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## FISCAL IMPACT REPORT

SPONSOR	Cisneros	ORIGINAL DATE LAST UPDATED		
SHORT TITI	E Renewable En	nergy Production Tax Credits	SB	463/aSFC
			ANALYST	Francis

### **<u>REVENUE</u>** (dollars in thousands)

	Recurring or Non-Rec	Fund Affected		
FY07	FY08	FY09		
	(\$1,578)	(9,336.0)	Recurring	General Fund
	(106)	(111)	Recurring	Local Governments

(Parenthesis () Indicate Revenue Decreases)

#### SOURCES OF INFORMATION

LFC Files Energy Information Agency (<u>www.eia.doe.gov</u>) National Biodiesel Board (NBB)

<u>Responses Received From</u> Energy Minerals and Natural Resources Department (EMNRD) Taxation and Revenue Department (TRD)

#### SUMMARY

Synopsis of SFC Amendment

The Senate Finance Committee proposes to amend House Bill 436 to add the following provisions:

**Biodiesel Production & Sale Tax Incentives.** This provision provides credits for the payment of special fuels taxes for blended biodiesel fuel. For personal income (PIT) and corporate income (CIT) taxes, the credit is based on the number of gallons purchased that phases out by the end of 2012:

### Amended Schedule of Credits (PIT/CIT)

Tax	Credit per gallon of
Year	Blended Biodiesel
2007-	
2010	\$0.03
2011	0.02
2012	0.01
2013	-

The credit cannot be used against both PIT and CIT and, if the credit exceeds tax liability, can be carried forward up to five years. Biodiesel is defined as a renewable, biodegradable, monoalkyl ester combustible liquid that is derived from plant oils or animal fats. "Blended" refers to a 2 percent biodiesel/98 percent diesel mixture.

This section allows a credit against gross receipts and compensating tax liability called the "biodiesel blending facility tax credit" for rack operators for installing blended biodiesel equipment or expanding a facility to produce blended biodiesel fuel. The Energy, Minerals and Natural Resources Department (EMNRD) is responsible for validating the credit and issues a certificate of eligibility that includes the estimated amount of the credit. The credit cannot exceed \$50 thousand for installation of equipment at any one facility. The aggregate amount of all credits validated by EMNRD cannot exceed \$1 million. The credit can be carried over for up to four years. Biodiesel is defined as a renewable, biodegradable, monoalkyl ester combustible liquid that is derived from plant oils or animal fats. The fuel must meet American Society for Testing and Materials standards for B100 blend stock.

#### **Solar Energy System Gross Receipts**

House Bill 996 creates a gross receipts tax deduction for receipts from the sale and installation of solar energy systems. The bill defines a solar energy system as an installation to provide space heat, hot water or electricity to the property in which it is installed and is 1) an installation that utilizes solar panels that are not also windows, 2) dark-colored water tank exposed to sunlight, or 3) a non-vented trombe wall.

The deduction will be effective from July 1, 2007 until June 30, 2017, when it will sunset.

Alternative Energy Product Tax Credit. House Bill 430 provides a credit against combined reporting taxes (gross receipts, compensating and withholding) for manufacturing alternative energy products. Alternative energy products are defined:

- Alternative energy vehicle
- Fuel cell system
- Renewable energy system or component of an alternative energy vehicle
- Fuel cell system or renewable energy system or components for integrated gasification combined cycle coal facilities
- Equipment related to sequestration of carbon from integrated gasification combined cycle plants

The credit is for qualified expenditures after July 1, 2007, and cannot exceed five percent of the taxpayer's qualified expenditures. To be eligible, the taxpayer must show that they have hired an additional full time employee from the previous year for each \$500 thousand of qualified

expenditures up to \$30 million and an additional full time job for each \$1 million of qualified expenditures above \$30 million. The jobs are net new jobs not just new jobs. For a taxpayer that has \$10 million in qualified expenditures, it would need to show that they have hired 20 full-time employees over last year ( $$10,000,000 \div $500,000 = 20$ ) to qualify for the \$500 thousand credit; if the taxpayer has \$40 million in qualified expenditures, it would need to show at least 70 full-time employees (60 for the first \$30 million and 10 for the balance) to receive a \$2 million credit.

