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F I S C A L I M P A C T R E P O R T

SPONSOR Stewart **ORIGINAL DATE** 2/16/19 **LAST UPDATED** 3/06/19 **HB**

SHORT TITLE New Solar Market Development Tax Credit **SB** 518/aSCORC/aSFC

ANALYST Graeser

REVENUE (dollars in thousands)

Estimated Revenue					Recurring or Nonrecurring	Fund Affected
FY19	**FY20**	**FY21**	**FY22**	**FY23**		
	($5,000.0)	($5,000.0)	($5,000.0)	($5,000.0)	Recurring	General Fund (PIT)

Parenthesis ( ) indicate revenue decreases

	FY19	FY20	FY21	3 Year Total Cost	Recurring or Nonrecurring	Fund Affected
Total	$3.0	$37.0	$37.0	$77.0	Recurring	EMNRD Operating

SOURCES OF INFORMATION
LFC Files

Responses Received From
Energy, Minerals and Natural Resources Department (EMNRD)
Taxation and Revenue Department (TRD) (2/26/19)

SUMMARY

Synopsis of SFC Amendment

The Senate Finance Committee Amendment to Senate Bill 518 clarifies the solar market development credit applies to systems installed on or after January 1, 2019, and that those systems must be installed on property owned by the taxpayer.

Synopsis of SCORC amendment

The Senate Corporations and Transportation Committee amendment to Senate Bill 518 reduces the annual cap from $10 million to $5 million.

Synopsis of Original Bill

Senate Bill 39 provides a personal income tax credit of 10 percent of the cost of equipment and installation of residential, business (commercial or industrial) or agricultural solar thermal system or a solar photovoltaic system. Systems installed after January 1, 2019 are eligible for the credit. Each installation is limited to $6,000 in credit (based on $60,000 cost of equipment plus installation). Total annual credits paid are limited to ~~$10,000,000~~ $5,000,000 [per SCORC amendment], with priority for payment in any year established by the order the claims are received by the Taxation and Revenue Department. This credit is entitled the "solar market development income tax credit". Claims are to be filed with the Energy, Minerals and Natural Resources Department, which is also responsible for establishing technical standards for acceptable systems. Once a claim has been allowed but the refund exceeds the individual's personal income tax liability, the approved refund may be carried forward for a maximum of five years.

The effective date of the bill is not stated; assume 90 days after the close of the legislative session or June 14, 2019. The credit is applicable for tax years beginning January 1, 2019. There is a delayed repeal whereby solar systems would have to be installed before January 1, 2029. The federal renewable energy and solar tax credits expire on December 31, 2021, so this bill would provide an extended transition period, although the joint credit amount would fall from 40 percent to 10 percent when the federal credits expire.

FISCAL IMPLICATIONS

TRD expects that there will be sufficient installations to render approvals at the SCORC amended cap amount of $5,000,000. TRD provides the following description of methodology.

> The Energy, Minerals and Natural Resources Department (EMNRD) provided data associated with the expired solar market development tax credit. At maturity, an average of 1,000 photovoltaic systems were approved for the solar market development credit and approximately 350 solar thermal systems. Given the $3 million previous maximum aggregate cap amount placed on photovoltaic systems and a weighted average total system cost of $28,640, photovoltaic system credits were hitting the cap by 2008, the third year of the credit.
>
> The new proposed solar market development tax credit extends the cap over both types of solar systems, thus removing the previous restraint on photovoltaic systems. U.S. Energy Information Administration (EIA) data for solar photovoltaic net generation by sector indicates that between November 2017 and November 2018, New Mexico residential solar photovoltaic generation increased by 32 percent and small-scale systems in the commercial sector increased by 25 percent.[1] Despite the state credit no longer being available, both residential and commercial sector systems have continued to grow energy output from solar photovoltaic systems. EMNRD feels it is conceivable that 4,000 tax credits per year could be given. Given EIA data and EMNRD data, TRD assumes the state will reach the aggregate cap amount for each year of enactment.

