

**Advanced Transportation and
Alternative Sources Manufacturing
Sales and Use Tax Exclusion
Program**

Reviewing SB 71 (Chapter 10, Statutes of 2010)

A Legislative Oversight Hearing
Senate Committee on Energy, Utilities and Communications
and
Senate Committee on Governance and Finance

Wednesday, October 19, 2011
State Capitol, Room 4203
2 p.m. to 4:30 p.m.

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PART ONE: REVIEWING SB 71

This briefing paper prepares the nineteen members of the Senate Energy, Utility & Communications and the Governance and Finance Committees for their October 11, 2011, oversight hearing on SB 71 (Padilla, Chapter 10, Statutes of 2010), the advanced transportation and alternative sources manufacturing sales and use tax exemption program.

While this hearing was prompted by the recent bankruptcy of Solyndra, Inc., which was also approved for a sales and use tax exemption under the SB 71 program, the Committee's review of this program is to analyze the entire program to assess whether changes or modifications are necessary.

Existing Law

The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) provides financing for facilities that use alternative energy sources and technologies. CAEATFA also provides financing for facilities needed to develop and commercialize advanced transportation technologies that conserve energy, reduce air pollution, and promote economic development and jobs. CAEATFA's board, composed of Treasurer, Controller, Director of Finance, Chairperson of the Energy Commission and President of the Public Utilities Commission, decides which projects to assist. On March 24, 2010, Governor Arnold Schwarzenegger signed SB 71 (Padilla) into law, which authorizes the CAEATFA to provide eligible projects financial assistance in the form of a sales and use tax exemption on property used for the "design, manufacture, production, or assembly" of either advanced transportation technologies or alternative energy source products, components or system. Prior to the passage of SB 71, Governor Schwarzenegger used CAEATFA to assist a joint venture between Tesla Motors and Toyota Motors to purchase the Nummi assembly plant in Fremont, California where the two companies focus on manufacturing hybrid and electric vehicles.

The SB 71 program promotes the creation of California-based manufacturing, California-based jobs, and the reduction of greenhouse gases, air and water pollution, or energy consumption. To date, CAEATFA has approved financial assistance for private entities in the following fields: electric vehicle manufacturing, solar photovoltaic manufacturing, landfill gas capture and production, biogas capture and production (dairies and waste water treatment plants), demonstration hydrogen fuel production, electric vehicle battery manufacturing, biomass processing and fuel production, and others.

Eligibility Criteria. Applicants must show the property to be purchased will be used to design, manufacture, produce or assemble an eligible advanced transportation technology or alternative source product – including energy efficiency – component or system.

This definition includes manufacturers of alternative source electricity generation equipment such as solar panels or wind turbines, but it excludes the purchase of that equipment for power generation.

Loan Guarantees vs. Tax Exemptions

What's a loan guarantee?

When firms invest in innovative clean technology or commercial scale renewable energy generation projects, these unproven technologies may not attract loan certainty because of its risk. If a government entity is interested in investing in a project, the government entity may assume obligation to repay a lender if the borrower fails to repay a loan. This loan guarantee allows firms to bring more technologies to the market.

The United States Department of Energy (DOE) Loan Guarantee Program is different in several fundamental ways from the SB 71 program. Authorized by the Energy Policy Act of 2005, the DOE program is a loan guarantee, where a government entity assumes the obligation to repay a lender if the borrower fails to repay a loan. DOE solicits firms that invest in either innovative clean technology or commercial scale renewable energy generation projects, which then apply. Because these technologies are unproven, the loan guarantee program provides certainty for lenders to make loans to these firms that they may not otherwise, as these technologies lack the proven capacity to produce sufficient net income for the firm to repay the loan. Therefore, the loan guarantees allow firms in this area to bring more technologies to market than would otherwise, but for the program. In consultation with the Office of Management and Budget (OMB), DOE assesses the investment risk assumed by its loan guarantee.