 Enampies of I		
Qualified	Number of	Calculation
Expenditures	Jobs Required	
\$1,000,000	2	\$1,000,000 / 500,000
\$10,000,000	20	10,000,000 / 500,000
\$40,000,000	70	(40,000,000 - 30,000,000) / 1,000,000 + 30,000,000 / 500,000

# **Examples of Required Jobs**

**Agricultural Water Conservation Tax Credits:** The Senate Floor amendment allows a taxpayer to claim a credit against personal or corporate income tax liability of incurred expenses up to \$10,000 for eligible improvements that conserve water used in agriculture. The taxpayer must own or lease the water right for the land, file an NM tax return, not be a dependent of another taxpayer and does not take the credit for both personal and corporate income tax. The credit is 35 percent of eligible expenditures in FY08 and 50 percent of eligible expenditures in FY09 and beyond.

An eligible improvement is one made after January 1, 2008, is consistent with a water conservation plan approved by the local soil and water conservation district, and designed to conserve water on farm, ranch or timber land. Co-owners of the land can receive pro-rata shares of the credit and the credit can be carried forward for five years if it exceeds the liability in the current year.

**Sustainable Building Tax Credit:** The Senate Floor amendment allows a new credit under both the Income Tax Act and the Corporate Income and Franchise Act for the construction or renovation of a commercial building or the construction of a residential building following "sustainable" guidelines as established by the US green building council, Homebuilders of NM, or the Environmental Protection Agency for manufactured housing. The guidelines, referred to as LEED for "leadership in energy and environmental design," have different levels of compliance and the credit is scaled accordingly.

1101	i able of cicult in	nounts	
		10,001 to	50,001 to
Commercial	First 10,000 sq ft	50,000 sq ft	500,000 sq ft
LEED NC Silver	\$3.50	\$1.75	\$0.70
LEED NC Gold	4.75	2.00	1.00
LEED NC Platinum	6.25	3.25	2.00
LEED EB/CS Silver	2.50	1.25	0.50
LEED EB/CS Gold	3.35	1.40	0.70
LEED EB/CS Platinum	4.40	2.30	1.40
LEED CI Silver	1.40	0.70	0.30
LEED CI Gold	1.90	0.80	0.40
LEED CI Platinum	2.50	1.30	0.80
Residential	First 2,000 sq ft	2,001 + sq ft	
Build Green NM Gold	\$4.50	\$2.00	
LEED H Silver	5.00	2.50	
LEED H Gold	6.85	3.40	
LEED H Platinum	9.00	4.45	
EPA Energy Star	\$3 up to 3,0	000 sq ft	

## New Table of Credit Amounts

A taxpayer, who is the owner of the building certified according to LEED standards and for which a credit has not previously been claimed, would apply to the Energy Minerals and Natural Resources Department (EMNRD) to validate the credit. EMNRD issues a certificate that can be transferred through sale, exchange or other means to another taxpayer. The taxpayer holding the certificate can claim the credit against tax liability over four years if the credit amount exceeds \$25,000 in 25 percent increments. If the credit value is less than \$25,000, the taxpayer can claim all of it in the taxable year the certificate was issued. If the credit exceeds liability in either case, the taxpayer can carry the credit forward for up to seven years.

The credit can be claimed for certification of either commercial or residential buildings. EMNRD can only issue an aggregate of \$11.25 million in credits per year, \$5 million for commercial buildings, \$5 million for residential buildings and \$1.25 million for manufactured housing. A solar thermal or photovoltaic system can be claimed as part of sustainable building if a solar market development credit has not been and will not be claimed.

The credit is allowable for tax years 2007 through 2013.

