,625	2,848	22,693	46.05%
2018	5,670	2,862	22,936	46.18%
2019	5,723	2,891	23,247	46.37%
2020	5,782	3,005	23,705	46.67%
2021	5,840	3,089	24,020	46.95%
2022	5,909	3,145	24,393	47.12%
2023	6,006	3,228	24,800	47.14%
2024	6,100	3,226	25,254	47.13%
2025	6,186	3,274	25,565	47.18%
2026	6,278	3,347	25,953	47.19%
2027	6,372	3,401	26,336	47.18%
2028	6,468	3,471	26,803	47.18%
2029	6,554	3,489	27,102	47.21%
2030	6,644	3,506	27,487	47.23%
2031	6,737	3,555	27,872	47.23%
2032	6,831	3,605	28,335	47.22%
2033	6,927	3,655	28,659	47.23%
2034	7,024	3,706	29,060	47.23%
2035	7,122	3,758	29,467	47.23%
2036	7,222	3,965	29,962	47.23%
2037	7,323	4,021	30,299	47.23%
2038	7,426	4,077	30,723	47.23%
2039	7,530	4,134	31,154	47.23%
2040	7,635	4,192	31,654	47.33%

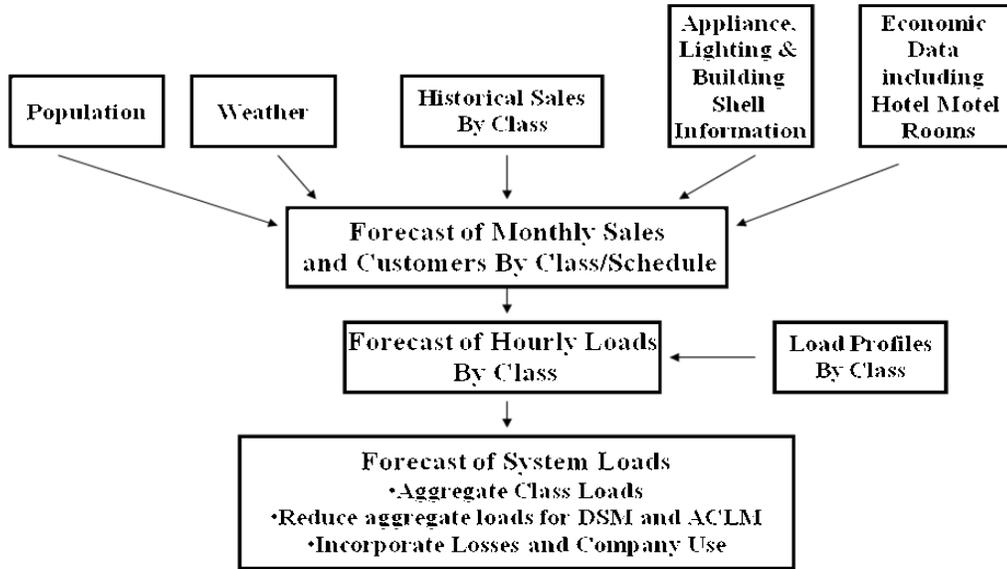
³ Includes retail sales and losses/Company use, and is net of incremental DSM, ACLM/DLC and small solar project reductions.

⁴ Net of incremental DSM, ACLM/DLC and small solar project reductions.

B. LOAD FORECASTING PROCESS

Nevada Power’s multi-step load forecasting process is illustrated in Figure-4 and described below.

**FIGURE-4
SCHEMATIC DIAGRAM OF NEVADA POWER’S LOAD FORECASTING
PROCESS**



1. CONSTRUCT FORECAST DATABASE

The first step in the forecast process is to construct the forecast database. Monthly billed historical sales and customer data are extracted from the Company’s historical billing data. Historical population estimates are provided by IHS/Global Insight, Nevada Power’s economic forecast vendor the Nevada State Demographer and the Clark County Comprehensive Planning Department, while forecasted population is supplied by Global Insight and CBER.⁵ The hotel/motel room history and forecast were obtained from the Las Vegas Convention and Visitors Authority (“LVCA”). Additional economic data series, both historical and forecast, are obtained from Global Insight. The population, hotel/motel room and residential customer forecasts are included in the Technical Appendix Item LF-1.

End-use saturation and efficiencies projections are explicitly accounted for in the residential and commercial sales forecast models. The Mountain Census Division end-use saturation and

⁵ A copy of the CBER June 2010 population forecast is included as Technical Appendix Item LF-3.

efficiency projections were obtained from Itron, Inc. (Itron). Itron develops saturation and efficiency projections for nine U.S. Census Divisions using data generated from the Energy Information Administration (EIA) long-term energy outlook. The end-use data reflect EIA's 2009 Annual Energy Outlook, which was completed last spring. EIA's end-use forecasts include the estimated effects on electricity use of the American Recovery and Reinvestment Act (ARRA) passed in March 2009, as well as efficiency and building code standard changes contained in the federal Energy Information and Security Act (2007) and the mandated minimum residential central air conditioner efficiency of Seasonal Energy Efficiency Rating (SEER) 13 that took effect in 2006. In addition, Nevada Power conducted a residential appliance saturation survey in November and December 2008 (a survey to update the residential saturations is underway now). Results of the survey were used to calibrate the Census Division end-use projections to the Nevada Power service area. The commercial end-use efficiency indices are based on EIA's long-term commercial sector energy forecast for the Mountain Census Region; these indices were modified to reflect Nevada Power's commercial customer mix based on Nevada Power's small commercial and industrial market survey conducted in December 2008 and January 2009.

Historical and forecasted economic data for the Las Vegas-Paradise Metropolitan Statistical Area (MSA) are purchased from Global Insight. The LVCVA provides hotel room projections through 2012. Nevada Power also develops its own forecasts of key variables, including customer classes, hotel rooms (for years after 2012) and retail energy rates. These estimates are derived from internal discussions with the Company's Major Account Executives and Financial Planning groups. Residential and commercial customer forecasts are based on econometric models that are described below.

Historical and projected real electricity prices are generated for each of the primary revenue classes. Historical prices are constructed from billed revenues and sales. The price series is defined as a 12-month moving average of the real monthly revenue per kWh. The price forecast is based on Nevada Power's projection of future operating costs and associated revenue requirements.

Historical and normal monthly heating degree-days (HDD) and cooling degree-days (CDD) are constructed from daily temperature data from McCarran International Airport. Cycle-weighted HDD and CDD are constructed from estimating the monthly billed-sales forecast models. Calendar month actual and normal HDD and CDD are used in generating sales and energy forecasts on a calendar-year basis. The 2009 IRP First Amendment Forecast is based on twenty-year normal HDD and CDD (June 1990 through May 2010).

2. ESTIMATE FORECAST MODELS

The 2011 through 2030 sales forecast is developed separately for several defined classes and sub-classes primarily through econometric modeling.⁶ Monthly forecast models are prepared for five primary customer and sub-customer classes, including:

- Residential
- Small Commercial and Industrial, both GS1 and LGS1 rate classes separately
- Large Commercial and Industrial
- Public Street & Highway Lights
- Public Authority (“PA”)

Models were prepared using historical billed sales and customer data from January 1998 through May 2010. The residential, GS1 and LGS1 commercial customer class forecasts are derived by combining separate average use and customer forecast models. The C&I class forecast and street lights are based on total monthly sales forecast models. The PA forecast is based on professional judgment.

The MGM City Center sales and peak forecast was developed separately from the C&I class forecast. The large C&I regression model parameter for hotel/motel room additions underestimates sales associated with this large property by approximately 50 percent. While the room use might be reasonably estimated with the coefficient, the presence of the significant retail and condominium use is not (e.g., condos are not included by LVCVA as hotel/motel rooms). Forecasting large customers separately is a common practice in the industry and is also used for the Sierra GS3 NG, GS4 NG and GS4 rate classes.

In addition to economic and price projections, the residential and commercial forecast models explicitly account for long-term end-use saturation and efficiency trends as well as projected improvements in thermal shell integrity in the residential model. End-use saturation and efficiency trends are incorporated in the constructed end-use model variables used in estimating the forecast models. This approach, known as a Statistically Adjusted End-Use (“SAE”) model, is presented in more detail for the residential sector in Technical Appendix LF-1. A similar approach is used in constructing the commercial forecast models. Model specifications for the First Amendment Forecast are provided in Technical Appendix Item LF-1.

⁶ Forecasts of Public Authority sales are not derived through econometric means because a number of these customers exited energy service between 2005 and 2010, which has altered historical relationships with weather variables.

3. WEATHER NORMALIZED SALES AND DEMAND

Historical sales and demand are weather normalized to provide a comparable basis for evaluating projected energy and demand growth. The SAE models are not well designed for weather normalization, as the constructed interactive variables tend to reduce the size of the weather coefficient. Less complex non-SAE model coefficients were used to weather normalize sales. A description of the weather normalization methodology is presented in the Technical Appendix Item LF-1.

4. DEVELOP CLASS SALES AND CUSTOMER FORECASTS

Once estimated, the forecast models are used to generate long-term customer class sales and customer forecasts. Class sales and customers are forecasted through 2030. The forecast is driven by economic and household projections, prices, and end-use saturation and efficiency trends. The baseline forecast is then adjusted for Demand Side Management (–DSM”) savings, solar photovoltaic (–PV”) reductions and demand response reductions and any other significant changes in expected demand that cannot be captured by the estimated forecast models.

5. SYSTEM ENERGY, SALES AND PEAK FORECASTS

Forecasted class sales are used to drive the system hourly load, energy, and demand forecast. Customer class hourly profile models are estimated from historical load research data. Hourly class load models are estimated by relating historical hourly load data to daily weather conditions, day of the week, month, and holidays. Forecasted profiles are then generated using class sales forecasts, normal daily weather and a future calendar. The load research profiles include data through December 2007.

The system hourly load forecast is adjusted for expected DSM savings and the impact of Demand Response (–DR”) programs. Hourly DSM, Air Conditioning Load Management (–ACLM”), DR, and solar impact estimates are subtracted from the system hourly load forecast, resulting in a final hourly load demand, energy, and peak demand forecast that is used for resource planning.

C. SYSTEM ENERGY, SALES AND PEAK LOAD FORECAST

The differences between the 2009 IRP Forecast and the First Amendment Load Forecast are described below.

The 2011 forecasted peak of 5,561 MW in the 2009 IRP Forecast decreased by 58 MW to 5,503 MW in the First Amendment Forecast. For 2012, the First Amendment Forecast includes a peak of 5,466 MW vs. 5,528 MW for the 2009 IRP Forecast, a difference of 62 MW. By 2020, the First Amendment Forecast is 268 MW less than the 2009 IRP Forecast.

Figure-5 is a summary of the system energy, peak demand and loss factor forecasts for the First Amendment Forecast and the 2009 IRP load forecast.

**FIGURE-5
SYSTEM ENERGY (GWH)⁷, PEAK DEMAND FORECAST (MW)⁸ AND LOAD
FACTORS: FIRST AMENDMENT FORECAST VS. 2009 IRP FORECAST**

Year	Peak Demand (MW)				System Energy (GWH)		
	IRP	IRP 1st	Diff.		IRP	IRP 1st	Diff.
2011	5,561	5,503	-58		21,853	21,512	-342
2012	5,528	5,466	-62		22,107	21,703	-404
2013	5,588	5,447	-141		22,497	21,784	-713
2014	5,645	5,500	-145		22,921	22,025	-896
2015	5,699	5,537	-162		23,268	22,252	-1,017
2016	5,775	5,582	-193		23,672	22,525	-1,147
2017	5,833	5,625	-208		23,922	22,693	-1,229
2018	5,884	5,670	-214		24,233	22,936	-1,297
2019	5,965	5,723	-242		24,619	23,247	-1,372
2020	6,050	5,782	-268		25,161	23,705	-1,456
2021	6,113	5,840	-273		25,509	24,020	-1,489
2022	6,187	5,909	-278		25,926	24,393	-1,533
2023	6,289	6,006	-283		26,380	24,800	-1,580
2024	6,383	6,100	-283		26,868	25,254	-1,614
2025	6,466	6,186	-280		27,196	25,565	-1,632
2026	6,560	6,278	-282		27,604	25,953	-1,651
2027	6,649	6,372	-277		27,990	26,336	-1,654
2028	6,732	6,468	-264		28,464	26,803	-1,661
2029	6,805	6,554	-251		28,740	27,102	-1,637
2030	6,855	6,644	-211		28,918	27,487	-1,430

⁷ Includes retail sales and losses/Company use, and is net of incremental DSM, ACLM/DLC and small solar project reductions.

⁸ Net of incremental DSM, ACLM/DLC and small solar project reductions.

The First Amendment Forecast is shown below in Figures-6 through 11. Additional discussion and results are included in the Load Forecast Technical Appendix Item LF-1.

Figure-6 is a summary of the sales forecast by customer class after reductions for DSM, DR and solar PV.

**FIGURE-6
RETAIL CALENDAR SALES FORECAST (GWh)
AFTER DSM, DR AND SOLAR PV REDUCTIONS**

Year	Residential	Small Commercial & Industrial	Large Commercial & Industrial	Public Authority	Street Lighting	Total	% Grwth
2011	8,607	4,357	7,542	55	176	20,738	-0.3%
2012	8,643	4,368	7,631	55	177	20,873	0.7%
2013	8,666	4,409	7,691	55	179	21,000	0.6%
2014	8,736	4,472	7,788	55	181	21,233	1.1%
2015	8,794	4,537	7,881	55	183	21,450	1.0%
2016	8,865	4,605	7,958	55	186	21,669	1.0%
2017	8,921	4,675	8,036	55	188	21,875	1.0%
2018	8,995	4,748	8,120	55	190	22,109	1.1%
2019	9,118	4,830	8,213	55	193	22,408	1.4%
2020	9,315	4,922	8,316	55	195	22,804	1.8%
2021	9,488	5,012	8,400	55	198	23,153	1.5%
2022	9,645	5,109	8,503	55	200	23,512	1.5%
2023	9,796	5,227	8,622	55	203	23,903	1.7%
2024	9,916	5,350	8,757	55	206	24,284	1.6%
2025	10,015	5,476	8,883	55	208	24,638	1.5%
2026	10,129	5,601	9,015	55	211	25,011	1.5%
2027	10,244	5,726	9,141	55	214	25,380	1.5%
2028	10,364	5,853	9,279	55	217	25,768	1.5%
2029	10,462	5,981	9,399	55	219	26,116	1.4%
2030	10,566	6,111	9,529	55	222	26,483	1.4%

Figure-7 is a summary of the DSM, DR avoided capacity and the small (Solar Generations) and large (> 1 MW customers) solar PV reductions⁹. Figure-8 is a summary of the peak demand effects of the same programs. For the peak demand, the DSM and solar PV reductions are measured at 5 pm. The DR avoided capacity is the difference between the peak demand after DR reductions at the peak hour (which may not be at 5 pm due to the DR) and the peak demand at 5 pm before DR reductions. See the Load Forecast Technical Appendix LF-1 for an example of how the DSM, demand response (–DR”) and Solar PV contribute to peak shifting.

FIGURE-7
ANNUAL GWH REDUCTIONS FOR DSM, DR AND SOLAR PV

Year	Total GWh			
	DSM	DR	Solar PV	Total
2011	298	13	50	360
2012	465	21	75	562
2013	590	23	102	715
2014	714	23	128	865
2015	831	23	155	1,008
2016	946	24	181	1,151
2017	1,058	24	188	1,270
2018	1,162	25	195	1,382
2019	1,209	25	202	1,436
2020	1,148	25	209	1,382
2021	1,107	25	216	1,348
2022	1,085	25	223	1,333
2023	1,038	26	230	1,294
2024	1,039	26	237	1,301
2025	1,037	26	244	1,307
2026	1,030	27	251	1,308
2027	1,026	27	258	1,311
2028	1,022	28	265	1,314
2029	1,018	28	272	1,318
2030	1,018	29	279	1,326

Note: the sales forecast was developed using billing data through May 2010. It was assumed that 5 months of DSM and Solar PV were already included in the billed sales. The 2010 sales forecast assumed the 2010 embedded DSM of 84 GWh for Residential and 24 GWh each for Small and Large C&I and embedded solar PV of 3 GWh for residential and 7 GWh for the small C&I class. These numbers are rolled into the cumulative numbers for 2011 shown in the table.

⁹ DR includes the residential ACLM, commercial DR and the ASD pricing pilots. These reductions are at the meter, except for DR which includes losses.

**FIGURE-8
PEAK DEMAND MW REDUCTIONS FOR DSM, DR AND SOLAR PV**

Year	Total MW			
	DSM	DR	Solar PV	Total
2011	82	216	5	303
2012	134	257	8	399
2013	180	266	11	457
2014	225	264	14	503
2015	268	271	19	558
2016	310	275	22	607
2017	351	274	23	648
2018	390	281	21	692
2019	425	284	23	732
2020	451	284	25	760
2021	475	283	26	784
2022	493	284	27	804
2023	482	290	27	799
2024	482	297	26	805
2025	481	302	27	810
2026	478	307	29	814
2027	474	312	31	817
2028	472	318	31	821
2029	470	325	29	824
2030	469	328	31	828

Note: These reductions include losses and the DSM and small solar PV, these MW reduction estimates include 7 months of 2010 embedded DSM in the amount of 21 MW for residential and 25 MW for the Small and Large C&I classes and 1 MW of solar PV spread across the residential and Small C&I class.

The Solar PV is distributed generation behind the meter. As such, it can be assumed to be intermittent in nature. The above PV amounts represent the amount of reduction we might achieve at 5 pm given favorable weather conditions. See Technical Appendix LF-1 for more discussion.

Figure-9 is a summary of the total losses plus company use for the forecast. Historically, company use has been about 4% of total losses and company use.

**FIGURE-9
FORECAST OF COMPANY USE AND LOSSES**

YEAR	MWhs
2011	773,896
2012	829,881
2013	783,706
2014	792,808
2015	801,560
2016	856,577
2017	817,489
2018	826,525
2019	838,452
2020	900,889
2021	866,719
2022	881,283
2023	896,750
2024	970,249
2025	926,927
2026	941,883
2027	956,245
2028	1,035,560
2029	985,947
2030	1,003,837

Figure-10 shows the load duration curves for the years 2011, 2016, 2021 and 2026.

FIGURE-10
ANNUAL LOAD DURATION CURVES

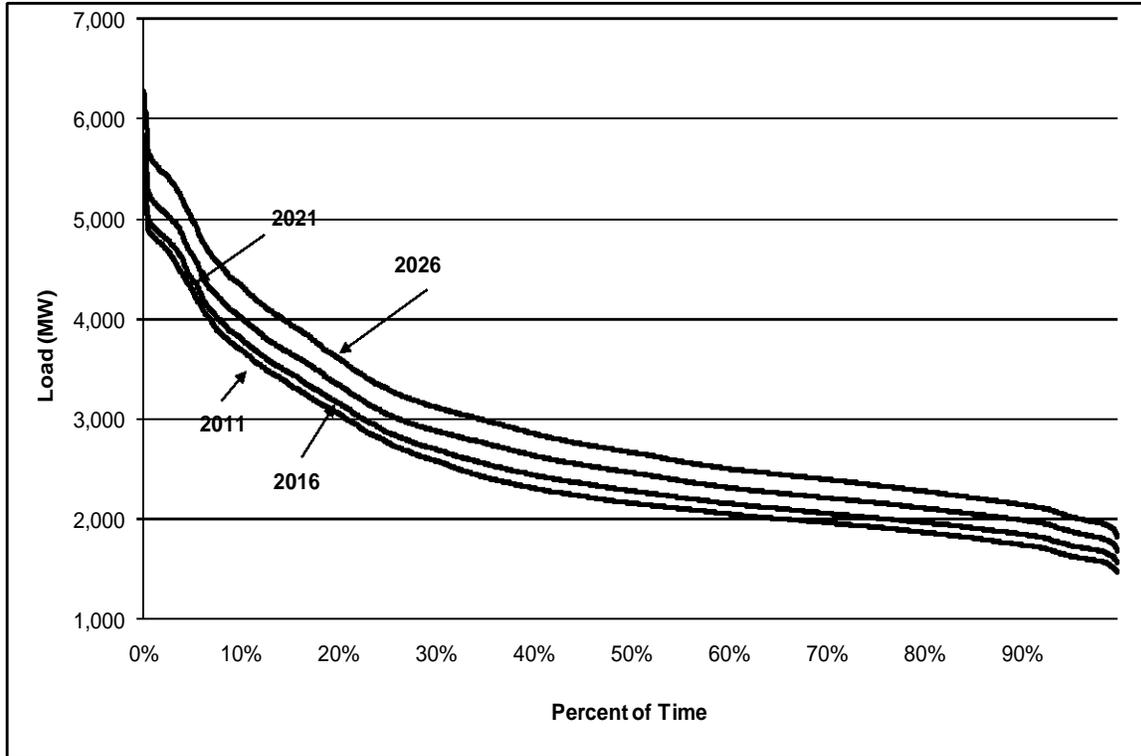
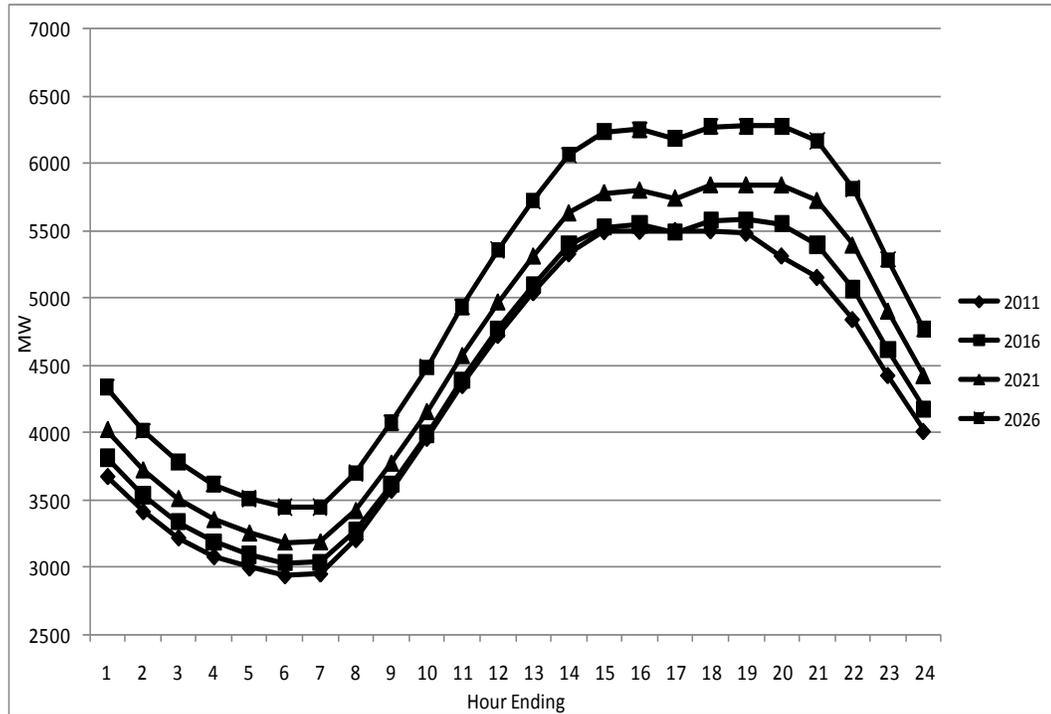


Figure-11 show the peak day hourly loads for 2011, 2016, 2021 and 2026.