The SB 71 program allows CAEATFA to grant a sales and use tax exemption to an eligible firm that purchases property necessary to design, produce, manufacture, or assemble advanced transportation technologies or alternative energy source products, components, or systems. Selected firms purchase equipment without paying the sales and use tax that would normally apply, lowering their cost of capital. Neither CAEATFA nor the state is a creditor to the selected firm in any way under the SB 71 program. Instead, CAEATFA calculates whether the exemption will yield a net environmental and economic benefit for the state. Thus far, CAEATFA has approved \$104 million to 33 firms that applied for the SB 71 benefit, of which 33 firms have monetized \$31.6 million in exemptions. Some of the firms have purchased the property and deployed it in the manufacturing process, while others have won the award, but not yet purchased the equipment.

Solyndra and the DOE Loan Guarantee Program. DOE has issued 17 loan guarantees, totaling \$7.84 billion, as of September, 2011, and announced conditional commitments to an additional 16 projects totaling \$10.4 billion. All projects must commence construction before September 30, 2011.

Solyndra first applied to DOE for a loan guarantee in December, 2006 in response to a solicitation. On March 20, 2009, DOE announced its conditional commitment to the loan

guarantee to Solyndra, and closed on September 2, projecting 3,000 construction jobs and 1,000 ongoing jobs in the factory.

In March 2010, Solyndra's auditor warned about its ability to continue as a going concern in an SEC filing. In June 2010, the company cancelled a \$300 million initial public offering. The Solyndra Board announced its bankruptcy on August 30, 2011. Two days later, the Federal Bureau of Investigation working with the DOE's inspector general executed search warrants at the firm and at the home of its executives, but authorities have not yet charged the firm or its executives with wrongdoing. Solyndra filed for bankruptcy on September 6th in the United States Bankruptcy Court for the District of Delaware. As such, DOE must repay the loan, made under another DOE program, and pursue its claims for repayment in the bankruptcy proceeding.

Tax expenditures vs. SB 71 sales and use tax exemption

The SB 71 program stands in stark contrast to other tax credits, where a certain class of individuals or businesses may claim a credit based on making a certain investment, such as research and development, or business location, such as an enterprise zone. First, CAEATFA approves tax benefits to applicants based on its evaluation of the applicant's net benefits, although CAEATFA can and has approved applicants that did not demonstrate a net benefit. Applicants supply information to CAEATFA, which performs its own independent net benefits analysis. In this way, SB 71 is similar to the Low Income Housing Tax Credit (LIHTC) program, administered by the California Tax Credit Allocation Committee, part of the Treasurers' Office. LIHTC differs mechanically from SB 71, most notably by capping the amount of tax credits to a specified amount, whereas the SB 71 exemptions are not subject to a cap. However, CAEATFA must notify the Legislature within 20 days of each \$100 million in exemptions it grants prior to approving new ones.

How is SB 71 different from other tax credits?

- CAEATFA approves tax benefits to applicants, based on the application's net benefit.
- The program is an exemption for the sales and use tax, not a credit against the income or corporation income tax.
- SB 71 targets firms that produce renewable electricity technology or produce alternative forms of transportation.

SB 71 is also different because it's an exemption from the sales and use tax, not a credit against the personal income or corporation income tax. Sales tax applies to property purchased by firms, and any firm making a purchase benefits from the exemption when purchasing an exempted product. Meanwhile, income tax credits reduce tax on a dollar-for-dollar basis, thereby benefitting only those firms that generate net income, and therefore pay tax. Many firms in this industry do not become profitable until they are producing at commercial scale, so the sales and use tax exemption provides a much more immediate and direct benefit than a tax credit, which the firm may not be able to apply until it generates net income, if at all.

Additionally, SB 71 targets only those firms which qualify under CAETFA’s definition of “project,” which generally applies to firms that produce technology that generates renewable electricity or produces alternative forms of transportation. As such, the exemption applies to firms in a relatively small sector of the economy in the hopes that such firms will choose California to manufacture its products, thereby increasing employment, that these more innovative industries will grow more in the future more than settled firms that use established technologies, and that the products made by these firms are more environmentally beneficial than incumbent technologies. In contrast, the Governor’s proposal to require firms to use the sales factor to apportion corporate income and reduce other business taxes in the hopes of creating jobs applies to almost all firms regardless of the product or service they produce (AB 40x, Fuentes, and SB 116, DeLeon, 2011).