## ADDITIONAL PROVISIONS

SFC also amends provisions in the original bill. The solar credit can only be used for generators that have produced electricity prior to 2018, effectively placing a sunset on the credit. There is also a requirement that EMNRD report to an interim committee annually on the effectiveness of the credit. The report shall include the identity of qualified generators, the means of production, the amount of energy produced and whether there were applications that could not be approved due to program limits.

## Synopsis of Original Bill

Senate Bill 463 amends the existing renewable energy production credit in the corporate income tax act and includes the credit in the income tax act. The existing credit of one cent per kilowatt hour (kWh) of electricity produced by renewable energy sources is limited to wind and biomass energy sources while a new more expansive credit is allowed for electricity produced by solar energy sources. The solar credit is a staged credit as follows:

Table 1: Phase-in of solar credit

1	\$ 0.015
2	\$ 0.020
3	\$ 0.025
4	\$ 0.030
5	\$ 0.035
6	\$ 0.040
7	\$ 0.035
8	\$ 0.030
9	\$ 0.025
10	\$ 0.020

The solar credit is allowed for the first 200,000 megawatt hours (mWh) and for only ten years of qualified electricity generation.

Senate Bill 463 also expands the definition of biomass to match the definition used for the gross receipts tax and lowers the size of electric generating plant to 1 megawatt (MW) from the current 10 MW. The bill sets the total eligible electricity generated by all plants at 2 million mWh plus an additional 500 thousand mWh for solar power. The Energy Minerals and Natural Resources Department (EMNRD) must approve the credit before the Taxation and Revenue Department (TRD) will accept it.

For credits awarded prior to October 1, 2007, there is a five year carry-forward if the credit amount exceeds the tax liability. Credits awarded on or after October 1, 2007, are refundable to the taxpayers meaning the excess above the tax liability is refunded.

The effective date is January 1, 2008.

	FY07	FY08	FY09	FY10		
Biodiesel Production & Sale Tax Incentives		(220)	(430)	(650)	Recurring	General Fund
Solar Energy System Gross Receipts	-	(158)	(166)	(175)	Recurring	General Fund
		(106)	(111)	(116)	Recurring	Local Government
Alternative Energy Product Tax Credit		(750)	(900)	(1,080)	Recurring	General Fund
Agricultural Water Conservation Tax Credits	-		(2,915)	(5,550)	Recurring	General Fund
Renewable Energy Production Tax Credits	-	-	(4,225)	(6,500)	Recurring	General Fund
Sustainable Building Tax Credits	-	(450)	(700)	(1,175)	Recurring	General Fund
TOTAL	-	(1,578)	(9,336)			General Fund
	-	(106)	(111)	(116)	Recurrin	Local Government

## FISCAL IMPLICATIONS

#### Senate Bill 463/aSFC – Page 6

**Biodiesel Production & Sale Tax Incentives.** Assuming 100,000 gallons is the near-term capacity of biodiesel, a 2 percent blend will yield 5 million gallons of fuel eligible for the tax credit. In FY07, the credit is expected to decrease income tax collections by \$181 thousand, growing to over \$1 million by the time the credit phases out in 2012. TRD expects the volume of blended diesel to grow 50 percent per year.

The gross receipts tax credit is assumed to be small and cost approximately \$100 thousand. Due to the effective date, half of a full year impact will hit FY08. Approximately 30 percent of this is a local government impact through lower gross receipts tax distributions.