[1] U.S. Energy Information Administration, "Electric Power Monthly with Data for November 2018", January 2019.

However, the fiscal year cap of $5 million is a restriction imposed on TRD, but EMNRD can approve more than that amount, assuming that many taxpayers will not have sufficient PIT liability to apply the full amount of credit approved in the year of the claim. In practice, EMNRD will only approve credits up to the $5 million cap in any calendar year. 21.4 percent of New Mexico resident taxpayers have total liability of $2,800 or more. Thus, some fraction of earned credits will be rolled over to years following the year of installation. Judging from the previous solar market development credit, about 15 percent of approved credits are rolled over for at least one year and some amount of credit apparently is never applied to liabilities. From TRD data for FY 14, FY15 and FY16, an average of $2,639 was claimed for the precursor credit. This is about 87% of the cap amount. For the purposes of assessing maximum impact, however, the table on page 1 reports the full $5 million in cap amount.

Based on EMNRD data for the period 2010-2014, the average cost of a creditable solar system was $28,000; the average credit was $2,764 and there were about .55 systems installed per year per 1,000 population.

It is expected that the average number of installations will be similar to the historical data. While average equipment costs have fallen, the Trump Administration imposed up to a 30 percent tariff as of January 2018. The tariff continues for four years with some carve outs. Since 80 percent of the cost of an installed system is attributed to equipment cost, the average price during the 2018 - 2021 period may rise above baseline by up to 20 percent. The federal 22 percent to 30 percent renewable energy credit has been renewed through the end of 2021. There has been a systemic increase in soft costs, including installation labor, profit, permitting fees, etc. over the course of time while module costs have plummeted.

Installations installed from January 1, 2019, will be eligible for credit. However, EMNRD will not approve any credit applications until after the June 14, 2019, effective date of the bill. Some of these approved claims will be rendered on amended 2017 or 2018 income tax returns, but the vast majority of 2019 installations will be claimed on 2019 tax returns filed in spring 2020. Because only 20 percent of filed returns have liability in excess of the average credit amount, some portion of claims will be rolled over to FY21 or FY22. This means that the in FY20, the credits actually paid by TRD will be less than $5,000,000.

It should also be noted that pursuant to the provisions of 7-36.21.2 NMSA 1978, residential solar installations are not valued for property tax purposes. This is largely a local incentive, not a state-level one and does not affect the state general fund. Solar and wind equipment sold to governments are exempt from gross receipts taxes (7-9-54.3 NMSA 1978), but most private commercial or utility scale installations generate both gross receipts tax and property tax.

This bill narrows the personal income tax (PIT) base. See *Significant Issues* for more information.

This bill creates a new tax expenditure with a cost that is difficult to determine but likely significant. LFC has serious concerns about the significant risk to state revenues from tax expenditures and the increase in revenue volatility from erosion of the revenue base. The committee recommends the bill adhere to the LFC tax expenditure policy principles for vetting, targeting, and reporting or be held for future consideration.

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. This is particularly true for this bill that establishes an annual cap of $5 million, whereas the precursor solar credit was capped for both personal income tax and corporate income tax together at $3 million. This creates a great deal of general fund risk.

Estimating the cost of tax expenditures is difficult. In this case, the precursor credit was capped at $3 million and, in the last year or two of the credit, an unknown number of otherwise creditable systems did not receive credit approval because of the cap.

SIGNIFICANT ISSUES

TRD notes that the reinstatement of the solar market development tax credits conforms to the mandates and ideas expressed in Executive Order 2019-003, which aims to address climate change and energy waste prevention.