Solyndra, Inc. Background

On September 5, 2011, Solyndra LLC, a California-based manufacturer of solar cells, filed Chapter 11 petitions for bankruptcy in the United States Bankruptcy Court for the District of Delaware. According to papers filed by Solyndra in its bankruptcy proceeding, several factors attributed to its bankruptcy filing. Like Evergreen Solar, who filed for bankruptcy in August, 2011 Solyndra suffered from a worldwide drop in solar panel prices, low market pricing, a drop in demand and a drop in polysilicon pricing used for traditional solar panels. Solyndra’s bankruptcy was met with more public scrutiny due to the \$535 million Department of Energy loan guarantee to construct its second production facility, which came online in January, 2011. Additionally, Solyndra received \$25.1 million in sales and use tax exemptions for equipment used to manufacture solar panels at the same plant from the CAETFA program.

Solyndra Timeline.

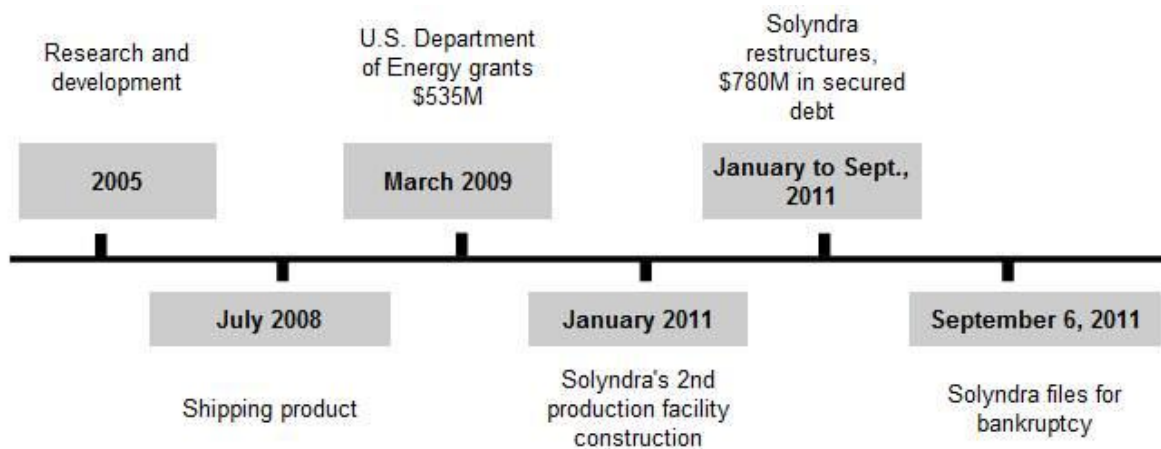


Figure 1: Solyndra’s timeline, from 2005 to present.

The company formed in 2005, focusing on research and development of its products. By 2007, Solyndra entered into a lease for its first production facility and by July of 2008, it began shipping product. Solyndra’s business model used chemical-coated cylinders instead of

traditional polysilicon solar panels betting that the cylinders would be cheaper to produce and more energy efficient (see graphic below). Solyndra raised initial funding for its operations through a series of preferred stock offerings. In addition to the preferred stock, the company also received funding in the form of loan guarantees. In March of 2009, Solyndra received a conditional commitment from the U.S. Department of Energy for a \$535 million loan guarantee. Solyndra used these funds to construct a second production facility. Several months prior to filing for bankruptcy, Solyndra implemented a restructuring with its secured creditors. Although the restructuring generated an additional \$75 million in cash, it also left the company with over \$780 million in secured debt. On the eve of bankruptcy, Solyndra sought additional funding from investors, however; it was unsuccessful, due in part to the size of its debt.

