

**Franchise Tax Board**

**ANALYSIS OF ORIGINAL BILL**

Author: Ashburn Analyst: Jahna Alvarado Bill Number: SB 1073  
 Related Bills: See Legislative History Telephone: 845-5683 Introduced Date: February 17, 2010  
 Attorney: Patrick Kusiak Sponsor: \_\_\_\_\_

**SUBJECT:** Research Expense Credit/20 Percent Of Qualified Green Technology & Renewable Energy Research And Development Costs

**SUMMARY**

This bill would increase the research credit for green technology and renewable energy research, as specified.

**PURPOSE OF THE BILL**

According to the author’s office, the purpose of this bill is to spur job creation and innovation in the State’s green technology and renewable energy resources sectors.

**EFFECTIVE/OPERATIVE DATE**

As a tax levy, this bill would be effective immediately upon enactment, and specifically operative for taxable years beginning on or after January 1, 2010.

**POSITION**

Pending.

**ANALYSIS**

Existing state and federal laws provide various tax credits designed to provide tax relief for taxpayers who incur certain expenses (e.g., child adoption) or to influence behavior, including business practices and decisions (e.g., research credits or economic development area hiring credits). These credits generally are designed to provide incentives for taxpayers to perform various actions or activities that they may not otherwise undertake.

FEDERAL/STATE LAW

Existing federal law allows taxpayers a research credit that is combined with several other credits to form the general business credit. The research credit is designed to encourage companies to increase their research and development activities.

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The research credit for personal income tax (PIT) taxpayers is determined as the sum of:

1. 20 percent of the qualified research expenses incurred during the taxable year that exceeds the base amount, as defined, and
2. 20 percent of the amount paid or incurred during the taxable year on research undertaken by an energy research consortium.

In addition to the two components listed above, corporate taxpayers are allowed a credit of 20 percent of expenses paid to fund basic research at universities and certain nonprofit scientific research organizations.

Prior to January 1, 2009, federal law allowed a taxpayer to elect the alternative incremental credit (AIC) method to determine their research credit.

To qualify for the credit, research expenses must qualify as an expense or be subject to amortization, be conducted in the U.S., and be paid by the taxpayer. The research must be experimental or laboratory research and pass a three-part test as follows:

1. Research must be undertaken to discover information that is technological in nature. The research must rely on the principles of physical, biological, engineering, or computer sciences.
2. Substantially all of the research activities must involve experimentation relating to quality or to a new or improved function or performance.
3. The application of the research must be intended for developing a new business component. This is a product, process, technique, formula, or invention to be sold, leased or licensed, or used by the taxpayer in a trade or business.

Ineligible expenses include seasonal design factors; efficiency surveys; management studies; market research; routine data control; routine quality control testing or inspection; expenses incurred after production; development of any plant, process, machinery, or technique for the commercial production of a business component unless the process is technologically new or improved. The federal credit does not apply to any expenses paid or incurred after December 31, 2009.<sup>1</sup>

California conforms to the federal credit with the following modifications:

- The state credit is not combined with other business credits.
- Research must be conducted in California.
- The credit percentage for qualified research in California is 15 percent versus the 20 percent federal credit.
- The credit percentage for basic research in California is limited to corporations (other than S Corporations, personal holding companies, and service organizations) and is 24 percent versus the 20 percent federal credit.
- The percentages for the alternative incremental research portion of the credit vary from the federal credit.

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<sup>1</sup> Emergency Economic Stabilization Act of 2008 (Public Law 110-343).

The California research credit is allowed for taxable years beginning on or after January 1, 1987, and is permanent.

Corporate taxpayers that are members of a combined reporting group may make a one-time, irrevocable assignment of eligible credits, as defined, to an eligible assignee, as defined. Assigned credits can reduce tax for taxable years beginning on or after January 1, 2010.

### THIS BILL

This bill would, for taxable years beginning on or after January 1, 2010, increase the percentage of increased qualified research expenses included in the research credit from 15 percent to 20 percent for "green technology and renewable energy research and development."

This bill would define "green technology and renewable energy research and development" as research and development that is any of the following:

- Consistent with meeting the goals and objectives of compliance with greenhouse gas emissions standards as set forth in the Health and Safety Code;
- Promotes the reduction of wasteful, inefficient, unnecessary, or uneconomic uses of energy;
- Provides for the utilization of cost-effective water use efficiency practices to curtail the waste of water and ensure that water use does not exceed reasonable needs;
- Provides for the utilization of recycled or reusable materials in the manufacturing process;
- Provides for the application of cogeneration technology, as defined in the Public Resources Code; or
- Provides for the conservation of energy or the use of solar, biomass, wind, geothermal, hydroelectricity under 30 megawatts, or any other source of energy, the efficient use of which will reduce the use of fossil and nuclear fuels.

### IMPLEMENTATION CONSIDERATIONS

The department has identified the following implementation concerns. Department staff is available to work with the author's office to resolve these concerns and other concerns that may be identified.

