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FISCAL IMPACT REPORT

ORIGINAL DATE 1/17/17
 SPONSOR Maestas Barnes LAST UPDATED 1/20/17 HB 61
 SHORT TITLE Extend Solar Market Development Tax Credit SB _____
 ANALYST Graeser

REVENUE (dollars in thousands)

Estimated Revenue					Recurring or Nonrecurring	Fund Affected
FY17	FY18	FY19	FY20	FY21		
0*	(\$3,800.0)	(\$3,800.0)	(\$3,800.0)	(\$3,800.0)	Recurring	General Fund

Parenthesis () indicate revenue decreases

- The bill has no effective date, so the analysis assumes the bill's effective date would be June 16, 2017. Depending on procedures adopted at EMNRD, approvals could commence within FY 17. However, this is a personal income tax credit, and any fiscal consequences would be delayed until the spring of 2018, within FY 18.

Estimated Additional Operating Budget Impact*				R or NR**	Fund(s) or Agency Affected
FY2018	FY2019	FY2020	FY 18-20		
\$23.7	\$3.7	\$3.7	\$31.2	R	Taxation and Revenue Department

Since this is an extension of a newly repealed credit, both TRD and EMNRD have the programming and procedures in place to administer this extension at minimal cost. However, see table above for more precise estimate of administrative costs.

Duplicate to HB 82 and SB 41

SOURCES OF INFORMATION

LFC Files

Responses Received From

Energy, Minerals and Natural Resources Department (EMNRD)
 Economic Development Department (EDD)
 Taxation and Revenue Department (TRD)

SUMMARY

Synopsis of Bill

House Bill 61 reinstates the Solar Market Development Tax Credit. Rather than the 10 percent

credit of the original 2006 credit, this amendment, gradually reduces the credit percentage for projects completed by prior to January 1, 2025. The maximum tax credit remains \$9,000 for each system.

The phase-down of the credit is as follows:

System Installation Date	Per cent of purchase and installation costs available for Solar Tax Credit
Prior to 1/1/2019	10%
1/1/2019–12/31/2020	9%
1/1/2021–12/31/2021	8%
1/1/2022–12/31/2022	7%
1/1/2023–12/31/2023	6%
1/1/2024–12/31/2024	5%

HB 61 also combines the current maximum annual aggregate tax credits of \$2 million for solar thermal systems and \$3 million for photovoltaic systems to create a cap of \$5 million for both solar thermal and photovoltaic systems.

There is no effective date of this bill. It is assumed that the effective date is 90 days after this session ends, or June 16, 2017. The LFC recommends a July 1, 2017 certain effective date.

FISCAL IMPLICATIONS

This bill may be counter to the LFC tax policy principle of adequacy, efficiency, and equity. Due to the increasing cost of tax expenditures, revenues may be insufficient to cover growing recurring appropriations.

Estimating the cost of tax expenditures is difficult. Even with 10-years of revenue history, the behavioral response to the joint federal and state credit is uncertain.

LFC has built a model, using the data reported in a report prepared by EMNRD staffer Mark Gaiser entitled, “Economics of Residential Solar in New Mexico.” County detail for the 2009 – 2014 period were also downloaded.

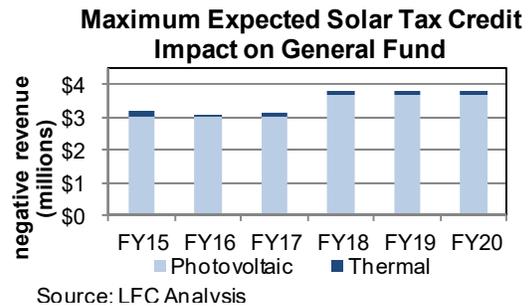
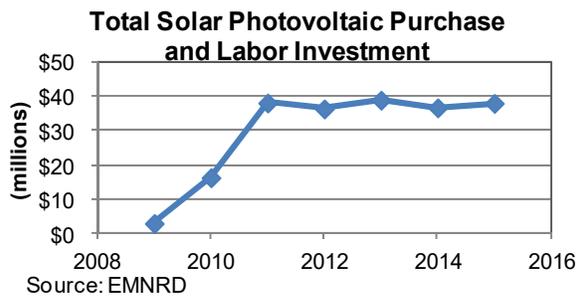
The details of this model are included at the end of this FIR. The conclusion stated there is: “Using a plausible multiplier of \$115,000 per job, enacting this phased-down will result in an annual general fund cost of \$5,000,000, 250 more installations annually and 60 more permanent jobs. This is a FY 18 cost of about \$83,000 per job. Because both the federal credit and the state credit decline over time, the differential impacts in jobs, projects and general fund cost decline over time.”

