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**FISCAL IMPACT  
Revised 1-20-11**

**Renewable Energy Partial Abatement of Sales/ Use and Property Taxes**

**Silver State Solar Power North, LLC**

**Background**

Silver State Solar Power North, LLC, a wholly owned subsidiary of First Solar, Inc., proposes to build a 50 MW AC solar photovoltaic (PV) facility located on BLM administered lands, approximately 2 miles east of Primm, in Clark County, Nevada. The Proposed Project is Phase I of three phases. Phases II and III would include construction and operation of two additional solar plants and infrastructure to complete a 400-megawatt (MW) Proposed Project.<sup>1</sup> Phase I is expected to be in service January 1, 2012 and the full output will be delivered to the Bighorn Substation, directly adjacent to the project site.<sup>2</sup> The Bighorn Substation will be expanded to accommodate the additional equipment required to interconnect the Proposed Project.

The solar field and infrastructure will consist of single-axis tracker systems or fixed panels, underground and overhead electrical power collection system, two step-up transformers, 230kV and 220kV transmission lines, an operation and maintenance (O&M) area, switchyard, paved access and maintenance roads, flood and drainage controls and a fire break. The solar array field will occupy 320 acres of 618.63 acres contained in a right-of-way lease agreement with the BLM.<sup>3</sup>

**Fiscal Impact – Sales and Use Taxes**

In accordance with the provisions NRS 701A of the Nevada Revised Statutes, Silver State Solar Power North LLC has requested a Sales and Use Tax Abatement for their Renewable Energy Project. This project is located in Clark County. Upon approval this project would be granted a partial abatement of Sales and Use Tax for a period of three years, commencing on the date of approval of the application.

The Nevada State Office of Energy has provided to the Department of Taxation a completed copy of the Renewable Energy Tax Abatements Application for this project. According to Schedule 6

<sup>1</sup> BLM, Volume I, Final Environmental Impact Statement for the Silver State Solar Energy Project, DOI No. FES 10-50 (September, 2010)

<sup>2</sup> PUCN Docket #03022, page 111.

<sup>3</sup> United States Dept of the Interior, BLM ROW Lease/Grant dated 10-12-10. The ROW describes the facilities to include: PV solar array field consisting of fixed-tilt mounting systems supported by driven steel posts, PV solar modules, DC collection system comprised of underground cabling and combiner boxes, power inverters, three-phase pad mounted transformers that convert the output of inverters to 34.5 kilovolts (kV), a 0.25-mile paved access road (30-feet wide), an underground fiber optic communications line (located along access road), a perimeter fence, a perimeter road (within the security fence), interior solar field access ways, a 34.5kV collection system to convey electricity from the solar field to the substation, a 1-acre 34.5kV/230kV substation (consisting of 34.5kV/230kV step-up transformers, breakers, bus work, protective relaying and associated equipment), a 0.4-mile 230kV overhead power transmission line and associated access road, a 1.2-acre operation and maintenance facility (consisting of a 2,000 square foot operation and maintenance building, parking area, a SCADA communications system, and other associated facilities), a 0.8-mile maintenance road (located adjacent to the outside of the perimeter fence), a 20-foot-wide fire break (located immediately adjacent to the outside of the security fence); and the following temporary facilities as needed, only for the duration of the construction activity: a 2.25-acre water storage pond, a 4-acre construction mobilization and lay down area, and a 3.8 acre workforce parking area. The total footprint covered by this instrument, consists of 618.63 acres, more or less. A copy of the lease may be obtained from the BLM website at <http://www.blm.gov/>

and 7 of this application, Silver State Solar Power North LLC will purchase a total of \$68,469,405.69 worth of tangible, personal property subject to Sales and/or Use Tax during the first year of the abatement period. At the current Sales or Use Tax rate for Clark County, the full Sales Tax for these purchases would be \$5,546,021.86 less any applicable collection allowance.

According to Schedules 7 of this application, Silver State Solar Power North LLC will purchase \$43,224,735.60 worth of tangible, personal property subject to Sales and/or Use Tax during the second year of the abatement period. Schedule 8 show no purchases or tangible, personal property subject to Sales/and or Use Tax will be purchase during the third year.

Based on this information, the Department of Taxation projects the following Sales Tax related fiscal impact for the three years of the abatement period.