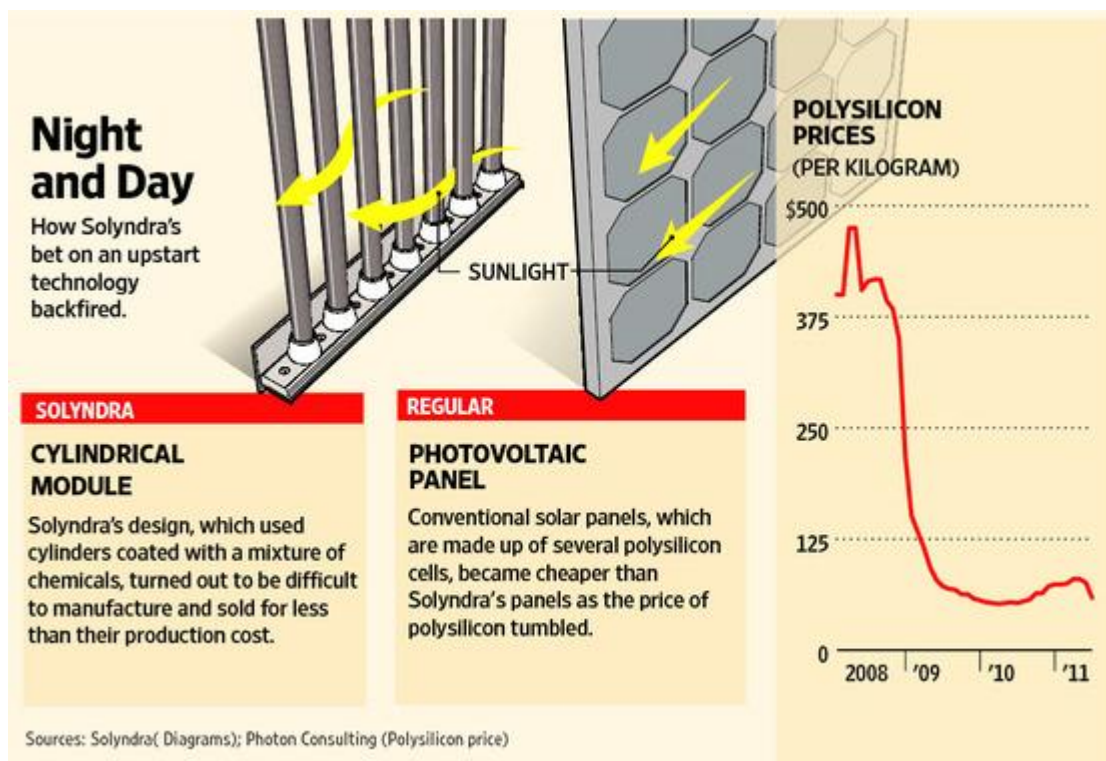


Figure 2: Comparing Solyndra's cylindrical modular design to a conventional photovoltaic solar panel.

Solyndra and the SB 71 Program. On November 17, 2010, Solyndra applied for \$24 million in SB 71 exemptions. CAEATFA calculated that the program had \$22,202,063 in environmental benefits, \$20,765,274 in economic benefits, providing a \$8,226,021 net benefit to the state according to its test for the \$34,741,616 in sales and use tax exemptions approved by CAEATFA in November, 2010. CAEATFA granted the exemptions for property that Solyndra would use in its Fab 2 facility, the same funded by the DOE loan guarantee. Solyndra applied \$25,127,322.31 of that amount to property it purchased.

On September 27, 2011, CAEATFA Executive Director Christine Solich asked the CAEATFA Board to consider State Treasurer Lockyer's request to suspend or pause the program at its next hearing as a result of the Solyndra bankruptcy and this hearing. Also at that hearing, Bob Hendricks, Counsel to the CAEATFA board informed the members that any action on behalf of

the state to require Solyndra to repay the state the exemption amount was only possible if Solyndra made a material misrepresentation in its SB 71 application.