In the analysis of last year’s analysis of a similar bill, EMNRD reported the following:

“...The tax credits for photovoltaic systems have reached the \$3 million ceiling in each of the last five years, while in 2015, EMNRD certified 18 solar thermal systems for tax credits issued

of approximately \$68 thousand. Therefore, \$1.932 million in available credits were unused for solar thermal systems. By creating an annual aggregate tax credit cap of \$5 million for both systems, some homeowners and businesses who would have been denied a credit because of the current cap on photovoltaic systems could now receive the tax credit.”

“An average of \$38 million has been spent on photovoltaic system installation and labor over the last five taxable years, according to LFC analysis of EMNRD data, as indicated in the chart on the left side below. If this trend continues, and 100 percent of tax credits awarded are fully claimed, then HB 26 could generate roughly \$3.8 million in negative general fund revenue from FY18 through FY20, assuming all solar expenses qualify for the 10 percent credit, as indicated in the chart below on the right side.”



TRD notes the following:

“...the solar market development tax credit implicates the tax policy principle of efficiency and is designed to incentivize consumer behavior. According to the most recent data available, the average credit claim is approximately \$1,875 per taxpayer, and the average number of claims is 1,400. During tax years 2013 – 2015 the expenditure amount has averaged \$2.6 million per year, well below the statutory cap. Between tax years 2012 and 2013 there was a significant increase in claims, but the average number of claims has plateaued at 1,400 per year. “

“EMNRD reported in December 2016 that the solar thermal credit is not being used. The credit is primarily being used for photovoltaic systems. The federal government also offers a tax credit of 30% for solar systems available until 2022. Both solar thermal and photovoltaic systems are significant investments. This expense limits the use of this credit to taxpayers in a narrow socio-economic strata. If the costs to install these systems comes down, then a broader base of taxpayers should gain access to this investment incentive.”

“It is unknown whether the reduction in credit rates, coupled with consumer’s purchasing power and the costs of eligible systems, will continue to incentivize purchases of these systems in the later years in which the credit is available. The phased down credit rate reduction will continually narrow the band of taxpayers who can afford this type of investment, absent decreases in system costs. Historically, the average taxable income of taxpayers applying for this credit is over \$170,000 per year.”

Despite the current LFC model, last year’s fiscal impact estimate is reported in the table. However, the possibility exists the entire \$5.0 million could be used each year, having a \$5 million impact to the general fund.

SIGNIFICANT ISSUES

A significant investment in solar photovoltaic systems is occurring throughout much of New Mexico. New Mexico was home to 1,600 solar jobs in 2014. During 2015, approximately \$31 million was invested by homeowners in solar systems. Installation of these solar systems resulted in \$6.7 million in labor costs. There were 1,143 household scale solar systems installed statewide, including rural and off-grid farms that added 6 megawatts of solar generation capacity as part of New Mexico's electric system.

There is a significant amount of residential solar generation capacity installed in most counties. In 2015 EMNRD certified 638 solar photovoltaic systems in the PNM and 167 systems in the El Paso Electric service territories, along with dozens of others in areas served by Cooperatives and municipal systems. Through certification of solar systems in 2015, EMNRD recognizes 60 firms installing solar photovoltaic systems and eight firms installing solar thermal systems.

TRD notes that the plateau in utilization raises issue as to whether the credit is still necessary. However, there has not been a drop in either the number of claims or amounts claimed, which does not indicate decreased utilization and more fulsome market saturation. It is unknown whether the reduction in credit rates, coupled with consumer's purchasing power and the costs of eligible systems, will continue to incentivize purchases of these systems in the later years in which the credit is available.

