

Homer Laughlin China, Toyota Hailed for 'Green' Efforts

By **JAMES E. CASTO**

For The State Journal

Family owned for five generations, the **Homer Laughlin China Co.** is one of West Virginia's oldest manufacturers. Founded in 1871 in East Liverpool, Ohio, it moved to Newell in 1903.

Comparatively speaking, **Toyota Motor Manufacturing West Virginia** is a far younger venture. It opened its plant at Buffalo in Putnam County in 1996.

But despite the vast difference in their histories and heritage, the two manufacturers share an important common trait. In recent years, both have made significant strides in adopting energy efficiency measures and advanced manufacturing techniques.

Their efforts were recognized when the two companies were presented awards at the 2015 Innovation & Entrepreneurship Day, conducted Jan. 28 at the State Capitol, co-sponsored by **TechConnect West Virginia** and **TransTech/Industries of the Future WV**.

Homer Laughlin, maker of the popular **Fiesta** brand dinnerware, received the Governor's Award for Leadership in Industrial Energy Efficiency. Toyota was presented the Governor's Award for Excellence in Green Manufacturing.

Carl Irwin, director of **TransTech/Industries of the Future WV**, said the two companies were honored, not just for one or two steps they took, but for a broad range of initiatives.

"Homer Laughlin is a leader in industrial energy efficiency and green technologies," Irwin said, citing some

of the measures the china maker has implemented. For example, he noted, the company now captures waste heat from its kilns and uses it in other processes, reducing its natural gas consumption by 54 million cubic feet every year, saving \$270,000 annually.

Installing computer-controlled air compressors, energy efficient lighting and variable frequency drive electric motors has reduced the plant's electricity consumption by 9 million kilowatt hours (KWH) per year, for a savings of more than \$500,000 annually.

Homer Laughlin now captures and reclaims approximately 775 tons per year of waste coloring glaze, reducing landfill waste and saving an average of \$1.2 million annually. And a clay reclamation system has reduced landfill disposal by almost 3,600 tons a year and saved more than \$1 million in material costs annually.

Irwin said several measures taken by the china manufacturer were based on recommendations offered in a plant-wide energy assessment conducted by the **West Virginia University Industrial Assessment Center**.

Toyota Motor Manufacturing has expanded its Buffalo plant eight times since it opened. The plant now employs 1,400 workers, represents a cumulative investment of more than \$1.4 billion and has an annual production capacity of 650,000 engines and 740,000 automatic transmissions.

"Toyota has been a zero-landfill operation since 2003," Irwin said. "The plant annually recycles 12 million pounds of materials — aluminum, steel, cardboard, wood, plastic, paper,

even its uniforms. Non-recyclable waste is sent to a waste-to-energy facility in Indiana."

The plant, he said, installed a compressed air metering system that cut its total energy use by four percent, saving \$300,000 a year. It also replaced more than 2,000 old halide lights with energy efficient fluorescent lights — "a step equivalent to taking 280 houses off the grid."

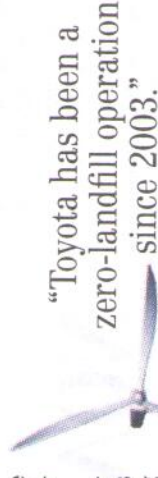
Implementing advanced manufacturing technology, the Toyota plant now utilizes more than 100 robots for moving raw materials and parts between assembly stations, as well as moving finished engines and transmissions from assembly lines and onto test pallets or shipping modules.

And the plant, he said, is working with the **Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI)** on using 3-D printing for the rapid prototyping of parts for testing, along with research and development.

Toyota was represented at I&E Day at the Capitol by Environmental Specialist **George Vickers**, External Affairs Specialist **Sandra Maynard** and **Doug Shields**, general manager for administration.

Homer Laughlin was represented by Chief Engineer **Sean Adkins** and Vice President **Ken McElhaney**.

I&E Day was co-organized by Irwin and **Anne Barth**, executive director of **TechConnect WV**, who noted the event drew more than 125 people to view exhibits that lined the hallways and rotunda of the Capitol.



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— **Carl Irwin, TransTech/Industries of the Future WV**

The event was planned, Barth said, to "put a face on the innovation economy to let lawmakers know this industry is not just a concept, but a reality. And, more importantly, it is creating jobs and opportunity across the Mountain State."