**FIGURE-11
PEAK DAY HOURLY LOADS**



The First Amendment Forecast was completed in July 2010 using economic and data available at that time. Since then, new economic, demographic, and hotel/motel room forecasts have been released and a new DR forecast created. This information is discussed in the Load Forecast Technical Appendix LF-1 in more detail. Analysis of the more recent information does not significantly impact the First Amendment Forecast. This information includes:

The Commission ordered the use of the high DR forecast in Docket Number 10-09003. Theoretically, use of the high DR forecast would add 100 MW of capacity to the DR forecast. However, mainly due to the elimination of the mandatory time of use (“FOU”) rates and lower avoided capacity than installed capacity due to peak hour shifting, the DR total forecasted capacity is expected to be 68 MW lower in 2011, 86 MW lower in 2012 and 32 MW lower in 2020. The avoided capacity is 68 MW less in 2011, 50 MW less in 2012, but drops to only 24 MW lower by 2020.

As noted above, the population for the First Amendment Forecast is lower than the 2009 IRP. Since the development of the First Amendment Forecast, CBER issued a 0.5% population growth estimate for 2012 at its December 15th 2010 Outlook Conference (see Technical Appendix LF-4 for a copy of that forecast). This is 0.5% lower than data embedded in the First Amendment Forecast, so does not significantly impact the long-term forecast.

The Nevada State Demographer issued a new long-term forecast in October 2010. (See Load Forecast Technical Appendix LF-5.) For Clark County, there is both a high and low forecast, but no base forecast. Therefore, the applicable long-term base forecast remains the CBER June 2010 long-term forecast. (See Load Forecast Technical Appendix LF-2.) 2010 Census population estimates have also been released for Nevada. The estimated population for Clark County, 1,951,269 is very close to the estimate used in this forecast: 1,956,881.

The Lady Luck, which has been closed since 2006, announced a renovation of its 643 hotel rooms to begin ‘mid-2011’ with an unspecified opening date. The former Ritz Carlton, which closed in May of 2010 (349 rooms), reopened on February 11, 2011 as the ‘Ravella’¹⁰.

The Clark County Water Reclamation District notified Nevada Power on October 1, 2010 of their intention to transfer 75,000 MWH of annual energy and 10 MW of peak to the DOS tariffs. This is scheduled to occur August 1, 2011.

¹⁰ Las Vegas Review-Journal: December 9, 2010 for the Lady Luck

IV. UPDATED LOADS AND RESOURCES TABLE

Figures-12A through 12D below illustrate the impact of the new and amended PPAs on Nevada Power's Loads and Resources Table.

**FIGURE-12A
LOADS AND RESOURCES TABLE (2011 – 2025)**

		NEVADA POWER COMPANY First Amendment														
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Description	5,806	5,865	5,904	6,003	6,094	6,189	6,273	6,362	6,455	6,542	6,624	6,713	6,805	6,905	6,996
2	GROSS SYSTEM PEAK LOAD FORECAST (1) (July 2010 Load Forecast)	87	142	191	239	286	332	374	411	448	476	509	520	500	508	508
3	DSM & DLC	216	257	266	264	271	274	271	284	284	284	283	284	290	297	302
4	SYSTEM PEAK LOAD FORECAST (1) (July 2010 Load Forecast)	5,503	5,466	5,447	5,500	5,537	5,582	5,625	5,670	5,723	5,782	5,840	5,909	6,006	6,100	6,186
5	Stipulative obligation	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
6	SNWA Obligation	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-
7	NET SYSTEM PEAK LOAD	5,581	5,544	5,450	5,503	5,540	5,585	5,628	5,673	5,726	5,785	5,843	5,912	6,009	6,103	6,189
8	Planning Reserve Requirement (12%)	670	665	654	660	665	670	675	681	687	694	701	709	721	732	743
9	REQUIRED RESOURCES	6,251	6,209	6,104	6,163	6,205	6,255	6,303	6,354	6,413	6,479	6,544	6,621	6,730	6,835	6,932
RESOURCES (Itemized)																
<u>Existing Internal Generation Facilities (Retire Date: 12/31/xx)</u>																
13	Higgins (2039)	530	530	530	530	530	530	530	530	530	530	530	530	530	530	530
14	Clark 4 (2020)	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
15	Clark 9, 10 (9 - 2033, 10 - 2034)	430	430	430	430	430	430	430	430	430	430	430	430	430	430	430
16	Clark Peakers 11-22 (2038)	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
17	Goodsprings (2040)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
18	Harry Allen 3 (2025)	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
19	Harry Allen 4 (2036)	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
20	Harry Allen 5, 6, 7 (2041)	484	484	484	484	484	484	484	484	484	484	484	484	484	484	484
21	Lenzie 1 (2041)	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
22	Lenzie 2 (2041)	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
23	Reid Gardner 1, 2, 3 (2020)	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
24	Reid Gardner 4 - Base (2023)	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
25	Reid Gardner 4 - Peaking (2023)	233	233	233	233	233	233	233	233	233	233	233	233	233	233	233
26	Silverhawk (75% Share) (2039)	395	395	395	390	390	390	390	390	390	390	390	390	390	390	390
27	Sunrise 1 (2020)	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
28	Sunrise 2 (2020)	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
29	Sunpeak 3, 4, 5	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
30	Existing Generation Requiring or Affecting Imports	4,692	4,692	4,687	4,687	4,687	4,687	4,687	4,687	4,687	4,687	4,687	4,183	4,183	3,926	3,926
31	Hoover	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
32	Navajo 1, 2, 3 (2024, 2025, 2026)	255	255	255	255	255	255	255	255	255	255	255	255	255	255	170
33	Total Existing Generation	4,945	5,147	5,147	5,142	5,142	5,142	5,142	5,142	5,142	5,142	5,142	4,638	4,638	4,381	4,296
34	Planned Internal Generation Facilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	Planned Generation Facilities Requiring Import Rights	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	CC21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	CC22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	CC23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	LMS (76 MW each, June 2024)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	CC27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	CC32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	CC37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	CC39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	CC40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	Total Planned Generation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	Less Scheduled Maintenance (202)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	TOTAL GENERATION	4,945	5,147	5,142	5,142	5,142	5,142	5,142	5,142	5,142	5,142	5,196	5,754	6,312	6,511	6,426

**FIGURE-12B
LOADS AND RESOURCES TABLE (2011 – 2025)**

Description	NEVADA POWER COMPANY First Amendment														
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing Purchases															
Qualifying Facilities	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
NCA 2 (2022)	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
Saguaro (2021)	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Total Qualifying Facilities	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260
Contracts (Internal)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
LV Capm 1 (2013)	224	224	224	224	224	224	224	224	224	224	224	224	224	224	224
Total Contracts (Internal)	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274
Contracts (External)															
Dynegy (Griffith PPA)	570	570	570	570	570	570	570	570	570	570	570	570	570	570	570
Silverhawk (SNWA Transaction)	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125
TOLL18															
Solar1	50	50	34	34	34	34	34	34	34	34	34	34	34	34	34
ACE Searchlight															
Forowato Apex															
Republic-Alex Landfill															
Next Light State															
FRV Spectrum															
Mountain View / HeatEra															
SNV Wind T2															
BulValNP															
DeerValNP															
FiknerNP															
GalZNP															
SHWelNP															
SHWtrNP															
CarLakNP															
China Mountain															
Hot Sulphur Springs (ORNI 42)															
McGinness (ORNI 39)															
Clayton Valley															
Ormat Dixie Meadows															
Solar Reserve CSP10014N															
NNV Wind 100															
NNV Wind 150															
WMRE Lockwood															
NGEO_L15															
NGEO3_22															
NGEO_L24															
NGEO_L25															
NGEO2_29															
NGEO2_35															
Renewables - Subtotal	50	56	127	147	211	211	211	211	211	211	211	211	211	211	211
Total Contracts (External)	745	751	697	717	781	781	781	781	736	736	744	744	744	744	744
Total Contracts (Internal)	1,279	1,285	1,231	1,027	1,091	1,091	1,091	996	996	996	1,004	1,004	1,004	1,004	1,004
Total Gross Purchases	1,279	1,285	1,231	1,027	1,091	1,091	1,091	996	996	996	1,004	1,004	1,004	1,004	1,004
Less: Existing Wholesale Sales															
TOTAL NET PURCHASES	1,279	1,285	1,231	1,027	1,091	1,091	1,091	996	996	996	1,004	1,004	1,004	1,004	1,004
AVAILABLE RESOURCES	6,224	6,432	6,373	6,169	6,233	6,233	6,233	6,138	6,138	6,138	6,200	6,173	6,561	6,770	6,695
OPEN POSITION	27					22	70	215	275	341	345	449	170	66	237
LONG POSITION															
IRAMISSIION															
System Import Transmission Capacity (2)	3,988	3,988	4,550	4,550	4,550	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800
Import Capacity Requirement for Native Load	1,227	1,206	1,146	1,167	1,231	1,253	1,301	1,401	1,461	1,527	1,538	1,147	868	774	870
Import for Renewable Wind Resources															
Total Import Requirement for Native Load	1,227	1,356	1,296	1,317	1,381	1,403	1,451	1,551	1,611	1,677	1,688	1,297	1,018	924	1,020
Transmission for Reserve Sharing Group Imports (3)	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320
Import Transmission Capacity for CRC/SHWA/LVWD (4)	79	81	83	85	88	90	92	94	96	98	100	100	100	100	100
Estimated Available Transmission Capacity Based on All Native Load Generating Units Operating (5)	2,362	2,231	2,851	2,827	2,761	2,987	2,937	2,835	2,773	2,705	2,692	3,083	3,362	3,456	3,360

FIGURE-12C
LOADS AND RESOURCES TABLE (2026 – 2040)

		NEVADA POWER COMPANY First Amendment														
		2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1	Description															
2	GROSS SYSTEM PEAK LOAD FORECAST (1) (July 2010 Load Forecast)	7,092	7,188	7,289	7,377	7,472	7,565	7,664	7,765	7,867	7,970	8,075	8,181	8,289	8,398	8,508
3	DSM	507	504	503	498	500	500	500	500	500	500	500	500	500	500	500
4	AGLM & DLC	307	312	318	325	328	333	338	343	348	353	358	363	368	373	373
5	SYSTEM PEAK LOAD FORECAST (1) (July 2010 Load Forecast)	6,278	6,372	6,468	6,554	6,644	6,737	6,831	6,927	7,024	7,122	7,222	7,323	7,426	7,530	7,635
6	Silverstate Obligation	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7	SNWA Obligation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	NET SYSTEM PEAK LOAD	6,281	6,375	6,471	6,557	6,647	6,740	6,834	6,930	7,027	7,125	7,225	7,326	7,429	7,533	7,638
9	Planning Reserve Requirement (12%)	754	765	777	787	798	809	820	832	843	855	867	879	891	904	917
10	REQUIRED RESOURCES	7,035	7,140	7,248	7,344	7,445	7,549	7,654	7,762	7,870	7,980	8,092	8,205	8,320	8,437	8,555
11	RESOURCES (Itemized)															
12	Existing Internal Generation Facilities (Retire Date...12/31/XX)															
13	Higgins (2039)	530	530	530	530	530	530	530	530	530	530	530	530	530	530	530
14	Clark 4 (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Clark 9, 10 (9 - 2033, 10 - 2034)	430	430	430	430	430	430	430	430	215	-	-	-	-	-	-
16	Clark Peakers 11-22 (2038)	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
17	Goodsprings (2040)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
18	Harry Allen 3 (2025)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Harry Allen 4 (2036)	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
20	Harry Allen 5, 6, 7 (2041)	484	484	484	484	484	484	484	484	484	484	484	484	484	484	484
21	Lenzie 1 (2041)	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
22	Lenzie 2 (2041)	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
23	Reid Gardner 1, 2, 3 (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Reid Gardner 4 - Base (2023)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Reid Gardner 4 - Peaking (2023)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	Silverhawk (75% Share) (2039)	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
27	Sunrise 1 (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Sunrise 2 (2020)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Surpeak 3, 4, 5	222	222	222	222	222	222	222	222	222	222	222	222	222	222	222
30	Existing Generation Requiring or Affecting Imports	3,854	3,854	3,854	3,854	3,854	3,854	3,854	3,854	3,639	3,424	3,424	3,352	3,352	2,733	1,591
31	Hoover	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
32	Navajo 1, 2, 3 (2024, 2025, 2026)	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33		285	200	200	200	200	200	200	200	200	200	200	200	200	200	200
34	Total Existing Generation	4,139	4,054	4,054	4,054	4,054	4,054	4,054	4,054	3,839	3,624	3,624	3,552	3,552	2,933	1,791
35	Planned Internal Generation Facilities															
36																
37																
38																
39																
40																
41																
42	Planned Generation Facilities Requiring Import Rights															
43	CC21	558	558	558	558	558	558	558	558	558	558	558	558	558	558	558
44	CC22	558	558	558	558	558	558	558	558	558	558	558	558	558	558	558
45	CC23	558	558	558	558	558	558	558	558	558	558	558	558	558	558	558
46	LMS (76 MW each, June 2024)	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456
47	CC27	-	558	558	558	558	558	558	558	558	558	558	558	558	558	558
48	CC32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	CC35 LMS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	CC37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	CC39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	CC40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53		2,130	2,688	2,688	2,688	2,688	2,688	2,688	3,246	3,246	3,702	3,702	4,260	4,260	4,818	5,376
54	Total Planned Generation	2,130	2,688	2,688	2,688	2,688	2,688	2,688	3,246	3,246	3,702	3,702	4,260	4,260	4,818	5,376
55	Less Scheduled Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
56	TOTAL GENERATION	6,269	6,742	6,742	6,742	6,742	6,742	6,742	7,300	7,085	7,326	7,326	7,812	7,812	7,751	7,167

**FIGURE-12D
LOADS AND RESOURCES TABLE (2026 – 2040)**

Description	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Existing Purchases															
Qualifying Facilities															
NCA 1 (2022)															
NCA 2 (2022)															
Saguaro (2021)															
Total Qualifying Facilities															
Contracts (Internal)															
LV CoGen 1 (2017)															
LV CoGen II (2013)															
Total Contracts (Internal)															
Contracts (External)															
Dynegy (Griffith PPA)															
Silverhawk (SNWA Transaction)															
TOLL18															
Solar1															
ACE Searchlight	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
Fotowatio Apex															
Republic Apex Landfill															
Next Light Silver State	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
FRV Spectrum															
Mountain View / NextEra															
SNV Wind 72	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
BuValNP	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
DsrTPKNP	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
FiknerNP	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
GalZNP	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
SiWeinP	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
SiWtrnP	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
CarLakNP	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
China Mountain	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Hot Sulphur Springs (ORNI 42)	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
McGinness (ORNI 39)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Clayton Valley	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Ormat Dixie Meadows	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Solar Reserve CSP10014N	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
NNV Wind 150	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
NNV Wind 100	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
WMPE Lockwood	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
NGE01_15	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
NGE03_22	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
NGE01_24	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
NGE01_25	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
NGE02_29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NGE02_35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewables - Subtotal	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269
Total Contracts (External)	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269
Total Gross Purchases	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269
Less: Existing Wholesale Sales															
TOTAL NET PURCHASES	269	269	269	269	269	269	269	269	269	269	269	269	269	269	269
AVAILABLE RESOURCES	6,538	7,011	7,011	7,031	7,031	7,031	7,031	7,589	7,589	7,374	7,635	8,121	8,121	8,060	7,476
OPEN POSITION	497	130	237	313	414	518	66	173	497	346	458	85	200	377	1,079
LONG POSITION															
TRANSMISSION															
System Import Transmission Capacity (2)	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800
System Import Requirement for Native Load	1,045	593	700	796	897	1,001	549	656	980	849	961	588	703	880	1,582
Import Capacity Requirement for Renewable Wind Resources	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Total Import Requirement for Native Load	1,195	743	850	946	1,047	1,151	699	806	1,130	999	1,111	738	853	1,030	1,732
Transmission for Reserve Sharing Group Imports (3)	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320
Import Transmission Capacity for CRC/SNWA/LVWD (4)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Estimated Available Transmission Capacity Based on All Native Load Generating Units Operating (5)	3,185	3,638	3,530	3,434	3,333	3,229	3,681	3,574	3,250	3,382	3,270	3,642	3,527	3,350	2,648

V. RENEWABLE ENERGY RESOURCES

A. SUMMARY

In the Renewable Energy Expansion Plan set forth in the 2009 IRP, the Company outlined six base expansion scenarios for integrating renewable energy into a portfolio of projects, facilitating future procurement and investment decisions. The Renewable Energy Expansion Plan was prepared to support the PROMOD modeling and to document the Company's plan for compliance with the RPS under NRS 704.7821.

Consistent with the approach set forth in the 2009 IRP, the Company has prepared a revised renewable energy supply forecast based on existing and future resources that the Company has under contract, in development, or is submitting for approval in this filing. The projections of energy and credits from these facilities were developed based upon a Monte Carlo analysis. The development of the renewable energy expansion plan used in this filing is consistent with plans filed as part of Sierra's Energy Supply Plan (Docket No. 10-07003) and Nevada Power's Energy Supply Plan (Docket No. 10-09003). A full discussion of the Monte Carlo analysis is presented below.

Recognizing the value from the renewable energy request for proposal ("RFP") process undertaken in the past, the Company issued the 2010 Renewable RFP. In addition, acknowledging the Company's obligation to issue a PC-only RFP (Docket No. 09-08020), the Company issued its first request for offers ("RFO") for PC-only projects. As a result of the 2010 RFP and RFO, the Company has successfully completed negotiations for long-term PPAs with three suppliers for renewable energy and the associated PCs and long-term PCPAs with three projects for PCs without renewable energy (which is being consumed on site in Nevada). The three PPAs will add an additional 51 MW (30 MW net capacity) of geothermal and an additional 50 MW AC of solar capacity. Together, the three new PPAs and three new PCPAs will add a combined total of over 450,000 kPCs per year.

In this First Amendment to the 2009 IRP, the Company requests Commission acceptance of the following renewable contracts:¹¹

1. A twenty year long-term firm portfolio energy credit and renewable power purchase agreement with ORNI 32, LLC for a new 51 MW (30 MW net) geothermal project in Churchill County, Nevada. The Dixie Meadows Geothermal Project No. 1 is a geothermal facility contractually expected to produce 262,508 MWh and 315,010 kPCs annually. The first year contract price is \$92.00/MWh and escalates at 1% per year over the term of the contract yielding a levelized cost of \$98.66/MWh. The agreement is a result of the 2010 Renewable RFP.

¹¹ Specifically, the Company requests that the Commission find, pursuant to NAC 704.8885(2), the terms and conditions of these nine contracts are just and reasonable. The Company also requests that the Commission accept the renewable portion of the Action Plan pursuant to NRS 704.751, approve the renewable portion of the Action Plan pursuant to NAC 704.9494, and approve the renewable contracts pursuant to NAC 704.8885(1).

2. A twenty-five year long-term non-firm portfolio energy credit and renewable power purchase agreement with FRV Spectrum Solar, LLC for a new 30 MW AC solar project in Clark County, Nevada. The FRV Spectrum Solar project is a solar PV facility contractually expected to produce 73,907 MWh and 75,016 kPCs annually. The contract price is \$121.75/MWh and escalates at 1% per year over the term of the contract yielding a levelized cost of \$132.11/MWh. The agreement is a result of the 2010 Renewable RFP.
3. A twenty-five year long-term non-firm portfolio energy credit and renewable power purchase agreement with Mountain View Solar, LLC for a new 20 MW AC solar project in Clark County, Nevada. The Mountain View Solar, LLC project is a solar PV facility contractually expected to produce 52,840 MWh and 53,897 kPCs annually. The first year contract price is \$117.50/MWh and escalates at 1% per year over the term of the contract yielding a levelized cost of \$127.50/MWh. The agreement is a result of the 2010 Renewable RFP.
4. An amended and restated twenty-five year long-term firm portfolio energy credit and renewable power purchase agreement with Fotowatio Nevada Solar, LLC. The Fotowatio Nevada Solar project is a 20 MW AC solar PV facility contractually expected to produce 55,850 MWh and 56,828 kPCs annually. The first year contract price was lowered to \$128.50/MWh (from \$139.10 in the original agreement) and escalates at 1% per year over the term of the contract. The agreement was initially approved in Docket No. 09-08020.
5. An amendment to the previously approved twenty year long-term firm portfolio energy credit and renewable power purchase agreement with ORNI 15, LLC. The ORNI 15 (Jersey Valley) geothermal project is a geothermal facility, which, as amended, is expected to produce 104,775 MWh and 125,730 kPCs annually. The first year contract price is unchanged at \$64.00/MWh and escalates at 1% per year of the term of the contract. The agreement was initially approved in Docket No. 06-10021.
6. An amendment to the previously approved twenty year long-term firm portfolio energy credit and renewable power purchase agreement with Enel Stillwater. The Stillwater project is an existing geothermal facility, to which Enel will add 20 MW of solar PV. The combined geothermal/solar facility is expected to produce 192,700 MWh and 311,856 kPCs annually beginning 2012. In 2012, the contract price will be amended to \$69.00/MWh and a solar PC rate of \$ 29.00/kPC will be added (both escalate at 1% per year of the term of the contract)]. The agreement was initially approved in Docket No. 07-02015.
7. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and

Tonopah Solar Energy, LLC. The Tonopah Solar Energy plant, also known as the Crescent Dunes Solar Energy project is a solar thermal facility with storage, which is expected to produce 485,000 MWh and 528,619 kPCs annually. The first year contract price is unchanged at \$134.95/MWh and escalates at 1% per year of the term of the contract. The agreement was initially approved in Docket No. 10-02009.