The federal solar tax credit of 30 percent for residential solar thermal and photovoltaic systems, which was set to expire on December 31, 2016, was extended in December 2015 until December 31, 2019 with a phase-down of the credit from 30 percent to 22 percent through December 31, 2022. Therefore, there is no change expected in market demand due to the impact of the federal tax credit until beyond FY20.

On August 3, 2015, the federal government unveiled the final version of the Clean Power Plan to reduce carbon emissions by 32 percent nationwide by 2030. The Environmental Protection Agency assigned each state a unique carbon emission reduction, requiring New Mexico to reduce emissions by 36 percent of 2012 levels by 2030. Currently, 8 percent of electricity generation in New Mexico comes from renewable sources.

Distributed solar generation installations allow customers to reduce their consumption of electricity from their electricity providers, thereby reducing their electric bills and utility revenues. Gross receipts tax, franchise tax, and inspection and supervision revenue are also reduced, thereby potentially decreasing local, state and PRC revenues, though consumers may redirect their savings to other purposes.

PERFORMANCE IMPLICATIONS

The LFC tax policy of accountability is not met since TRD is not required in the bill to report annually to an interim legislative committee regarding the data compiled from the reports from taxpayers taking the deduction and other information to determine whether the deduction is meeting its purpose.

Based on the LFC model (which might overstate the utilization), the cost per job for FY 18 is \$83,000. This amount declines because the federal and state credit percentages decline. This amount argues that the expenditure is not effective.

Does the bill meet the Legislative Finance Committee tax expenditure policy principles?

1. **Vetted:** The proposed new or expanded tax expenditure was vetted through interim legislative committees, such as LFC and the Revenue Stabilization and Tax Policy Committee, to review fiscal, legal, and general policy parameters.
2. **Targeted:** The tax expenditure has a clearly stated purpose, long-term goals, and measurable annual targets designed to mark progress toward the goals.
3. **Transparent:** The tax expenditure requires at least annual reporting by the recipients, the Taxation and Revenue Department, and other relevant agencies.
4. **Accountable:** The required reporting allows for analysis by members of the public to determine progress toward annual targets and determination of effectiveness and efficiency. The tax expenditure is set to expire unless legislative action is taken to review the tax expenditure and extend the expiration date.
5. **Effective:** The tax expenditure fulfills the stated purpose. If the tax expenditure is designed to alter behavior – for example, economic development incentives intended to increase economic growth – there are indicators the recipients would not have performed the desired actions “but for” the existence of the tax expenditure.
6. **Efficient:** The tax expenditure is the most cost-effective way to achieve the desired results.

LFC Tax Expenditure Policy Principle	Met?	Comments
Vetted	✘	
Targeted		
Clearly stated purpose	✘	
Long-term goals	✘	
Measurable targets	✘	
Transparent	✘	
Accountable		
Public analysis	✔	
Expiration date	✔	
Effective		
Fulfills stated purpose	✘	No clear purpose is stated. FY 18 cost is \$83,000 per job.
Passes “but for” test	✘	
Efficient	✘	The industry will survive because the cost of modules has brought the overall costs into the range where payoff period is about 10 years or less. Much depends on how much of PNM’s rate case is approved.
Key: ✔ Met ✘ Not Met ? Unclear		

ADMINISTRATIVE IMPLICATIONS

Since the tax credit is currently in place, EMNRD has an existing program to review applications and provide certifications. EMNRD would update existing rules (NMAC 3.3.28) to comply with changes to the solar market development tax credit in HB 26.

TRD claims a minimal impact as shown in the table on page 1: GenTax must be programmed to allow for different credit percentages by year; the maximum annual aggregate will need to be updated to the new consolidated cap. Programming issues with Business Credit Manager will need to be addressed. Forms must be updated to include an installation date so that the correct tax credit percentage can be used for total credit calculation. Taxpayer instructions will need to be updated pursuant to the changes. The consolidation of the system credit caps will require clarifying language specifying if changes apply to applications submitted but not approved as of the effective date. Cross-

Division Memorandums of Understanding should be updated prior to the start of the new applicability period. Regulations will need revision to accommodate the proposed changes.