#### **Fiscal Impacts**

	Tax Year						
	2007	2008	2009	<u>2010</u>	2011	<u>2012</u>	2013
Assumptions:							
Total Special Fuel Taxable Gallons (mill. Gal	494.9	509.7	535.2	562.0	590.1	619.6	650.6
Growth	1%	3%	5%	5%	5%	5%	5%
Total B100 sales (mill. Gals)	0.15	0.23	0.34	0.51	0.76	1.14	1.71
Total B2 Blend mill. gallons	8	11	17	25	38	57	85
B2/Total on-highway	2%	2%	3%	5%	6%	9%	13%
Total Off-road & Government SF gallons	303	312	328	344	361	379	398
B2 off-highway & govt	5	7	10	15	23	35	52
Total B2 million gallons)	12	18	27	41	61	92	138
			,	Tax Year			
Proposed Law: Income tax credit	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
B2 blend (million gallons)	12	18	27	41	61	92	138
Credit rate Cents per gallon of B2 blend	-\$0.03	-\$0.03	-\$0.03	-\$0.03	-\$0.02	-\$0.01	\$0.00
Total credits (\$ million)	(\$0.4)	(\$0.5)	(\$0.8)	(\$1.2)	(\$1.2)	(\$0.9)	\$0.0
Credits claimed non-refundable; 5-yr cf	(\$0.18)	(\$0.36)	(\$0.59)	(\$0.91)	(\$1.07)	(\$0.99)	(\$0.48)
		Fiscal Year					
		<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Fiscal impacts State General Fund (\$millio	ons)	(\$0.181)	(\$0.363)	(\$0.589)	(\$0.907)	(\$1.066)	(\$0.986)
- · · · · · · · · · · · · · · · · · · ·		. ,	. ,			, , ,	,/
Gross Receipts Tax & Compensating Tax Im	pact (\$n	(\$0.050)	(\$0.100)	(\$0.100)	(\$0.100)	(\$0.100)	(\$0.100)
State		(0.035)	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)

**Solar Energy System Gross Receipts.** Based on historic claims of the solar market development tax credit and estimated receipts from additional solar costs that will be eligible for the proposed deduction (trombe walls and commercial systems), TRD estimates the value of solar energy system purchases and installation activity will be about \$4 million per year. Taxed at a statewide rate of 6.6 percent, the deduction would reduce gross receipts tax collections by about \$264 thousand. About 60 percent of that revenue reduction will accrue to the general fund and the remaining 40 percent to local governments. EMNRD believes receipts eligible for this tax deduction will grow by about 10 percent per year.

#### Alternative Energy Product Tax Credit. TRD:

Based on information provided by industry representatives, eligible investment is expected to be about \$70 million in FY 2008 and about \$190 million in FY 2009 with the annual amount falling thereafter. Thus, potential credit claims under the proposal would

be \$3.5 million in FY 2008 and \$9.5 million in FY 2009. Because these credits are nonrefundable, actual credit claims will be limited to the amount of tax liability less the amount of other tax credits. Amounts in excess of tax liability may be carried forward for up to five years. If the affected taxpayers qualify for industrial revenue bond financing, they will not owe GRT or compensating tax on the equipment they install. Thus, their liability will consist mainly of any GRT on their product sales and withholding tax on their payroll. If their products are exported, their GRT liability will be further limited. Thus, the main base for the tax credit claims will be withholding tax.

If the investments are \$100 million, the impact is \$5 million. This could be the case if a company as large as Advent Solar or the proposed concentrating solar power plant applied for the credit.

The credit will primarily impact the general fund, but the local government will experience a small impact. Claims against the gross receipts and compensating taxes will impact the general fund and local governments. Overall, general fund revenue will be reduced by about \$750 thousand and local government revenue will be reduced by about \$112.5 thousand based on the share of combined taxes (CRS taxes) that are gross receipts.

An investment of \$10 million means 20 full time jobs.

Agricultural Water Conservation Tax Credits. TRD has provided the following analysis adapted from the fiscal impact report for SB291:

According to the USDA's Census of Agriculture, 2003 Farm and Ranch Irrigation Survey 2,500 New Mexico farms spent a total of \$25.6 million on all types of investment in irrigation equipment, land improvement and computer technology in that year. For the U.S. as a whole, that figure had declined slightly over the previous five years. \$6.2 million of the total was spent on water conservation investments. The estimate assumes that a substantial part of the remaining investment would qualify for the proposed credit, so that the total credit base of expenditures would be about \$14 million in tax year 2008. Assuming the \$14 million is spread over the 2,500 farms that had investments of any kind yields an average per farm of about \$5,500. At a credit rate of 50 percent, this would yield potential credits of \$3,054 per farm. Based on farm income information from the Census of Agriculture and income statistics from the federal income tax returns of New Mexico residents, it appears that the average farm operator will have between \$1,000 and \$2,000 of annual income tax liability. Thus, the average farm would not be able to take advantage of the full \$3,054 in credits in one year. The fiscal impact assumes that taxpayers will use 60 percent of the credits in the year in which they are generated, and the remainder are carried forward and used over the next four years. Credits earned in tax year 2008 are assumed to be claimed for the first time in the spring of 2009 when the tax returns for tax year 2008 are due. The same pattern is assumed in future years.