What Legislators Should Ask

The October 11 hearing is one of a series of oversight hearings in the Legislature to ensure that the program's objectives are aligned with its outcomes. The hearing gives legislators a chance to look more closely at five questions:

- What did the Legislature intend for the CAETFA program under SB 71?
- Are the CAETFA applicants meeting the stated goals of the program?
- What are the specific outcomes associated with the CAETFA program in general and SB 71 specifically?
- What specific economic and employment indicators should improve as a result of SB 71?
- What are the feasible alternatives to the current evaluation procedures and net benefits test?
- Should the Legislature "claw back" a firm's exemptions if it doesn't meet its job creation and retention promises?

PART TWO: CAEATFA INFORMATION

Application Assessment

SB 71 requires the following information be included in an evaluation of applicants for a sales and use tax exemption:

- The extent to which the project develops manufacturing facilities, or purchases equipment for manufacturing facilities, located in California.
- The extent to which the anticipated benefit to the state from the project equals or exceeds the projected benefit to the participating party from the sales and use tax exclusion.
- The extent to which the project will create new, permanent jobs in California.
- To the extent feasible, the extent to which the project, or the product produced by the project, results in a reduction of greenhouse gases, a reduction in air or water pollution, an increase in energy efficiency, or a reduction in energy consumption, beyond what is required by any federal or state law or regulation.
- The extent of unemployment in the area in which the project is proposed to be located.
- Any other factors the authority deems appropriate in accordance with this section.

The following information from a CAEATFA staff report from September, 2010 explains the eligibility, evaluation and scoring for each CAEATFA applicant to implement the language of SB 71.

Eligibility Criteria. To qualify, an Applicant must show that the property to be purchased subject to the sales and use tax exemption will be used to design, manufacture, produce or assemble an Advanced Transportation Technology or Alternative Source product, component or system. This definition includes, for example, manufacturers of Alternative Source electricity generation equipment such as solar panels or wind turbines, but would exclude the purchase of that equipment for use of power generation.

Evaluation Criteria. Applications that meet the Project definition criteria will be evaluated based on criteria developed and specified in the proposed emergency regulations. These evaluation criteria are designed to measure and quantify the fiscal and environmental benefits of the Project and to compare the result to the cost of the sales and use tax exemption.

In order to specifically evaluate the fiscal and environmental results that stem directly from the sales and use tax exemption, only the marginal additional production (and resulting fiscal and environmental benefits) associated with the sales and use tax exemption are included for purposes of evaluating Applicants. The marginal additional production resulting directly from the sales and use tax exemption will be determined based on an assumed increase in equipment purchases resulting from the sales and use tax exemption. That is, because the sales and use tax exemption in effect lowers the cost of purchasing capital equipment, Applicants are assumed to purchase more such equipment than would be the case in the absence of the STE. The increase in capital purchases resulting from the sales and use tax exemption is derived based on a calculation performed by the Executive Director and the Staff in the evaluation process pursuant to parameter assumptions approved by the Board.

The resulting increase in output associated with the additional equipment purchases are subsequently calculated, and the fiscal and environmental effects associated with just this additional output is used for purposes of scoring the Application.

- To calculate fiscal effects. A pro rata share of the corporation tax, personal income tax, sales tax, and property tax is calculated (over the life span of the Qualified Property purchased).
- To calculate environmental effects. The increased output associated with the marginal equipment purchases is calculated based on Applicant-provided information. The environmental effects of each additional unit of increased output is calculated based on the efficiency gains or energy generation potential of the product. For example, in the case of a solar panel manufacturer, the number of additional panels is calculated and then the generation capacity of the panels in megawatt hours is determined (based on Applicant-provided data). The additional generation capacity results in a reduction in the amount of non-alternative source power that otherwise would be needed. To determine the dollar value of the pollution that is not produced as a result of the deployment of the

solar panels, the amount of pollution (CO₂ and non-CO₂) associated with a megawatt hour of electricity generation is estimated and a dollar value is assigned based on available research and analysis. The total value in dollars of the pollution benefits associated with the Applicant's marginal production is calculated and added to the fiscal benefits.

