

An ACEEE 30th Anniversary Symposium: Energy Efficiency and the Future of Manufacturing in the U.S. and Canada

On Wednesday, July 21, 2010, ACEEE held the second in a series of 30th Anniversary Symposia looking toward the future of energy efficiency. Held at the University of California Washington Center in downtown Washington, DC, *Energy Efficiency and the Future of Manufacturing in the U.S. and Canada* brought together leading voices on manufacturing policy, markets, technologies, and emerging trends. Formal presentations and discussions covered the current landscape of manufacturing in the United States and Canada, and looked forward to the major issues facing the sector, with a primary focus on energy efficiency. The event was chaired by Maxine Savitz ([ACEEE](#) Board member and Vice President of the [National Academy of Engineering](#)) along with Larry Kavanagh (President of the [Steel Market Development Institute](#) at the [American Iron and Steel Institute](#)) and Raymond Monroe (Executive Vice President of the [Steel Founders Society of America](#)).

Overall, the Symposium provided visionary presentations followed by insightful discussions with attendees. The Symposium laid out the primary issues currently facing manufacturing in North American and key energy issues for the future. Key insights were:

- The United States has a robust manufacturing sector. Despite a decline in the workforce, manufacturing continues to grow and remains a significant portion of the GDP. The industrial sector is the only sector that has continuously reduced its greenhouse gas emissions over the past quarter century.
- Formulating regulations to be responsive to the needs of the manufacturing sector and developing a cohesive, long-term manufacturing policy are crucial to making sure U.S. manufacturing stays in the country and remains clean and efficient.
- Manufacturing companies can increase their efficiency and competitiveness by incorporating energy efficiency at a corporate level, using advanced automation and control technologies, and focusing the value chain.
- The U.S. and Canadian manufacturing sectors are tightly interwoven, and there are many opportunities for governments, companies, and trade associations in both countries to learn from each other and work together to improve the manufacturing environment across the border.
- New investment in productive capacity and energy R&D are crucial to invigorating the manufacturing base in the U.S. for the coming century.

The chairs framed the Symposium in their opening remarks with a discussion of the importance of the manufacturing sector to the U.S. economy, noting that despite popular opinion, the U.S. has a robust manufacturing sector that is still the largest and cleanest in the world. They also spoke about how environmental regulations, while necessary, must be formulated in a way to protect this manufacturing base and retain companies in the country.

The symposium opened with presentations by Kate Gordon (Vice President of the [Center for American Progress](#)) and Paul Cicio (President of the [Industrial Energy Consumers of America](#)) focusing on a variety of policy perspectives regarding the manufacturing sector. Gordon compared the U.S. approach to manufacturing policy to other countries – noting that

while several other countries had long-term plans in place to provide manufacturers with assistance and regulatory certainty, the U.S. has none. The policies U.S. does have are either short term or on the state-level. Providing the manufacturing sector with a consistent policy and regulatory framework would give them the environment they need to thrive.

Cicio laid out a set climate and energy options developed by the IECA as an alternative to carbon pricing, which they believe will harm U.S. manufacturing. He presented ten policy suggestions that would reduce greenhouse gas emissions and make U.S. manufacturing more competitive. IECA has commissioned an assessment of impacts of these policies that is available for download at their [website](#) (pdf).

The second session focused on energy management and supply chain issues. Judi Greenwald (Vice President of the [Pew Center on Global Climate Change](#)) discussed the results of their recent study on corporate energy management, [From Shop Floor to Top Floor: Best Business Practices in Energy Efficiency](#). Neal Elliott ([ACEEE](#) Associate Director for Research) spoke about the opportunities of addressing energy efficiency in the value chain.

The lunch session brought together the Canadian and U.S. perspectives, with Jayson Myers (President of the [Canadian Manufacturers and Exporters](#)), and Alicia Oman (Director of Energy and Resources at the [National Association of Manufacturers](#)) both stressing that when it comes to the manufacturing sector, it isn't "Canada vs. the United States," but rather "Canada *and* the United States." In fact, the value chain for manufacturing doesn't acknowledge political borders, and many products cross the U.S.-Canada border several times before reaching consumers.

After lunch, the fourth session dealt with the growth of "smart" manufacturing. Jim Davis (Principal Investigator of the [Smart Process Manufacturing Workshop Report](#) and Professor of Chemical Engineering at [UCLA](#)) spoke about sensors, controls, and automation and how these technologies continue to change how manufacturing is done in North America. "Smart" manufacturing connects and optimizes operations from processes to plants to entire supply chains. Philip Kaufman (Business Director of [Rockwell Automation](#)) continued this discussion, and spoke about the need to treat energy as another item on the production bill of materials, and to manage it accordingly, and laid out the 7 pillars of Rockwell's *Industrial Green Print*.

In the final session, 2011 ACEEE Industrial Summer Study co-chairs Raymond Monroe and Larry Kavanaugh returned to talk about the past and future of manufacturing investment. Monroe spoke about historical capacity and production levels in the steel castings sector, and how tax policy and interest rates effected the capacity utilization. One revelation was that the manufacturing sector is poised for a reinvestment in productive capacity, and if policy is formulated make it attractive, that investment will occur in the United States, and not overseas. Kavanaugh wrapped up the Symposium talking about the importance of research and development in meeting our future energy needs, particularly in industrial energy efficiency.

For more details, the meeting agenda, and presentations, please see: <http://aceee.org/conferences/2010/30th/industry>

Thank You,
ACEEE Industry Team

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