TECHNICAL ISSUES

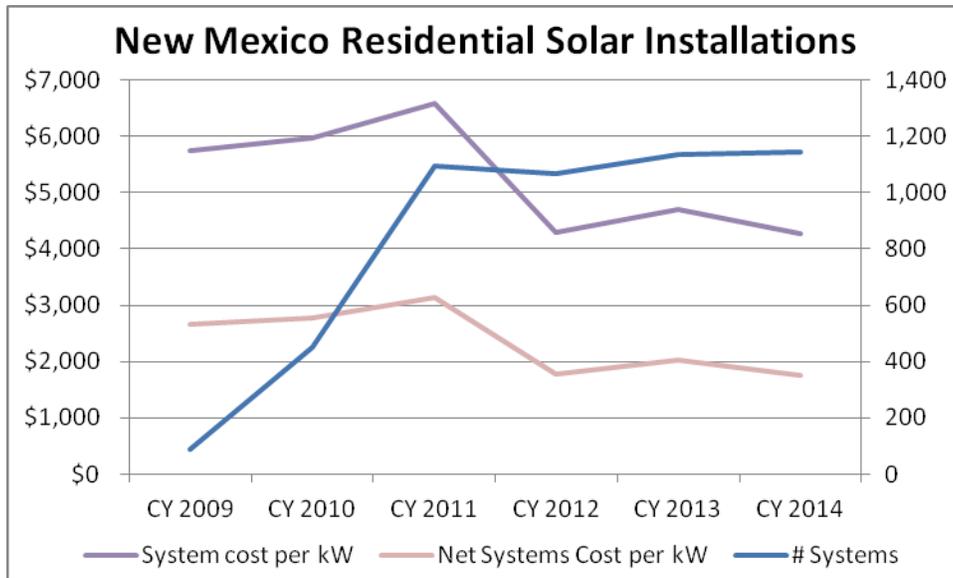
TRD notes several technical issues that exist with the current law. While not precipitated by the proposed bill, these issues should be considered when analyzing the proposed legislation. First, there is an absence of claim procedures, specifically with regard to timing. The law should require the credit to be claimed for the taxable year in which the installation occurred or, alternatively the taxable year in which EMNRD issues certification. Clear claim timing will keep credits flowing smoothly and tie them more closely to the annual caps. Second, there is an inherent tension between the prohibition on systems being used for commercial or industrial purposes and the applicability of the credit to systems installed on business premises. Clarification that the systems cannot be used for commercial or industrial applications within a structure would be helpful. Finally, TRD recommends that language be added in 7-2-18.14 (A) that limits eligibility to systems producing energy that is “predominantly” used at that specific location. This language will further reduce tension pertaining to commercial or industrial use and credit eligibility.

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL

The sunset date for New Mexico’s Solar Market Development Tax Credit will remain at December 31, 2016.

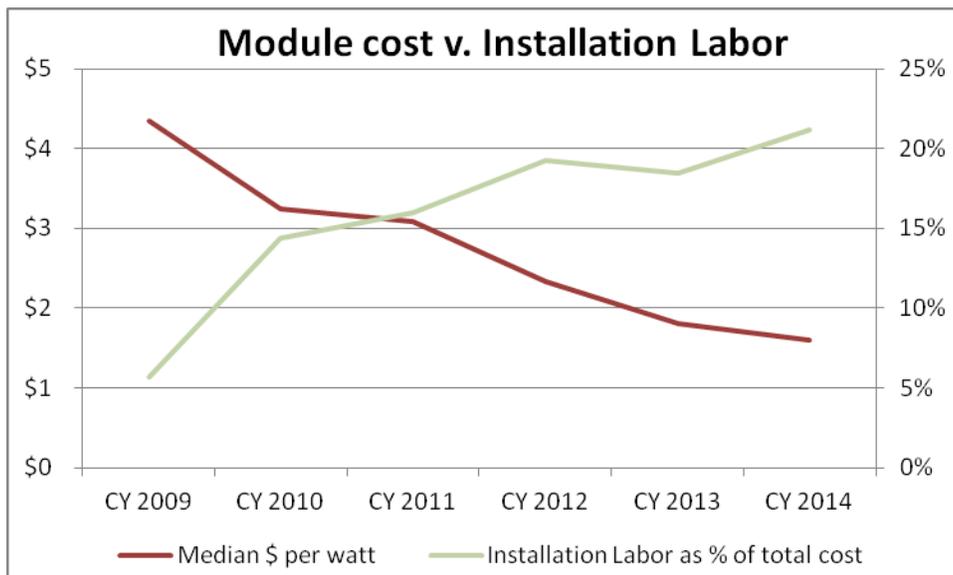
LFC Solar Market Development Tax Credit Summary (HB 61, SB 50, HB 82)

