



How IMPACT Will Benefit New York

The American Clean Energy and Security Act (ACES) will reduce greenhouse gas emissions and help us make the transition to a clean energy economy. Specific measures, such as the combined Efficiency and Renewable Electricity Standard, Clean Energy Deployment Administration, and State Energy and Environment Development accounts, along with the carbon emissions cap, will generate unprecedented demand for renewable energy and energy efficiency products and components.

But America's manufacturing sector, which has been in a steep decline over recent decades, does not currently have the capacity required to meet this demand. In the past decade, 5.1 million U.S. manufacturing jobs have been lost, many of them being filled by low-paid workers in other countries. The recession has hit the manufacturing sector extremely hard. In just the past six months, U.S. factories have laid off more than a million workers. In June, employment in manufacturing fell by 136,000, accounting for nearly 30 percent of overall U.S. job loss during that month.¹

We must harness this critical moment to rebuild our manufacturing sector and create jobs for American workers. Investing in domestic clean energy manufacturing will create jobs that pay good wages and provide a pathway to the middle class for thousands of workers. It will also reinvigorate the lagging economies of industrial cities and reduce our dependence on other nations to meet our energy needs.

Transitioning to a Clean Energy Economy Will Create Manufacturing Jobs

The transition to a clean energy economy will create millions of jobs and generate economic growth. According to a recent study by the Pew Charitable Trusts, New York currently has 3,323 clean energy companies and 34,363 green jobs.² These numbers are expected to grow – in the U.S., the number of green jobs grew nearly two and a half times faster than overall job creation between 1998 and 2007. In New York, job losses have hit other sectors of the economy much harder than the clean energy sector.

Policies likely to be put in place to guide the transition – such as a federal renewable energy standard, enhanced efficiency standards and building codes, and increased vehicle fuel efficiency requirements – will spur investment in renewable energy and energy efficiency, and increase demand for clean energy products and components. The Center for American Progress estimates that these policies will generate \$150 billion in annual clean energy

¹ Bureau of Labor statistics, July 2009.

² Pew Charitable Trusts. *The Clean Energy Economy: Repowering Jobs, Businesses, and Investments Across America* (June 2009).

investment and create 2.9 million jobs. New York would see an annual investment of \$10 billion, and the creation of 109,000 jobs. Of these, 19,900 would be manufacturing jobs.³

Though these investments will increase demand for clean energy products, our manufacturing sector does not currently have the capacity to meet this demand. There are broken links in the domestic supply chain, with bottlenecks limiting availability of one or more critical components for all renewable technologies.⁴ Half of our existing wind turbines were produced overseas.⁵ Forty percent of our installed solar PV capacity was manufactured outside the US, and US Solar PV manufacturing accounted for a mere 7 percent of the global total.⁶ And not a single transformer used in electrical grids is currently made in the United States.

We must scale up our manufacturing capacity and make sure that the jobs created by clean energy investments generate economic prosperity in New York. Investments in domestic clean energy manufacturing will strengthen and expand America's middle class, as manufacturing jobs pay an average of \$25,000 more per year than service sector jobs and often provide benefits.⁷ Manufacturing is also a strong engine for economic development because every dollar invested in production generates wider multiplier effects than in other sectors, through finance, transportation, supply chains, installers and other related businesses.⁸

IMPACT Will Help Create Jobs and Economic Prosperity Here at Home

Helping domestic manufacturers enter green markets will allow them to diversify their product portfolios and retain existing jobs. Without a program to support our own domestic manufacturers, there is no guarantee that policies that create demand for clean energy will keep new manufacturing jobs in America. Senator Brown's IMPACT Act of 2009 would improve the long-term competitiveness of American manufacturers and enhance domestic capacity for manufacturing clean energy technologies. The Act was passed as part of the American Clean Energy and Security Act of 2009 (ACES), and now must be included as a critical element of the Senate energy and climate bill.

IMPACT invests in American manufacturing by providing capital to small and medium-sized firms for energy efficiency improvements and for retooling and expanding into the clean energy supply chain. Specifically, IMPACT would:

1. Establish a 2-year \$30 billion Manufacturing Revolving Loan Fund.

States would receive grants to establish revolving loan funds to assist small and medium-sized firms in retooling, expanding or establishing domestic clean energy manufacturing operations, and in becoming more energy efficient. States would be required to match 20 percent of the federal grant amount.

³ Pollin, R. et al. *The Economic Benefits of Investing in Clean Energy* (CAP and PERI, June 2009)

⁴ Sterzinger, George. *Component Manufacturing: Michigan's Future in the Renewable Energy Industry*. REPP, 2006

⁵ American Wind Energy Association

⁶ *US Solar Industry Year in Review 2008* (Solar Energy Industry Association, March 2009); Sawin, J. *Another Sunny Year for Solar Power* (Worldwatch Institute; May 8, 2008).