Department staff does not have expertise in "green technology and renewable energy research and development." Typically, credits involving areas for which the department lacks expertise are certified by another agency or agencies that possess the relevant expertise. For example, the State Air Resources Board could serve as the certifying agency for research that is "consistent with meeting the goals and objectives of compliance with greenhouse gas emissions standards as set forth in the Health and Safety Code."

The bill uses the following undefined terms: "consistent," "promotes," and "provides". The absence of definitions to clarify these terms could lead to disputes with taxpayers and would complicate the administration of this credit.

## **LEGISLATIVE HISTORY**

AB 1484 (Anderson, 2009/2010) would have made the same change to the percentage of increased qualified research expenses that this bill would make with the exception that this bill would apply only to “green technology and renewable energy research and development.” AB 1484 failed to pass out of the Assembly Revenue and Taxation Committee by the constitutional deadline.

AB 2278 (Anderson, 2009/2010) would make the same change to the percentage of increased qualified research expenses that this bill would make with the exception that this bill would apply only to “green technology and renewable energy research and development.” AB 2278 is currently in the Assembly Committee on Revenue and Taxation.

SB 444 (Ashburn, 2009/2010) would have raised the credit for increasing qualified research expenses to 20 percent and conform to the federal AIC percentages for taxable years beginning on or after January 1, 2009. Under the provisions of this bill, the 20 percent rate would be limited to specified research activities and there would be no change to the existing AIC percentages. SB 444 failed to pass out of the first house by the constitutional deadline.

SB 1239 (Wyland, 2009/2010) would, among other things, make the same change to the percentage of increased qualified research expenses that this bill would make with the exception that this bill would apply only to “green technology and renewable energy research and development.” SB 1239 is currently in the Senate Committee on Revenue and Taxation.

SBX6 9 (Dutton, et al., 2009/2010) would make the same change to the percentage of increased qualified research expenses that this bill would make with the exception that this bill would apply only to “green technology and renewable energy research and development.” SBX6 9 is currently in the Senate Committee on Revenue and Taxation.

SBX8 58 (Dutton, Runner, 2009/2010) would have made the same change to the percentage of increased qualified research expenses that this bill would make with the exception that this bill would apply only to “green technology and renewable energy research and development.” SBX8 58 failed to pass out of the Senate Committee on Rules.

AB 1527 (Arambula, 2007/2008) would have, among other things, established a 20 percent credit for research conducted in California that would have been dedicated to the development of cleantech technologies. AB 1527 failed to pass out of the Assembly Committee on Revenue and Taxation by the constitutional deadline.

## **PROGRAM BACKGROUND**

The department annually releases a report on state tax expenditures. The 2009 State Tax Expenditure Report contains information regarding the usage of the Research Expense Credit. The relevant section is attached as Appendix A. The entire report can be viewed by accessing: [http://www.ftb.ca.gov/aboutftb/Tax\\_Expenditure\\_Report\\_2009.pdf](http://www.ftb.ca.gov/aboutftb/Tax_Expenditure_Report_2009.pdf).

## OTHER STATES' INFORMATION

The states surveyed include *Florida, Illinois, Massachusetts, Michigan, Minnesota, and New York*. These states were selected due to their similarities to California's economy, business entity types, and tax laws.

*Florida* allows corporate taxpayers to claim a corporate income tax credit for tax years beginning on or after January 1, 2007, and before January 1, 2011, for certain "eligible costs" for renewable energy technologies investment. To be eligible for this credit, a taxpayer must apply for, and receive, an allocation from the Florida Energy and Climate Commission (prior to July 1, 2008, to the Department of Environmental Protection). Allocations are made on a first-come first-served basis and the certificate of allocation must be filed with the tax return. *Florida* lacks a comparable credit for personal income taxpayers because *Florida* has no state personal income tax.

The *Illinois* income tax credit for qualified expenditures that are used for increasing research activities in *Illinois* is unavailable for tax years beginning on or after July 30, 2009.

*Massachusetts* allows corporate taxpayers to claim an excise tax credit for qualified expenditures that are used for increasing research activities in *Massachusetts*. The credit is equal to 15 percent of the basic research payments and 10 percent of qualified research expenses.

*Minnesota* allows two credits for research and development: a general nonrefundable credit available to all businesses, and a refundable credit allowed to a qualified business for increasing research activities in a biotechnology and health sciences zone. The credit is equal to 5 percent for qualified research expenses up to \$2 million; for expenses exceeding the first \$2 million, the amount of the credit is reduced to 2.5 percent.

*Michigan* allows corporate taxpayers a credit of 1.9 percent of the expenses of the research and development activities conducted in *Michigan*, and a credit of 3.9 percent of the compensation for services, not to exceed \$2,000,000 per taxable year, performed in hybrid technology research and development. To qualify for the hybrid technology research and development credit, the taxpayer must have entered into an agreement before April 1, 2007, with the Michigan Economic Growth Authority. For taxable years 2009 and 2010, *Michigan* allows corporate taxpayers, upon approval by the Michigan Economic Growth Authority, a refundable credit of 30 percent of the qualified contributions to a qualified research and development business, not to exceed \$300,000.