**Sustainable Building Tax Credits. Sustainable Building Tax Credit:** According to Taxation and Revenue Department (TRD), the fiscal impact would start out as a \$450 thousand reduction in general fund revenues in FY08 and increase to over \$3.3 million by FY13. This assumes an increasing amounts of eligible square footage over time (see table 2) and 50 percent of the credits actually being claimed, due to transferability. The average credit per square foot was assumed to be \$250.

Calendar year:	Commercial buildings:	Residential buildings:
2007	250	100
2008	375	150
2009	563	225
2010	844	338
2011	1,266	506
2012	1,898	759
2013	2,847	1,139

### Assumed Total Eligible Square Footage: (Thousands of square feet)

# Source: TRD

**Renewable Energy Production Tax Credits.** According to the Taxation and Revenue Department (TRD), the provisions in Senate Bill 463 will reduce general fund revenue by about \$8 million per year but growing as the industry develops. Under current law, the credit is expected to grow to \$10 million by 2012. With Senate Bill 463, the credit is expected to be \$25 million in 2012. The credit has a maximum for all electricity of 2 million mWh (or 2 billion kWh) plus an additional 500 thousand mWh. Using an effective 1 cent for the 2 million mWh, recognizing that wind will be the majority, and 3 cents for solar, the credit is limited to \$35 million in any given year for both PIT and CIT. This cap increases if solar power is a greater part of the mix of renewable energy than wind.

#### Fiscal impacts by provision:

Fi	Fiscal Year Impacts (\$ thousands)						
	2008	2009	2010	2011	2012		
Allow Credit against PIT		(\$2,800)	(\$2,300)	(\$2,500)	(\$2,700)		
Refundable for new wind facilities		(\$1,425)	(\$1,650)	(\$2,180)	(\$2,620)		
Refundable for new biomass facilities			(\$2,083)	(\$1,372)	(\$1,367)		
Refundable for new solar at increasing rate			(\$1,778)	(\$2,416)	(\$3,799)		
Total	\$0	(\$4,225)	(\$7,811)	(\$8,468)	(\$10,486)		

Assumptions:

New Wind facilities added at 30MWe per year New Biomass: one 35 MWe facility in FY 2009 New Solar: 18 MWe in 2009, added 10 MWe per year thereafter. Source: TRD

In tax year 2006, under current law, the renewable energy production tax credit (REPTC) totaled \$1.7 million with an expectation that that would increase to approximately \$8.5 million by 2012, mostly due to wind energy (table). Only ten percent of the approved credit is expected to be claimed in any given year and the remainder carried forward (for up to five years).

Under the proposal, which takes effect on January 1, 2008, TRD estimates that 50 percent of the existing approved credits will be claimed, primarily because they will now apply to the personal

#### Senate Bill 463/aSFC – Page 9

income tax credit as well as the corporate income tax and many of the businesses operate under partnerships where the PIT liability is higher than the CIT liability. This will dramatically increase the cost of the credit to the general fund for existing approved credits. For new facilities, the credit is refundable against tax liability so 100 percent of these facilities will claim the credit. The credit in 2012 is expected to almost reach \$20 million, making the net impact in 2012, \$11.4 million.