8. A twenty year portfolio credit purchase agreement with CNLV Solar Power Generation Station 1, LLC for a contracted annual supply amount of 5,957 kPCs. The CNLV-Water Reclamation Facility project is a 1 MW concentrated solar PV facility net metered at the customer premises. The contract incorporates tiered pricing based on the percentage of target supply amount with full delivery priced at \$40.00/kPC and escalates at 1% per year over the term of the contract yielding a levelized price of \$42.90/kPC (assuming full deliveries). The agreement is the result of the 2010 PC-Only RFO.
9. A twenty year portfolio credit purchase agreement with SCGC Solar Power Generation Station 1, LLC for a contracted annual supply amount of 3,515 kPCs. The Shadow Creek Golf Course Facility project is a 0.58 MW concentrated solar PV facility net metered at the customer premises. The contract incorporates tiered pricing based on the percentage of target supply amount with full delivery priced at \$40.00/kPC and escalates at 1% per year over the term of the contract yielding a levelized price of \$42.90/kPC (assuming full deliveries). The agreement is the result of the 2010 PC-Only RFO.
10. A five year portfolio credit purchase agreement with Pecos Solar Power Generation Station 1, LLC for a contracted annual supply amount of 2,722 kPCs. The Amonix Pecos Facility project is a 0.46 MW concentrated solar PV facility net metered at the customer premises. The contract incorporates tiered pricing based on the percentage of target supply amount with full delivery priced at \$40.00/kPC and escalates at 1% per year over the term of the contract yielding a levelized price of \$40.74/kPC (assuming full deliveries). The agreement is the result of the 2010 PC-Only RFO.

B. NEVADA RENEWABLE PORTFOLIO STANDARD

In 2009, the RPS requirement specifying the percentage of retail energy sales that must be generated from renewable resources or energy efficiency measures increased from 9 percent for 2008 to 12 percent for years 2009 and 2010. Despite diligence in soliciting and contracting for renewable resources, in 2009, Nevada Power was unable to acquire sufficient additional PCs before the end of the year to keep pace with the increase in the RPS to 12 percent. The Companies' Portfolio Standard Annual Report (~~Annual Report~~) for compliance year 2009 (Docket No. 10-04002) outlined the significant increases of renewable

energy added to the portfolio since 2004. The Annual Report also identified those factors outside the Companies' control that hindered efforts to meet the 2009 RPS.

Notably, both Sierra and Nevada Power surpassed the 2009 RPS solar requirement with solar PCs accumulated by the end of the year. Recognizing the challenge of meeting the RPS going forward, and with the flexibility afforded by AB 387 (2009 Legislature), Nevada Power took steps to acquire additional supplies of renewable energy from wind, geothermal and small hydro sources in the western region on a short-term basis. Nevada Power has successfully obtained short-term renewable supplies to not only eliminate the deficit carried forward from 2009 but also to enable it to meet the 2010 RPS and to begin contemplating repayments to the pooling arrangement of PCs with Sierra. These efforts, together with the new projects being undertaken as a result of the renewable RFPs, have positioned Nevada Power to continue to achieve compliance in future years and to replenish to the pool the PCs borrowed from Sierra.

C. RENEWABLE ENERGY PLANNING

In determining its future PC needs, the Company must carefully consider several objectives:

- The Company must fully comply with an escalating RPS requirement;
- Given the high level of uncertainty about individual project success, it must determine how best to balance the risk of non-compliance due to signing up too few renewable purchases against the cost to customers of what may turn out to be over-procurement;
- It must recognize that the Company must over-procure PCs in order to assure its compliance in spite of significant uncertainties regarding contracted supplies coming to fruition, as well as to repay the 2.8 million kPCs it previously drew from the credit pool with Sierra and retired to meet its past compliance obligations;
- It must work to create and then maintain a credit "cushion" to allow for unexpected events, such as a sudden uptick in retail sales, a change in Nevada's renewable energy law and/or the unexpected loss of an existing renewable resource for any number of reasons, such as transmission outages, force majeure events or lack of renewable resource.

In order to properly contemplate these objectives to meet the statutory RPS requirement, the Company developed a revised renewable expansion plan based on Monte Carlo modeling to compare its projected RPS requirement against its projected credit supply. The analysis took into account the RPS requirements for the Companies together, as well as for each utility individually.

The annual RPS credit requirements were calculated using NRS §704.7821, which set forth the annual PC requirement for the Companies based on a percentage of total electricity sold by each utility to its retail customers during a calendar year. The 2010 Nevada Power ESP

base retail sales forecast and the 2010 Sierra ESP base retail sales forecast were used to model the future PC credit need calculations for satisfying the RPS.

The expected PC supply was determined starting with the current portfolio of approved projects (reduced by projects that have been terminated or are currently not operating)¹², both operating and under development. Several assumptions were built into the forecast in contemplation of contingencies that may or may not arise. First, the credit supply forecast assumed that any contracts expiring during the plan horizon would be renewed, and that there would be no material change in supply. Second, the plan also assumed that 25 percent of the annual credit requirement would be met from cost-effective energy efficiency and conservation measures, which is the maximum amount permitted under existing Nevada law. Finally, the plan assumed that the existing statutory and regulatory regime would not change during the plan's forecast period.

After developing the baseline forecast, the supply plan was then adjusted to include the three new long-term PPAs and the three new long-term PCPAs, plus energy and credits from all executed short-term purchase agreements. In aggregate, this sum represents the expected number of credits from all known sources. Added to this mix of known projects were several placeholder projects. The placeholders reflect additional needs not yet met through existing contracts for future years and supplement the known projects to ensure that both Companies would have enough PCs to meet their long-term credit needs throughout the thirty year planning horizon.

In order to mitigate the risk associated with delayed, downsized and cancelled projects, the expected supply amount for all projects in development or construction, as well as the new long-term power purchase agreements, were reduced. The first step in determining the amount of supply reduction was based on Monte Carlo analysis, which takes into account the best, worst and expected supply for each project, but does not account for total project cancellations¹³. The Monte Carlo software uses these parameters to create a beta-PERT probability distribution for each project based on the risk of delay or downsizing¹⁴. The

¹² The 45 currently approved projects, including amendments, less ORNI 20 (Grass Valley), Carson Lake Basin (Vulcan), Northern Nevada Correction Center, Sierra Pacific Industries, and Truckee Meadows Water Reclamation. These five contracts have either been terminated or relate to projects that currently are not operating.

¹³ The Company's Monte Carlo analysis is carried out through "Crystal Ball", a proprietary forecasting and risk analysis software application from Oracle. This software uses Monte Carlo simulation to predict the likelihood of a specific value occurring within a simulated distribution of possible outcomes; however, the Crystal Ball application does not allow for total project failure as a potential outcome in the software.

¹⁴ The Crystal Ball program used in the Monte Carlo analysis permits users to select a distribution type (normal, triangular, discrete, beta-PERT, etc.) based on the type of analysis and inputs available. Since there is limited actual data available for this renewable exercise, a "beta-PERT" distribution is used for forecasting because "beta-PERT" is best-suited when the user is able to define a minimum, maximum and most-likely value, but has limited data beyond these three values.

distributions were generated using 10,000 simulation runs. The expected renewable credit supply at P-80 (meaning there is only a twenty percent chance of the supply being lower) was then used to determine the renewable credit contribution for each project. Using this methodology, the Monte Carlo model predicted on average that contracts not yet under construction would deliver 71 percent of their contract supply. For projects under construction, the Monte Carlo model predicted on average that a supply amount of 85 percent (for landfill gas projects) and 97 percent (for geothermal projects) would be delivered. These results reflect higher levels of certainty due to the project status being already under construction.

Since the Monte Carlo analysis discussed above does not contemplate total project cancellation or failure, an additional adjustment was required. The Companies analyzed all projects since 2002 to determine the appropriate factor to apply to account for project cancellation or failure. The analysis looked at all of the post-2002 historical renewable energy amounts lost due to project cancellations to determine the appropriate reduction that could be applied across the portfolio. Both historical data and current information on the development status of projects show that development risks such as permitting and resource shortfalls can be severe and are likely to result in a significant amount of project attrition despite extensive efforts of highly motivated proponents. This portfolio-based approach enabled the Companies to treat all projects proposed and/or under development equally and apply the same reduction factor, thereby avoiding the need to determine which specific projects are likely to be cancelled. Based on this analysis, the cancellation reduction factor was calculated to be 47 percent and the projected energy/credit supply was reduced by such amount to reflect the cancellation risk. The final adjusted amounts, reflecting the Monte Carlo parameters (min, expected, max), the Monte Carlo forecasted supply, and the adjustment for project cancellations are summarized in Figure-13 below:

FIGURE-13

**ADJUSTED SUPPLY AMOUNT
REFLECTING MONTE CARLO AND CANCELLATION PROBABILITIES
PROJECTS UNDER CONSTRUCTION / DEVELOPMENT**

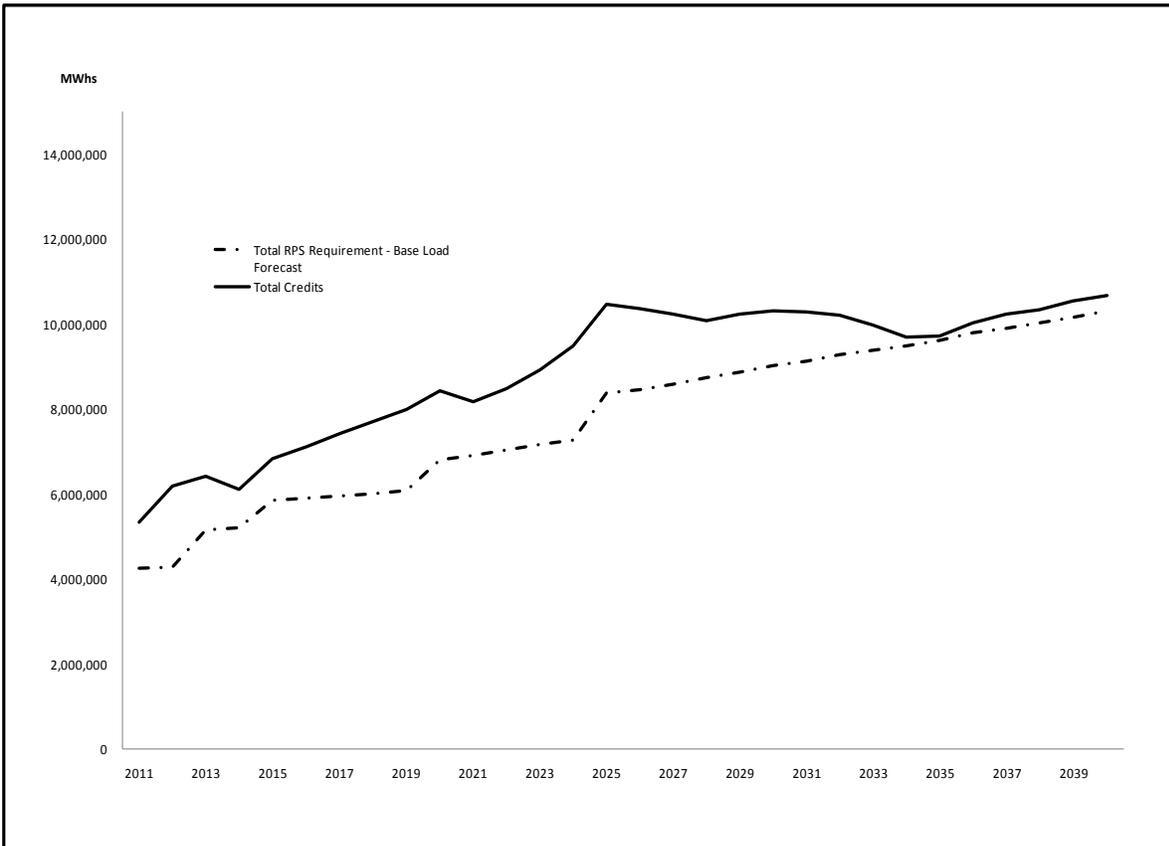
	Min	Exp kPCs ^a	Max	Monte Carlo		Post 2002	Expected	Adjusted/
				P-80 Supply ^b	^c	PPA Attrition ^d	kPC Supply ^e	Expected kPCs ^f
Jersey Valley 22.5 MW	113,157	125,730	132,017	121,534	97%	testing	121,534	97%
Carson Lake 15-16 MW	0	164,917	173,163	117,656	71%	47%	62,450	38%
McGinness Hills 51 MW	0	299,592	314,572	212,153	71%	47%	112,607	38%
Hot Sulphur Springs 2 25 MW	0	168,251	176,664	120,576	72%	47%	64,000	38%
Clayton Valley 53.5 MW	0	330,000	346,500	237,119	72%	47%	125,859	38%
Dixie Meadows 51 MW	0	315,010	330,761	225,325	72%	47%	119,599	38%
ACE Searchlight 17.5 MW	0	43,834	48,217	30,643	70%	47%	16,265	37%
Fotowatio Apex 20.0 MW	0	56,828	62,511	40,164	71%	47%	21,318	38%
Silver State Solar 50 MW	0	132,457	145,703	94,388	71%	47%	50,099	38%
Mountain View Solar PV 20 MW	0	53,897	59,287	38,212	71%	47%	20,282	38%
FRV Spectrum Solar PV 30 MW	0	75,016	82,518	53,180	71%	47%	28,227	38%
Tonpah Solar Energy CSP 110 MW	0	528,619	581,481	374,640	71%	47%	198,853	38%
Energenic/CC Apex Landfill 10.6 MW	36,050	72,100	75,705	61,426	85%	construction	61,426	85%
WMRE Lockwood 3.2 MW	12,877	25,754	27,042	21,962	85%	construction	21,962	85%
Spring Valley Wind 150 MW	0	315,000	346,500	221,729	70%	47%	117,690	37%
China Mountain 200 MW	0	585,460	614,733	415,325	71%	47%	220,447	38%
		<u>3,292,465</u>		<u>2,386,033</u>			<u>1,362,620</u>	

Notes:
a. Expected kPCs per the PPA
b. Expected number of kPCs, Monte Carlo, 80% certainty
c. Adjusted supply percentage (P-80 supply/expected or PPA supply)
d. Historical PPA attrition percentage based on lost energy, post 2002 contracts
e. Adjusted kPC supply amount
f. Adjusted Monte Carlo supply/attrition supply divided by expected kPCs per the PPA

The Company has utilized Monte Carlo analysis in the past for short-term energy supply forecasting. By incorporating Monte Carlo analysis into the development of its long-term renewable expansion plan, the Company expects that its models will more accurately reflect projected needs and supply. By using the Monte Carlo analysis and uniformly applying the cancellation reduction percentages to the long term portfolio, the Company believes that the expected amount of renewable energy and credits is more realistic in aggregate.

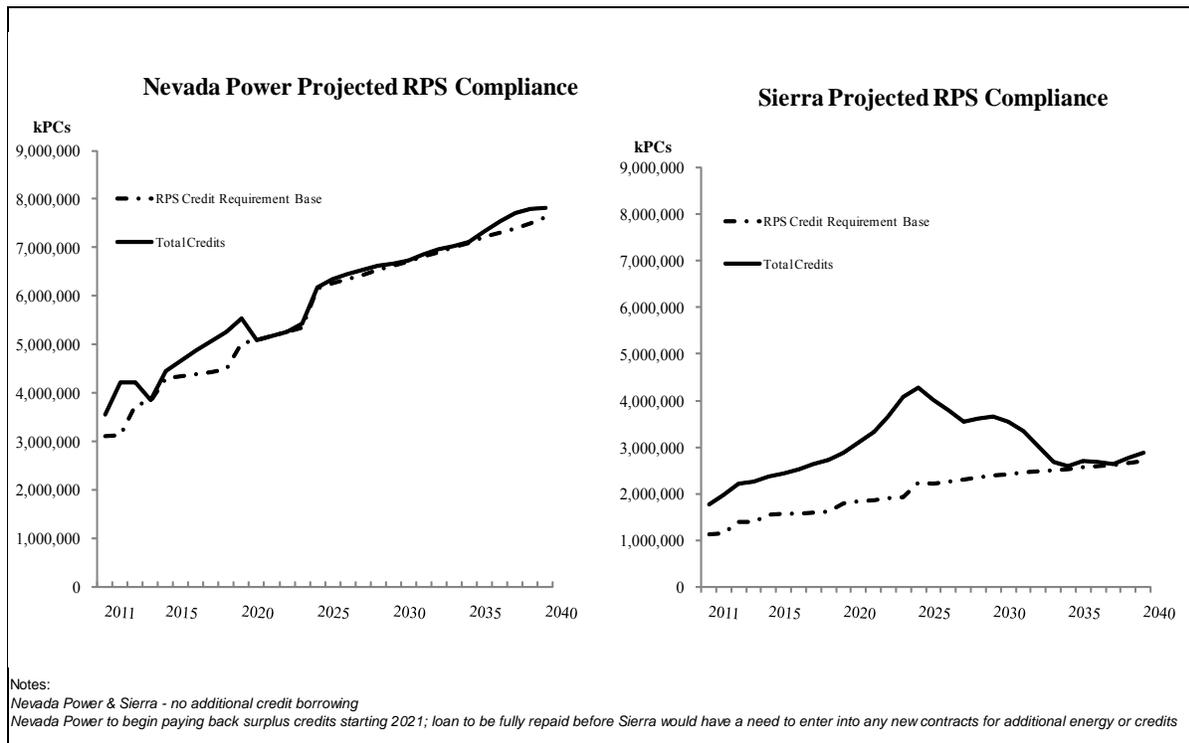
A graph showing the results of the analysis is shown in Figure-14 below:

FIGURE-14
MONTE CARLO RESULTS
PROJECTED 30 YEAR RPS COMPLIANCE
SIERRA & NEVADA POWER COMBINED



Based on the above analysis, the Companies are forecasting a near-term credit surplus. This credit surplus is due to the following: first, Nevada Power must generate a surplus in order to repay the 2.8 million kPCs borrowed from Sierra in years 2007 – 2009; second, without factoring in the repayment from Nevada Power, Sierra is expected to generate annual credit surpluses in the near term. However, if those surpluses do materialize, they can be used to satisfy Sierra's future needs as the surplus is carried forward into future years. This is better illustrated in Figure-15 below with the two charts which show the same supply/requirement data as above broken down by utility.

**FIGURE-15
PROJECTED RPS COMPLIANCE BY COMPANY**



The analysis indicates that although Nevada Power could be running a surplus in the near term, that surplus is needed to repay Sierra and to prevent the need for additional borrowing. It also indicates that should the projects perform better than currently contemplated, the primary consequence is that Nevada Power would repay the loan sooner, and that some of the future placeholder projects could be deferred, downsized, or eliminated.

Figure-16 below summarizes the projects that are included in the above thirty year renewable plan outlook. These projects are in addition to the renewable projects that are currently operating. The table also includes ten potential placeholder projects which could be needed in the post 2011 time frame.

**FIGURE-16
NEVADA POWER 2011-2040 RENEWABLE EXPANSION PLAN**

Project	Resource	PPA Type	PPA / Owner	Projected COD*	Adjusted Annual MWh **	Adjusted Annual kPcs **
Jersey Valley 22.5 MW	Geo	Energy/Credits	NPC	Q1 2011	101,632	121,534
Carson Lake Ormat 16 MW	Geo	Energy/Credits	NPC	Q1 2015	50,177	62,450
McGinness Hills 51 MW	Geo	Energy/Credits	NPC	Q1 2014	99,249	112,607
Hot Sulphur Springs 2 25 MW	Geo	Energy/Credits	NPC	Q3 2013	58,326	64,000
Clayton Valley 53.5 MW	Geo	Energy/Credits	NPC	Q4 2014	100,205	125,859
Dixie Meadows 51 MW	Geo	Energy/Credits	NPC	Q3 2014	99,838	119,599
ACE Searchlight 17.5 MW	Solar PV	Energy/Credits	NPC	Q1 2012	15,986	16,265
Fotowatio Apex 20.0 MW	Solar PV	Energy/Credits	NPC	Q1 2012	21,235	21,318
Next Light Silver State 50 MW	Solar PV	Energy/Credits	NPC	Q1 2012	46,351	50,099
Mountain View Solar PV 20 MW	Solar PV	Energy/Credits	NPC	Q3 2013	19,211	20,282
FRV Spectrum Solar PV 30 MW	Solar PV	Energy/Credits	NPC	Q4 2012	27,360	28,227
Tonopah Solar Energy 110 MW	Therm w/s	Energy/Credits	NPC	Q4 2014	184,393	198,853
Energenic/Republic Apex Landfill 10.6 MW	LFG	Energy/Credits	NPC	Q1 2012	50,130	61,426
WMRE Lockwood 3.2 MW	LFG	Energy/Credits	NPC	Q2 2012	20,862	21,962
Spring Valley Wind 150 MW	Wind	Energy/Credits	NPC	Q2 2012	116,550	117,690
China Mountain 200 MW	Wind	Energy/Credits	NPC	Q1 2015	212,956	220,447
Idaho Power April 2010 - April 2012	Short-Term	Energy/Credits	NPC	Q2 2010	275,000	275,000
PacifiCorp Feb. 15, 2011 - Dec. 31, 2012	Short-Term	Energy/Credits	NPC	Q1 2011	1,096,400	1,096,400
CNLV - Water Reclamation	Solar PV	Credit only	NPC	Q4 2012	n.a.	5,957
Shadow Creek Golf Course	Solar PV	Credit only	NPC	Q4 2012	n.a.	3,515
Amonix Pecos Facility	Solar PV	Credit only	NPC	Q4 2012	n.a.	2,722
Place Holder	tbd ***	tbd	NPC	Q4 2012	107,102	109,889
Place Holder	tbd	tbd	NPC	Q1 2015	148,919	198,559
Place Holder	tbd	tbd	NPC	Q1 2022	446,758	595,677
Place Holder	tbd	tbd	NPC	Q1 2023	170,294	170,294
Place Holder	tbd	tbd	NPC	Q1 2024	148,919	198,559
Place Holder	tbd	tbd	NPC	Q1 2025	148,919	198,559
Place Holder	tbd	tbd	NPC	Q1 2029	297,839	397,118
Place Holder	tbd	tbd	NPC	Q1 2035	297,839	397,118
Place Holder	tbd	tbd	SPPC	Q1 2036	297,839	397,118
Place Holder	tbd	tbd	SPPC	Q1 2039	148,919	198,559
					4,809,208	5,607,663
* Projected dates reflect most current COD estimate as of January 2011						
** Expected energy/credits per the Monte Carlo Analysis						
*** Place holders projects, the technology and/or type of contract selected would be determined based on the proposals submitted in future RFPs & RFOs						

The Company has also undertaken a review of all existing PPAs that had reported issues in their development process. For these projects, the Company approached each supplier to determine if the issue was likely to result in a change to the timing or supply in the initial PPA or required a total PPA termination. From these discussions, and in order to enable more accurate RPS planning, the Company negotiated terminations or amendments, as appropriate. This process has resulted in amendments to the ORNI 15 and Fotowatio Nevada Solar project contracts, which are submitted for approval as part of this filing. The Company also agreed to terminate PPAs with ORNI 20, LLC (Docket No. 07-07013) and Carson Lake Basin Project, LLC (Docket No. 07-07013) in exchange for forfeiture of development security by the counterparty. These steps will enable the Companies to more accurately plan for PC requirements in the Renewable Energy Expansion Plan and are reflected in the Loads and Resources Table submitted as part of this filing.