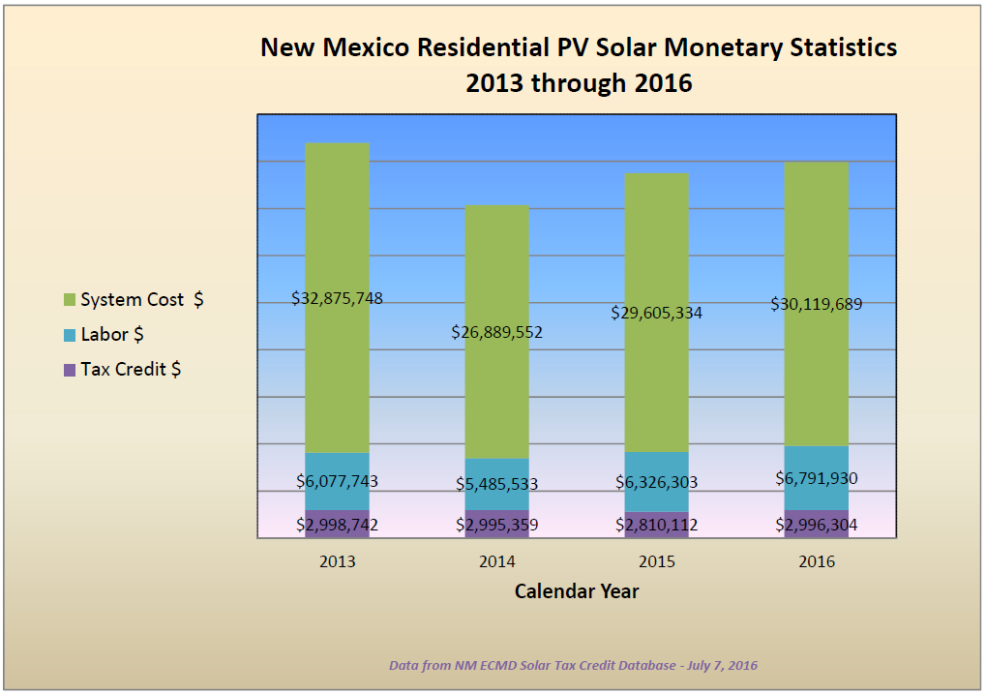
Additionally, TRD notes the following:

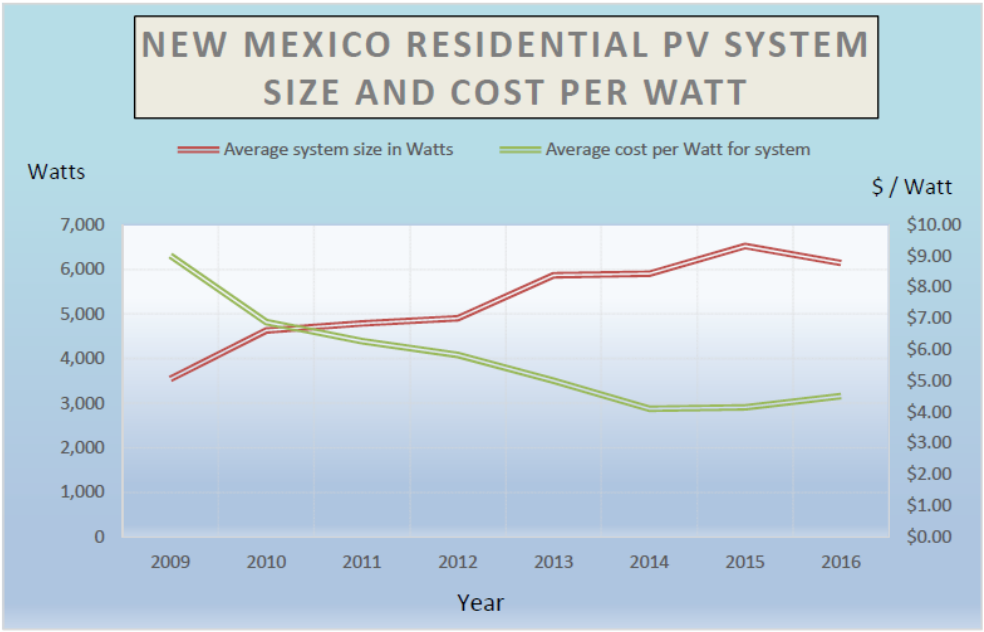
> The bill language defines the purpose of the tax credit, which TRD recommends for new credits to facilitate evaluating them. The credit also has a defined end date of prior to January 1, 2029. TRD supports sunset dates for legislators to review the impact of credits before extending them.
>
> The broader question of subsidizing solar energy has many economic factors to consider including job creation, impacts to established markets, and environmental concerns. A credit is a tax expenditure giving preferential tax treatment to certain taxpayers. Some economists would argue that energy costs should consider the hard to measure impacts to the environment. Thus, because solar energy is often expensive to start-up, it arguably should be given tax incentives for its low environmental impact and health and social benefits for the current and future populations. But job displacement also occurs with the shifting incentives for energy production, employees of both the San Juan Generating Station and associated coal mining face losing jobs with the closing of the station. These workers may not easily transfer to other employment let alone employment in the solar industry.

