

BUSINESS

Colorado energy projects move along with \$900 million in stimulus

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Colorado energy companies and projects have received about \$900 million in federal stimulus tax credits, grants and loan guarantees in the past two years.

The bulk of those Department of Energy incentives have built new factories and renewable-power projects that are now operating in the state.

Still, trying to simultaneously create jobs and promote new, cutting-edge technology comes with risks, company executives and analysts say.

"When you are trying to develop a new technology and sell it into a market, there is more risk," said Brett Prior, an analyst with technology consultant GTM Research.

Those risks were underscored when California-based solar panel maker Solyndra — the recipient of a \$535 million DOE loan guarantee — shut down its plant, fired 1,100 workers and on Sept. 6 filed for bankruptcy.

The federal government is now responsible for paying the loan. Private investors lost an estimated \$1 billion.

The collapse has led to investigations by two congressional committees, the Department of Energy's inspector general and the Department of Justice. On Sept. 23, Solyndra's top executives invoked the Fifth Amendment, declining to answer questions at a House Commerce and Energy Committee hearing.

Where funds have gone

Colorado energy companies and projects received about \$900 million in stimulus grants, guarantees and tax credits from the U.S. Department of Energy. The biggest funding programs and top private-sector recipients:

Loan guarantees	\$491 million
◀ Abound Solar	\$400 million
Cogentrix	\$90.6 million
Tax credits	\$75 million
▼ Vestas	\$52 million
Abound Solar	\$12.6 million
Hexcel	\$8.1 million
Cash in lieu of tax credits	\$185 million
Northern Colorado Energy wind farm	\$99.1 million
◀ Denver International Airport solar array	\$4.2 million

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"Was it a problem with Solyndra's process and business model?" asked Rep. Diana DeGette, D-Colo., who pressed for a congressional probe. "Did the DOE fail to do due diligence? Was it market forces? We need to know before we make any more loan guarantees."

\$400 million to Abound

The stimulus incentives flowing in Colorado have gone to both government agencies and companies. The major aid to companies includes:

- Loan guarantees: \$491 million to Abound Solar and Cogentrix.
- Tax credits: Six companies received \$75 million in credits to build factories in Colorado. Vestas Wind A/S received \$52 million of those credits for three new factories.
- Cash in place of tax credits: 257 projects received \$185 million under this program. The largest grants were \$99.1 million to a Logan County wind farm and \$4.2 million for a solar installation at Denver International Airport.
- Direct and matching grants: Dozens of companies got grants valued at more than \$140 million.

As a result of Solyndra's collapse, the loan-guarantee program has become the most controversial incentive.

Longmont-based Abound, like Solyndra, makes solar panels by applying a thin film of metals to a substrate — in Abound's case, a glass plate.

Abound, unlike Solyndra, uses a more established thin-film compound, cadmium telluride, which already has a share of the market.

When the price of standard silicon solar panels was rising, thin-film cells looked to be a competitive alternative.

Chinese production has, however, ramped up in the past two years and the prices of silicon cells dropped from about \$1.90 a watt at the end of 2010 to about \$1.20 a watt now, according to Prior.

"Abound Solar has continued to hit cost and production targets," Julian Hawkins, Abound senior vice president, said in an e-mail, adding that the company will sell panels for \$1 a watt or lower by 2013.

Abound is using the loan guarantee to expand its Longmont plant, adding 300 jobs, and to build a new facility in Tipton, Ind., that would employ about 850.

Last month, Charlotte, N.C.-based Cogentrix received a \$91 million loan guarantee to build the world's largest concentrating photovoltaic solar plant in Alamosa.

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Xcel will buy the electricity from the 30-megawatt plant under a 20-year contract.

The plant is slated to open in the second quarter of 2012, according to Jef Freeman Jr., a Cogentrix vice president.

The new technology uses lenses to focus sunlight onto very efficient solar cells producing about twice the electricity as standard solar panels.

"A loan guarantee for a project is less risky than a guarantee for a company manufacturing a new product," GMT's Prior said. "You know what the revenues are for 20 years. What you may not know are the operating costs."

If those costs are higher than projected or the electricity produced is lower than expected, that could affect servicing the loan, Prior said.

Cogentrix's Freeman declined to comment on financing issues.

Denmark-based Vestas, the world's largest wind-turbine manufacturer, received \$52 million in tax credits for three of the four factories it has built in Windsor, Brighton and Pueblo.

The four factories represent a \$1 billion investment and created 1,700 jobs including suppliers, according to Vestas.

One supplier, Stamford, Conn.-based Hexcel, got an \$8.5 million tax credit to build a plant in Windsor.

"The federal government made out OK on us," Hexcel spokesman Michael Bacal said. "They got a plant and a hundred jobs, and we haven't yet used the tax credit."

Vestas also has not yet claimed the credit, the company said.

Credits became grants

In 2009, during the deepest part of the recession, one tax-credit program was switched to cash grants to promote energy projects.

The largest Colorado grant went to NextEra Energy. The Florida-based company built an 81-turbine, 173-megawatt wind farm in Logan County that is now selling electricity to [Xcel Energy](#).

The grant was key to building the project, said company spokesman Steven Stengel.

Longmont-based UQM Technologies, which is developing power systems for electric cars, received a \$45.1 million matching grant to upgrade its manufacturing facilities.

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Since it is a dollar-for-dollar match, the company so far has been able to tap into \$13.5 million, said Don French, UMQ's chief financial officer.

UMQ has posted net losses for the last four years, according to Bloomberg data.

The company used the stimulus funds to buy a new plant and install production equipment to supply the propulsion system for the Coda — an electric car slated to be sold in the U.S. next year.

UQM also has its systems undergoing tests in Saab and Audi fleets, French said.

Boulder-based Eltron Research and Development received a \$71.3 million grant for a five-year scale-up of membrane technology it developed to help capture carbon emissions from coal plants.

The market will depend upon the country adopting a policy to reduce man-made carbon emissions, which have been linked in scientific studies to climate change, said Eltron president Paul Grimmer.

"If there is no cap-and-trade or carbon tax, this technology may never be deployed," Grimmer said.

Eltron, which in 28 years has filed for more than 70 patents, is trying to develop other applications for the technology, such as using it at oil refineries.

"By the time we are finished, we and the DOE will have spent \$90 million," Grimmer said. "We are trying to hedge our bets."

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