D. INTEGRATION OF INTERMITTENT RESOURCES

Prompted by the growing interest in the installation of utility-scale PV systems in southern Nevada, the Company requested Commission approval (Docket No. 10-02009) to conduct a refreshed study to examine the challenges associated with integrating these large solar systems into the electric grid. The primary objective of the proposed study is to better understand whether the variability and uncertainty with the level of MW output from PV facilities (mainly associated with fast moving clouds) could potentially strain the ability of the Company's existing generating units to respond to the rapid changes in output from solar PV resources. The information to be gathered in the study is also necessary in order to meet the Companies' obligations under the North American Electric Reliability Council ("NERC") performance standards (to ensure frequency is within prescribed limits on the electric system within the Companies control or balancing area).

Although individual PV projects must submit an interconnection request to the Companies' Transmission Planning group and undergo studies governed by FERC, these studies do not address intermittency impacts from the PV projects on the Companies' transmission grid and overall energy supply system, including its other non-renewable and renewable power generation resources. The goal of the interconnection studies is to analyze the impact from the project on the local transmission system as well as transmission upgrades that will be required at the point of interconnection to accommodate a new project.

With the expectation that additional PV projects will come online in the near future, the Company's Balancing Operations established a limit on the amount of intermittent solar PV generation that could be connected to the Las Vegas grid. This value, 200 MW in total, with no more than 50 MW in any single geographic location, was determined as a collective approximation among the Companies' Operations and Planning staffs. It considered the balancing performance of the Nevada Power Balancing Authority and the magnitude of its Control Performance Standard #2 tolerance threshold. This limit is approximately four times

the Balancing Authority's tolerance threshold value, and is felt to be a limit that strikes a balance between mitigating potential control performance problems while allowing a reasonable amount of PV integration to be undertaken. This PV limit is a temporary value that will be observed until results of the large-scale PV integration study is completed. The results of this study will either validate the 200 MW limit or modify it.

Upon Commission approval of the proposed study, a technical team comprised of Sandia National Labs (SNL), Navigant Consulting, Inc. (Navigant) and experts within the Companies was formed. SNL, funded by the Department of Energy (DOE), was immediately tasked with developing a one-year, weather-consistent, high-resolution (one-minute) data set that would represent solar deployment scenarios in the Las Vegas Valley area. This data set includes historical output data from the six Las Vegas Valley Water District's solar PV projects and the Nellis Air Force Base solar project, historical hourly irradiance and temperature data from the two National Solar Radiation Data Base weather stations in Las Vegas, and historical hourly irradiance estimates from satellite data.

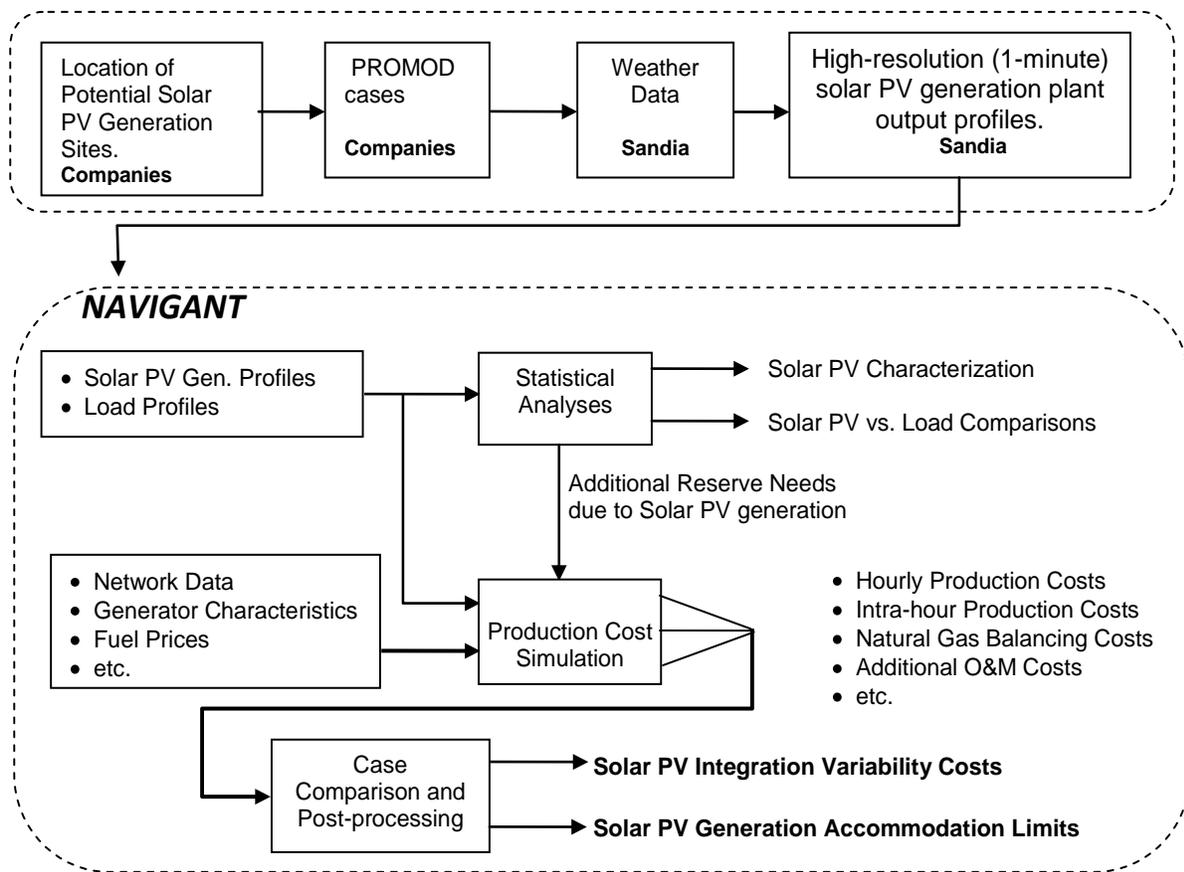
The Companies provided minute-by-minute southern control area loads and resources. They have also provided specific data intended for PROMOD runs that include:

- Unit commitment, economic dispatch and reserve requirements for selected pre- and post-PV integration scenarios;
- Ramp rate, minimum and maximum unit output levels, heat rate, fixed and variable cost, and operating restrictions for units in the southern balancing area;
- Transmission upgrades and timing (only includes those which may impact North-South generation commitment and dispatch schedules);
- Gas price forecasts; and
- Load forecast, generation additions (non-PV) and net interchange, including projected changes over the study timeframe.

While not yet complete, the study has progressed to the stage in which Navigant will begin sub-hourly statistical analysis and employing software simulations using PROMOD. These simulations are intended to evaluate the cost impact of revised unit commitment schedules and economic dispatch caused by intermittent PV output. Navigant will conduct a series of simulation and/or statistical analyses to assess integration costs and determine the limiting factors regarding the amount of solar PV capacity that can be integrated. In particular, Navigant will determine how increasing levels of PV output will affect the Company's ability to comply with NERC performance standards, including the level at which increasing penetration causes compliance violations. In addition, they will identify a level of PV that can be integrated on Nevada Power's system without causing unreasonable or unrealistic increases in the cost of generation or without compromising the reliability of service to the Companies' customers, which will then be used to determine if any changes are required to the 200 MW limitation.

The results from this study are expected July 1, 2011. These results will be vital to the Company’s future analysis of how intermittent PV resources can be accurately calculated and incorporated into the Company’s planning methodology. In turn, this will help to determine the appropriate amount of intermittent PV resources that can be safely relied upon for capacity and, in the case of net metering systems, how much distributed generation systems reduce the Company’s expected load. Ultimately, the study results will provide key tools to enable accurate planning for the Company’s future Loads and Resources. Figure-17 is a process flowchart for the solar PV integration study currently underway.

FIGURE-17
SOLAR PV INTEGRATION STUDY PROCESS FLOWCHART



E. RENEWABLE ENERGY RFP AND RFO

On February 17, 2010, the Companies released the 2010 Renewable RFP. Press releases, together with email notifications, linked interested parties to the RFP website where they could become familiar with the evaluation procedures and criteria, download pertinent documents and review submittal requirements and timelines. As with previous RFPs, the Companies held a bidder's conference offering potential respondents to attend in person or via webinar. The webinar connection allowed bidders to both see the PowerPoint presentation and be an active participant in the question and answer session. Approximately 160 attendees participated in the conference. The renewable RFP invited proposals for five types of arrangements: power purchase agreements, joint ventures, turnkey projects, sale of development assets, and offers to sell or lease the renewable resource. [REDACTED] bids were received on April 16, 2010, [REDACTED] of which were deemed non-compliant. Of the non-solar bids received, the proposals included [REDACTED] biomass, [REDACTED] geothermal and [REDACTED] wind projects, totaling [REDACTED] MW and [REDACTED] GWh. Of the solar bids received, the proposals included [REDACTED] solar PV and [REDACTED] solar thermal ([REDACTED] with storage), totaling [REDACTED] MW and [REDACTED] GWh. Additionally, [REDACTED] bids from previous RFPs were carried forward into the 2010 evaluation process: [REDACTED] geothermal project, [REDACTED] wind projects, [REDACTED] solar PV, and [REDACTED] solar thermal projects, including [REDACTED] with storage.

The objective of the Companies' evaluation process is to select suppliers that can provide viable and cost-competitive renewable energy projects that are most likely to proceed successfully through implementation and provide renewable credits and energy at the lowest reasonable cost. Proposals must include sufficient technical information regarding their generating facility that supports their bid. In addition, they must present site characteristics, demonstrate proof of site control, provide a complete and thorough plan for environmental compliance and land permitting, transmission interconnection information, document resource and generation equipment supply, the facility operation and maintenance plan, and demonstrate a viable project development schedule.

All projects considered compliant were evaluated and ranked both internally and externally, through Black & Veatch ("B&V"), a leading engineering and consulting in the energy field, using a wide range of evaluation criteria. This independent ranking process is designed to identify and advance the best projects to the 2nd Stage List. The Companies' internal review team independently evaluated projects with regard to their subject matter expertise. Coincident with the inter-department review, compliant proposals were scored and ranked by members of the Renewable department using standardized categories and criteria to quantify a project's strengths and weaknesses in key areas of renewable development. The project's score is only indicative of a project's likelihood to achieve commercial operation as proposed; this score was used as a screening tool in conjunction with bid pricing and evaluations and comments received from the inter-department reviews.

B&V also completed an independent comprehensive analysis of the bids. B&V's evaluation included an evaluation of each project's technical feasibility, the proposed resource supply, and the respondent's qualifications and experience. Each proposal received a quantitative score based on predetermined criteria and then the scores were weighted according to relative

importance in three categories: Company, Technology, and Readiness. B&V then compares the Technical Score against the proposed Levelized Cost of Energy. Bids that have a better than average technical score and lower than average Levelized Cost of Energy are generally recommended by B&V to advance to the 2nd Stage List.

After a thorough examination of B&V's recommendations and taking into account all inter-department and Renewable team comments and assessments, and after clarifying any outstanding questions with respondents that could impact their advancement, [REDACTED] projects from the 2010 RFP and [REDACTED] projects carried over from previous RFP's were advanced to the 2nd Stage List. Once projects were identified, respondents were sent letters notifying them if their project had advanced to the 2nd Stage List or if their project was no longer under consideration in the current RFP process.

Projects that advanced to the 2nd Stage were subjected to a more intensive and increasingly detailed review. Technology-specific industry experts were engaged to analyze the 2nd Stage proposals with a focus on the capacity and quality of the renewable resource. B&V evaluated the solar projects and provided recommendations with regard to the solar resource and proposed supply tables. Garrad Hassan, the world's largest independent renewable energy consultancy and recognized authority on wind, assessed the wind proposals' wind data and provided a recommendation regarding efficacy of that data and likely capacity factors projects could be expected to achieve. GeothermEx, the largest comprehensive geothermal consulting services firm in the Western Hemisphere, assessed the geothermal projects' geothermal resource data and provided recommendations regarding potential commercial success of geothermal resource exploration and the likely size of the geothermal project that the identified resource could support. Concurrent with the proposals being analyzed by third-party experts, the 2nd Stage respondents were invited to present their projects to the Companies in person. After gaining further insight into project specifics, additional meetings were held internally with Major Projects, Transmission Planning, Resource Planning and Environmental to further refine total project costs (including interconnection costs) as well as schedule and permitting issues.

Following a thorough assessment of all of the analyses performed, discussing potential project specific issues that could have an impact on the project's proposed timeline, and final bid prices, the Companies developed a preliminary list of potential projects that may advance to negotiations. In previous years, the 2nd Stage analysis included a comprehensive review by outside legal counsel of the redline markup of the pro forma PPA submitted by the 2nd Stage respondents. In the 2010 RFP however; in response to the Commissions guidance (Docket No. 10-02009) regarding the confidentiality of pricing and commercial terms in PPAs, the Companies developed a revised pro forma PPA which was standardized to minimize the need for changes. This final pro forma PPA reflected several months of internal discussions and vetting to finalize an agreement that the Companies believe strikes a balance between the needs of the renewable community, is financeable (based on lessons learned from past negotiations), and provides value and protection to our customers. The revised pro forma PPA was subsequently sent to the preliminary list of respondents who were considered most viable and competitive for finalization of a PPA.

Based on the RFP review and analysis, six projects were identified and notified as preferred candidates and negotiation schedules were established. Successful negotiations resulted in three new executed projects being brought before the Commission for approval: one geothermal project and two PV projects.

Also in 2010, the Companies developed and released their first PC-only RFO, which sought bids for PCs without energy. The Companies engaged B&V to assist with developing and administering the RFO. Together with the Companies, B&V assisted in developing PC bid protocol and relevant documents and provided technical support throughout the RFO process from addressing bidder's questions to evaluating bids. B&V researched relevant issues for the Nevada PC-Only RFO to assure that the RFO would comply with Nevada statutes, Nevada Tracks Renewable Energy Credits ("NVTREC"), PC Administrator requirements, and Western Renewable Energy Generation Information System ("WREGIS") Certification rules. B&V also researched best practices from other states as they were applicable to the RFO and the Nevada RPS.

Based on this extensive review, a bulleted list of key items necessary for the development of the PC only protocol was developed. Each item was discussed as to its relevance and level of importance, items that were considered included:

- Eligible technologies;
- Documentation, registration, certification criteria for PCs;
- Minimum and maximum size of facility generating PCs and bid amounts;
- Acceptable location of facilities generating PCs;
- Ability of PC providers to aggregate credits from multiple projects;
- Site control or lease agreements;
- Deposit requirements for RFP submission and project development;
- PC delivery terms and conditions;
- Impact of policy changes for PC only contracts;
- Pricing structure;
- Performance requirements and penalties;
- Contract lengths;
- Proof of financial security; and,
- Off-taker agreement requirements

As a result of this process, new RFO documents were developed and released on July 29, 2010. Similar to the RFP process, the Companies developed an RFO website that included an electronic intent to bid form, summary information about the RFO process, tentative RFO schedule and numerous links to the important documents relevant to the RFO process and bidders submittals. The Companies also developed a press release and launched a mass email distribution inviting bidders to participate.

Several of the key features incorporated in the new RFO were:

- All payments would be based on renewable PCs certified by the Public Utilities Commission of Nevada administrator through NVTREC and after transfer to NV Energy;
- Respondents would base their offers on a standardized purchase contract with minimal opportunity for changes;
- Eligible resources would be required to be operational or have a commercial operation date no later than July 31, 2013 and generate NVTREC certified PCs at such time;
- Agreement term length is flexible from five to 25 years; and
- Minimum bid size was 450 kilowatts for a single site or multiple sites could be aggregated with no less than 150 kilowatts at each site.

On September 22, 2010 the Companies received [REDACTED] proposals to the new RFO, including [REDACTED] biomass, [REDACTED] geothermal, [REDACTED] wind, and [REDACTED] PV bids, totaling [REDACTED] MW and [REDACTED] kPCs per year.

After determining all bids were compliant with the bid submission requirements, the proposals were sent to B&V for a thorough evaluation. Using guidance from the Companies and past renewable energy project evaluations, B&V developed a detailed evaluation methodology including scoring guidelines and weighted criteria. B&V used this methodology to assess each proposal's technical and commercial merits. These criteria were grouped into three categories: Company, Project Technology, and Readiness. These categories were composed of multiple criteria that were scored to quantify each bid's comparative strength. For each technology, each criterion was assigned an importance from high to low, which was then applied to the criteria scores to develop an overall technical score for each proposal. In addition, a levelized cost per kPC was calculated from the pricing parameters in each proposal. This overall approach is similar to that taken by B&V for past renewable energy RFPs, with modifications made appropriate to the PC-Only RFO.

From these initial RFO submissions, several of the proposals had open diligence items, which are still being analyzed, primarily relating to the ownership of the PCs generated. Based on the most viable and cost-competitive proposals, the Companies negotiated more favorable pricing from those suppliers that did not have diligence items outstanding. This subset of competitive proposals was approached for negotiation of a final PCPA. This resulted in finalization of three PCPAs for concentrated solar PV facilities located in Nevada Power's service area.

In total, as a result of the evaluation process for the RFP and the RFO and the subsequent negotiations, Nevada Power is presenting in this amendment filing three long-term PPAs and three long-term PCPAs that have been executed.

VI. THREE NEW RENEWABLE PPAS

The company seeks a determination that the terms of the following ppas are just and reasonable within the meaning of nrs 704.7821:

1. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and ORNI 32, LLC, dated February 11, 2011;
2. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and FRV Spectrum Solar, LLC, dated February 11, 2011;
3. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and Mountain View Solar, LLC, dated February 11, 2011.

Nevada Power also requests that the Commission’s order reflect the statutory consequence of such a finding; namely, that the contract and its terms shall be deemed to be a prudent investment and the utility provider may recover all just and reasonable costs associated with the contract pursuant to NRS 704.7821(2)(c)(2). Figure-18 summarizes the new contracts completed and filed for Commission approval in this filing.

**FIGURE-18
NEW CONTRACTS**

Counterparty	Name of Project	Renewable Energy Type	Offer Size	Contract COD
ORNI 32, LLC	Dixie Meadows Geothermal Project No. 1	Geothermal	51 MW	Q3 14
FRV Spectrum Solar, LLC	FRV Spectrum Solar	Solar PV	30 MW	Q4 12
Mountain View Solar, LLC	Mountain View Solar	Solar PV	20 MW	Q3 13

A. ORNI 32, LLC

Ormat Nevada, Inc. (“Ormat”) is currently developing the Dixie Meadows Geothermal Project No. 1 (“Dixie Meadows”) located in Churchill County, Nevada in the southern Dixie Valley. Ormat is the world leader in geothermal development and has supplied, developed, constructed or rehabilitated over 1,300 MW of geothermal and recovered energy power plants in 24 countries, primarily the USA.

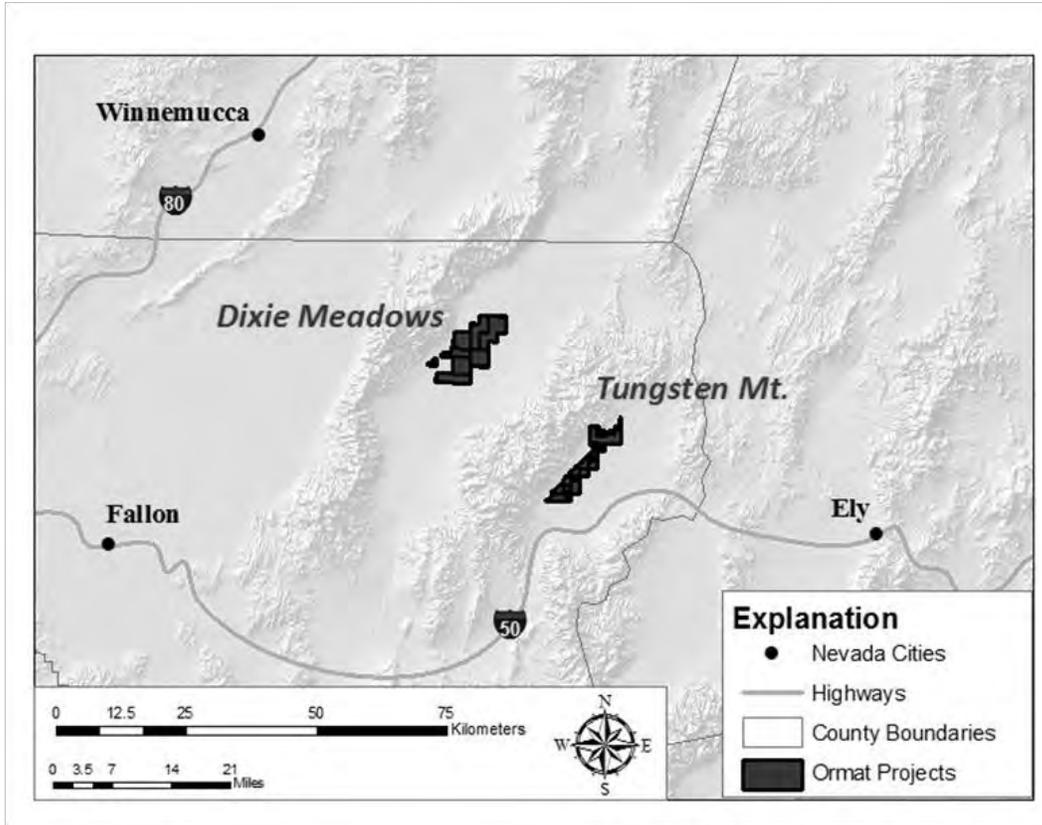
The seller under this power purchase agreement, ORNI 32, LLC, will be a special purpose Delaware Limited liability Corporation, which will be a wholly owned subsidiary of Ormat Nevada, Inc, a member of the Ormat Group and a subsidiary of Ormat Technologies, Inc. Ormat Nevada, Inc., will conduct all development, financing, and plant operations.

The Dixie Meadows plant configuration is a binary geothermal power plant that uses a hot geothermal fluid, brine, as its heat source. The brine originates from production wells that flow through the Ormat Energy Converter (“OEC”). This heat is then used to generate power. The OEC units use the Organic Rankine Cycle, where the heat source is a geothermal fluid, and the motive fluid is pentane. The project will use innovative cooling technologies in the condensers, utilizing both air and water evaporation. These combined technologies will take advantage of the low bulb temperature typical for this area during the winter and the low relative humidity typical in this area during the summer. Altogether, the application of this cooling method will increase generation during peak summer time compared to traditional cooling.

The Dixie Meadows project is located approximately 15 miles south of the 66 MW Dixie Valley Geothermal Plant (“DVGP”) and 50 miles to the northeast of Fallon along US Highway 50 and State Route 121. Over 200 wells have been drilled in Dixie Valley, defining the extent of the geothermal anomaly for many miles south of the DVGP to the Dixie Meadows area. Temperatures in excess of 380°F were measured in a nearby deep exploration well, outside of the primary drilling target area, which is encouraging for the presence of high temperature geothermal fluid at shallower depths within Ormat’s existing leaseblock. Dixie Meadows is defined as an area of environmental assessment for future proposed drilling activities. Significant environmental work has been performed by the Bureau of Land Management (“BLM”) in the past three years in order to release thousands of acres of lands for public auction. Additional environmental work will be needed in order to receive BLM permits required for new well sites. Dixie Meadows has been previously disturbed by ranching activities and geothermal exploration has been performed in the valley for years which will both aid the BLM in permitting activities moving forward. As such, Dixie Meadows is expected to comply with applicable laws and regulations. Ormat filed its initial request for interconnection in April 2010 and Sierra is currently completing its review of the final interconnection requirements.