EMNRD has provided the following extensive discussion of policy issues:

> SB 518 would reinstate, and modify, a solar market development tax credit which was in place from 2006 to 2016. Compared to the prior program for solar market development tax credits, SB 518 would expand the eligible taxpayers and expand the potential amount of tax credits used. The prior program limited the use of the credit for commercial or industrial systems and did not allow credits for systems that heated a swimming pool or hot tub. These exclusions are not contained in SB 518. The prior program allocated the $5 million cap among PV and solar thermal; SB 518 allows either to come under the $10 million overall cap. In the prior program the solar thermal category did not reach the $5 million cap while the PV systems exceeded the annual cap. The overall cap could be reached under SB 518 given that the prior tax credit program met the 2016 PV tax credit cap by June of that year.

Under the prior Solar Market Development Tax credit program initiated in 2008, significant increases in residential solar applications occurred. Increased adoption levels of the technology followed the significant price decreases in photovoltaic module costs. The cap of $3 million in PV tax credits per year was approached on the third year of the prior program and remained at that level until the program ended in 2016. In six of those years, over 5 MW of distributed generation was installed every year. During the eight-year life of the program over $221 million dollars were invested by customers installing these solar systems. $42 million in labor was spent across every county in New Mexico except one. Gross receipts reductions for these systems were $15 million across the state.





The average sized system installed in 2016 under the prior program was 6.1 kW in capacity and cost $27,700. If this data is applied to the new tax credit program, an estimated 3,600 systems would be installed in every full year, resulting in an additional 22 MW of capacity per year. In purchasing these systems, owners would spend $100 million, and companies would expend $22.5 million in labor costs. The Gross Receipt Tax exclusion on the sale would be $7 million per year.

Solar PV system costs in 2019 are approximately $4 per watt. With the new Solar Development Tax Credit: a 2 kilowatt (kW) solar system would cost $7,200; a 4 kW system would cost $14,400 and a 6 kW system would cost $21,600.

Solar PV System Size	Cost	10% Tax Credit	Cost after Tax Credit
2 kW	$ 8,000	$ 800	$ 7,200
4 kW	$ 16,000	$ 1,600	$ 14,400
6 kW	$ 24,000	$ 2,400	$ 21,600

LFC staff note that for previous personal income tax credits, including the former solar market development credit, the legislature has chosen to implement a collateral corporate income tax credit. This bill would not allow a solar credit to be claimed on regular corporate income tax returns. However, the advent of virtually universal acceptance and use of pass-through entities (PTEs), including Sub-S corporations, Limited Liability Companies (LLCs), partnerships, limited liability partnerships, and others is critical. This proposed credit can be claimed on personal income tax returns reporting income and liability from PTEs.

The precursor credit allowed up to a $9,000 credit per installation. This bill has reduced that to $6,000. The average or typical installation is 5 KW, with an average cost of about $28,000. Thus, the reduction to $6,000 maximum will have very little impact on overall general fund costs.

PERFORMANCE IMPLICATIONS

The LFC tax policy of accountability is met with the bill's requirement 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.