*New York* allows a credit for qualified emerging technology companies. The credit is equal to 18 percent of the cost of research and development property, 9 percent of the qualified research expenses, and the cost of qualified high-technology training expenditures, limited to \$4,000 per employee, per year. The credit is limited to \$250,000 per taxable year. Any excess credit can be refunded or applied as a payment for the following taxable year.

**FISCAL IMPACT**

If the implementation considerations discussed in this analysis are resolved, the department's costs are expected to be minor.

**ECONOMIC IMPACT**

Revenue Estimate

This bill would result in the following revenue losses:

Estimated Revenue Impact of SB 1073 As Introduced February 17, 2010 Operative For Taxable Years Beginning On or After January 1, 2010 Enacted Assumed After September 30, 2010 (\$ in Millions)			
	2010-11	2011-12	2012-13
Total revenue impact	-\$200	-\$310	-\$400

This analysis does not consider the possible changes in employment, personal income, or gross state product that could result from this bill.

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## Appendix A

### 2009 State Tax Expenditure Report<sup>2</sup>

The California R&D credit is a credit that normally is taken in conjunction with the Federal Research Credit. The calculation to determine the amount of creditable California research expenses generally conforms to the federal calculation with one exception: the California credit only applies to research activities conducted in California.

At the federal level, there are two reasons to encourage R&D. The first is that, without extra incentives, industry will typically do less R&D work than would be optimal for society. This is because R&D activity often produces “positive externalities” (i.e., benefits to people other than the person doing the R&D). The federal R&D credit reduces the after-tax cost of R&D investments, which should lead to an increase in R&D activity. Since state R&D credits also reduce the after-tax cost of R&D, they too will induce an increase in the overall level of R&D spending. The federal R&D credit’s second purpose is to encourage taxpayers to conduct R&D in the United States, rather than in another country.

Since the structure of the California R&D credit generally conforms to that of the federal credit, the California credit will produce both of these same effects. It will contribute to an overall increase in R&D activity, and it will encourage R&D activity to be undertaken in California rather than elsewhere. Because California’s contribution to total R&D spending is smaller than the federal government’s contribution, the first effect – global increases in R&D activity -- is somewhat less important to state policy than to federal policy. The second effect -- regional competition -- is a relatively more important motivator for state policy. This is because it may be easier for some R&D firms to move their activity to another state than it would be for them to move it to another country, and many states besides California offer R&D credit. Therefore, a California credit may be necessary for the state to remain competitive with other states in attracting and maintaining research and development business activity.

Both effects of the California R&D credit, the increase in the overall amount of R&D activity, and the increase in the proportion of this activity that takes place in California must be considered in evaluating the success of the California R&D credit. The desirability of the increase in overall R&D activity is dependent on the level of the federal R&D credit (and credits offered by other states and countries). If the federal credit is too low, the added R&D incentives provided by states collectively could generate productive additional R&D activity. Alternatively, if the federal credit has already induced optimal levels of R&D, any increases in overall R&D spending induced by additional state credits will be inefficient and hurt overall economic performance. It is not known whether the federal R&D credit is currently set at the optimal level.

The R&D credit may be viewed as successfully maintaining the competitiveness of the California R&D industry only if R&D activity is undertaken in California that would not have been undertaken here in the absence of the credit. The amount of California R&D activity that would not have taken place in California in the absence of the credit is unknown. Credits granted for R&D that would have occurred even in the absence of the credit may be considered a windfall.

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<sup>2</sup> Pages 15 -17

There are two possible benefits to attracting the R&D business to California. The first is the addition of the R&D jobs themselves. If this were the only benefit, the R&D industry should be singled out for this special benefit only if jobs in this industry are substantially more desirable than jobs in other industries in the state. The second potential benefit from bringing R&D to California is that other California businesses may be able to adopt innovations developed locally more rapidly than they can adopt innovations developed elsewhere. If this is the case, many California businesses, not just those receiving this credit, will gain an advantage over their rivals in other states. This advantage is not a result of being able to obtain technological information more quickly. Given the global communications network, information can be transported across continents relatively quickly and without cost. The advantage to California may come through something economists call *economies of agglomeration*. *Economies of agglomeration* are defined as “a reduction in production costs that results when firms in the same or related industries locate near one another.”

Thus, for example, if the R&D credit encourages some pharmaceutical companies to locate their research facilities in California, that will, likewise, encourage the growth of pharmaceutical research support firms (such as material suppliers, pharmaceutical manufacturers, universities doing biological and chemical research, chemical engineers, etc.) to be attracted to that area. Subsequently, with the growth of the support industries, other pharmaceutical firms will be attracted to the area. There are clearly many agglomeration economies within California (high-technology in Silicon Valley and motion pictures in Hollywood are two obvious examples). However, many factors contribute to the development and growth of agglomeration economies. Because of the complexity of agglomeration economies, the extent to which the California R&D credit has actually encouraged the development or growth of any agglomeration economies is not known.

We also note that less than one-fourth of this credit is actually available to reduce tax in the year that it is generated. The inability to fully use the credit (because there is insufficient tax to offset) undoubtedly reduces the incentive provided by the existence of the credit.