The project has a nameplate capacity of 51 MW. It is expected to generate 262,508 MWh and provide 315,010 kPCs annually. A copy of the PPA can be found in Technical Appendix NPPA – 2. Figure-19 shows a map of the project site.

**FIGURE-19
DIXIE MEADOWS SITE**



To aid the Commission in its evaluation of Dixie Meadows, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For Dixie Meadows, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$98.66/MWh; a cost comparison to the projects reviewed in the 2010 RFP is shown in Technical Appendix NPPA - 1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the RPS. The increases in the portfolio requirements require the Company to continually add new resources to meet the RPS. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The process that will be utilized by this project under normal operation produces near zero air emissions and has the lowest environmental impact of any geothermal technology. When compared to a modern gas-fired combined cycle unit, the emissions avoided are as shown in Figure -20.

**FIGURE-20
 AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Dixie Meadows	0.31	2.01	1.24	3.32	69.51

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project includes:

- (1) A temporary increase in workforce during the drilling and construction phases of the facility of an estimated 100-150 positions;
- (2) A permanent long-term increase in the workforce for the operation and maintenance of the facility of an estimated 12 full-time positions at an estimated total average salary of \$70,000 annual salary with benefits and overtime per employee, and a total payroll of \$16.8 million over 20 years; and,
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-20.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the project provides an increase in property tax in Churchill County, Nevada and sales taxes from purchases of local goods. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Commission approval of the PPA will increase the diversity of energy sources being used to generate electricity that is consumed in Nevada. The Company's portfolio of renewable energy will increase with a commensurate decrease in the Company's reliance on fossil fuel based generation.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

Through its affiliated companies, Ormat owns and operates a number of projects in Nevada. Ormat maintains a permanent corporate office in Reno, Nevada. This PPA will not lead to an increase in the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project's contractual commercial operation date is estimated to be September 2014. The actual date is dependent upon the final Commission Order date.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated by the facility. The Company does have the ability to dispatch the expected output of the facility down to zero as long as it makes the developer whole for the energy that would have been produced.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

The feasibility study for this facility has been completed. This study is preliminary in scope but did not identify any negative impacts on Sierra's transmission grid that could not be mitigated by the transmission systems additions proposed in the study. However, the system impact study, facilities

study and large generator interconnection agreement have not been completed. The geothermal projects generate electricity just like conventional synchronous electrical generation which in most cases provides benefits to the transmission grid by providing voltage support at the point of interconnection.

NAC §704.8887(2)(1) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are competitive to projects reviewed in the 2010 Renewable RFP. See a comparison of the 2010 RFP bids in Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the PPA is 20 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is in Churchill County, Nevada.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The electrical generation process will utilize geothermal energy as fuel, with the conversion to electrical energy accomplished by means of a dedicated Ormat modular geothermal power plant.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project will generate firm, base-load energy from this facility which will be delivered into the Companies' grid.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The feasibility study for the generating facility contemplated the delivery point as a new interconnection to the 230 kV Fort Churchill to Gonder transmission line. On February 10, 2011, at the request of the interconnect

customer, the delivery point was moved to Bannock 120 kV substation. The interconnection studies for the new delivery point have not been completed. A one-line diagram depicting the original contemplated interconnection can be found in Exhibit 5 of Technical Appendix –NPPA - 2.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The characteristics of the project will be similar to that of ORNI 14, Galena 3 Geothermal project. The plant design is proven technology and has been used worldwide and in Nevada.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the PPA.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The energy from the facility is contingent upon the availability of the unit. If the unit is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. ORNI 32, LLC is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All the energy from the generating facility would be delivered directly into Sierra's electric grid after consumption of station service load requirements for the plant. It would be considered a network resource within the Company's system and output will be scheduled to the Company's native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

Transmission Planning has completed the feasibility study for this project. However, because the delivery point was moved on February 10, 2011 to Bannock Substation the feasibility study is no longer valid. The feasibility study had indicated that the Dixie Meadows project could be tied directly to Sierra's transmission system by installing a new three breaker substation on the 230 kV Fort Churchill to Gonder transmission line. The preliminary and non binding cost estimates included in the feasibility study are \$ [REDACTED] for Network Upgrades, \$ [REDACTED] for Distribution Upgrades and \$ [REDACTED] for Transmission Providers Interconnection Facilities. Transmission Planning is

currently evaluating the Bannock interconnection alternative which has the potential to provide a lower cost interconnection. This analysis has not been completed and the results are not available at this time. The system impact study, facilities study and large generator interconnection agreement have not been completed for this project.

NAC §704.8885(2)(m) addresses project insurance.

The PPA requires the supplier to provide workers compensation insurance of not less than \$1 million per occurrence, excess liability of not less than \$5 million annual aggregate, and automobile liability insurance of at least \$2 million aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, ORNI 32, LLC is obligated to compensate Nevada Power for lost PCs and lost energy, based upon the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from Dixie Meadows, the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The ORNI 32, LLC generating facility uses geothermal heat energy to generate electricity and transmits that energy directly to the Companies at a facility owned, operated and controlled by Sierra. Therefore, the generating facility comports with NRS §704.7815 (l)(a) and 704.7815 (l)(b)(l).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

The seller under this PPA, ORNI 32, LLC, will be a special purpose Delaware Limited Liability Corporation, which will be a wholly owned subsidiary of Ormat, a member of the Ormat Group and a subsidiary of Ormat Technologies, Inc. Ormat will conduct all development, financing, and plant operations. Ormat has supplied, developed, constructed or rehabilitated approximately 1,000 MW of geothermal plants in 18 countries, including the USA. Ormat's role in the geothermal industry has included well field and plant development utilizing a number of power conversion technologies including binary, flash steam, and steam-binary combined cycle.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

Based on the feasibility study, the interconnection is expected to be at a new three breaker substation on the 230 kV Fort Churchill to Gonder transmission line. However, Transmission Planning is reviewing other more economical alternatives to lower voltage lines.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending FERC interconnection priorities. Pursuant to the provisions of Sierra's and the Company's FERC approved OATT, interconnection priority of a generator is determined based on the date the requesting customer submits a valid interconnection request.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

Ormat has not submitted a transmission service request. The Company anticipates submitting a request to designate the project as a network resource in accordance with the provisions of the approved OATT. This will allow Ormat to use the Company's network integration transmission service to deliver the output from the renewable resource to its native load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Ormat launched the permitting process with the BLM and has selected its environmental consultant to navigate the process. Ormat does not expect to find any significant environmental obstacles to developing the project.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Permits necessary for the construction and operation of Dixie Meadows can be found in Exhibit 11 in Technical Appendix –NPPA - 2.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

Ormat must secure the following permits from the BLM related to Dixie Meadows:

- (1) Operation Plan;
- (2) Utilization Plan;
- (3) EA for well drilling;
- (4) ROW Grant;
- (5) NEPA compliance;
- (6) Geothermal Drilling Permit; and
- (7) Facility Construction Permit.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Ormat is in the process of obtaining all of the necessary property rights, and has already acquired a significant lease position, including a project area that consists of 3,480 acres of federal leases.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The Company does have economic dispatch rights and can curtail 100 percent of the expected output, provided that Nevada Power makes ORNI 32, LLC whole for lost revenues.

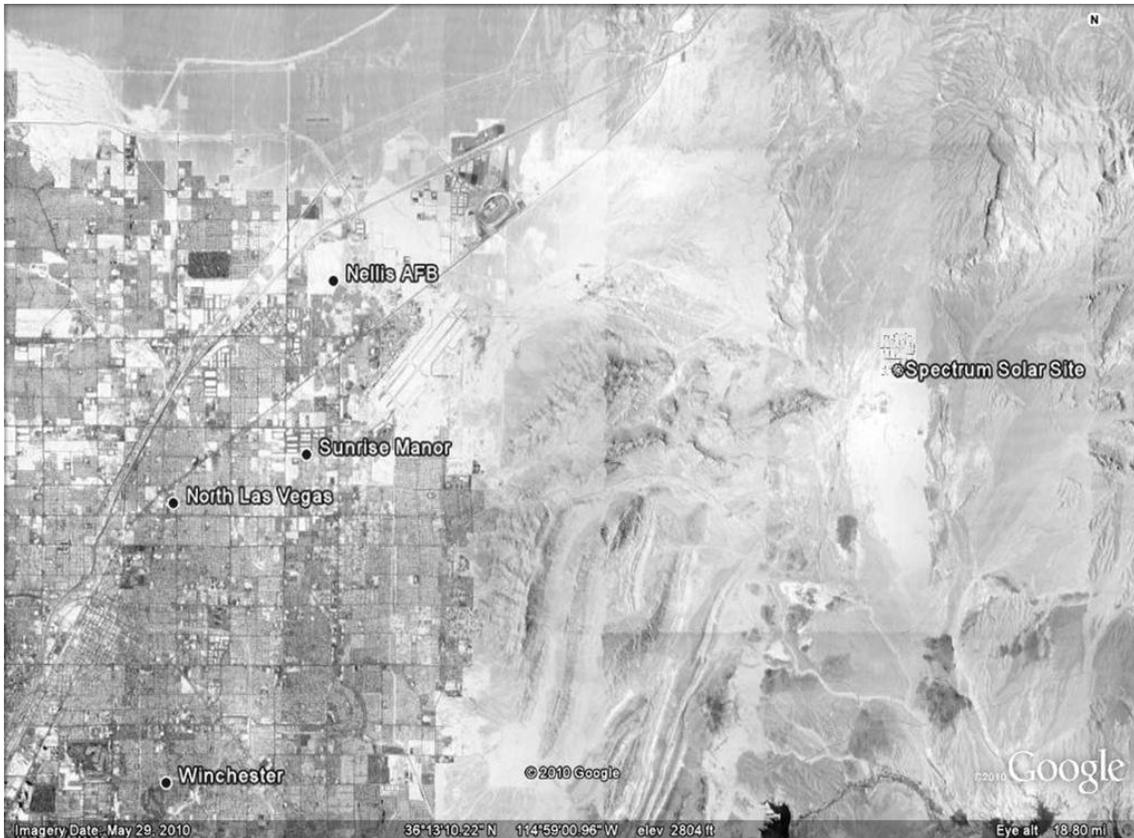
B. FRV SPECTRUM SOLAR, LLC

Fotowatio Renewable Ventures (“FRV”) Inc. is a solar independent power producer (“IPP”) that develops, finances, owns and operates solar energy systems in the USA and Europe. FRV’s origin came from the combination of two IPPs, Fotowatio S.L. and Renewable Ventures. Based in Spain, Fotowatio was formed in 2006, with equity participation by Qualitas Venture Capital. In 2008, Fotowatio completed a capital round in which General Electric invested \$235 million to become a 32% owner. In April of 2009, Fotowatio acquired the US firm Renewable Ventures, forming the company FRV. Prior to this acquisition of Renewable Ventures, Fotowatio had placed into service 95 MW of PV, including several utility scale systems.

Today, FRV owns and operates over 133 MW of solar PV systems (35 distinct projects) for utilities, government agencies, and large corporations in the USA and Europe, with 1,000 MW of PV and concentrated solar power (“CSP”) projects in development. FRV’s track record of developing, financing, owning, and operating solar systems places the company at the forefront of the solar industry.

FRV is currently developing the FRV Spectrum Solar (–Spectrum Solar”) facility, a 30 MW AC ground-mounted horizontal tracking PV system. FRV has a fully executed long-term lease agreement for approximately 311 acres of private land in Clark County, Nevada. FRV feels this site is an ideal location for a solar PV facility of this magnitude since the property is currently zoned for heavy industrial uses, it is located close to load, it is not a highly visible or heavily trafficked site, and it is not in the Air Force flight path. The project will utilize proven technology, and FRV expects this system to generate approximately 73,907 MWh and provide 75,016 kPCs annually. A copy of the PPA can be found in Technical Appendix NPPA – 3. Figure-21 shows a map of the project site.

FIGURE-21
FRV SPECTRUM SOLAR SITE



To aid the Commission in its evaluation of the Spectrum Solar project, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For Spectrum Solar, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$132.11/MWh; a cost comparison to the projects reviewed in the 2010 RFP is shown in Technical Appendix NPPA - 1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the RPS. The increases in the portfolio requirements require the Company to continually add new resources to meet the RPS. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The technology that the FRV Spectrum Solar PV project utilizes creates zero air emissions. When compared to a modem gas-fired combined cycle unit, the emissions avoided are as shown in Figure-22.

**FIGURE-22
AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
FRV Spectrum	0.08	0.55	0.34	0.91	19.05

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project includes:

- (1) A temporary increase in workforce during the construction of the facility of an estimated 300 positions, for which median annual salaries are about \$52,000 each;
- (2) A permanent long-term increase in the workforce for the operation and maintenance of the facility at an estimated one to two full-time positions at an estimated total annual salary of \$64,000 in annual payroll and benefits; and,
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-22.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the project provides an increase in property tax in Clark County, Nevada and sales taxes from purchases of local goods. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Commission approval of the PPA will increase the diversity of energy sources being used to generate electricity that is consumed in Nevada. The Company's portfolio of renewable energy will increase with a commensurate decrease in the Company's reliance on fossil fuel based generation.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

This is the second project being developed by Fotowatio in Nevada and will be their third solar PV project in Nevada (with one acquired after development was completed). This PPA will not lead to an increase in the number of energy suppliers generating or selling electricity in this State..

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project's contractual commercial operation date is estimated to be December 2012. The contractual commercial operation date is dependent on the PUCN Order date approving the PPA.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated by the facility. The Company does have the ability to dispatch the expected output of facility down to zero as long as it makes the developer whole for the energy that would have been produced.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

The facilities study for this project has been completed. Based on the findings in the study, this project will not impose negative impacts on the Company's transmission grid. The project will be connected to the 69 kV bus which is located on the end of the long radial 69 kV line. Based on its interconnection location this project will provide additional redundancy at the point of interconnection.

NAC §704.8887(2)(1) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are competitive to prices reviewed in the 2010 Renewable RFP. See a comparison of the 2010 RFP bids in Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the PPA is 25 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is in Clark County, Nevada approximately ten miles due east of Las Vegas.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The project utilizes irradiance from the sun gathered by solar panels. No water will be consumed during operation of the project, other than occasional cleaning of the panels.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project will generate non-firm energy that will be delivered into the utility's grid, which will be delivered through firm transmission pursuant to designation of the facility as a network resource.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The generating facility will be interconnected to the Pabco substation via a 69 kV line. A one-line diagram depicting the interconnection can be found in Exhibit 5 of Technical Appendix –NPPA - 3.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The characteristics of the project will be similar to that of the Nellis Air Force Base solar PV project. The plant design is proven technology and has been used worldwide and in Nevada.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the PPA.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The energy from the facility is contingent upon the availability of the unit. If the unit is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. FRV Spectrum Solar, LLC is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All the energy from the generating facility would be delivered directly into the Company's electric grid after consumption of station service load requirements for the plant. It would be considered a network resource within the Company's system and output will be scheduled to the Company's native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

The system impact study for this facility has been completed. Based on the findings of the analyses there are no negative impacts that will be imposed on the Company's transmission grid from this project. The facilities study for this project indicates the estimated Network Upgrade cost is \$██████████.

NAC §704.8885(2)(m) addresses project insurance.

The PPA requires the supplier to provide workers compensation insurance of not less than \$1 million per occurrence, excess liability of not less than \$5 million annual aggregate, and automobile liability insurance of at least \$2 million aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, FRV Spectrum Solar, LLC is obligated to compensate Nevada Power for lost PCs and lost energy, based on the difference

in price between the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from the project, the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The generating facility uses renewable solar energy to generate electricity and transmits that energy directly to the Company at a facility owned, operated and controlled by the Company. Therefore, the generating facility comports with NRS §704.7815 (l)(a) and 704.7815 (l)(b)(l).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

The seller under this PPA, FRV Spectrum Solar, LLC, is a single purpose wholly-owned subsidiary of Fotowatio Renewable Ventures, Inc, organized to develop, construct and operate the FRV Spectrum Solar project. FRV owns and operates over 133 MW of solar PV systems (35 distinct projects) for utilities, government agencies, and large corporations in the USA and Europe, with 1,000 MW of PV and concentrated solar power projects in development.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The point of interconnection will be at the Company's existing Pabco 69 kV substation where a new project-owned 69 kV transmission gen-tie line will tie in. The gen-tie will run approximately 1 mile south from the project site to the point of interconnection, all entirely on private land Leased to the seller.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending FERC interconnection priorities. Pursuant to the provisions of Sierra's and the Company's FERC approved OATT, interconnection priority of a generator is determined based on the date the requesting customer submits a valid interconnection request.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

FRV has not submitted a transmission service request. The Company anticipates submitting a request to designate the project as a designated network resource in accordance with the provisions of the approved OATT in order to use its network integration transmission service to deliver the output from the renewable resource to its load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Fotowatio received a Special Use Permit from Clark County in November 2010, and has selected its environmental consultant to complete a Phase I study. Fotowatio has also submitted a complete technical drainage study and master grading plan to Clark County for their approval, expected March 2011. The entire generating facility and transmission gen-tie are located on private land, and therefore no federal rights of way are required. Fotowatio does not expect to find any significant environmental obstacles to developing the project.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Permits necessary for the construction and operation of the Spectrum Solar project can be found in Exhibit 11 in Technical Appendix –NPPA - 3.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

Fotowatio is developing the project on private land and does not anticipate any BLM permits.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Fotowatio has executed a full long-term Lease Agreement for 311 acres with a private landowner in Clark County, approximately 10 miles east of Las Vegas.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The Company does have economic dispatch rights and can curtail 100 percent of the expected output, provided that Nevada Power makes Fotowatio whole for lost revenues.

C. MOUNTAIN VIEW SOLAR, LLC

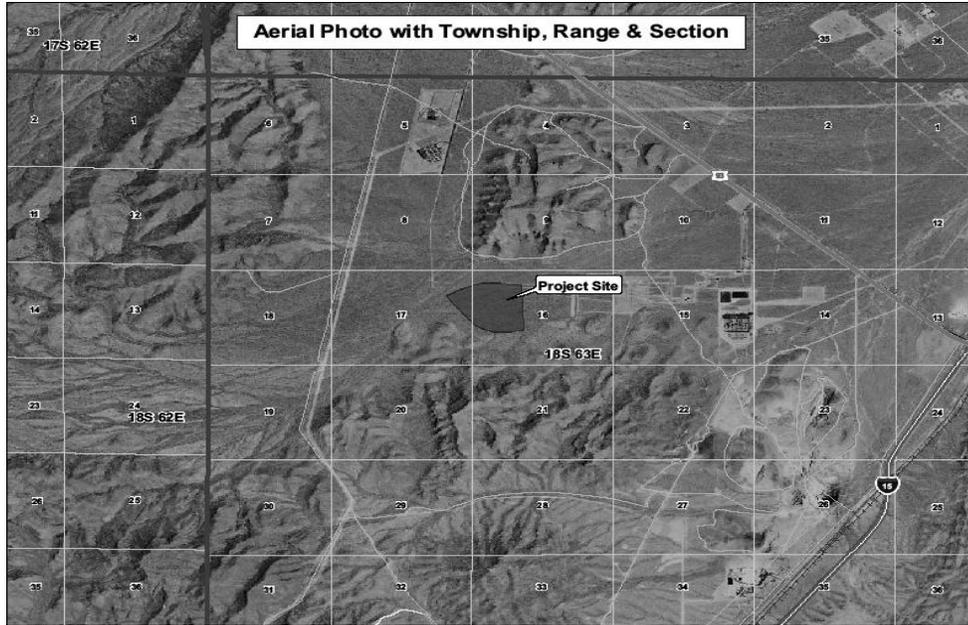
Nextera Energy Resources, LLC (~~NER~~) is a wholly-owned subsidiary of NextEra Energy, Inc (~~NextEra~~), the leading developer of renewable generation power projects, and the country's leader in solar thermal (310 MW) and wind (8,298 MW). NER is keenly aware of the processes, timelines, capital requirements, and challenges associated with development, construction and operation of a reliable, utility-scale renewable energy facility.

NER is the leading clean energy provider, as the nation's largest owner and operator of wind power facilities and co-owner and operator of the largest solar fields in the world. NER has 115 facilities with over 18,800 net megawatts in operation. More than 95 percent of NER's electricity is derived from clean and renewable sources.

NER, through a single purpose entity, Mountain View Solar, LLC (~~Mountain View Solar~~), is proposing to construct and operate a PV energy project located in the city of North Las Vegas in the Mountain View Industrial Park. The Mountain View Solar Project (~~Mountain View~~) is designed to produce 20 MW AC of peak energy through the use of reliable and efficient monocrystalline solar panels. Mountain View boasts industry leading panel efficiency of 22 percent coupled with state-of-the-art tracking systems that provide 30 percent more energy production than similar fixed-tilt systems.

Mountain View is expected to generate approximately 52,840 MWh and provide 53,897 kPCs annually. A copy of the PPA can be found in Technical Appendix NPPA – 4. Figure-23 shows a map of the project site.

FIGURE-23
MOUNTAIN VIEW SOLAR SITE



To aid the Commission in its evaluation of the Mountain View project, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For Mountain View Solar, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$127.50/MWh; a cost comparison to the projects reviewed from the 2010 RFP is shown in Technical Appendix NPPA - 1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the RPS. The increases in the portfolio requirements require the Company to continually add new resources to meet the RPS. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The PV technology that the Mountain View project utilizes creates zero air emissions. When compared to a modern gas-fired combined cycle unit, the emissions avoided are as shown in Figure-24.

**FIGURE-24
 AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Mountain View	0.06	0.39	0.24	0.64	13.37

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project includes:

- (1) A temporary increase in workforce during the construction of the facility of an estimated 250 positions, for which median annual salaries are about \$52,000 each;
- (2) A permanent long-term increase in the workforce for the operation and maintenance of the facility with an estimated one full-time position at an estimated total annual salary of \$64,000 in annual payroll and benefits; and,
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-24.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the project provides an increase in property tax in Clark County, Nevada and sales taxes from purchases of local goods. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Commission approval of the PPA will increase the diversity of energy sources being used to generate electricity that is consumed in Nevada. The Company's portfolio of renewable energy will increase with a commensurate decrease in the Company's reliance on fossil fuel based generation.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

NER has experience developing, constructing, operating and maintaining facilities in Arizona, Oregon, Colorado, New Mexico and California. This is the first project being developed by NER in Nevada. This PPA will lead to an increase in the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project's contractual commercial operation date is estimated to be July 2013. The actual commercial operation date is dependent on the PUCN Order approval date.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated by the facility. The Company does have the ability to dispatch the expected output of facility down to zero as long as it makes the developer whole for the energy that would have been produced.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

The feasibility study for this facility has been completed. Based on the findings in the study, this project will not impose negative impacts on the Company's transmission grid.