ADMINISTRATIVE IMPLICATIONS

"The fiscal impact for EMNRD includes staff resources to create rules and to develop an electronic submission process for applications. There would be an estimated cost for initiation of the program of $37,000, for program, legal and information technology staff. The estimate is based on staff time of 1,000 hours, at a $37 average hourly rate with fringe benefits, to create new rules, repeal existing rules and establish an electronic submission system. Ongoing staff resources are required to effectively manage, provide technical reviews of solar systems, certify systems for tax credit eligibility and maintain a database." LFC staff note that there would be

only a small FY19 impact, since this is an income tax credit and would be claimed on tax returns filed in the spring of 2020. This gives EMNRD sufficient time to conduct the activities listed above wholly within FY20.

TRD recommends adding language that requires electronic information sharing for certificates awarded by the EMNRD. Receiving electronic files of awarded certificates data improves return processing efficiency and accuracy and supports annual reporting.

TRD recommends all tax incentive legislation include specific standardizations to facilitate operational efficiency.

- Tax credits programs should be limited to five year periods. This term facilitates a market-facing analysis, whereby market changes can be acted upon by legislators.
- Credits should not be refundable, but they should incorporate a standardized carry-forward period of three years. This limits the evaluation period of any tax credit incentive to a total of eight years, and limits the fiscal obligation to a period of three years after expiration.
- Legislation should require tax filers to apply for any credit within 12 months of the calendar year the filer qualified for the credit. This incentivizes the filer to use the credit program timely, or risk losing eligibility due solely to their nonfeasance.

This bill conforms to the first two of these recommendations.

TECHNICAL ISSUES

TRD notes two technical issues that should be addressed:

~~In Section 1(A), the bill does not specify that the residence, business or agricultural enterprise is owned by the taxpayer in New Mexico. Taxpayers could claim the credit multiple times. TRD suggests adding the following language, "in New Mexico owned by that taxpayer" in Section A, line 22 after "agricultural enterprise", as was in the previous, expired solar market tax credit.~~ [LFC note: this comment was adopted by SFC by amendment.]

In Section 1(I), lines 18, 19 and 22, the bill language states "…taxed for federal income tax purpose as a partnership or limited liability company…" Limited liability companies are not taxed as such federally. Instead, federally they default to be taxed as a partnership if two or more owners or may elect to be taxed as either a disregarded entity or corporation. TRD recommends replacing the above-mentioned text with "…taxed for federal income tax purpose as a partnership or an S corporation as defined in Section 1361 of the Internal Revenue Code…".

In its SB-39 analysis, TRD noted the following technical issue: "…although this legislation repeals the expired tax credit, the prior statute specified a 10-year carry forward for unused credit amounts. There remains approximately $2.4 million in credits under the expired statute. Therefore, to differentiate between the competing statutes and facilitate accurate reporting, TRD recommends that the new legislation receive a unique name."

CONFLICT, DUPLICATION, COMPANIONSHIP, RELATIONSHIP

This bill is a near duplicate of SB-39, with a sunset for solar systems installed after January 1, 2022.

HB 520 is related because it proposes to extend the property tax abatement for solar systems when a property sells or is newly installed in a new construction.

Several other bills relate to financing solar systems or extending the gross receipts tax deduction. These include: HB 210, HB 432, HB 440, HB 656 and SB 281.

OTHER SUBSTANTIVE ISSUES

The federal credit limits lifetime claims for solar and other energy conservation household and business installations. This proposed state credit can be utilized annually without limit.
On January 22, 2018, the Trump Administration announced import tariffs on a portion of the total quantity of imported solar panels and modules.

Safeguard Tariffs on Imported Solar Cells and Modules			
Year 1 (2018)	**Year 2 (2019)**	**Year 3 (2020)**	**Year 4 (2021)**
30%	25%	20%	15%

* First 2.5 gigawatt of imported cells are excluded from the additional tariff.

Federal Renewable Energy Tax Credits:

Solar-electric property

- 30 percent for systems placed in service by 12/31/2019
- 26 percent for systems placed in service after 12/31/2019 and before 01/01/2021
- 22 percent for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2006, and on or before December 31, 2021.
- The home served by the system does not have to be the taxpayer’s principal residence.