Sales Tax Component	1st Yr. Oct 15 thru June 30, 2011	1st Yr. July 1 thru Oct 14, 2011	2nd Yr. Oct 15, 2011 thru Oct 14, 2012	3rd Yr. Oct 15, 2012 thru Oct14, 2013	Total
Sales/Use Tax (General Fund) (2%)	(\$522,086.49)	(\$847,301.62)	(\$864,494.71)	N/A	(\$2,233,882.83)
Local School Support Tax (2.6%) (2.25%)	\$678,712.44	\$953,214.33	\$972,556.55	N/A	\$2,604,483.32
Basic City Relief (.50%)	(\$130,521.62)	(\$211,825.41)	(\$216,123.68)	N/A	(\$558,470.71)
Supp. City County Relief (1.75%)	(\$456,825.68)	(\$741,388.92)	(\$756,432.87)	N/A	(\$1,954,647.47)
County Option (1.25%)	(\$326,304.06)	(\$529,563.51)	(\$540,309.20)	N/A	(\$1,396,176.77)

Total Amount Abated: 1st Year: \$ 3,765,817.31  
2nd Year: \$ 2,377,360.46  
3rd Year: N/A

Total Impact on Local/ County Government 1st Year: \$ 2,396,429.20  
2nd Year: \$ 1,512,865.75  
3rd Year: N/A

**Fiscal Impact – Property Taxes**

Generally speaking, electric light and power companies that are located completely within a county, with no transmission lines carrying power across county lines, are locally assessed. NRS 361.320(7). Facilities that own transmission lines or other property that traverse county boundary lines are centrally assessed. NRS 361.320(1).

NRS 361.320(6) adds an exception to the general rule expressed above. It states:

If two or more persons perform separate functions that collectively are needed to deliver electric service to the final customer and the property used in performing the functions would be centrally assessed if owned by one person, the Nevada Tax Commission shall establish its valuation and apportion the valuation among the several counties in the same manner as the valuation of other centrally assessed property.

The Taxpayer reports that it is in the business of generating and selling energy. It also reports that no part of its facility crosses state or county boundary lines, and that it has a 25 year purchase power agreement with Nevada Power Company. The agreement calls for Nevada Power Company to take all electricity, portfolio credits and renewable energy benefits generating from the facility.

Based on advice from the Office of the Attorney General, unless and until such time as the Taxpayer requires the use of transmission lines of another company such as Nevada Power to deliver power to a third party, the property must be locally assessed. The determination of local assessment will stand unless and until Phases II and III are completed and the project is connected to Southern California Edison grid, at which time the decision will be reconsidered for central assessment.

### **Analysis**

In general, locally assessed real property must be valued according to the requirements of NRS 361.227. Replacement cost new of the improvements, less depreciation at the rate of 1-1/2% per year for a maximum of 50 years, is added to the full cash value of the improved land. Personal property is valued based on acquisition cost less depreciation identified in the Personal Property Manual approved by the Nevada Tax Commission.

The Taxpayer identified four parcels of land as part of the project in Schedule 3 of the application. The county assessor has a current taxable value of \$2,971,400, for four parcels of land having a total of 2,128.32 acres, or \$1,396 per acre. For purposes of this analysis, the Assessor's taxable value was used for the value of land in 2011. For the balance of the 20 years for which the abatement may be granted, an appreciation factor of 2% per year was applied to the value of the land for each year after 10 years. The Assessor's land value is supported by a present value analysis of rental information of approximately 618 acres the Taxpayer has obtained in a right of way agreement from the BLM.

The Taxpayer also reported several project cost areas as "personal" property rather than as real property. The Department used the acquisition cost reported by the Taxpayer for each cost center but determined that all components were real property, based on the framework for analysis provided in Nevada Tax Commission regulations adopted in August, 2010, LCB File No. R039-10, Section 16 and in the 2011-12 Personal Property Manual, Appendix F. In particular, the criteria for determining whether property is real or personal are based on the following:

Sec. 16. "Fixture" means an item that was originally personal property which has been installed or attached to land or an improvement in a permanent manner. As used in this section, "installed or attached to land or an improvement in a permanent manner" means that:

1. Either:

(a) An item is attached to, imbedded in or permanently resting upon land or an improvement, or is attached by other means that are normally used for permanent installation, and cannot be removed without substantially damaging the item or the land or improvement with which it is being used; or

(b) The use or purpose of an item that is not otherwise physically annexed to land or an improvement is so adapted that it is:

(1) A necessary, integral or working part of the land or improvement;

(2) Designed or committed for use with the land or improvement; or

(3) So essential to the land or improvement that the land or improvement cannot perform its desired function without the nonattached item; and

2. A reasonable person would consider the item to be a permanent part of the land or improvement, taking into account annexation, adaptation and other objective manifestations of permanence.

Underlying both the physical or constructive annexation tests is a determination of intent. An assessor must consider whether the item is intended to be a permanent part of the land or

improvement, taking into account physical or constructive annexation, and other objective manifestations of permanence.