CALENDAR YEAR IMPACTS									
	2007	2008	2009	2010	2011	2012			
Current Law									
	2 776 125	2 822 424	4.026.022	6 062 560	7 100 670	0 120 602			
Wind	2,776,425	3,823,434	4,926,932	6,063,569	7,100,670	8,138,683			
Biomass			137,970	156,366	165,564	165,564			
Solar			49,669	83,886	118,470	151,583			
Total	2,776,425	3,823,434	5,114,571	6,303,820	7,384,704	8,455,830			
SB463									
Wind		6,299,862	8,429,150	10,378,777	12,130,111	13,792,575			
Biomass		0,277,002	1,533,000	1,533,000	1,533,000	1,533,000			
Solar			, ,						
		(	877,489	1,800,846	3,031,170	4,566,623			
Total	-	6,299,862	10,839,640	13,712,623	16,694,281	19,892,198			
DIFFERENCE									
Wind	2,776,425	(2,476,428)	(3,502,219)	(4,315,209)	(5,029,441)	(5,653,892)			
Biomass	-	-	(1,395,030)	(1,376,634)	(1,367,436)	(1,367,436)			
Solar	-	-	(827,820)	(1,716,960)	(2,912,700)	(4,415,040)			
Total	2,776,425	(2,476,428)	(5,725,069)	(7,408,803)	(9,309,577)	(11,436,368)			
Note: Not Fiscal	, ,	(2,170,420)	(0,720,007)	(7,100,000)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(11,100,000)			

## SIGNIFICANT ISSUES

**Biodiesel Production & Sale Tax Incentives.** Over the last few years, biodiesel has taken off as a viable alternative fuel to regular, crude oil based diesel fuel. Although the typical story of the use of biodiesel is of someone asking a restaurant for their waste grease to fill up his or her car, most biodiesel is made from soybeans. Biodiesel is different from ethanol which is made primarily from corn. Biodiesel added to diesel fuel can lower the emissions because it lowers the sulfur content, the burning of which contributes to greenhouse gas emissions. According to the National Biodiesel Board (NBB), there are currently two biodiesel retailers in New Mexico, one in Santa Fe and one in Albuquerque. The retailer in Albuquerque is one of two distributors, the other being in Portales.

#### EMNRD:

Biodiesel, specifically peanut oil, was the first fuel used by Rudolf Diesel in his demonstration engines one hundred years ago. Biodiesel (B100) is a renewable fuel produced from domestically produced oils such as soybean oil, animal fats or recycled cooking oil and can be blended with diesel in any proportion with good emissions and lubricity performance. When blended with Ultra Low Sulfur Diesel, biodiesel provides lubrication characteristics lost by reduced sulfur content, benefiting fuel system and engine components. Lower friction because of higher lubricity of biodiesel can improve fuel economy with power output and torque equal to conventional diesel. Biodiesel has a higher cetane rating than conventional diesel as well as higher oxygen content. Oil change interval frequency may be reduced. Biodiesel is non-toxic and biodegradable. All diesel engine emissions are reduced depending on engine design; the biodiesel fraction

reduces greenhouse gas emissions. It is safer than conventional diesel because of its higher flash point. Biodiesel reduces our dependence on foreign oil while benefiting domestic agriculture.

**Solar Energy System Gross Receipts.** EDD estimates that about 0.22 percent of households in New Mexico had solar energy systems as of 2005. EDD and EMNRD assert that the bill encourages use of solar energy systems by making them more affordable. The bill will help reduce New Mexico's dependency on fossil fuels and help meet the governor's goal of increasing usage of renewable energy.

LFC notes that while individual deductions from the gross receipts tax may have small fiscal impacts, their cumulative effect significantly narrows the gross receipts tax base. Narrowing the gross receipts tax base increases revenue volatility and requires a higher tax rate to generate the same amount of revenue. The bill will reduce local government gross receipts tax collections. Many of New Mexico's local governments are highly dependent on gross receipts tax revenue.

Alternative Energy Product Tax Credit. Manufacturing jobs typically pay more than average wages. According to the NM Department of Labor, two occupations likely to be employed by companies receiving the credit have starting wages well above minimum. Manufacturing wages were \$14.24 per hour or almost \$30 thousand in December 2006. Specialized or highly skilled manufacturing boasts even higher wages.