Solar water-heating property

- 30 percent for systems placed in service by 12/31/2019
- 26 percent for systems placed in service after 12/31/2019 and before 01/01/2021
- 22 percent for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2006, and on or before December 31, 2021.
- Equipment must be certified for performance by the Solar Rating Certification Corporation (SRCC) or a comparable entity endorsed by the government of the state in which the property is installed.
- At least half the energy used to heat the dwelling's water must be from solar in order for the solar water-heating property expenditures to be eligible.
- The tax credit does not apply to solar water-heating property for swimming pools or hot tubs.

- The home served by the system does not have to be the taxpayer's principal residence.

Fuel cell property

- 30 percent for systems placed in service by 12/31/2019
- 26 percent for systems placed in service after 12/31/2019 and before 01/01/2021
- 22 percent for systems placed in service after 12/31/2020 and before 01/01/2022
- The maximum credit is $500 per half kilowatt (kW).
- Systems must be placed in service on or after January 1, 2006, on or before December 31, 2021.
- The fuel cell must have a nameplate capacity of at least 0.5 kW of electricity using an electrochemical process and an electricity-only generation efficiency greater than 30 percent.
- In case of joint occupancy, the maximum qualifying costs that can be taken into account by all occupants for figuring the credit is $1,667 per 0.5 kW. This does not apply to married individuals filing a joint return. The credit that may be claimed by each individual is proportional to the costs he or she paid.
- The home served by the system must be the taxpayer's principal residence.

Small wind-energy property

- 30 percent for systems placed in service by 12/31/2019
- 26 percent for systems placed in service after 12/31/2019 and before 01/01/2021
- 22 percent for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2008, on or before December 31, 2021.
- The home served by the system does not have to be the taxpayer's principal residence.

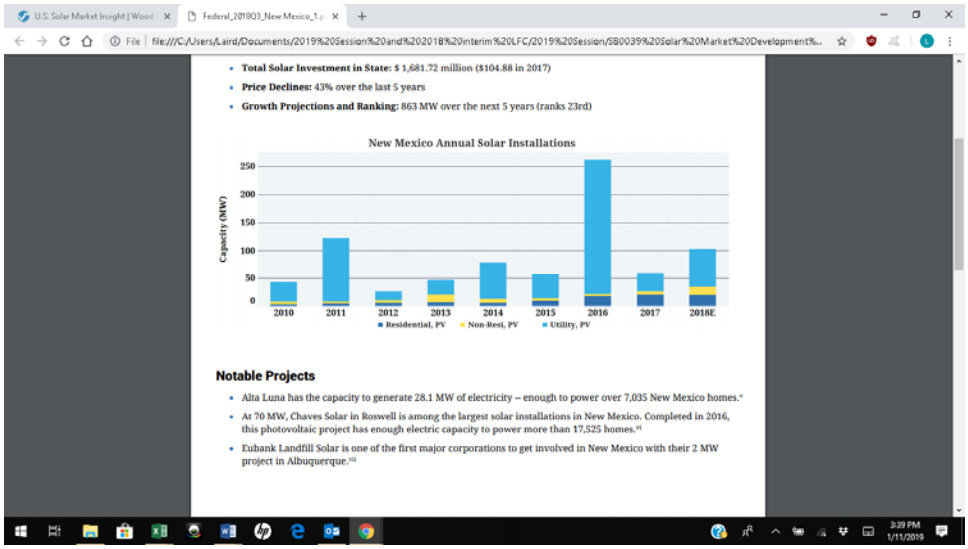
Geothermal heat pumps

- 30 percent for systems placed in service by 12/31/2019
- 26 percent for systems placed in service after 12/31/2019 and before 01/01/2021
- 22 percent for systems placed in service after 12/31/2020 and before 01/01/2022
- There is no maximum credit for systems placed in service after 2008.
- Systems must be placed in service on or after January 1, 2008, and on or before December 31, 2021.
- The geothermal heat pump must meet federal Energy Star criteria.
- The home served by the system does not have to be the taxpayer's principal residence. Significantly, The American Recovery and Reinvestment Act of 2009 repealed a previous limitation on the use of the credit for eligible projects also supported by "subsidized energy financing." For projects placed in service after December 31, 2008, this limitation no longer applies.