The market is, apparently, relatively insensitive to cost.



This effect can be explained somewhat in that installation labor cost has leveled out at about \$5,500 per installation, while the module cost per installation has fallen (as shown in the following chart). Thus, labor costs as a percentage of total cost has increased almost in inverse ratio to the drop of module costs.

Please note that the 2016 credit was fully taken up at \$3,000,000 by June. So about ½ the total installations installed in the state have been installed based on the net lifetime savings, not the effect of the state credit. This may have been a “rush to the exit”, because the credit expired in December 2016. The model assumes that the steady-state installations would remain at the 2,200 level, modified by the changes in net cost.



The federal credit has been extended through December 2016, but PNM (and maybe the other investor-owned or cooperative utilities in the state) has reduced the renewable energy credits. (At one time, in 2008, the REC was \$.13/kWH. By the end of 2012, this had been reduced to \$.04/kWH.)

The cost of this bill is measured, not against the previous levels (\$3,000,000) annually, but against the full \$5,000,000 proposed in the bill. The only proviso is that we must calculate whether enough installations will be constructed to fully subscribe the annual limit. Using approximate averages from the 2009-2014 data, we expect the average installation of 6 Kw, at a gross cost of about \$4,500. In 2016, we estimate that the net cost (including \$.04/kWH of REC) would be about \$1,800 per kW. The total installations for 2016 may have been about twice the creditable number of 1,140.

The Budget reconciliation bill signed December 2015 extends the 30% Solar Investment Tax Credits for both residential and commercial projects through the end of 2019, and then drops the credit to 26% in 2020, and 22% in 2021 before dropping permanently to 10% for commercial projects and 0% for residential projects.

Building these assumptions into a model, we conclude that the fiscal impact will be as shown below:

Using a plausible multiplier of \$115,000 per job, enacting this phased-down will result in an annual general fund cost of \$5,000,000, 250 more installations annually and 60 more permanent jobs. This is a FY 18 cost of about \$83,000 per job. Because both the federal credit and the state credit decline over time, the differential impacts in jobs, projects and general fund cost decline over time.

	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22
Average cost/kW	\$4,500	\$4,500	\$4,640	\$4,780	\$4,920	\$5,070	\$5,220
Size Installation (kW)	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Federal credit amount	30%	30%	30%	30%	28%	24%	11%
Current State amount	10%	0%	0%	0%	0%	0%	0%
REC * 6 kW	-\$800	-\$800	-\$600	-\$600	-\$400	-\$400	-\$200
Current Net cost/kW	\$1,900	\$2,350	\$2,648	\$2,746	\$3,142	\$3,453	\$4,446
Installations (assume .3 price elasticity)	2,200	1,940	1,770	1,710	1,480	1,300	730
Proposed State amount	10%	0%	10%	10%	10%	9.50%	8.50%
Proposed Net	\$1,900	\$2,350	\$2,184	\$2,268	\$2,650	\$2,972	\$4,002
Proposed Installations	2,200	1,940	2,040	1,990	1,770	1,580	980
Fiscal Impact	\$3,000.0	\$0.0	\$5,000.0	\$5,000.0	\$5,000.0	\$4,566.0	\$2,609.0
Difference in projects	0	0	270	280	290	280	250
Job Impact			60	64	68	68	63
Cost per job			\$83,147	\$77,829	\$73,007	\$67,009	\$41,650

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