BILL # HB 2613 **TITLE:** taxation; solar energy equipment

SPONSOR: Graf **STATUS:** As Amended by House Ways and Means

REQUESTED BY: House **PREPARED BY:** Brian Cary

FISCAL ANALYSIS

Description

Beginning in tax year 2004, the bill would enhance the current solar energy income tax credit for individuals. The current credit allows individual taxpayers to claim a tax credit for 25% of the cost of solar energy devices installed at a residence. The total amount of the credit is limited to a maximum of $1,000 over five years.

The bill changes the existing individual tax credit to a maximum of $5,000 over five tax years. It continues to limit the credit to no more than 25% of the cost, with an annual limit of $1,000 per tax year. This credit would also be expanded to include businesses that install solar energy devices. For corporations, the bill would allow a credit of 25% of the cost or $5,000 (whichever is less) per tax year for commercial solar energy devices with a maximum of $25,000 over five tax years. The credits would be non-refundable. The bill also would allow the transfer of the new credits to the "project developer," or to the person who paid for the solar energy device.

Estimated Impact

JLBC Staff cannot determine the incremental revenue loss from the bill with certainty. At a minimum, the revenue loss from the bill could be $(5.1) million in FY 2005 and $(6.5) million in FY 2006. The General Fund cost could be significantly higher if the credit increases current consumption patterns. There are other incentives available to purchasers of solar energy equipment, such as cash rebates from electric utilities and federal tax credits. These incentives can reduce the cost of a solar energy system to less than 50% of the purchase price when combined with the credit.

While HB 2613 would lead to a direct reduction in corporate and individual tax liabilities, it would create new investment in solar equipment and higher sales, employment and payrolls for businesses selling and installing the devices. The additional economic activity would lead to an offsetting increase in tax collections. This type of secondary, or dynamic impact, is difficult to estimate. On the other side of the ledger, an undetermined amount of lost sales would be incurred by public utilities supplying electricity and natural gas.

The Department of Revenue (DOR) estimated the bill would produce an incremental revenue loss of $(888,000) per year. This estimate was based on tax year 2000 data and focused on the impact of increasing the maximum credit for individuals from $1,000 to $5,000. It did not address the revenue lost due to extending the credit to businesses and corporations, other than to observe that there would be $(5.0) million in lost revenue for every 1,000 taxpayers taking the $5,000 maximum credit.

Analysis

There is uncertainty about the bill's impact due to the behavioral effects of creating new incentives to purchase solar energy devices. The amount of the credits claimed would be affected by the cost of the equipment. A solar device used in a residence may cost from as little as $1,000 to $5,000 or more. This would include solar day-lighting equipment, residential water heaters, and low-cost photovoltaic (PV) energy systems. According to industry sources, commercial equipment and higher-rated residential systems are much more expensive.

The fiscal impact from individual taxpayers is based on assumptions derived in part from data related to the existing solar energy tax credit. According to DOR statistics, an average of 2,526 individual taxpayers claimed the existing solar credit in tax years 1999 through 2001, the latest years for which complete data were available. This represented an average of 0.13% of all individual tax returns. To project future credits claimed, the number of individual returns, which was about 1.95 million in tax year 2001, was assumed to increase by 3.0% per year. The average credit claimed was $343 in tax years 1999

through 2001 ($867,000 in annual credits claimed divided by 2,526 average annual claims). The average credit was assumed to increase to $1,000, the maximum allowed per tax year by the bill. Based on 1) a new average claim of $1,000; 2) the number of credits claimed increasing by 3% per year; and, 3) assuming one-half of the increased credit would be claimed in each of the next two fiscal years, the initial impact would be a loss of $(380,000) in FY 2005 and $(1.6) million in FY 2006. The annual credits claimed would continue to increase by about 3% per year in subsequent fiscal years.

