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FISCAL IMPACT
Renewable Energy Partial Abatement Of Property Taxes

Fotowatio Nevada Solar, LLC

Background

Fotowatio Nevada Solar, LLC (Fotowatio) proposes to develop an electric generating facility which uses renewable solar energy. The energy so generated will be transmitted via a power line dedicated to the transmission of electricity generated from renewable energy and is connected to the Gypsum substation owned, operated and controlled by the Nevada Power Company (Nevada Power).[1]

The solar photo-voltaic project is located on 154.2 acres approximately 2.1 miles south of the intersection of U.S. 93 and Apex Power Parkway, in the Apex Industrial Park in North Las Vegas, Clark County, Nevada. The project will consist of polycrystalline PV modules mounted on single-axis trackers and has a converted capacity of 20.5 MW AC. The project is expected to generate approximately 55,850 MWh.[2] The site will contain 70 full arrays, 20 partial arrays, substation with step-up transformer, and secondary maintenance access drive aisles between the arrays. The site will be enclosed by seven foot chain link fencing with three strands of barbed wire atop the fence as a security measure. The City has classified the proposed land use as a utility installation.[3]

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 and PCs (power credits) generating from the facility. Nevada Power has the ability to dispatch the facility down to 100% of the expected output as long as it makes whole the developer for energy that would have been produced. The project will generate non-firm energy that will be delivered directly into Nevada Power's electric grid after consumption of station load requirements for the plant.

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[1] Nevada Power Company dba Nevada Energy, 12th Amendment to its 2007-2026 Integrated Resource Plan, Vol. 2, p. 36.
[2] Nevada Power Company dba Nevada Energy, 12th Amendment to its 2007-2026 Integrated Resource Plan, Vol. 2, p. 29.
[3] City of North Las Vegas, Site Plan Review, October 14, 2009.

The Fotowatio PV project will be designated as a network resource within Nevada Power's system and the output will be scheduled to Nevada Power's native load.[4]

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.

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 reported a purchase price for land of $4,466,000. The county assessor has a current taxable value of $16,039,200, or $104,106 per acre. For purposes of this analysis, the Assessor's taxable value was used for the value of land in 2010. 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. The appreciation factor is a considerably more conservative estimate than the 10 year average annual growth rate for land and improvements for Clark County and the State as a whole from 2000-01 to 2009-10.[5]

The Taxpayer also reported several project cost areas as "personal" property rather than as real property, but did not report an expected life for the 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 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:

(1) An item is real property if it 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

(2) An item is real property if 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.

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,

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[4] Nevada Power Company dba Nevada Energy, 12th Amendment to its 2007-2026 Integrated Resource Plan, Vol. 2, p. 35.

[5] Department of Taxation, "Statistical Analysis of the Roll," 2009. Clark County's average growth rate from 2000-01 to 2009-10 was 12.47%. State of Nevada's average growth rate for the same period was 11.22%.

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. In addition, as evidenced by the site plan review of the City of North Las Vegas and Nevada Power's integrated resource plan approved by the PUCN, this utility installation appears to be intended as a permanent installation. 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.

The Department also 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 $3.36 per hundred (0.033644) for Tax District 257 without further adjustment. 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 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 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 2010:		$88,319,200
Total Taxable Value of the Project in 2029:		$75,046,286
Estimated capital cost per kW (88,319,200/20,500)	$4,308/kW	
Total Taxes Due, First Year After Completion:		$ 1,039,994
Total Renewable Energy Abatement @ 55%:		$ 571,997
Total Taxes Available to Local Governments and Energy Fund:		$ 467,997
Total Taxes Available to Local Governments only:		$ 257,397

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):	$19,185,805
Total Renewable Energy Abatement, 20 years:	$10,552,193
Total Taxes Available to Local Governments and Energy Fund:	$ 8,197,364
Total Taxes Available to Local Governments only:	$ 4,748,487

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

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FISCAL IMPACT
Renewable Energy Partial Abatement Of Sales/Use Taxes

Fotowatio Nevada Solar, LLC

In accordance with the provisions NRS 701A of the Nevada Revised Statutes, Fotowatio Nevada Solar, LLC ("Fotowatio") 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 April 30, 2010.

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 of this application, Fotowatio will purchase a total of $65,230,000.00 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 $5,283,630.00 less any applicable collection allowance.

According to Schedules 7 and 8 of this application, Fotowatio is stating that "All personal property and real property improvements will happen in the 1st tax year" and has not listed any expenditure on tangible, personal property subject to Sales and/or Use Tax in each of the last two years of the abatement period.

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. Apr 30 thru Apr 29, 2011	2nd Yr. Apr 1 thru June 30, 2011	2nd Yr. July 1, 2011 thru March 31, 2012	3rd Yr. Apr 1, 2012 thru March 31, 2013
Sales/Use Tax (General Fund) (2%)	($1,304,600.00)	N/A	N/A	N/A
Local School Support Tax (2.6%)	$1,695,980.00	N/A	N/A	N/A
Basic City Relief (.50%)	($326,150.00)	N/A	N/A	N/A
Supp. City County Relief (1.75%)	($1,141,525.00)	N/A	N/A	N/A
County Option (1.25%)	($815,375.00)	N/A	N/A	N/A

Total Amount Abated: 1st Year: $ 3,587,650.00
2nd Year: N/A
3rd Year: N/A

Total Impact on Local/ 1st Year: $ 2,283,050.00

County Government	2nd Year: N/A 3rd Year: N/A