⁷ Popkin, Joel. *Securing America's Future: The Case for a Strong Manufacturing Base*. (National Association of Manufacturers, 2006).

⁸ California Performance Review Commission (October 2004).

In evaluating manufacturing firms to receive loans, states would prioritize firms that are certified by a Manufacturing Extension Partnership center and that pay their employees at least the average state manufacturing wage, plus health benefits. Furthermore, firms that receive loans would be subject to prevailing wage requirements for any construction and installation work resulting from the loans.

We estimate that \$30 billion of federal investment in industrial retooling, combined with the state matching requirement, could create **180,000 direct manufacturing jobs in the U.S. and support an additional 522,000 indirect jobs**. It would also generate over **\$83 billion in revenue and \$119 billion in additional economic activity** due to increased demand for products and services. These are minimum estimates, since they do not account for accumulated interest that would be reinvested in the program. Under IMPACT, states are eligible to receive up to \$1 billion in federal grants over two years. With a minimum 20% match, **New York could create or retain more than 6,000 manufacturing jobs and 17,400 jobs in other sectors**.

2. Expand and focus Manufacturing Extension Partnerships on clean energy manufacturing.

The Hollings Manufacturing Extension Partnership (MEP), a division of the Department of Commerce's National Institute of Standards and Technology, would receive \$1.5 billion in federal funds over five years to strengthen the domestic clean energy supply chain by helping manufacturers diversify to clean energy markets and adopt innovative, energy-efficient manufacturing technologies.

Today, MEP centers are federal-state partnerships with slightly more than \$100 million in authorized federal funding and a two-to-one matching requirement. The 59 MEP centers around the U.S. are currently able to assist only a small portion of the country's 330,000 small and medium-sized manufacturing plants. The IMPACT Act would increase the federal share of MEP funding from one-third to one-half. The additional federal funding in this bill could enable MEPs to reach at least 20,000 more U.S. manufacturers per year.

Based on current estimates indicating that MEP activity creates or retains just over 50,000 manufacturing jobs per year, we calculate that a \$1.5 billion federal investment in the MEP over five years, matched one-to-one by state and private dollars, would create or retain **500,000 direct manufacturing jobs and 1,450,000 indirect jobs**. For New York this could mean an additional **\$75.6 million in MEP funding** over 5 years, and at least 78,500 **manufacturing jobs** created or retained. Every \$1 of state spending on the MEP program yields \$21 in additional gross state product, and \$1.24 in additional tax revenue.⁹ For New York, this could mean a **\$1.5 billion increase in gross state product and more than \$93 million in tax revenues**.

IMPACT Would Benefit New York Manufacturers

The IMPACT Act enjoys broad national support from manufacturers and other business owners, labor unions, and environmental groups. Over **150 businesses have already endorsed IMPACT, including 14 from New York**. Here are just a few examples of how IMPACT would benefit domestic manufacturers:

⁹ Helper, Susan. *Renewing U.S. Manufacturing: Promoting a High-Road Strategy* (EPI, 2008).

Icestone

Icestone, a New York–based manufacturer of recycled building materials with 62 employees in the U.S., 55 of them in manufacturing, has three projects in mind. The first is ‘shovel-ready’ and could be started immediately, while the other two could begin in 6-12 months. The first, a new glass processing plant, will cost \$10 million and create 65 new jobs. The second, an expansion of Icestone’s New York facility, will cost \$3 million, create 40 new jobs, and increase production capacity threefold. The third, constructing a brand-new western U.S. facility in CA, NV, or NM, will cost \$17 million, but it is too early to project how many jobs it may create. Icestone provides living-wage jobs and the company is ‘cradle-to-cradle’ certified.

Konarka

The Massachusetts-based solar energy company recently took over an idle Polaroid factory and hired back the plant’s original workers. Konarka has so far raised over \$100 million in private investment and in February received a \$5 million grant from Massachusetts to advance manufacturing and job creation in the state. By the end of this year, Konarka could double its workforce to nearly 30 workers, and it hopes to hire roughly 100 more over the next few years as production ramps up.

Sencera International

Sencera, a North Carolina–based solar PV manufacturer, will have 80 U.S. employees by the end of 2009, 65 of whom will work in manufacturing. The company is growing and would like to build a new facility, though it does not yet know how much this will cost. Being a small company, low-interest loans would be its favored financing instrument. For every 35 MW of increased output capacity it says it will be able to create 65 jobs.

Conclusion

As we shift toward energy independence, we must harness our capacity to make the products and components of the clean energy economy here at home. We must seize the jobs of tomorrow and rebuild the middle class of America’s heartland. The IMPACT Act will help create manufacturing jobs, and provide critical support to American manufacturers in making the transition to a clean energy economy. The time is now for reinvesting in our manufacturing sector and proudly making things in America again.