NAC §704.8887(2)(1) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are competitive to prices reviewed in the 2010 Renewable RFP. See a comparison of the 2010 RFP bids in the Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the PPA is 25 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is in Clark County, Nevada.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The project utilizes irradiance from the sun gathered by solar panels. No water will be consumed during operation of the project, other than occasional cleaning of the panels.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project will generate non-firm energy that will be delivered into the utility's grid as a designated network resource.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The generating facility will be interconnected to a new 230 kV substation on the Harry Allen to Pecos 230 kV transmission line. A one-line diagram depicting the interconnection can be found in Exhibit 5 of Technical Appendix – NPPA - 4.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

REDACTED PUBLIC VERSION

The characteristics of the project will be similar to that of the Nellis Air Force Base solar PV project. The plant design is proven technology and has been used worldwide and in Nevada.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the PPA.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The energy from the facility is contingent upon the availability of the unit. If the unit is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. Mountain View Solar, LLC is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All the energy from the generating facility would be delivered directly into the Company's electric grid after consumption of station service load requirements for the plant. It would be considered a network resource within the Company's system and output will be scheduled to the Company's native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

The feasibility study for this facility has been completed. Based on the findings of the analyses there are no negative impacts that will be imposed on the Company's transmission grid from this project. The feasibility study for this project indicates the estimated Network Upgrade cost is \$ [REDACTED]

NAC §704.8885(2)(m) addresses project insurance.

The PPA requires the supplier to provide workers compensation insurance of not less than \$1 million per occurrence, excess liability of not less than \$5 million annual aggregate, and automobile liability insurance of at least \$2 million aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, Mountain View Solar, LLC is obligated to compensate Nevada Power for lost PCs and lost energy, based on the difference

in price between the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from the project, the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The generating facility uses renewable solar energy to generate electricity and transmits that energy directly to the Company at a facility owned, operated and controlled by the Company. Therefore, the generating facility comports with NRS §704.7815 (l)(a) and 704.7815 (l)(b)(l).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

The seller under this PPA, Mountain View Solar, LLC, is a single purpose wholly-owned subsidiary of NER, organized to develop, construct and operate the Mountain View Solar project. NER has nearly 115 facilities with over 18,800 net megawatts in operation.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The interconnection will be at a new 230 kV substation on the Harry Allen to Pecos 230 kV transmission line.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending FERC interconnection priorities. Pursuant to the provisions of Sierra's and the Company's FERC approved OATT, interconnection priority of a generator is determined based on the date the requesting customer submits a valid interconnection request.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

NextEra has not submitted a transmission service request. The Company anticipates submitting a request to designate the project as a designated network resource in accordance with the provisions of the approved OATT in order to use

its network integration transmission service to deliver the output from the renewable resource to its load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

NER launched the permitting process with Clark County and has selected its environmental consultant. NER does not expect to find any significant environmental obstacles in developing the project.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Permits necessary for the construction and operation of Mountain View Solar project can be found in Exhibit 11 in Technical Appendix –NPPA - 4.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

NER is developing the project on 160 acres of private land in the Apex area within the Mountain View Industrial Park. The project will require construction of a 2.5 mile transmission line crossing private land. The new transmission line will connect to an existing utility easement which lies within a designated utility and transportation corridor managed by the BLM. Based on meetings NER had with the BLM, they anticipate a streamlined NEPA process and schedule by utilizing existing and designated corridors.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

NER is developing the project on land for which NER has exclusive site control and a fully executed Purchase and Sale Agreement from a private land owner northeast of Las Vegas.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The Company does have economic dispatch rights and can curtail 100 percent of the expected output, provided that Nevada Power makes supplier whole for lost revenues.

VII. FOUR AMENDED RENEWABLE POWER PURCHASE AGREEMENTS

A. FOTOWATIO NEVADA SOLAR, LLC

Amended and Restated Fotowatio Nevada Solar Power Purchase Agreement.

Nevada Power originally received Commission approval for this contract in Docket No. 09-08020. Fotowatio Nevada Solar, LLC (~~Fotowatio~~) was unable to obtain financing due to the financial institutions perceived exposure for ~~change in law~~ risk in the PPA. Fotowatio's proposed financial institutions required the agreement to be amended and restated to conform the risk allocation to other PPAs receiving Commission approval as part of the 2009 Nevada Power Integrated Resource Plan (~~HRP~~ Docket No. 10-02009). Substantive changes incorporated in the amended and restated PPA include a compliance cap for risk related to a change in the Nevada Renewable Energy Law, adjustments to the commercial operation date to reflect current project milestones, and a significant price reduction for the energy output. In addition, the size of the RV Apex Solar Power project (~~Apex~~) was reduced to 20 MW from 20.5 MW to align with Apex's interconnection. For additional information regarding Fotowatio and its parent entity, FRV, please see the description for the FRV Spectrum Solar, LLC project set forth above. A copy of the amended and restated PPA can be found in Technical Appendix AMND – 1.

To aid the Commission in its evaluation of the Apex project, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For the Fotowatio amendment, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$139.44/MWh; a cost comparison to the projects reviewed in the 2010 RFP is shown in Technical Appendix NPPA -

1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate. This rate also includes all costs related to transmission network upgrades. Please note that all transmission-related costs for this project are borne entirely by Fotowatio due to the type of interconnection required for this project.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the renewable portfolio standard. This project was previously added to the Company's renewable portfolio when it was approved by the Commission in December 2009 in Docket No. 09-08020. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The technology that the Apex project will utilize creates zero air emissions. When compared to a modern gas-fired combined cycle unit, the emissions avoided are as shown in Figure-25.

**FIGURE-25
AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Fotowatio Nevada Solar	0.17	1.12	0.69	1.86	38.88

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project remains as previously submitted:

- (1) A temporary increase in workforce during the construction of the facility of an estimated 250 positions, at an estimated median annual salary of about \$52,000 each.
- (2) A permanent long term increase in the workforce for the operation and maintenance of the facility of an estimated one full time position at an estimated total annual salary of \$64,000.
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-25.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the project provides an increase in property tax in Clark County. Property taxes are estimated at approximately \$7 million over the life, sales and use tax revenues to the State are estimated at approximately \$2 million in the first year of operation. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Approval of this amended PPA will increase the diversity of energy sources being used to generate electricity that is consumed in Nevada. This amended PPA will supplant and replace the original PPA which was approved by this Commission, but was determined to be non-financeable by the financing institutions partnering with Fotowatio. Without the changes requested in the amended PPA, Fotowatio has indicated that they believe the project is unlikely to come to fruition, so approval of this amended PPA will enable the diversification contemplated by the original PPA.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

This remains as the first project developed by Fotowatio in Nevada and therefore will increase the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project was originally expected to become commercial in the first quarter of 2011 but has been revised to reflect current milestones due to the delay in financing. The revised expected commercial operation date is in the second quarter of 2012.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated from the facility. The Company does have the ability to dispatch the facility down to 100% of the expected output as long as it makes the developer whole for energy that would have been produced.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

The industrial load at the Apex area north of Las Vegas is adjacent to two Nevada Power transmission lines; 138 kV line from Pecos substation to Gypsum

substation and the 69 kV Cary-Speedway-Sheep Mtn. line. During an outage on the 138 kV line, the described area experiences low voltage conditions. The new project can provide additional voltage support, if operational, during an outage of the 138 kV line.

NAC §704.8887(2)(1) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are competitive to prices received for solar energy in the 2010 Renewable RFP. See a comparison to the 2010 RFP bids in Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the amended agreement remains at 25 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is in the City of North Las Vegas, near Apex in Clark County, Nevada.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The project utilizes irradiance from the sun gathered by solar panels. No onsite water will be consumed for the project as it is a solar PV project.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project will generate non-firm energy that will be delivered into the utility's grid as generated. As a Designated Network Resource for Nevada Power, the transmission service provided to the project will be firm transmission.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The generating facility originally proposed interconnecting to the Gypsum substation via a 69 kV line, but revised its proposal and subsequently has

executed a Small Generator Interconnection Agreement (“SGIA”) with the Companies such that the project will interconnect directly to Nevada Power’s Sheep Mountain 69 kV transmission line, which feeds into Gypsum substation. A one-line diagram depicting the interconnection can be found in Exhibit 5 of Technical Appendix –AMND - 1.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The characteristics of the project will be similar to that of the Nellis Air Force Base solar PV project. The plant design is proven technology and has been used worldwide and in Nevada.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the agreement.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The unit is not unit contingent since the project is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company’s system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All energy from the generating facility will be delivered directly into the Company’s electric grid after consumption of station load requirements for the plant. The Apex project will be designated as a network resource within the Company’s system and the output will be scheduled to the Company’s native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

The project has executed an SGIA and has begun progressing toward the engineering, design, and payment milestones set forth in the Interconnection Agreement. Based on the findings of the transmission analyses there are no negative impacts that will be imposed on Nevada Power’s transmission grid from this project. The facilities study for this project indicates there are no Network Upgrade costs.

NAC §704.8885(2)(m) addresses project insurance.

The agreement requires the supplier to provide workers compensation insurance of not less than \$1,000,000 per occurrence, excess liability of not less than \$5,000,000 annual aggregate, and automobile liability insurance of at least \$2,000,000 aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, Fotowatio Nevada Solar is obligated to pay the incremental difference in price between the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from the project then the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The generating facility uses renewable solar energy to generate electricity and transmits that energy directly to the Company at a facility owned, operated and controlled by the Company. Therefore, the generating facility comports with NRS §704.7815 (1)(a) and 704.7815 (1)(b)(1).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

Fotowatio Nevada Solar, LLC is a single purpose wholly-owned subsidiary of Fotowatio Renewable Ventures, Inc., organized to develop, construct and operate the Apex facility. Fotowatio Renewable Ventures, Inc has developed and placed in service over 30 PV projects totaling a combined 120 MW currently in operation across the US and Europe.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The interconnection point is where the generating facility transmission gen-tie taps the Company's existing Sheep Mountain 69kV transmission line.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending interconnection priorities.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

Fotowatio has not submitted a request for transmission service. The Company submitted the request for designation of the Fotowatio Apex project as a designated network resource (“DNR”) in accordance with provisions of the Company’s OATT. As a DNR, the project will use the Company’s network integration transmission service to deliver the output from the renewable resource to the Company’s native load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Fotowatio has completed all environmental permitting for this project. The generating facility will be located on private land within the City of North Las Vegas and Clark County jurisdictions. A Site Plan Approval was issued by the City in 2009, technical drainage study and master grading plan approvals were received in 2010, and final building permits (electrical and structural) are currently being finalized. The transmission gen-tie crosses approximately 1,000 ft of federal land managed by the Bureau of Land Management. The project has completed an Environmental Assessment (EA) and has received a Finding of No Significant Impact (FONSI) and an executed Right of Way Grant from the BLM. No discretionary permits remain for this project. All final building permits are expected by March 2011.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

A complete listing of permits can be found in Exhibit 11 of Technical Appendix –AMND - 1.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

Fotowatio has obtained an EA, a Finding of No Significant Impact (FONSI) and a Right of Way grant from the BLM for approximately 1,000 ft of transmission gen-tie that crosses the federal energy corridor adjacent to the project site. No other federal permits were required.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Fotowatio has executed a Purchase and Sale Agreement for the full 154 acres from a private landowner near Apex, Nevada. Close of Escrow on the property will occur upon completion of financing and just prior to start of construction.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

Nevada Power does have economic dispatch rights and can curtail 100% of the expected output in that Nevada Power makes whole Fotowatio for lost revenues.

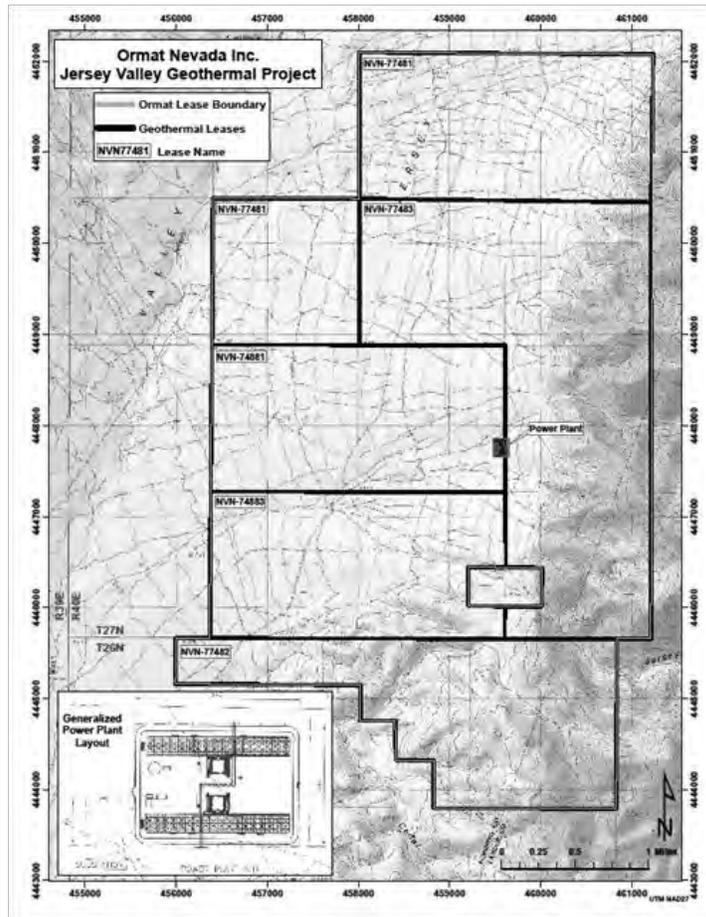
B. ORNI 15, LLC

Amended ORNI 15, LLC (Jersey Valley) Power Purchase Agreement

In October 2006, Nevada Power brought before the Commission five long-term renewable power purchase agreements (Docket No. 06-10021). In February 2007, a stipulation for the five contracts was executed and approved by the Commission. One of the five contracts was the ORNI 15, LLC contract which at that time was filed as Buffalo Valley but the contract had a provision allowing the site to be moved to Jersey Valley. The ORNI 15, LLC contract was approved for 31.5 MW (nameplate) and approximately 206,000 MWh annually. In February 2008, Nevada Power filed an amendment to the ORNI 15, LLC contract with the Commission (Docket No. 08-02003) to standardize shortfalls and replacement costs. In March 2008, a resolution was reached and a stipulation was executed and approved by the Commission. In February 2009, Nevada Power received notification that the ORNI 15, LLC project would be officially moved to the Jersey Valley site.

Ormat Nevada, Inc. (~~Ormat~~) is currently developing the Jersey Valley geothermal power plant located in Pershing County, Nevada. Nevada Power is seeking approval for Amendment No. 2 to the ORNI 15, LLC contract to account for the reduced size. The Jersey Valley geothermal project is currently contemplated as a nameplate capacity of 22.5 MW and it is expected to generate 104,775 MWh and provide 125,730 kPCs annually. Figure-26 shows a map of the current project site. The amendment being submitted as part of this filing is intended to reflect the change in the size of the Jersey Valley facility to reflect the expected generation. In consideration of this amendment, ORNI 15, LLC has agreed to relinquish the full amount of its development security. A copy of the amendment to the PPA can be found in Technical Appendix AMND – 2.

FIGURE-26
JERSEY VALLEY POWER PROJECT SITE



To aid the Commission in its evaluation of the Jersey Valley project, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For the ORNI 15, LLC amendment, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$61.45/MWh; a cost comparison to the projects reviewed in the 2010 RFP is shown in Technical Appendix NPPA - 1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the renewable portfolio standard. This project was previously added to the Company's renewable portfolio when it was approved by the Commission in February 2007 in Docket No. 06-10021. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The process that will be utilized by this project under normal operation produces near zero air emissions and has the lowest environmental impact of any geothermal technology. In addition, Ormat will utilize an air-cooled condenser at the facility, significantly reducing project water utilization. When compared to a modern gas-fired combined cycle unit, the emissions avoided are as shown in Figure-27.

**FIGURE-27
 AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Jersey Valley	0.31	2.04	1.26	3.38	70.75

1 Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project remains as previously submitted:

- (1) A temporary increase in workforce during the drilling and construction phases of the facility averaged an estimated 60 positions.
- (2) A permanent long-term increase in the workforce for the operation and maintenance of the facility of an estimated 8-10 full-time positions at an estimated total average salary of \$70,000 annual salary with benefits and overtime per employee, and a total payroll of between \$11.2 million and \$14 million over 20 years; and,
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-27.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the project provides an increase in property tax in Pershing County, Nevada. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Since this project was previously approved by the Commission, approval of the amendment will mean that the diversity of energy sources being used to generate electricity that is consumed in Nevada will be as contemplated when the

project was initially filed. As originally contemplated, the original submittal and approval did increase the Company's portfolio of renewable energy.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

Through its affiliated companies, Ormat owns and operates a number of projects in Nevada. Ormat maintains a permanent corporate office in Reno, Nevada. This PPA will not lead to an increase in the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project agreement originally reflected a commercial operation date in the second quarter of 2010 but has been revised to reflect current milestones. The Jersey Valley project synchronized to Sierra's electric grid on December 20, 2010, however the contractual commercial operation date will be August 2011, if approved.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated by the facility.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

Geothermal generation projects generate electricity just like conventional synchronous electrical generation which in most cases provides benefits to the transmission grid by providing voltage support at the point of interconnection.

NAC §704.8887(2)(l) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are significantly lower than the competitive prices received for geothermal energy in the 2010 Renewable RFP. See a comparison to the 2010 RFP bids in Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the amended agreement remains at 20 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is in Pershing County, Nevada.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The electrical generation process will utilize geothermal energy as fuel, with the conversion to electrical energy accomplished by means of a dedicated Ormat modular geothermal power plant. In addition, the project will utilize an air-cooled condenser at the facility, significantly reducing project water utilization.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project will generate firm, base-load energy from this facility.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The generating facility interconnects to the Bannock Switching Station. A one-line diagram depicting the interconnection can be found in Exhibit 5 of Technical Appendix –AMND - 2.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The characteristics of the project will be similar to that of the ORNI 14, Galena 3 Geothermal project. The plant design is proven technology and has been used worldwide and in Nevada

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the agreement.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The energy from the facility is contingent upon the availability of the unit. If the unit is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. ORNI 15, LLC is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All energy from the generating facility would be delivered directly into Sierra's electric grid after consumption of station load requirements for the plant. It would be considered a network resource within the Company's system and output will be scheduled to the Company's native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

The Large Generator Interconnect Agreement ("LGIA") for this project is executed. Based on the findings of the transmission analyses there are no negative impacts that will be imposed on the Companies' transmission grid from this project. The facilities study for this project indicates the estimated Network Upgrade cost is \$ [REDACTED]

NAC §704.8885(2)(m) addresses project insurance.

The PPA requires the supplier to provide workers compensation insurance of not less than \$1 million per occurrence, excess liability of not less than \$5 million annual aggregate, and automobile liability insurance of at least \$2 million aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, ORNI 15, LLC, is obligated to compensate Nevada Power for lost PCs and to pay the incremental difference in price between the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from the Jersey Valley project, then the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The ORNI 15, LLC generating facility uses geothermal heat energy to generate electricity and transmits that energy to Sierra pursuant to a related PPA and is connected to a facility owned, operated and controlled by Sierra. Therefore, the generating facility comports with NRS §704.7815 (1)(a) and 704.7815 (1)(b)(1).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

The seller under this PPA, ORNI 15, LLC, will be a special purpose Delaware Limited Liability Corporation, which will be a wholly owned subsidiary of Ormat, a member of the Ormat Group and a subsidiary of Ormat Technologies, Inc. Ormat will conduct all development, financing, and plant operations. Ormat has supplied, developed, constructed or rehabilitated approximately 1,000 MW of geothermal power plants in 18 countries, including the United States. Ormat geothermal power plants and projects range in size from 300 kW to 125 MW, and are operating from resources with a wide range of temperatures. Ormat's role in the geothermal industry has included well field and plant development utilizing a number of power conversion technologies including binary, flash steam, and steam binary combined cycle.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The interconnection point is at the project site connecting directly to Sierra's Bannock Switching Station.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending FERC interconnection priorities. Pursuant to the provisions of Sierra's FERC approved OATT, interconnection priority of a generator is determined based on the date the requesting customer submits a valid interconnection request.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

Ormat has not submitted a request for transmission service. The Company submitted the request for designation of the Jersey Valley project as a DNR in accordance with provisions of the Company's OATT. As a DNR, the project will use the Company's network integration transmission service to deliver the output from the renewable resource to the Company's native load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

An environmental assessment has been completed with regard to the renewable energy system.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Ormat acquired the following permits:

Lander County, Building and Safety Division: Building permit;

Lander County, Department of Health, Air Quality Management: An Authority to Construct;

Lander County, Planning Department: A Special Use Permit;

Nevada Division of Environmental Protection: Dust Control Plan/Surface Area Disturbance;

Nevada Division of Environmental Protection: Storm Water Prevention Plan.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

Ormat has secured the following permits from the BLM related to the Jersey Valley project:

- (1) Operations Plan;
- (2) Utilization Plan;
- (3) EA for well drilling;
- (4) ROW Grant
- (5) NEPA compliance;

- (6) Geothermal Drilling Permit ("GDP"); and,
- (7) Facility Construction Permit.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Ormat received all permits required to construct and operate the facility.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The Company does not have economic dispatch rights for this project.

C. ENEL STILLWATER, LLC

Amended Enel Stillwater Power Purchase Agreement.

Background. On August 18, 2006, Nevada Power executed the Stillwater PPA with Amp Resources (Stillwater), LLC. On February 2, 2007, Amendment No. 1 to the Stillwater PPA was executed by the parties. The Stillwater PPA (as amended) was approved by the Commission in Docket No. 07-02015. The Annual Average Supply Amount in the Stillwater PPA was originally 19.1 MW with an initial Product Rate of \$ 62.99 /MWh (with a 1% annual escalator).

In March 2007, Amp Resources (Stillwater), LLC was acquired by Enel North America, Inc., (now known as Enel Green Power North America, Inc.) and the counterparty name was changed to Enel Stillwater, LLC (~~Enel~~”).

On November 3, 2008, Nevada Power and Enel executed Amendment No. 2 to the Stillwater PPA. In that amendment, the Annual Average Supply Amount was increased to 33.2 MW. The Product Rate was changed to a tiered structure wherein the first 19.1 MW in any hour would be priced at the original Product Rate and energy delivered above 19.1 MW (up to 105% of the monthly Supply Amount) would be priced at an initial Product Rate of \$ 85.00 /MWh (with a 1% annual escalator). Amendment No. 2 contains a provision that if in any rolling 24 month period Enel does not deliver an average of 26.0 MW, then the higher second tier Product Rate would be eliminated for the remainder of the PPA term. Amendment No. 2 to the Stillwater PPA was approved by the Commission in Docket No. 09-01015.

