

Monday, November 08, 2010

Energy Recycling Makes Jobs

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It's no secret that manufacturers in New Mexico and across the nation have been forced to slash costs to survive the recession. Too often these cuts come at the expense of workers — in the form of layoffs, hiring freezes and salary reductions.

Meanwhile, another top cost is frequently overlooked, and that's energy.

Among the most economically beneficial opportunities for savings, energy efficiency initiatives can help improve business competitiveness and profits for years. One particularly ripe area for New Mexico, and one that could also reduce the state's carbon footprint, is called energy recycling.

Dating back to Thomas Edison and the dawn of the electrical age, energy recycling is now helping economies around the world produce more goods with less fossil fuel and lower pollution, yet it is woefully underused here in the United States.

When fossil fuels like gas and coal are burned to produce electricity, as much as two-thirds of their energy is lost in the form of waste heat. For energy-intensive businesses like metals and glass producers, this waste heat is simply vented into the atmosphere.

Recycled energy techniques allow manufacturers to capture that waste and turn it into 100 percent clean power — thus lowering energy costs and raising productivity.

The value of energy efficiency and energy recycling in particular is well understood by New Mexico Democratic Sen. Jeff Bingaman, who along with Maine Republican Sen. Olympia Snowe, recently introduced legislation supported by more than 120 business, labor and environmental organizations that will expand investment tax credits for energy recycling.

As Bingaman stated, this bill "will significantly expand domestic clean energy manufacturing; help American businesses and families reduce their energy use and dependence on fossil fuels; and create thousands of jobs."

In particular, this measure would help manufacturers in New Mexico reap huge costs savings by recycling heat from energy-intensive processes.

Full deployment of energy recycling techniques represents a huge opportunity. According to the Oak Ridge National Lab, fully harnessing this source of clean power could provide 20 percent of U.S. generating capacity by 2030, create nearly 1 million jobs, and cut CO2 emissions by 800 million metric tons per year.

New Mexico already has 227 megawatts of combined heat and power (or cogeneration) units at work recycling energy, but this is just the tip of the iceberg.

More examples of higher-efficiency industrial facilities, either operating or in development, can be found around the country.

In the Midwest, in the steel-making town of East Chicago, Ind., ArcelorMittal has installed four energy recycling projects that capture and harness the manufacturer's waste energy to generate 220 megawatts of power — more clean electricity than all the solar panels connected to the U.S. electric grid.

Using energy recycling at this one steel plant saves nearly \$100 million annually, while reducing CO2 emissions by the equivalent of removing 166,000 cars from the roads.

Further east, in Alloy, WVa., one of the world's largest silicon manufacturers is embarking on the state's first significant energy recycling project. For more than 75 years, West Virginia Alloys has melted quartz rock, converting it into silicon metal while venting its 1,400° F waste heat into the atmosphere.

Their new project will recycle this heat to create 65 megawatts of pollution-free power, saving the company millions each year. This cost savings will allow the plant to expand production, increase its workforce, and bring more silicon manufacturing back from overseas.

Many more opportunities await — opportunities that would be unleashed with the appropriate financial incentives.

Despite its significant savings, energy recycling requires a great deal of capital investment. With a still sputtering economy, this is a tough sell for many business owners who lack access to that level of capital.

This is where Sen. Jeff Bingaman's legislation can help.

The proposed investment tax credits will maximize the economic and environmental benefits of energy recycling, giving businesses the means to make their energy work twice. With that help, more New Mexico businesses can thrive, putting more New Mexico residents to work.