Scoring. Applicants will receive scores in the areas of fiscal benefits and environmental benefits which will translate into a numerical score. In addition, Applicants may receive up to 200 points for optional supplemental information related to the economic and environmental benefits of the Project if the Applicant provides such data. Applications that receive a total score greater than or equal to 1,000 points and a total pollution benefit score (i.e., environmental benefits) greater than or equal to 100 will be recommended to the Board for approval. The Executive Director may recommend to the Authority that the 1,000 point threshold be adjusted if it is in the public interest and advances the purposes of the Program. Where a Project receives a total score of less than 1,000 points, the Executive Director may recommend it to the Authority for approval upon a statement articulating specific reasons why the approval is in the public interest and how it advances the Program.

Parameter Assumptions. In order to evaluate the fiscal and environmental benefits of an Application, the evaluation criteria embodied in the emergency regulations rely on a number of specific parameters which the Executive Director must recommend to the Board for approval. In consultation with experts, economists, other State agencies, and data provided by Applicants, the Executive Director will determine the most accurate and appropriate value for each parameter. The following is a list of the specific parameters that the Executive Director must recommend to the Board for approval (these parameters will be brought forward to the Board for approval today in Agenda Item 4.C.):

- Current Statewide Average Sales Tax Rate
- Percent Increase in Capital Investment
- Appropriate Discount Rate for Fiscal and Environmental Effects
- Economic Multiplier
- Average State Income Tax Rate
- Applicable Local Property Tax Rate
- Ratio of State and Local Government Revenues to Gross State Output
- Pollution Cost Per Unit (Gallon of Gas Equivalent or Megawatt hour of electricity) of Volatile Organic Compounds (VOCs), Nitrous Oxide (NO_x) and Carbon Dioxide (CO₂) Released in California and the Rest of the United States
- List of Emerging Green Industries (if applicable)

Energy Policy Considerations

1. Quantification of Pollution Benefits. A significant component of the net benefits test is the quantification of the pollution benefit from the green component that is manufactured. Specifically the statute calls for the Treasurer to consider the “to the extent feasible, extent to which the project, or the product produced by the project, results in a reduction of greenhouse gases, a reduction in air or water pollution, an increase in energy efficiency, or a reduction in energy consumption...”

The net benefits test used by the CAEATFA takes the total units to be produced by the equipment produced, values the energy to be produced or saved as a result of the use of the product, and includes the dollar amount as a financial benefit to the state. Is this a necessary program element?

Although CAEATFA has followed the law, the necessity of this element to achieve program goals is not clear and may unnecessarily complicate program administration.

Under law, the definition of eligible projects is specifically limited to “advanced transportation technologies or alternative source products, components, or systems” which are further defined and basically include solar, wind, energy efficiency and other technologies designed to save energy. Advanced transportation technologies are also defined and include intelligent vehicle highway systems, advanced telecommunications for transportation, command, control, and communications for public transit vehicles and systems, electric vehicles and ultralow-emission vehicles, high-speed rail and magnetic levitation passenger systems, and fuel cells.

However, without quantifying the pollution benefit provided by the green technologies, some companies might fall out of eligibility based strictly on the economic benefits of jobs created vs. sales and use tax exemption received.

2. Scope of Approved Projects. The committees should also consider whether the benefitting products and companies are what was intended by the Legislature. Several companies involved in the direct manufacturing of clean energy products have applied for the program including solar panels, fuel cells, and batteries and clearly meet the program’s intent. However, gas excavation projects have also been made eligible such as landfill gas. These projects generally have two elements – gas extraction and energy production. Only the gas extraction equipment has been made eligible for the sales and use tax exemption. However, gas extraction may be a bit astray from the manufacturing benefit anticipated by the program.

Two demonstration projects have also been approved for sales and use tax exemptions. Research and development projects or demonstration projects, although broadly beneficial to achieving the state’s clean energy goals, do not appear to meet the primary

goal of the bill which was to develop “manufacturing facilities, or purchase equipment for manufacturing facilities.” The temporary nature of these projects also does not appear to be consistent with the Legislature’s intent. The CAEATFA has authority to waive the net benefits test to approve a project and appears to have used that waiver authority to qualify these projects.