The Stillwater project reached commercial operation on October 10, 2009. The Stillwater PPA allowed for a one-time adjustment to the Annual Average Supply Amount on or before the commercial operation date. Under this provision, Enel elected to reduce the Average Annual Supply Amount to 28.5 MW. As a result of this reduction in the Average Annual

Supply Amount, the Yearly PC Amount was also reduced to 299,595 kPCs. Figure-28 shows a map of the current project site.

**FIGURE-28
ENEL STILLWATER PROJECT SITE**



Performance to date. During the first full year of commercial operation (2010), the Stillwater project produced an average of 15.2 MW of energy (net) and produced approximately 219,309 kPCs. This low level of performance (relative to the contractual obligation) was driven primarily by the temperature of the geothermal resource. In addition, there were both excused and unexcused outages that contributed to the level of production.

Enel expects the performance for 2011 and beyond to be a 18.0 MW (net) annual average of delivered energy and 227,760 kPCs (based on 26.0 MW of annual average gross production). At this level of production, the Tier Two Product Rate will be eliminated by the end of 2011.

PPA Amendment. Nevada Power and Enel have executed Amendment No. 3 to the Stillwater PPA (–Stillwater PPA Amendment”). Under this amendment, Enel will install approximately 20 MW of solar photovoltaic at the Stillwater plant site. The solar portion of the facility (–Solar Facility”) is expected to produce an annual average of 4.0 MW. Enel plans to use at least 50% of the Solar Facility output for station usage of the geothermal portion of the facility (–Geothermal Facility”), which would qualify the PCs from the Solar Facility for the

2.4 multiplier provided for under NRS 704.7822. The Solar Facility is expected to achieve commercial operation in the first quarter of 2012. The combined facility is expected to deliver an annual average of 22.0 MW (net) and 311,856 kPCs (227,760 kPCs from the Geothermal Facility and 84,096 kPCs from the Solar Facility).

Upon the later of January 1, 2012 or the Solar Facility commercial operation date, the tiered structure of the energy rate will be replaced by a single energy rate applicable to all delivered energy (up to 105% of the monthly supply requirement).

Beginning with the first quarter of 2012, and each quarter thereafter, PCs from the Solar Facility will be first used to repay Nevada Power for any prior PC shortfall. Each quarter any prior PC shortfall balance will be reduced by the amount of solar PCs transferred to Nevada Power. Any remaining PC shortfall balance will be carried forward (with interest) to the next quarter. If the amount of transferred solar PCs exceeds the PC shortfall balance, the PC shortfall balance will be reduced to zero. Nevada Power will pay a Solar PC Rate for any solar PCs in excess of the prior PC shortfall balance. Solar PCs used to repay prior PC shortfall balances do not count towards meeting the annual PC requirement.

Effective on the later of January 1, 2012 or the Solar Facility commercial operation date, the annual average energy delivery requirement (“Average Annual Supply Amount”) will be set at 22.0 MW. The annual PC requirement will be set at 227,760 kPCs for 2012 and 2013 and then increased to 311,856 kPCs for the remainder of the term.

In addition to the existing contract provisions that allow for minor adjustments to the supply amounts, Enel will have the ability to increase the geothermal portion of the Annual Average Supply Amount up to two times by a total amount of 10.5 MW with three to six months prior notice. Such increases must be effective no later than January 1, 2017.

The Stillwater PPA Amendment includes an option for Nevada Power to extend the PPA by three (3), four (4), or five (5) years by providing notice to Enel no later than December 31, 2027 (two years prior to the end of the current term). A copy of the amendment to the PPA can be found in Technical Appendix AMND – 3.

Economic analysis. An economic analysis of the Stillwater PPA Amendment is provided in the Confidential Technical Appendix Item AMND - 4.

To aid the Commission in its evaluation of the Enel Stillwater Amendment, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For Mountain View Solar, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price for all energy and PCs delivered from both the Geothermal Facility and Solar Facility during the period affected by the Stillwater PPA Amendment (2012 through 2029) is \$ 84.61 /MWh.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

Nevada Power must remain in compliance with the requirements of the Portfolio Standard. The additional PCs from the Solar Facility will be used by Nevada Power towards compliance with the State of Nevada's Portfolio Standard requirement. Therefore, the Stillwater PPA Amendment comports with Nevada Power's plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

Beginning 2013, the new Product Rate and the Solar PC Rate each will be indexed at 1% consistent with the existing PPA.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The technology that will be employed for the Solar Facility creates zero air emissions. When compared to a modern gas-fired combined cycle unit, the emissions avoided as a result of the additional renewable energy are as shown in Figure-29.

**FIGURE 29
 AVOIDED AIR EMISSIONS**

Avoided Emissions ¹					
	SO ₂	CO	VOC	NOX	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Stillwater	0.43	2.82	1.73	4.66	97.58

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

Avoided emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project remains as previously submitted:

- (1) The construction of the Solar Facility is expected to take 6-8 months with a peak work force of approximately 50 construction workers. The O&M of the Solar and Geothermal Facilities will be combined.
- (2) Enel expects to hire between 3-4 additional full time employees as a result of the solar addition. Given the construction and additional O&M workforce, the State will benefit by increased payroll taxes, sales taxes, etc. The Solar Facility will also provide additional property taxes, etc. to Churchill County and the State; and,
- (3) The environmental benefit will be a reduction in air emissions as shown in Figure-29 above.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

See response to NAC §704.8887(2)(d).

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

In terms of Nevada Power's overall energy portfolio mix, the additional solar energy (with an opportunity for increased geothermal energy) will increase the diversity of energy (beyond conventional energy resources) that is consumed in Nevada. The additional solar energy (and any additional geothermal energy) will lead to a commensurate decrease in the Companies' reliance on fossil fuel based generation.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

Enel is an existing supplier of renewable energy in this State. In addition, Enel Green Power North America, Inc. has another subsidiary which supplies Nevada Power with renewable energy that is generated and consumed in this State (Enel Salt Wells, LLC).

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The Solar Facility is expected to begin commercial operation in the first quarter of 2012.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

As with the existing PPA, the additional energy from the Stillwater facility is must-take energy.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

The benefits to the transmission system of the utility provider from the Stillwater PPA Amendment have not been quantified. The project interconnection studies show no significant transmission enhancements needed

for the Solar Facility. The only main item for the transmission enhancement is the addition of a generation measuring and communication system.

NAC §704.8887(2)(1) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

Nevada Power must remain in compliance with the requirements of the Portfolio Standard. The additional PCs from the Solar Facility (and any additional from the Geothermal Facility) will be used by Nevada Power towards compliance with the State of Nevada's Portfolio Standard requirement. Therefore, the Stillwater PPA Amendment comports with Nevada Power's plan to increase its supply of renewable energy.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the existing PPA runs through December 31, 2029. Under the Stillwater PPA Amendment, Nevada Power will have the option to extend the PPA for an additional three to five years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The Stillwater facility is located in Churchill County.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The Geothermal Facility utilizes air cooled binary technology, which has two separate processes: (1) in the geothermal process, hot water from the earth is pressured and piped to the plant facility where heat is transferred to a separate plant process working fluid (isobutene) and then all of the geothermal effluent is re-injected back into the earth; (2) in the power plant process, the geothermal hot water heats the working fluid to a pressurized gas which drives a turbine generator and then is condensed by the air cooled condensers. Under normal operation at Stillwater, there are no losses of geothermal fluid and no consumption of water for cooling.

The Solar Facility will use fixed module polycrystalline photovoltaic technology to convert the sun's radiant energy into electricity.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The energy that is generated under the Stillwater PPA is firm.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The Stillwater facility is interconnected to Sierra's Crook Road 69 kV Tap.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The Geothermal Facility utilizes air cooled binary technology, which has two separate processes: (1) in the geothermal process, hot water from the earth is pressured and piped to the plant facility where heat is transferred to a separate plant process working fluid (isobutene) and then all of the geothermal effluent is re-injected back into the earth; (2) in the power plant process, the geothermal hot water heats the working fluid to a pressurized gas which drives a turbine generator and then is condensed by the air cooled condensers. Under normal operation at Stillwater, there are no losses of geothermal fluid and no consumption of water for cooling. Enel Salt Wells, LLC and other geothermal providers utilize the same technology.

The Solar Facility will use fixed module polycrystalline photovoltaic technology to convert the sun's radiant energy into electricity. The Solar Facility will use industry standard polycrystalline photovoltaic technology; however, given the large generating capacity of the project, Enel will utilize large scale AC/DC inverters that are not as common in the industry. Since the Solar Facility will be installed into the Geothermal Facility, it will be uniquely integrated into the geothermal plant philosophy of operation and island mode scenarios. Also, necessary systems such as control power, auxiliary power, parameter security lighting, fire detection and protection, as well as reactive load control will be provided by the geothermal plant.

The arrangement whereby geothermal energy and solar energy are generated on the same site is the first such arrangement for a Nevada Power PPA.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the amendment.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The energy from the Solar Facility is contingent upon the availability of the facility. If the facility is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. Enel is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

The Stillwater PPA Amendment will not materially affect Sierra's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

The energy from the Stillwater facility is delivered directly into Sierra's electrical grid after consumption of station load requirements for the plant. Since the energy is must take energy, there are no scheduling requirements on the part of Enel.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

The Stillwater PPA Amendment creates no conditions or limitations on the transmission system.

NAC §704.8885(2)(m) addresses project insurance.

The Stillwater PPA has provisions requiring general/commercial liability, worker's compensation, and other forms insurance to cover the facility. During construction, the Solar Facility will be covered with the appropriate insurance.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

The energy from the Solar Facility is contingent upon the availability of the facility. If the facility is not producing to meet the performance specifications of the PPA then the Company will replace the energy from other sources. Enel is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

Under the Stillwater PPA Amendment, the Stillwater facility will use geothermal and solar resources to generate electricity and transmit that energy via a power line which is dedicated to the transmission of electricity generated from renewable energy and is connected to a facility owned, operated and controlled by Sierra.

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

Enel Green Power North America, Inc. has two renewable energy systems in the State, both of which are under contract to Nevada Power (the Stillwater facility and the Salt Wells facility).

According to their website, Enel Green Power North America, Inc. ~~is~~ a leading owner and operator of renewable energy projects in North America, with a presence in 20 U.S. states and two Canadian provinces...generating electric power from rich sources of wind, water, biomass and geothermal hot spots...currently operates 88 projects with a total installed capacity of 788.1 MW including; 406.3 MW of wind power, 313.9 MW of hydropower, 21.4 MW of biomass power and 46.5 MW of geothermal power. [Enel Green Power North America, Inc.] is a subsidiary of Enel S.p.A, one of the world's largest diversified energy companies. Globally, Enel is a leader in renewable energy with over 30,000 MW of installed renewable capacity in North America, Latin America and Europe.”

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The Stillwater facility is interconnected to Sierra's Crook Road 69 kV Tap.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

The project interconnection studies show no significant transmission enhancements needed for the Solar Facility. The only main item for the transmission enhancement is the addition of a generation measuring and communication system.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

The project interconnection studies show no significant transmission enhancements needed for the Solar Facility. The only main item for the transmission enhancement is the addition of a generation measuring and communication system.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

There are no environmental assessments required for the addition of the Solar Facility.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Enel anticipates that it will need to acquire the following permits for the addition of the Solar Facility:

Churchill County, Building and Safety Division: Building permit;

Churchill County, Department of Health, Air Quality Management: An Authority to Construct;

Churchill County, Planning Department: A Special Use Permit;

Nevada Division of Environmental Protection: Dust Control Plan/Surface Area Disturbance;

Nevada Division of Environmental Protection: Storm Water Prevention Plan.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

There are no development rights applications required for the addition of the Solar Facility. The geothermal facility is installed on approximately 10 acres of a 240 acre parcel owned by Enel. The Solar Facility will be installed adjacent

to the geothermal power plant facility and encompass approximately 170 acres on the land already owned by Enel.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

The geothermal facility is installed on approximately 10 acres of a 240 acre parcel owned by Enel. The Solar Facility will be installed adjacent to the geothermal power plant facility and encompass approximately 170 acres on the land already owned by Enel.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The energy from the Stillwater PPA is delivered directly into Sierra's electrical grid after consumption of station load requirements for the plant. Since the energy is must take energy, there are no economical dispatch rights.

D. TONOPAH SOLAR ENERGY, LLC

Amendment to Tonopah Solar Energy Power Purchase Agreement.

Nevada Power originally received Commission approval for this contract in Docket No. 10-02009. Tonopah Solar Energy, LLC (~~“Tonopah Solar”~~) was reliant on financing from the Department of Energy to enable the project to be constructed and operate in accordance with the terms of the PPA. The First Amendment to the agreement was executed in July 2010 to extend the Company's right to terminate the PPA through the end of 2010. In February 2011, Tonopah Solar informed the Company that it was unable to obtain the necessary financing from the DOE due to DOE's perceived exposure for ~~“change in law”~~ risk in the PPA. DOE required the agreement to be amended to conform the risk allocation to other PPAs receiving Commission approval as part of the 2009 IRP and disclosed as part of the IRP Docket. The only substantive change addressed in this amendment to the PPA is to include a compliance cap for risk related to a change in applicable Renewable Energy Law and make corresponding changes to reflect such cap. As consideration for such change and to substantiate the viability of the project, Tonopah Solar agreed to a doubling of the Development Security, which secures Tonopah Solar's obligations prior to commercial operation. All other terms of the PPA remain unchanged. A copy of the amendment to the PPA can be found in Technical Appendix AMND – 5.

As previously described in the 2009 IRP, SolarReserve is currently developing the Tonopah Solar Energy plant, also known as the Crescent Dunes Solar Energy project, (~~“Crescent Dunes”~~) located northwest of Tonopah, Nevada. The project will be a concentrating solar power technology with thermal storage and interconnected to the transmission system at the 230 kV Anaconda Moly substation. Tonopah Solar has submitted an application to the BLM

to construct the project and new generator tie-line on BLM-managed land. At the completion of the environmental permitting process, a Record of Decision (“ROD”) was issued to allow Tonopah Solar the exclusive right to develop the property on this parcel. The project has a nameplate capacity of 110 MW and is expected to generate approximately 485,000 MWh and provide 528,619 kPCs annually.

Tonopah Solar’s concentrating solar power technology consists of a large field of mirrors or heliostats which concentrate and focus the sun’s energy onto a central receiver positioned on top of a tower. The technology features an integral thermal storage system which allows solar energy to be collected throughout the day and stored in the form of liquid salt, which has highly efficient heat retention properties. The heated salt can be stored for hours or days with very little energy loss. When electricity is to be generated, the hot salt is routed to a series of heat exchangers to produce steam, which is then used to generate electricity in a conventional steam turbine cycle. The technology used for the project was demonstrated successfully in a U.S. Department of Energy-sponsored project near Barstow, California.

Central tower technology with integral storage offers the benefits of “decoupling” the process of solar energy collection from electricity generation which allows the project to continue generating power during cloud cover, to shift power production to meet peak demand periods, including after sunset, and to provide a stable electricity product similar to that of a conventional power plant.

To aid the Commission in its evaluation of the Crescent Dunes project, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For the Tonopah Solar amendment, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The levelized price of the contract is \$146.44/MWh; a cost comparison to the projects reviewed in the 2010 RFP is shown in Technical Appendix NPPA - 1. The rate is for the purchase of energy and PCs including station usage PCs at a blended rate.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the

utility provider’s most recently approved plan to increase its supply of or decrease the demand for electricity.

The Company must remain in compliance with the requirements of the renewable portfolio standard. This project was previously added to the Company’s renewable portfolio when it was approved by the Commission in July 2010 in Docket No. 10-02009. Energy and PCs from the project will specifically be used by the Company to comply with the standard. Accordingly, this agreement comports with the Company’s plan to increase its supply of renewable energy.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for the renewable energy and PCs set forth in this contract is escalated at a fixed rate and is not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The technology that the Crescent Dunes project will utilize does not require natural gas and creates zero air emissions during operations. When compared to a modern gas-fired combined cycle unit, the emissions avoided are as shown in Figure-30.

**FIGURE-30
AVOIDED AIR EMISSIONS**

Avoided Emissions¹					
	SO₂	CO	VOC	NO_x	PM
Company	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Crescent Dunes	1.50	9.75	6.00	16.13	337.65

¹ Avoided Emissions derived from average heat rate for a state of the art combined cycle unit. This is a conservative assumption as avoided emissions are likely to be from higher heat rate market purchases or from older, less efficient units.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the project remains as previously submitted:

(1) A temporary increase in workforce at the peak of construction of the facility of an estimated 435 positions, at an estimated median annual salary of about \$50,000 each.

(2) A permanent long term increase in the workforce for the operation and maintenance of the facility of an estimated 45 full time positions at an estimated annual total of \$3.5 million in payroll and benefits.

(3) The environmental benefit will be a reduction in air emissions as shown in Figure-30.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefits of the project include an increase in property taxes to Nye County and sales taxes from purchases of local goods. Other benefits include an increase in short term construction employment and long term employment potentially as a result of the development of an experienced renewable energy construction workforce.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Approval of this amended PPA will increase the diversity of energy sources being used to generate electricity that is consumed in Nevada by enabling the commercial operation of the project contemplated under the original PPA. Without the changes requested in the amended PPA, Tonopah Solar has indicated that they believe the project is unlikely to come to fruition, so approval of this amendment to the PPA will enable the diversification contemplated by the original PPA.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

This remains as the first project developed by SolarReserve in Nevada and therefore will increase the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The agreement has a fixed price that is escalated at a fixed amount annually. The price is therefore known throughout the term of the contract and is not subject to fuel risk.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

The project is still expected to begin commercial operation on or before June 2014 (which reflects no change from the original PPA).

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

The agreement calls for the Company to take all electricity and PCs generated from the facility. The Company does have the ability to dispatch the facility down to 100% of the expected output as long as it makes the developer whole for energy that would have been produced.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

This renewable project generates electricity just like conventional synchronous electrical generation which provides benefits to the transmission grid. The transmission planning analysis for the Crescent Dunes project identified this project as providing voltage support to Sierra's transmission grid at the point of interconnection.

NAC §704.8887(2)(l) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

When compared to the long-term avoided cost presented to the Commission in the Company's revised long-term avoided cost rate, filed on January 5, 2007 (see Docket No. 06—06051), the blended rate for energy and PCs is higher than the long-term avoided cost over the life of the agreement.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of power and PCs delivered from the project are competitive to prices received for solar thermal energy with storage in the 2010 Renewable RFP. See a comparison to the 2010 RFP bids in Technical Appendix NPPA - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the amended agreement remains at 25 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The location of the project is approximately 10 miles northwest of the town of Tonopah, Nevada. The town of Tonopah, in Nye County, is located at the intersection of State Highways 95 and 6.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

Tonopah Solar's technology generates power from sunlight. The sunlight is reflected by a field of sun-tracking mirrors (heliostats) onto a central point (receiver). Liquid salt is circulated through tubes in the receiver, collecting the energy gathered from the sun. The heated salt is then routed to an insulated storage tank where it can be stored with minimal energy losses. When electricity is to be generated, the hot salt is routed to heat exchangers to generate steam, which is used to generate electricity in a conventional steam turbine cycle. After exiting the steam generation system, the salt is sent to the cold salt thermal storage tank and the cycle is repeated.

The stored energy in the salt can be extracted upon demand and produce electricity even when there is no sunlight. Because salt has highly efficient heat transfer and storage properties, a stable electricity supply can be achieved without requiring the combustion of fossil fuels to maintain steam conditions during periodic cloud cover.

The Crescent Dunes facility will use a hybrid cooling system to conserve water usage. The hybrid cooling system consists of a combination of an air-cooled condenser and small wet cooling tower, which is only utilized during periods of high temperatures to achieve high cycle efficiencies when peak demand tends to be highest. A small amount of water will also be used to periodically wash the heliostats.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The project shall generate a firm supply of renewable energy to be delivered into the utility's grid. The Crescent Dunes' technology utilizes an integral thermal storage system, storing energy in the form of liquid salt for use when needed. By "decoupling" the process of solar energy collection from electricity generation, the project will be able to produce a smooth, stable electricity supply similar to that achieved by conventional generating plants. In addition, the power from the facility can be dispatched on demand and the output shaped to meet the utility's needs. The Company and Tonopah Solar have

worked together to customize the project's operating profile to offer the greatest value to the Company.

While the solar energy available for collection will vary by month, the plant will produce a consistent output year-round. During the winter months when less solar energy is available, the plant will operate fewer hours a day.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

The Crescent Dunes generating facility will be interconnected to the 230/120 kV Anaconda Moly substation in northern Nevada. A new 8-mile 230 kV generator tie-line will be constructed by Tonopah Solar to interconnect to the substation.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The proposed technology was demonstrated on the 10 MW Solar Two project in the late 1990s. Located just east of Barstow California, the project was developed jointly by the U.S. Department of Energy, the Solar Energy Research Institute (now NREL), Rocketdyne (now part of UTC) and a consortium of investor owned utilities.

During its operation from 1996 to 1999, Solar Two not only validated the benefits of thermal storage but also demonstrated the ability to deliver power around the clock for a one week period. Since the completion of the Solar Two demonstration project, Rocketdyne has continued to improve the technology design to enhance overall system efficiencies and control systems.

Rocketdyne, a wholly owned subsidiary of United Technologies Corporation, has been the world's leading rocket engine provider for over 50 years. SolarReserve has an exclusive license with Rocketdyne to license the proprietary technology. Rocketdyne's design, engineering and management personnel will form an integral part of SolarReserve's project development, construction, and operations team.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the agreement.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

The unit is not unit contingent since the project is required to pay replacement costs for energy not delivered due to facility underperformance.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the agreement will not materially affect the Company's system peak requirements.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

All energy from the generating facility will be delivered directly into the Company's electric grid after consumption of station load requirements for the plant. The Crescent Dunes project will be designated as a network resource within the Company's system and the output will be scheduled to the Company's native load.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

A facilities study to evaluate the requirements for interconnection of the generating facility has been completed, and concludes that an upgrade of the Anaconda Moly substation is required to accommodate the interconnection of this project. The facilities study for this project indicates the estimated network upgrade cost is \$[REDACTED].

NAC §704.8885(2)(m) addresses project insurance.