The typical components of a photo-voltaic solar generation facility consist of site preparation activities, including construction survey, grading, trenching, drainage features, diversion channels, detention ponds, culverts for road crossings, containment berms, and firebreaks. Other components include access roads and utilities such as telecommunication lines, foundations for generator step-up transformers, trackers, drive motor foundations; PV solar modules, pad-mounted inverters, underground and overhead cabling and cable termination, operations and maintenance buildings, electrical equipment enclosures; water delivery systems including pumps, wells, water storage tanks, waste and wastewater management; on-site land treatment unit; fire protection systems, including piping systems, fire hydrants, and sprinkler deluge systems; electronic systems to control equipment and facilities operations; lighting systems (AC and DC); fencing, controlled access gates, switchyard and substations.

The Department's understanding is that the solar field consists of components either attached to the land or "so essential to the land or improvement that the land or improvement cannot perform its desired function without the nonattached item," for example, tracker foundations. Although removed from the final EIS, the draft EIS stated that "The facility is expected to operate for approximately 50 years."<sup>4</sup> The list of construction permits obtained by the Taxpayer from Clark County and listed in the application are also an objective indication of the permanent nature of the facility. In addition, the BLM ROW lease/grant provides for a term of 30 years with the right to renew.<sup>5</sup> This analysis therefore applies the requirements of NRS 361.227(1)(b) to determine the taxable value of the improvements. Depreciation of an improvement must be calculated at 1.5 percent of the cost of replacement for each year of adjusted actual age of the improvement up to a maximum of 50 years. Additional functional and economic obsolescence must be calculated separately.

Pending further clarification that the reported OHV race track improvements and offsite road improvements will be included in the actual project and that they meet the requirements of NRS 701A.345 and 701A.360 as property used in a facility to collect and store renewable energy and convert it into electricity, the Department performed two analyses. The first analysis does not include the OHV race track improvements and offsite road improvements and is the principal abatement reported. The second analysis does include those costs, and the abatement amount is included in the footnote on page 5. The Department also did not include the reported costs of construction trailers, assuming they are temporary in nature and also do not meet the requirements of NRS 701A.345 and 701A.360. Finally, the Department did not include property reported on Schedule 5, Contributions in Aid of Construction, assuming the property belongs to NV Energy or another party.

The Department did not adjust upward the reported acquisition cost to reflect any appreciation, based on the assumption that the cost of development will go down over time, since the solar power technology is a relatively new and changing technology.

The Department also used the current tax rate of \$2.7283 per hundred (0.027283) for Tax District 104 without further adjustment, although a portion of the reported lands exist in Tax District 100 which has a current tax rate of \$2.5086. Under current law, the maximum tax rate could go up to \$3.66, however, the project is also subject to the tax abatement afforded under NRS 361.4722, which limits tax dollar increases to no more than 8% per year.

The calculation of the abatement contained in the attached spreadsheets takes into account the required distribution of remaining taxes after abatement as between the State of Nevada Renewable Energy Fund (General Fund in the first year only) and local governments, in the proportion of 45/55. Stated another way, 55% of the total taxes generated by the estimated taxable value is abated. Of the remaining 45% of tax dollars, 45% is distributed to the State of Nevada Renewable Energy Fund (or the

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<sup>4</sup> Draft Environmental Impact Statement For The Silver State Solar Energy Project (NVN-085077), April, 2010, Abstract.

<sup>5</sup> Paragraphs 2 (c) and (d) of the United States Dept of the Interior, BLM ROW Lease/Grant dated 10-12-10.

General Fund in 2010 only) and 55% is distributed to local governments. The calculation assumes the State of Nevada loses the 17 cent per hundred levy for the State debt fund.

### ***Estimate of Property Tax Abatement***

Based on the assumptions and conditions noted above, the estimated fiscal impact for the duration of the abatement for 20 years is as follows:

Total Taxable Value of the Project in 2011:	\$ 120,028,619*
Total Taxable Value of the Project in 2030:	\$ 87,247,010*

Estimated capital cost per kW (120,028,619/50,000)	\$2,400/kW
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Total Taxes Due, First Year After Completion:	\$ 1,146,159
Total Renewable Energy Abatement @ 55%:	\$ 630,388
Total Taxes Available to Local Governments and Energy Fund:	\$ 515,772
Total Taxes Available to Local Governments only:	\$ 283,674

The amount of the abatement for each year thereafter approximates the amount obtained in the first year and continues during the period of abatement as follows:

Total Taxes Due during Period of Abatement (20 years):	\$ 19,764,445
Total Renewable Energy Abatement, 20 years:	\$ 10,870,445*
Total Taxes Available to Local Governments and Energy Fund:	\$ 8,894,000
Total Taxes Available to Local Governments only:	\$ 4,891,700

See attached spreadsheets for the amounts by year and by local government entity.

\*Note: This amount excludes OHV race track improvements and off-site road improvements, as well as construction trailers. If the OHV race track improvements and off-site road improvements were to become part of the project and found to be eligible as property used in a facility to collect and store renewable energy, the total taxable value in 2011 would be \$121,028,619; and in 2030, \$87,962,010. The total renewable energy abatement over 20 years would be \$11,287,134.