

Reading The Fine Print: How Do Government Funds Affect Intellectual Property?

The Bayh-Dole Act outlines numerous important stipulations for federally funded inventions, including solar technologies.

■ Tim Smith, Aly Dossa & Jennifer Morton

Driven by economic factors and the need for energy independence, the U.S. government is aggressively funding the development of alternative energy sources. With the goal of making solar more cost-competitive with traditional energy sources, the government - at all levels - is creating initiatives to encourage research and development (R&D), manufacturing and construction/ownership of energy facilities related to solar technologies in the U.S.

However, as companies rush to secure funding from the government, they should be aware that such funding may come with conditions. In particular, depending on the type of funding provided by the government, the government may obtain substantial rights to the company's technology - specifically, a company's intellectual property.

Accordingly, solar companies should understand the potential ramifications of obtaining various types of funding and then make an informed decision about accepting such funding. This article provides an overview of the three main sources of government funding (federal funding, tax credits and state-based funding), as well as the conditions

attached to each type of funding as they apply to intellectual property.

Various federal agencies offer grants and loan programs for renewable energy technologies, but the vast majority of such programs for solar technologies originate with the U.S. Department of Energy (DOE). The DOE tends to focus on supporting a greater volume of manufacturing, production and distribution of solar energy technology. Different divisions of the DOE offer a variety of funding opportunities for solar technologies.

For instance, the Office of Energy Efficiency & Renewable Energy regularly posts multiple funding opportunities for industry, businesses and universities. Examples of recent solar projects solicited for DOE funding include R&D for photovoltaic technologies and systems, training for solar technologies and manufacturing of solar technologies.

Government loan programs typically do not encumber an inventor's rights to a patent for a solar technology developed using funds from a government loan, provided the government loan is repaid in a timely fashion. Other funding opportunities are in the form of grants. Grants are often offered on a competitive basis in which application deadlines must be met.

Meeting requirements

Receiving federal funds for the purpose of R&D presents important issues concerning intellectual-property rights - specifically, patent rights. The Bayh-Dole Act defines

Summary Of Funding Sources And Impact On Intellectual-Property Rights

Funding Type	Company Rights in Intellectual Property	Government Rights in Intellectual Property	Relative Amount of Funding
Federal funding (grants) for nonprofit or small business	Retain ownership	Paid-up license to technology; Right to sublicense	Large
Federal funding (grants) for larger business	Paid-up license to technology; Right to sublicense	Retain ownership	Large
Federal funding (loans)	Retain ownership	None (assuming loan is repaid)	Large
Tax credit (R&D) - currently nonexistent	Retain ownership	None	Limited (applies to amounts in excess of normal R&D spending)
Tax credit (manufacturing) - currently fully subscribed	Retain ownership	None	Various
Tax credit (production of energy)	Retain ownership	None	Limited (applies to up to 30% of most project costs)
State funding	Retain ownership	Paid-up license to technology; Right to sublicense	Large

Source: Osha Liang

patent rights of federally funded inventions made by small business firms and nonprofit organizations (e.g., universities).

A small business firm is defined as one that is independently owned and operated, is not dominant in its field of operation and fits other criteria as defined by the Small Business Administration (SBA). In setting these standards, the SBA takes into account factors such as the number of employees, revenues, net worth and net income. Under the act, an invention means any idea "conceived or first actually reduced to practice" under a funding contract. Accordingly, if an inventor developed the idea for - or made - the invention while receiving the federal funds, the invention is subject to the terms of the act.

Under the Bayh-Dole Act, the inventor (or, oftentimes, the company employing the inventor and assuming the rights to the inventor's patent) may elect to retain title (ownership) of the invention, as long as certain requirements are met. These requirements include disclosing the invention to the funding government agency within a reasonable time and submitting a request to retain title within two years of the disclosure.

The inventor must also agree to file a patent application in each country where the inventor wants to retain title. Importantly, the inventor must disclose the funding source within the patent application upon filing. The funding government agency may also require the inventor to provide regular reports on the status of the invention throughout the R&D process.

Finally, with respect to intellectual property, the funding government agency retains a "nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any [invention it has fund-

ed] throughout the world." Basically, the funding government agency is allowed to use the invention it has funded without further compensating the inventor.

Moreover, under the Bayh-Dole Act, the funding government agency also retains march-in rights, which allow the agency to require the inventor to grant "a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances." The march-in rights are only intended to be exercised when the funding government agency reasonably believes the rights are needed to achieve practical use of the invention, to alleviate health or safety needs, or to meet public-use requirements when these aims are not being satisfied by the inventor.

The funding government agencies may be allowed to expand the provisions (or substantially similar provisions) of the act to larger business firms. However, when larger business firms are involved, the DOE retains the "entire rights, title and interest throughout the world" of federally funded inventions made by large business firms. The inventor is granted a license to practice any patented invention made under government contract as long as certain requirements of disclosure are met.