3. Renewable Energy Generation. – Finally, during the regulatory process to implement SB 71, the CAEATFA was under great pressure to also include assembly of renewable energy generation projects and therefore its component parts, as eligible under the program. One commenter in the proceedings opined that:

The term “alternative source products, components, or systems” clearly can be interpreted to include the production of alternative renewable energy. We see no reason that CAEATFA cannot determine that certain forms of renewable energy constitute a “product” eligible for sales and use tax exclusion under SB 71. Similarly, “alternative source system” can be interpreted by CAEATFA to include renewable energy production systems – including equipment used to generate renewable electricity according to the provisions of SB 71. Finally, “alternative source components” can clearly be interpreted to include renewable energy production components – including the equipment used to generate renewable electricity according to SB 71.

The CAEATFA rejected this proposition and found that:

In sum, the Legislature tailored the SB 71 Program to give CAEATFA a limited ability to provide assistance to manufacturers of alternative source products, components or systems. By omitting the reference to facilities that utilize an alternative source, it carved alternative source generation out of the Program.

Going beyond the plain language of the statute and looking to the Legislative history of SB 71 reinforces this conclusion and demonstrates that the Legislature firmly believed that generation was encompassed in CAEATFA’s pre-existing authority. That being the case there was no need to include it in the SB 71 Program.

When speaking of SB 71 the Legislature understood the provisions to apply to equipment used to manufacture products that produce energy from alternative sources. Logically then, SB 71’s project definition would be limited to the machinery and equipment necessary to manufacture solar panels or wind turbines. In contrast, when speaking of existing law, the Legislature spoke in terms of equipment that uses alternative sources.

Although many parties found CAEATFA’s decision lacking, many others lauded CAEATFA and the State Treasurer for sticking to the primary focus of the program – manufacturing – and recognizing that those renewable generation projects have viability on their own due to power purchase agreements that have been entered into with electric utilities throughout the state.

Alternative Considerations

Above, the Treasurer's office outlines the current "net benefits test" under existing law to ensure that every company that receives a sales and use tax exemption under the SB 71 CAETAF program make a positive impact on both greenhouse gas emissions and the economy. Either in addition or instead of the current evaluation procedures, the Committee may wish to consider the following evaluation alternatives.

1. Perform an "investment grade" financial viability. CAEATFA would assess an applicant's business plan, financial statements, credit references, and/or other financial information in an effort to determine whether the company is likely to be viable over the time horizon covered in the application.
2. Cap individual award amounts or total award amounts. The total amount awarded to any one company could be limited to a specific dollar threshold (e.g. \$10 million per applicant).
3. Provide the sales and use tax exemption upon completion of certain milestones. Under this option, companies would pay sales tax up front on their equipment purchases. However, the sales tax would be refunded to the company after the business operates for a specified period of time (e.g. three years) or meets specific milestones (e.g. hires 100 workers).
4. Create a "claw back" and make sales tax payable upon bankruptcy or the manufacturer leaving the state. This alternative would require that applicants repay the amount of the sales tax exemption to the state under certain circumstances, such as bankruptcy within a certain time period after granting of the sales and use tax exemption or in the event that the qualified property is moved out of the state.
5. Partial or Proportional claw back for employment, (less than promised). This alternative would require a proportional claw back commensurate with the number of jobs less than the applicant's proposal.
6. Delete net benefits test. The information provided for the net benefits test is self-reported by project sponsors. The information is not certified by an outside party and assumes significant increases in product demand that likely do not exist without significant price parity.

PART THREE: CAEATFA COMPANIES

Existing companies with the exemption, “Approved project pipeline”

Appendix A is a list from the Treasurer’s office of the current status of applications for SB 71 sales and use tax exemption dollars.

Geographic information on SB 71 companies

Appendix B is a list of all available geographic information for each of the CAETAFAs companies.