One beneficiary of the credit is likely to be Advent Solar, a photovoltaic solar cell manufacturer located within the Mesa del Sol tax increment for development district. The credit will take away from the development's projected gross receipts tax revenues.

**Sustainable Building Tax Credit:** Transferability is an important feature of this bill and makes it a more effective credit by allowing start-ups and other entities that may not have sufficient tax liability to get immediate funds by trading or selling the credit. This is often how carbon or pollution taxes work. For example, if a small contractor commits to building sustainable buildings, it can claim the credit and sell it to a larger contractor who wants to offset its tax liability. There is no clear mechanism in the Senate Floor amendment to establish a clear and open market for these credits, such as an exchange similar to the Chicago Climate exchange.

It is important to note that the credit is not applicable to renovations of existing houses. The US Green Building Council, which established the LEED rating system, established the rating system to apply to new homes. However, as indicated in the bolded portion of the citation below, renovations may become part of the rating.

"LEED for Homes was designed to assess and label newly constructed homes. It cannot be used to assess or label a portion of a home. Only a substantial or "gut" rehab project may be included in LEED for Homes **at this time.** Partially renovated homes cannot be rated under LEED for Homes." (bolding added) - *LEED for Homes Program Pilot Rating System, USGBC Jan 2007* 

## EMNRD:

SB 543 directly influences the impact of climate change and the reduction of greenhouse gas emissions through reduced fossil fuel consumption. By reducing the overall energy consumption in a building the cost-effectiveness of using onsite renewable energy increases.

Most significantly, New Mexico lags behind other states in developing a robust supplier base for green building products, making it expensive to construct green buildings. This is a largely untapped opportunity for economic development.

The potential for economic benefit for New Mexico is great. New technology, product manufacturing and energy related specialty consulting businesses will be drawn to the state when a vibrant green building industry emerges.

The 2030°Challenge, an initiative that includes the American Institute of Architects, reports data "from the U.S. Energy Information Administration illustrates that buildings are responsible for almost half (48%) of all greenhouse gas (GHG) emissions annually; globally the percentage is even greater. Seventy-six percent of all electricity generated in U.S. power plants goes to supply the 'Building Sector'. Immediate action in the Building Sector is essential if we are to avoid hazardous climate change."

**Renewable Energy Production Tax Credit.** Currently there is no significant electricity generation based on renewable sources other than wind power. TRD estimates that with this expanded credit, approximately 35 MW of biomass will come on line in 2009 and 18 MW of solar power will come on line in 2009 increasing by 10 MW per year. There is considerable interest in a large scale (at least 50MW) concentrating solar power plant somewhere in New Mexico due to the excellent solar resource here. A concentrating solar power plant or CSP plant is a field of solar mirrors that heat a liquid to high enough temperatures to create steam which turns a turbine. CSP was the subject of one of the renewable energy task forces that met in 2004. The full report can be found on EMNRD's website: <u>http://www.emnrd.state.nm.us</u>. [DISCLOSURE: The author of the economic impact section of the EMNRD study is the same as the author of this FIR]

Building a CSP plant, regardless of size, would have a positive economic impact and would increase the state's tax revenues. Creating a CSP manufacturing industry in New Mexico would add additional jobs and economic activity for the state. http://www.emnrd.state.nm.us/ecmd/ConcentratingSolarPower/documents/NMCSPFeasibilityStudy.doc

Making the credit refundable is probably the most significant factor in increasing the cost and increasing the application of the credit. Many of the power generation companies do not have significant tax liability in the initial years and so being able to use the whole credit right away should have a significant impact on the development of the industry. Lowering the allowed megawatts to 1 MW is another important factor as many smaller solar power plants, such as dish collector plants which concentrate solar rays on to photo-voltaic panels, will be able to take advantage of the credit. Allowing the credit against PIT is another important feature as many companies are partnerships or configurations other than corporations and so do not file corporate income tax.