https://www.nrel.gov/docs/fy17osti/68925.pdf
https://www.seia.org/solar-industry-research-data

ALTERNATIVES

The National Conference of State Legislatures (NCSL) estimates that 60 percent of a typical residential or commercial installation represents "soft costs." These include installation labor, profit for the installer, permit fees, and other costs. One way of reducing end costs to residents and businesses might be to reduce the soft costs by simplifying the permitting process.



According to various sources, several New Mexico utilities still offer some level of renewable energy certificates. These certificates reduce the monthly bill to customers with solar generation by a contracted amount. These RECs have varied over time in New Mexico from a maximum of $.13 per KwH (approximately $120 per month for a 6 Kw array) to zero for arrays installed currently. Allowing PRC to adjust these RECs might be another option.

WHAT WILL BE THE CONSEQUENCES OF NOT ENACTING THIS BILL?

The industry may shrink as a result of the combined effect of saturation and the loss of federal 22 percent to 30 percent credit and the advent of import duties of up to 30 percent of import price. While these bigger issues may dominate, failure to pass this bill may encourage additional companies to abandon the industry. This effect was noted in the solar credit for active solar systems – primarily for water and space heating – that provided a 10 percent state credit from roughly 1983 to the oil price collapse in mid-1986. First, the credit payments were delayed by a year and then cancelled. The fledgling industry was decimated. The table at the right exhibits this:

Solar Credits		
72nd FY	(1983-84)	$7,253,386
73rd FY	(1984-85)	$10,932,695
74th FY	(1985-86)	$9,920,269
75TH FY	(1986-87)	$2,658,322
76TH FY	(1987-88)	$226,934
77th FY	(1988-89)	$179,961
78TH FY	(1989-90)	$135,230
79TH FY	(1990-91)	$180,210
80TH FY	(1991-92)	$7,984
81ST FY	(1992-93)	$2,955
82nd FY	(1993-94)	$1,065

Unlike the 2006-2016 credit, the previous credit was apparently misused. Unethical operators "sought the rents", and largely consumed the 10 percent credit and a portion of the federal 30 percent credit. This effect was not well documented. The 2006-2016 credit was quite properly administered, largely because of the EMNRD certification for solar electric systems.

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

1. **Adequacy**: Revenue should be adequate to fund needed government services.
2. **Efficiency**: Tax base should be as broad as possible and avoid excess reliance on one tax.
3. **Equity**: Different taxpayers should be treated fairly.
4. **Simplicity**: Collection should be simple and easily understood.
5. **Accountability**: Preferences should be easy to monitor and evaluate

1. Any tax expenditure reduces revenue. In this case, a personal income tax credit only reduces general fund revenue, whereas gross receipts tax expenditures tend to reduce both state level taxes and local taxes.
2. Economic efficiency is also suspect, since this tax expenditure serves to subsidize a particular form of economic activity.
3. Overall, the purchase of a 5 or 6 Kilowatt solar array for around $28,000 puts this option out of the price range of about 80 percent of New Mexicans. It is, perhaps, still a luxury good. So the equity involved is suspect.
4. Because of the desirable feature of this tax expenditure that minimizes abuse but requires at least three state agencies to be involved (Construction Industries Division of RLD, TRD and EMNRD) and an Investor-Owned Utility (in case of grid-tied systems and the potential of Renewable Energy Credits), soft costs and approval delays add between $3,200 and $4,700 to the costs of a typical 5 KW system. This complexity is necessary, but is also an opportunity.
5. Accountability is preserved with this credit because of the required TRD reporting to the legislature.

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