The agreement requires the supplier to provide workers compensation insurance of not less than \$1,000,000 per occurrence, excess liability of not less than \$5,000,000 annual aggregate, and automobile liability insurance of at least \$2,000,000 aggregate.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

In the event of non-delivery, Tonopah Solar is obligated to pay the incremental difference in price between the cost of replacement power and the cost of power generated by the project. However, should the cost of replacement power be less than the contract price of power from the project then the replacement cost will be \$0.00.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The generating facility uses renewable solar energy to generate electricity and transmits that energy directly to the Company at a facility owned, operated and controlled by the Company. Therefore, the generating facility comports with NRS §704.7815 (1)(a) and 704.7815 (1)(b)(1).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

Tonopah Solar Energy, LLC is a single purpose entity organized by parent-company SolarReserve to develop, construct and operate the Crescent Dunes facility and possible additional solar power prospects in southern Nevada. While this will be the first of several potential projects to be developed by the SolarReserve team in Nevada, SolarReserve management is experienced in project development for renewable and conventional power projects worldwide. SolarReserve's leadership team consists of senior executives who were involved in developing, constructing, and operating the solar technology deployed for this project as well as executives with extensive project development expertise in renewables and fossil fuel power projects. SolarReserve's development team has a successful track record in the permitting, development and financing of more than \$4.5 billion successful projects worldwide. SolarReserve is currently involved in permitting activities in Spain, California, and Arizona and has acquired land or site control in other states and locations worldwide.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The interconnection point is accessed from the project site via a new 230 kV generator tie-line which will connect directly to the Anaconda Moly Substation near the town of Tonopah, Nevada.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

Commission approval of the project will not affect any pending interconnection priorities.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

Tonopah Solar has not submitted a request for transmission service. The Company submitted the request for designation of the Crescent Dunes project as a designated network resource (“DNR”) in accordance with provisions of the Company's OATT. As a DNR, the project will use the Company's network integration transmission service to deliver the output from the renewable resource to the Company's native load.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-

year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

The Crescent Dunes project will be constructed on BLM-managed land. Tonopah Solar submitted an application to the BLM for a Right-of-Way grant for the site. The project is therefore subject to NEPA requirements for projects being constructed on federal lands. Biological surveys and cultural field surveys have been completed. The Notice of Availability (~~NOA~~) of the Final EIS was published on November 26, 2010. No significant environmental impacts have been identified. The BLM issued the ROD on December 20, 2010 and the NOA for the ROD was issued on December 27, 2010. The Crescent Dunes project was nominated by the BLM to be permitted under a fast track permitting process. Nye County has passed a resolution in support of the project

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

The following permits are required:

Record of Decision (BLM) – Issued December 20, 2010;

Utility Environmental Protection Act (~~UEPA~~) Permit – Amended UEPA submitted to the PUCN on January 5th, 2011;

Local Construction Permits.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

An application to obtain a Right-of-Way grant for the project was submitted to the BLM in 2008. A Plan of Development, as required by the BLM for solar energy projects was submitted to the local BLM field office. The federal NEPA process started with publication of the NOI by the BLM Washington Office on November 24, 2009. On December 21, 2010 the Grants for the various Rights of Way were executed by the BLM and Tonopah Solar Energy, LLC.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Tonopah Solar has acquired an option to purchase certificated water rights to serve the minimal cooling and industrial water needs for the project. On December 21, 2010 the Grants for the various Rights of Way were executed by the BLM and Tonopah Solar Energy, LLC.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

Nevada Power does have economic dispatch rights and can curtail 100% of the expected output, provided that Nevada Power makes whole Tonopah Solar for lost revenues.

VIII. THREE PORTFOLIO CREDIT ONLY PURCHASE AGREEMENTS

CNLV Solar Power Generation Station 1, LLC SCGC Solar Power Generation Station 1, LLC Pecos Solar Power Generation Station 1, LLC

Amonix, founded in 1989, is the world's leading designer and manufacturer of high-performance concentrated photovoltaic ("CPV") solar power systems for utility scale applications. Amonix is headquartered in Seal Beach, California and recently expanded manufacturing capacity at a new 214,000 square foot facility in the City of North Las Vegas, Nevada.

Amonix's 7700 solar power systems use no water in power production, use land more effectively and produce more energy per acre than any other solar technology. The Amonix 7700 is a fully integrated, 2-axis tracking system powered by the world's highest efficiency solar cells, III-V multijunction cells manufactured in the United States by Boeing Spectrolab. The solar cells were originally developed and deployed for satellite power generation systems, requiring predictability and reliability in the rigorous and demanding conditions in space. Amonix's CPV systems track the sun, capturing up to 30-40 percent more energy than fixed PV systems, and operate during periods of peak power demand.

Amonix, through single purpose entities, proposes to construct and operate three CPV generating facilities. Each of the CPV facilities will be net metered at less than 1 MW and installed at three separate customer sites. All of the energy generated will be sold to the customers directly by Amonix. Each project will be solar, distributed generation, interconnected behind-the-meter at the customer premise and therefore qualifying for the 2.45 portfolio credit multiplier available for solar PV systems¹⁵. In addition, each of the three Amonix generating facilities will be utilizing its latest generation of technology with the world's highest efficiency. Producing more power per tracking structure significantly improves the economics of the Amonix CPV systems and projects. The 2-axis tracker operates to maintain the system's seven MegaModules with one degree of optimal orientation to the sun, and has been designed for reliability and minimum maintenance. In addition, the parasitic power requirements are minimal, typically less than one percent of overall power output.

¹⁵ See NRS 704.7822 (Calculation of electricity generated or acquired from certain photovoltaic systems).

As part of the 2010 RFO, Amonix submitted proposals to sell the PCs from three concentrated solar PV facilities at the following locations: City of North Las Vegas – Water Reclamation Facility, Shadow Creek Golf Course in North Las Vegas and its manufacturing facility on Pecos Road in North Las Vegas. Each of the projects was proposed to be sold under separate PCPAs by separate wholly owned subsidiaries of Amonix: CNLV Solar Power Generation Station 1, LLC (as set forth in Technical Appendix PCO – 2), SCGC Solar Power Generation Station 1, LLC (as set forth in Technical Appendix PCO – 3), and Pecos Solar Power Generation Station 1, LLC (as set forth in Technical Appendix PCO – 4). Figures-31 through 33 are maps showing the locations of the three proposed facilities.

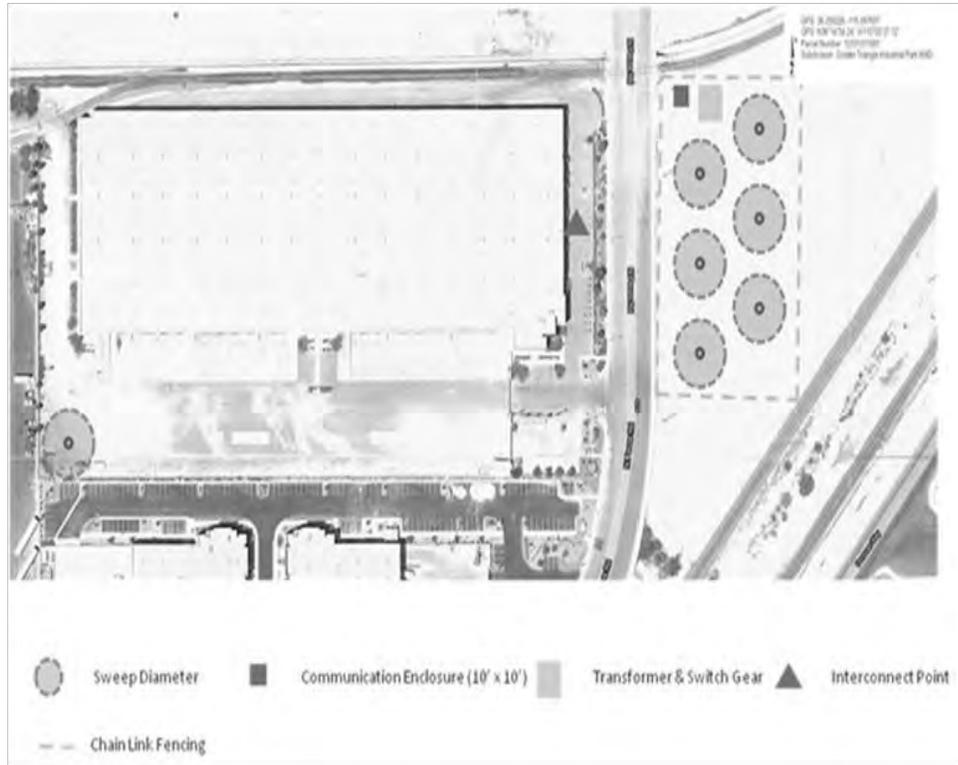
FIGURE-31
CNLV SOLAR POWER GENERATION I STATION 1, LLC



FIGURE-32
SCGC SOLAR POWER GENERATION STATION 1, LLC



FIGURE-33
PECOS SOLAR POWER GENERATION STATION 1, LLC



The largest of the Amonix proposed projects is the CNLV Water Reclamation Facility. The CNLV solar facility is a 1 MW CPV project targeted to supply 5,957 kPCs annually. The system will be located at the CNLV Water Reclamation Facility currently under construction on the property CNLV leases from Nellis Air Force Base and will be a net metering system that provides energy to CNLV. Amonix has executed a Letter of Intent, Site License Letter, and is party to a PPA fully approved by the CNLV’s city council. Amonix has begun the permitting and interconnection process and anticipates commercial operation no later than October 2012. The Company is seeking approval for a twenty year portfolio credit purchase agreement with CNLV Solar Power Generation Station 1, LLC for the PCs associated with the CNLV solar facility.

The SCGC is a 0.58 MW project to be located on the Shadow Creek Golf Course in North Las Vegas, Nevada. The SCGC solar facility will be a net metering system that provides energy to SCGC (which is owned by MGM Resorts International). The SCGC CPV project is targeted to supply 3,515 kPCs annually. Amonix has executed a Letter of Intent and Site License Letter with SCGC. Amonix has begun the permitting and interconnection process and anticipates commercial operation no later than October 2012. The Company is seeking

approval for a twenty year portfolio credit purchase agreement with SCGC Solar Power Generation Station 1, LLC for the PCs associated with the SCGC solar facility.

Amonix has proposed to install a 0.46 MW CPV system at their new manufacturing facility on Pecos Road in North Las Vegas, Nevada. The energy from the Amonix Pecos Facility will be sold to Amonix Inc. and connected as a net metering system. The Pecos Facility project is targeted to supply 2,722 kPCs annually. Amonix has executed a Site License Letter with Golden Triangle Industrial Park LLC. Amonix has begun the permitting and interconnection process and anticipates commercial operation no later than October 2012. The Company is seeking approval for a five year portfolio credit purchase agreement with Pecos Solar Power Generation Station 1, LLC for the PCs associated with the Pecos solar facility.

To aid the Commission in its evaluation of the three portfolio credit purchase agreements, the Company has prepared a summary of the various findings the Commission must make regarding this and any renewable PPA. Given the similarities of the three PCPA projects, this section consolidates the information for all three Amonix PCPAs, distinguishing between the three when the circumstances require.

NAC §704.8885 (New renewable energy contracts: Review by Commission; criteria for approval) and NAC §704.8887 (New renewable energy contracts: Determination of whether price for electricity is reasonable) requires that the Company provide specific information regarding new renewable energy contracts for which it is seeking approval. For the three Amonix projects, this information is set forth below:

NAC §704.8885(2)(a) requires the Commission to determine the reasonableness of the price of electricity based on the factors set forth in NAC 704.8887, detailed in pertinent part as follows:

NAC §704.8887(1) instructs the utility to calculate the price for electricity acquired or saved pursuant to a new renewable energy contract or energy efficiency contract by calculating the levelized market price for the electricity.

The Amonix agreements are for the purchase of portfolio energy credits only. The levelized price of each contract is shown as a cost comparison to the projects received in the 2010 RFO in Technical Appendix –PCO - 1.

NAC §704.8887(2)(a) requires the Commission to address whether the new renewable energy contract or energy efficiency contract comports with the utility provider's most recently approved plan to increase its supply of or decrease the demand for electricity.

Commission approval of the Amonix agreements will not directly affect the supply of or demand for energy since the PCPA is only for purchase of PCs.

NAC §704.8887(2)(b) addresses the reasonableness of any price indexing provisions set forth in the new renewable energy contract or energy efficiency contract.

The price for PCs set forth in the Amonix contracts are escalated at a fixed rate and are not indexed. The escalation rate of 1% annually is consistent with previous renewable contracts that have been approved by the Commission.

NAC §704.8887(2)(c) address whether the new renewable energy systems will reduce environmental costs in this State as compared to competing facilities or energy systems that use fossil fuels.

The CPV technology that the Amonix projects utilize creates zero air emissions. There is no change in environmental costs in this State as a direct result of the Amonix PCPAs.

NAC §704.8887(2)(d) addresses the net economic impact and all environmental benefits and environmental costs to this State in accordance with NAC §704.9005 to 704.9525, inclusive, and section 7 of this regulation (measurement and verification protocol for all energy efficiency measures).

The net economic impact of the projects includes:

- (1) A temporary increase in workforce during the construction of the facilities of an estimated 30 positions, for which median annual salaries and benefits are about \$99,800 each;
- (2) A permanent long-term increase in the workforce for the operation and maintenance of the facilities with an estimated one full-time position at an estimated total annual salary of \$135,000 in annual payroll and benefits;
- (3) The environmental benefit will not be attributable to the PCPAs since energy is not being acquired by the Company.

NAC §704.8887(2)(e) addresses any economic benefits that might inure to any sector of the economy of this State.

The economic benefit of the projects is an increase in property tax in Clark County, Nevada and sales taxes from purchases of local goods. Other benefits include an increase in short term construction employment and long term employment.

NAC §704.8887(2)(f) addresses the diversity of energy sources being used to generate electricity that is consumed in this State.

Commission approval of the Amonix portfolio credit agreements will indirectly increase the diversity of energy sources being used to generate

electricity that is consumed in Nevada in that Amonix will sell electricity to the customer and the Company will purchase the renewable energy credits.

NAC §704.8887(2)(g) addresses the diversity of energy suppliers generating or selling electricity in this State.

Amonix has experience developing, constructing, operating and maintaining CPV systems in Nevada. This PCPA will indirectly lead to an increase in the number of energy suppliers generating or selling electricity in this State.

NAC §704.8887(2)(h) addresses the value of any price hedging or energy price stability associated with the new renewable energy contract or energy efficiency contract.

The PCPA has a fixed price that is escalated at a fixed amount annually. Commission approval of the Amonix agreements will not have any impact on Nevada Power's energy price hedging or energy price stability.

NAC §704.8887(2)(i) addresses the date on which each renewable energy system is projected to begin commercial operation.

All three of the Amonix facilities generating the PCs to be sold under the agreements will be commercially operational no later than October 2012.

NAC §704.8887(2)(j) addresses whether the utility provider has any flexibility concerning the quantity of electricity that the utility provider must acquire or save pursuant to the new renewable energy contract or energy efficiency contract.

Since the Amonix agreements are for PCs only, no electricity will be acquired. Nevada Power will acquire all available PCs under the agreement.

NAC §704.8887(2)(k) addresses whether the new renewable energy contract or energy efficiency contract will result in any benefits to the transmission system of the utility provider.

Commission approval of the Amonix PCPA agreements will not affect Nevada Power's transmission system.

NAC §704.8887(2)(l) addresses whether the electricity acquired or saved pursuant to the new renewable energy contract or energy efficiency contract is priced at or below the utility provider's long-term avoided cost rate.

Nevada Power is purchasing PCs through the Amonix agreements, not renewable energy. However, the PCs acquired pursuant to these agreements are priced competitively as can be seen in Technical Appendix PCO-1.

NAC §704.8887(3) addresses the price of electricity acquired or saved in a renewable energy contract or energy efficiency contract for the solar energy requirement of its portfolio standard to be evaluated separately.

The cost of PCs delivered from the Amonix projects are competitive to prices received in the 2010 renewable PC-only RFO. See a comparison of the 2010 RFO bids in Technical Appendix –PCO - 1.

NAC §704.8885(2)(b) addresses the term of the contract.

The term of the CNLV Solar Power Generation Station 1, LLC PCPA is 20 years.

The term of the SCGC Solar Power Generation Station 1, LLC PCPA is 20 years.

The term of the Pecos Solar Power Generation Station 1, LLC PCPA is 5 years.

NAC §704.8885(2)(c) addresses the location of the portfolio [renewable] energy system or efficiency measure that is subject to the contract.

The locations of all three PCPA projects are in Clark County, Nevada.

NAC §704.8885(2)(d) addresses the use of natural resources by each renewable energy system that is subject to the contract.

The project utilizes irradiance from the sun gathered by solar panels. No water will be consumed during operation of the project, other than occasional cleaning of the panels.

NAC §704.8885(2)(e) addresses the firmness of the electricity to be delivered and the delivery schedule.

The three Amonix agreements are for PCs only and are net metered at the customer premises.

NAC §704.8885(2)(f) addresses the delivery point for the electricity.

Each of the three Amonix facilities will interconnect to the customer's electrical panel and as such will deliver electricity directly to the customer.

NAC §704.8885(2)(g) addresses the characteristics of similar renewable energy systems.

The characteristics of the project will be similar to that of the Amonix solar CPV project located at Nevada Power's Clark Generating facility. The plant design is proven technology and has been used worldwide and in Nevada.

NAC §704.8885(2)(h) addresses the requirements for ancillary services.

Requirements for ancillary services are not affected by the PCPA.

NAC §704.8885(2)(i) addresses the unit contingent provisions.

This provision is not applicable since only PCs are being purchased without energy.

NAC §704.8885(2)(j) addresses the system peak capacity requirements of the utility provider.

Commission approval of the Amonix agreements will not affect the Company's system peak requirements, other than an indirect reduction to the extent the underlying energy is delivered to the customer during peak periods.

NAC §704.8885(2)(k) addresses the requirements for scheduling.

Commission approval of the Amonix agreements will not affect scheduling.

NAC §704.8885(2)(l) addresses conditions and limitations on the transmission system.

Commission approval of the Amonix PCPA agreements will not affect Nevada Power's transmission system.

NAC §704.8885(2)(m) addresses project insurance.

The PCPA does not require the supplier to provide project insurance.

NAC §704.8885(2)(n) addresses the costs for procuring replacement power in the event of non-delivery.

The Amonix PCPA agreements will not affect Nevada Power's costs for replacement power.

NAC §704.885(2)(o) addresses information verifying that each renewable energy system transmits or distributes or will transmit or distribute the electricity that it generates in accordance with the requirements of NRS 704.7815, as amended.

The Amonix generating facilities use renewable solar energy to generate electricity and use the electricity that they generate from renewable energy or energy from a qualified recovery process in the State and the facilities are net metered for use by a customer-generator pursuant to NRS §704.766 to 704.775 inclusive. Therefore, the generating facility comports with NRS §704.7815 (1)(a) and 704.7815 (3).

NAC §704.8885(2)(p) addresses the total number of renewable energy systems that the owner of the renewable energy system is or has been associated with as an owner or operator.

Amonix has over 16 years of field experience with over 17MW DC deployed world-wide, in Spain and in the Southwest US. Amonix has a strong presence in Southern Nevada, with three installations: one on the campus of the University of Nevada, Las Vegas, another at the NV Energy Edward W. Clark Generating Station, and a third with Southern Nevada Water Authority at their River Mountains Water Treatment Facility, where they use clean energy to create clean water.

NAC §704.8885(2)(q) addresses the points of interconnection with the electric system of the utility.

The three Amonix facilities will interconnect on the customer side of the meter and not directly with the utility.

NAC §704.8885(2)(r) addresses the interconnection priority which has been established for the available transmission capacity of the utility provider for all proposed renewable energy systems that will interconnect and begin commercial operation within the three-year period immediately following the date on which the new renewable energy contract or energy efficiency contract is submitted for approval.

The three Amonix projects are not FERC jurisdictional and will interconnect as a Net Metering System under Nevada law.

NAC §704.8885(2)(s) addresses any requests for transmission service that have been filed with the utility provider.

Transmission service is not applicable to these three PCPA agreements.

NAC §704.8885(2)(t) addresses any evidence that an environmental assessment, an environmental impact statement or an environmental impact report is being completed or has been completed with regard to the renewable energy system, or any evidence that a contract has been executed with an environmental contractor who will prepare such an assessment, statement or report within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Currently, no permits, environmental surveys, constraint studies or reports have been completed but Amonix is in the process of obtaining them. Amonix does not anticipate any environmental concerns since these projects are located on customer premises that are currently already in existence.

NAC §704.8885(2)(u) addresses permits required for the renewable energy systems within the 3-year period immediately preceding the date on which the renewable energy system is projected to begin commercial operation.

Regulatory approvals for the Amonix projects can be found in their individual contracts in Exhibit 7 in Technical Appendix PCO – 2 through –PCO - 4.

NAC §704.8885(2)(v) addresses applications for development rights with the appropriate Federal agencies (including BLM), where the granting of such developmental rights is not contingent upon a competitive bidding process.

There are no applications for development rights required for or contemplated by the Amonix agreements.

NAC §704.8885(2)(w) addresses any evidence that establishes rights of ownership, possession or use concerning land or natural resources, including, without limitation, deeds, land patents, leases, contracts, licenses or permits concerning land, geothermal drilling rights or other rights to natural resources.

Amonix has executed a Letter of Intent and/or Site License Letter with each of the customers whose property they intend to develop on.

NAC §704.8885(2)(x) addresses whether the utility provider has any economical dispatch rights.

The Amonix agreements are for PCs only. Nevada Power has no rights with respect to the energy from these facilities under the PCPAs.

IX. AMENDED ACTION PLAN

Nevada Power seeks Commission approval of the following:

- A. Updated base load forecast to be used for long term planning purposes.
- B. New Renewable Purchase Power Agreements (“~~PPAs~~”)
 1. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and ORNI 32, LLC, dated February 11, 2011, for a new 51 MW (30 MW net) geothermal project in Churchill County, Nevada.
 2. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and FRV Spectrum Solar, LLC, dated February 11, 2011, for a new 30 MW “~~AC~~” solar project in Clark County, Nevada.

3. A Long-Term Portfolio Credit and Renewable Power Purchase Agreement between Nevada Power and Mountain View Solar, LLC, dated February 11, 2011, for a new 20 MW AC solar project in Clark County, Nevada.

C. Amendment to Previously Approved Renewable Purchase Power Agreements

1. An amended and restated Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Fotowatio Nevada Solar, LLC, dated February 11, 2011.
2. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and ORNI 15, LLC, dated February 11, 2011.
3. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Enel Stillwater, dated February 16, 2011.
4. An amendment to the previously approved Long-Term Firm Portfolio Energy Credit and Renewable Power Purchase Agreement between Nevada Power and Tonopah Solar Energy, LLC, dated March 1, 2011.

D. Portfolio Credit (~~PC~~) Only Purchase Agreements

1. A long-term portfolio credit purchase agreement between Nevada Power and City of North Las Vegas (~~ENLV~~) Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 5,957 kPCs.
2. A long-term portfolio credit purchase agreement between Nevada Power and Shadow Creek Golf Course (~~SCGC~~) Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 3,515 kPCs.
3. A long-term portfolio credit purchase agreement between Nevada Power and Pecos Solar Power Generation Station 1, LLC, dated February 11, 2011, for a contracted annual supply amount of 2,722 kPCs.