The study cited above mentions "tax appetite" and recommends a refundable credit such as this one:

Tax reduction incentives can be very effective for improving the cost competitiveness of CSP projects. A variety of tax incentives are currently used at the state and federal level to induce investment in alternative energy generation technologies. The effectiveness of tax incentives is often limited by "tax appetite" limitations. These limitations can be avoided if tax incentives are transferable or refundable. Tax incentives must also be

constructed to avoid unfavorable interactions. Alternative financing structures are often developed to maximize tax benefits. Such structures include equity "flip" arrangements and sale/lease-back structures.

http://www.emnrd.state.nm.us/ecmd/ConcentratingSolarPower/documents/NMCSPFeasibilityStudy.doc

# **TECHNICAL ISSUES**

**Solar Energy System Gross Receipts.** EMNRD notes that the bill does not require solar energy systems to meet a minimum quality standard to receive the deduction. The deduction could be applied to poorly performing systems or to solar systems that are part of fossil fuel-based systems. EMNRD also notes it may be difficult to differential trombe wall materials from other wall construction materials.

Alternative Energy Product Tax Credit. The definition of "alternative energy product" is confusing regarding renewable energy system. The definition seems to suggest that the renewable energy system is for an alternative energy vehicle or for integrated gasification combined cycle coal facilities and not a stand alone renewable energy system. The definition of renewable energy system suggests a stand alone power generator.

TRD:

The bill does not define the value of the qualified equipment. That can be a problem because you can have delivery costs, installation costs, and construction costs associated with self-constructed equipment, and value of used equipment brought into the state or used equipment that was previously granted the credit. An existing definition that could be adopted for this purpose is the definition of value in the Compensating Tax: "the adjusted basis of the property for federal income tax purposes determined as of the time of acquisition or introduction into this state or of conversion to use, whichever is later."

TRD also reports problems with the methodology in determining increased employment. HB430 establishes a fixed point in time as the baseline to determine new jobs. An employer could time its purchase based on a day when employment was lower than usual, due to any number of reasons, the year before on that day.

## **ADMINISTRATIVE ISSUES**

#### Alternative Energy Product Tax Credit. TRD reports:

The new Credit will impose a set of record-keeping requirements on the Department. These functions have to be performed manually because at the present time the Department does not have an automated system for processing tax credits. With the proliferation of new tax credits in recent years, each of which has different eligibility criteria and record-keeping requirements, the Department has had to allocate more staff time to manually processing credits. A more efficient method, that would yield more accurate financial results, would be for the Legislature to streamline the credit provisions in tax law – i.e. impose the same criteria for eligibility and applicability of the credits -- and appropriate funds to the Department to develop an automated system for processing credits.

# **OTHER ISSUES**

Sustainable Building Tax Credit: Other States with similar credits:

*NEW YORK STATE*: New York enacted a green building credit in 2001 and they are estimating it to cost almost \$1 million in 2005.

**Effective Date:** Effective for costs incurred on or after June 1, 1999 and certified by the Department of Environmental Conservation prior to 2004. The credit is allowable for tax years 2001 through 2009.

**Description:** Taxpayers may claim a credit for the purchase of recyclable building materials and other environmentally preferable tangible personal property. Credits may also be claimed for the purchase of fuel cells, photovoltaic modules, and environmentally sensitive non-ozone depleting refrigerants.

Estimates: 2002: \$0.3 million - 2005: \$0.9 million

Data Source: Personal Income Tax Clearing House data file

*OREGON*: Oregon has a Business Energy Tax Credit that is estimated to have cost \$22 million in 2003 but saved \$26 million in energy costs to businesses. EcoNorthwest, an economic consulting firm, prepared a report of the economic impact of Oregon's credits: <u>http://www.oregon.gov/ENERGY/CONS/docs/EcoNW\_Study.pdf</u>

The bill now excludes residential renovations from the credit not by language but by the current definition of the LEED for Homes. The US GBC may change this definition in the future and it would automatically be included in eligible projects. Including renovations would likely increase the fiscal impact significantly and so if the intent is to exclude renovations, a clearer definition is necessary.

NF:csd