Tax credits

Numerous tax credits exist for many parts of the solar business chain. Many of these tax credits are federal, although some exist in select states. Tax credits exist for R&D, manufacturing and production of electricity. Each of these is discussed separately below.

R&D. Currently, no U.S. federal tax credit exists exclusively for solar R&D. A federal R&D tax-credit program covering a wide number of

industries has been extended on a piecemeal basis, including numerous retroactive provisions, over the past three decades.

The most recent version of the federal R&D tax-credit program expired at the end of 2009, although President Obama has recently been pushing to renew the program or even make the program permanent. Historically, the federal R&D tax credit has applied to above-normal spending for R&D. There is currently no R&D tax credit in the Emergency Economic Stabilization Act of 2008, which includes the investment tax credit (ITC), discussed below.

Although the federal R&D tax-credit program has included the cost (e.g., attorney fees, filing fees) to obtain a patent, R&D tax credits that have existed in the past have had no effect on the ownership or rights associated with a patent. In other words, the government has historically had no claim to a patent that was granted to a company that received R&D tax credits associated with an invention.

Numerous states also have R&D tax-credit programs that generally tend to mirror the federal program. Care should be taken to ensure that inventions that are paid - in whole or in part - using R&D tax credits are not subject to patent-right claims by the taxing authority granting the tax credit.

Manufacturing. As part of the American Recovery and Reinvestment Act of 2009, a tax credit is granted for companies investing in manufacturing facilities for clean energy technologies. A total of \$2.3 billion in tax credits (the cap for the program) has been earmarked for over 150 manufacturing facilities for clean energy technologies, including solar, throughout the U.S. This program is currently fully subscribed.

Utilization of these tax credits for manufacturing facilities that create



Tim Smith



Jennifer Morton



Aly Dossa

patented products has no effect on the patent rights of the inventor or the assignee of the patent rights.

Production of energy. Tax credits for the production of energy take a variety of forms in order to encourage participation from multiple segments of business. First, the ITC, which applies to both commercial and residential solar installations owned by entities with a tax appetite, offsets both regular and alternative minimum taxes.

The ITC may also be used by public utilities that directly invest in a solar facility, because the public utility exemption is waived with respect to the ITC. Utilization of ITCs that are generated by the production of energy using one or more patented products has no effect on the patent rights of the inventor or assignee of the patent rights.

Clean Renewable Energy Bonds (CREBs) were created as a way for entities with no tax appetite (e.g., cooperatives, municipalities, tribal governments) to utilize a subsidy for solar and other renewable energy installations. Utilization of CREBs that are generated by the production of energy using one or more patented products has no effect on the patent rights of the inventor or assignee of the patent rights.

State funding

The vast majority of state funding initiatives fall under the tax-credit regime discussed earlier. Only a handful of states provide R&D funding for companies working with solar technologies. For

example, the New York State Energy Research and Development Authority (NYSERDA) is currently evaluating R&D proposals for \$4.9 million in funding available from NYSEDA. Unlike the DOE, NYSEDA, like other state agencies, is not bound by the Bayh-Doyle Act. Rather, it is free to set its own terms and conditions.

In one sample agreement proposed by NYSEDA, the intellectual-property clauses state that "NYSEDA shall have a royalty-free, exclusive, worldwide license sufficient in scope to allow NYSEDA to make, use or sell the product." Further, if the company that obtained state funding owned a patent necessary to make or use the product which is the subject of the funded R&D, then "NYSEDA shall have a royalty-free, exclusive, worldwide license sufficient in scope to allow NYSEDA to make, use or sell the product and to allow others to do so, including ... a nonexclusive right throughout the world to United States Patent No. ___ incorporated into or necessary for use in connection with the making, use or sale of the product by NYSEDA or its sublicensees."

Due to the wide latitude that states have in setting conditions for state funding, care should be taken, and an attorney licensed in the appropriate jurisdiction should be consulted to fully understand the implications of accepting state funding.

When considering how to fund a particular project - whether through private funding or government funding - companies should consid-

er the potential economic impact of such a decision. Specifically, companies should consider which rights (if any) are retained in the technology that is ultimately created using the chosen funding source(s) and which potential customers will purchase the technology.

If the government (state or federal) is a potential customer, then companies should consider what percentage of sales could be allocated to the government relative to all other potential customers. The larger the percentage of sales to the government, the greater the potential economic impact government funding may have on the company. Therefore, greater care should be taken in determining whether government funding is appropriate.

On the other hand, if the government only accounts for a small portion of potential customers and/or sales, then government funding may be more attractive than private funding, provided that the reporting requirements associated with the government funding are not unduly burdensome for the company. ☞

Tim Smith and Aly Dossa are patent attorneys, and Jennifer Morton is a law clerk, at Osha Liang's Houston office. Smith can be contacted at tsmith@oshaliang.com. Dossa can be contacted at dossa@oshaliang.com. Morton can be contacted at morton@oshaliang.com. (The authors wish to note that this article does not constitute legal advice and that they are not opining on any legal issues in jurisdictions in which they are not licensed.)
