

STATEMENT OF
MARK BOLINGER
RESEARCH SCIENTIST
LAWRENCE BERKELEY NATIONAL LABORATORY
BEFORE THE
COMMITTEE ON WAYS AND MEANS
UNITED STATES HOUSE OF REPRESENTATIVES
HEARING ON ENERGY TAX INCENTIVES DRIVING THE GREEN JOB ECONOMY
APRIL 14, 2010

Thank you, Mr. Chairman and members of the Committee. My name is Mark Bolinger, and I am a Research Scientist at Lawrence Berkeley National Laboratory, where I conduct research on renewable electricity markets and policies, with funding from the U.S. Department of Energy.

The purpose of my testimony is to summarize findings from a preliminary Berkeley Lab evaluation of the first year of the Section 1603 Treasury cash grant program. As you know, this is a Recovery Act program that enables renewable power projects to elect cash payments in lieu of tax credits. Berkeley Lab's selective review of this program was prompted by this Committee's request for assistance in evaluating the program's effectiveness, and I am submitting as part of my written testimony a recent Berkeley Lab report that responds, in detail, to the Committee's request (the Berkeley Lab report can be downloaded from <http://eetd.lbl.gov/EA/EMP/reports/lbnl-3188e.pdf>).

Just to be clear, neither the Berkeley Lab report nor my testimony today advocates any particular policy position with respect to the Section 1603 program. I should also note that the Department of the Treasury, which administers the program, did not participate in this evaluation, other than as a data provider.

Our first key finding is that the Section 1603 program has been heavily used, particularly by wind power projects. As of March 1 of this year, wind power had received 86% of the nearly \$2.6 billion in grants that had been disbursed through this program, followed distantly by geothermal at 6%, solar at 4.5%, and biomass at 2.8%. In capacity terms, wind power accounted for nearly 3,900 MW of the 4,250 MW of *all* renewable power technologies supported by the program as of that date.

In addition, the Department of the Treasury has indicated that as of March 1, another 2,300 MW of wind power that were built in 2009 had applied for, but had not (yet) been awarded, cash grants under this program. In total, then, roughly 6,200 MW – or about 62% of all wind power capacity built in 2009 – had applied for grants as of March 1. More broadly, with a high proportion of geothermal and biomass projects also choosing the grant, it is clear that the majority of *all* renewable power capacity built in 2009 elected the grant in lieu of either the production tax credit (PTC) or the investment tax credit (ITC).

Some projects that have elected the grant appear to have done so opportunistically rather than out of necessity. For example, we estimate that if the Section 1603 program did not exist, perhaps 3,800 MW (of the 6,200 MW) of wind power that had applied for the grant as of March 1 would likely still have been built in 2009, using the production tax credit. However, the cost imposed on the U.S. government by this opportunistic behavior consists primarily of the difference in the present value of the grant versus the production tax credit, which we find to be relatively modest on average.

Moreover, the flip side of this issue is that many renewable power projects built in 2009 *do* appear to have been motivated, at least in part, by the grant program. We estimate that as many as 2,400 MW of wind power, representing almost one-quarter of all wind power capacity installed in 2009, may not have been built last year absent the Section 1603 grant program.

These 2,400 MW of incremental wind power have helped to retain or create jobs in the U.S. Using the National Renewable Energy Laboratory's Jobs and Economic Development Impact (or JEDI) model, we estimate that these 2,400 MW may have supported approximately 51,600 short-term full-time-equivalent (FTE) gross job-years during the construction phase of these projects, and 3,860 long-term FTE gross jobs during the operational phase. Moreover, the JEDI model estimates that the majority of all wind industry jobs supported by the Section 1603 program are located here in the U.S.

I do want to emphasize that these jobs estimates are based solely on modeling runs, and are therefore inherently uncertain. One must also recognize that these estimates are of *gross* rather than *net* jobs. In other words, the JEDI model does not account for the possibility that job gains in the wind industry will come at the expense of job losses in other parts of the energy sector or broader economy. A thorough employment analysis would need to consider such macroeconomic influences and focus on net, rather than gross, job impacts.

Finally, the Berkeley Lab analysis touches on a number of issues and possible concerns with the design and implementation of the Section 1603 program. One of these potential concerns is that the 30% grant rewards investment rather than efficient performance, which might call into question the types of incentives created by this program. Based on the data currently available to us, however, we find no reason at this time for widespread concern with respect to either the cost or performance of projects receiving Section 1603 grants.

With that, Mr. Chairman, I conclude my statement, and would be happy to answer questions from the Committee at the appropriate time.