Increasing Manufacturing Jobs through Clean Energy

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Desperately in need of new jobs to help sustain our economy, the U.S. government has been pushing for advancement in the clean energy sector — and with good reason.

Most renewable energy analysts predict the clean-tech sector will grow in worldwide revenue from $116 billion to $325 billion over the next decade, making it the largest single industrial sector in the world.

Globally, clean energy investments have increased 230 percent since 2005, according to research conducted by the Pew Charitable Trusts.

U.S. lawmakers have been working to assist manufacturers in diversifying into the clean energy sector, introducing a bill in Congress called the Investments for Manufacturing Progress and Clean Technology (IMPACT) Act. If enacted, the bill will provide $30 billion in loan funds to help small and medium-sized manufacturers retool to produce clean energy component parts and become more energy efficient.

“Our analysis shows that the IMPACT Act would create 680,000 direct manufacturing jobs and nearly 2 million indirect jobs over five years,” says Sam Haswell, Communications Director for the Apollo Alliance.

In April, while touring a plant that makes wind turbines, President Obama [1] said the United Sates must lead the world in clean energy production, citing that wind power conceivably could produce 20 percent of the nation’s energy in 20 years.

But like all manufacturing, clean energy is not immune to global competition. And clean energy jobs are also at risk of moving overseas.

“One of the big problems is that 70 percent of America’s clean energy parts, systems and components are produced abroad, and American companies have little incentive to produce here,” says Haswell.

To further encourage production in clean energy, the U.S. House passed the American Clean Energy and Securities (ACES) Act in June 2009. The bill places a cap on carbon and provides a renewable energy standard, both aimed at generating

demand for clean energy equipment such as solar panels, wind turbines, electric car batteries and other clean energy components and systems.

“But policies that simply increase demand for clean energy aren’t enough unless we can also supply that demand here with American workers. Until we invest in the domestic manufacture of clean technologies, we’ll continue to see good jobs that could be filled by American workers instead go abroad,” says Haswell.

According to the Apollo Alliance, the global recession has hampered growth in clean energy sectors, but stimulus measures and other tax credits are anticipated to boost wind and solar projects this year. And once Congress passes a comprehensive climate and clean energy bill, U.S. manufacturers will need to scale up dramatically to meet new clean energy demand.

But there are groups who say new clean energy mandates will weaken the already struggling manufacturing sector.

In Wisconsin [2], proposed legislation that calls for increasing the use of renewable fuels has been met with opposition from some of the state’s largest business groups, who cite a study that said the proposal will result in a loss of more than 43,000 jobs and cost billions of dollars.

Further challenging the growth of the U.S. clean energy market is global competition for production of wind turbines and solar panels. According to a report from Pew Charitable Trusts, China has taken the lead in investments in clean energy, spending nearly double that of the United States in 2009.[1]

Out of $162 billion invested globally, China’s investment and financing for clean energy rose to $34.6 billion compared to just $18.6 billion for the United States. European nations also recorded strong growth.

“Countries are jockeying for leadership. They know that investing in clean energy can renew manufacturing bases, and create export opportunities, jobs and businesses,” said Phyllis Cuttino, director of Pew Environment Group’s global warming campaign in a statement covering the report.

The report finds that China, Brazil, the United Kingdom, Germany and Spain all have strong, national policies aimed at reducing global warming pollution and incentivizing the use of renewable energy and as a result are establishing stronger competitive positions in the clean energy economy.

“Due to this, it should come as no surprise that these are the countries that are leading the global clean energy economy, and that many U.S. companies are abandoning their U.S. clean energy manufacturing operations and relocating them overseas where the clean energy climate is more hospitable,” says Haswell.

Haswell notes that while the U.S. has a skilled workforce that could easily learn the new skills needed for jobs in the clean energy sector, without policies that drive demand for clean energy and spur domestic manufacturing of clean energy

components, private sector clean energy investments and expansion will continue to take place abroad.

The Apollo Alliance has found that the United States is currently importing about 70 percent of its renewable energy systems and components. “If that trend continues, we stand to lose out an estimated 100,000 clean energy manufacturing jobs by 2015, and nearly 250,000 by 2030,” said Phil Angelides, chairman of the Apollo Alliance.

Stimulus efforts to increase investments in clean energy will take effect this year, but many are concerned that jobs will still be sent off shore.

For example, Haswell says that GE, earlier this month announced plans to invest more than $512 million to develop and expand its wind manufacturing, engineering and service facilities -- but not in the U.S., where such investments and the jobs they bring are desperately needed -- but in Europe.

“GE is just the latest in a long string of examples of U.S. companies locating their manufacturing operations, and the jobs that go with them, overseas,” says Haswell.

However, measures are being taken to prevent further loss of these jobs. The Advanced Energy Manufacturing Tax Credit launched by the federal government to encourage clean energy investment and employment does note that projects must be located in the United States, and preference is given to those that do the most to create jobs and reduce greenhouse gas emissions.

Despite best efforts to keep the projects here in the U.S., the tax credit does allow foreign companies with factories in the U.S. to apply for the credit -- and many foreign clean energy manufacturers are large conglomerates with other offshore operations as well.

In analyzing the list of companies receiving the tax credit, the Apollo Alliance found that U.S.-based recipients only account for 59 percent of the total, reflecting the fact that the projects proposed by foreign–based companies tend to be larger in size and thus receive larger tax credits. They found the average project involving a U.S.-based parent company is $11 million; for those with a foreign parent, the average is $20 million.[2]

While the Advanced Energy Tax Credit has done much to improve the growth of clean energy investments, the Apollo Alliance notes that provisions should be added to the program to ensure that companies that receive the tax credit, and then move operations abroad, be required to pay back this government subsidy.

But regardless of the government’s current stimulus efforts, low-wage production and foreign competition will continue to drive clean energy jobs offshore unless more is done to protect our domestic manufacturing base.

1. *Who’s Winning The Clean Energy Race?,* The Pew Charitable Trusts, March 2010

2. *Winning the Race: How America Can Lead the Global Clean Energy Economy,* The Apollo Alliance and Good Jobs First, March 2010

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