For businesses, it was assumed that the average solar device would cost $15,000. The maximum credit would be $3,750 (25%), under the $5,000 annual limit. Estimates from the Department of Commerce and industry sources suggest that there are approximately four residential solar systems for each commercial system installed. Although it is difficult to speculate on the number of businesses that would take advantage of the new tax credit, we estimate that the number of commercial solar installations would double. Using the assumptions for residences, the number of commercial devices qualifying for the credit would be 50% of residences: 1,250 in 2004, 1,288 in 2005, and 1,326 in 2006. The cost of the tax year 2004 credits would be realized in FY 2005. We assumed that half of the credit available would be claimed in the first fiscal year and the rest in the second fiscal year. Although tax liability is accrued on a calendar year basis, final tax payments and refunds are not issued until the following calendar year. The tax credits for businesses would reduce revenue to the General Fund by $(4.7) million in FY 2005 and by $(4.9) million in FY 2006.

In the past, the tax credit was mostly used to offset the cost of solar water heaters. However, a wide range of devices qualify for the credit, including photovoltaic (PV) generators, passive systems, solar day-lighting systems, and others. Recent technological improvements in solar energy systems, combined with tax incentives and other rebates, may make them more economically viable and drive usage by consumers and businesses higher. If the new credits were claimed for equipment to be used for commercial or industrial purposes, they would not be limited by the purchaser's tax liability. The bill allows tax credits to be transferred to "the project developer" or to the person who paid for the solar energy device. These factors raise the risk of additional revenue losses not included in this fiscal analysis.

The Arizona Corporate Commission's (ACC) Environmental Portfolio Standard (EPS) requires electric utilities under their jurisdiction to offer their customers programs to increase the amount of renewable energy produced. On February 10, 2004, the ACC issued new EPS rules requiring utilities to increase the renewable energy produced in their service territories. The solar equipment purchased with these incentives would qualify for the new credits created by HB 2613. Currently, Arizona Public Service Co. (APS) is spending about $13 million per year on customer incentives for renewable energy programs, with at least 60% (about $7.8 million) to be used for solar electric systems. The remaining 40% can be used for solar water heaters and other solar or non-solar systems. Tucson Electric Power Co. (TEP) is currently spending about $4.2 million per year on EPS programs, with the same 60/40 split between solar electric and other renewable programs. Unisource Energy Services Co. (formerly Citizens Utilities) does not currently have an EPS program but is likely to be required to have one in the future. Salt River Project (SRP), which is not regulated by the ACC, does not currently offer EPS-type incentives to its customers. There are numerous off-grid PV systems throughout Arizona that do not qualify for the utility-sponsored EPS programs. Similar systems installed in 2004 and after would qualify for the tax credits allowed by HB 2613.

The EPS program offered by APS includes a rebate of $700 toward the purchase of solar water heaters, with the average residential system costing about $3,000. The rebate, combined with the tax credit, reduces the cost to $1,725. The APS program also offers a cash incentive of up to 50% of the cost of a PV system, which is typically $10,000 to $30,000. Solar system purchasers could take full advantage of the credits created by HB 2613. TEP's EPS program also offers incentives to customers installing PV systems, with one option reducing the cost of a less expensive system to about $4,700. Additionally, there are other incentives making the costs of solar energy systems more attractive to energy users. There is a 10% federal investment tax credit, along with special depreciation schedules, available to corporations that install solar energy equipment. The energy bill currently under consideration by Congress includes a 25% solar energy tax credit for individuals.

Taken together, there are trends in the solar energy industry that are reducing system costs and raising requirements for utilities to increase the amount of solar energy produced. Demand for solar energy equipment appears to be expanding, which could potentially increase future revenue losses from HB 2613.

Local Government Impact

Each year cities and towns receive an amount equal to 15% of income tax collections from two years prior. The reductions in corporate income tax collections would result in a reduction in local government distributions of $(770,000) in FY 2007 and $(980,000) in FY 2008.