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The Next Frontier For States and Cities: Building Clean Energy Industries and Green Jobs

Troy, N.Y. — Today, as state and local governments seek to integrate environmental and energy policies with job creation, a first-of-its kind national study has found that only a few states and cities have policies in place to create clean-energy industries that will drive green job creation.

Developed by a Rensselaer Polytechnic Institute professor and a team of eight graduate students from several U.S. universities, the full report – *Building Clean-Energy Industries and Green Jobs*, was released August 1.

“Today’s policy-makers are increasingly driven by a new question: how can environmental and energy policies be configured to create new businesses and generate green jobs with maximum impact and minimal expenditure?” said David J. Hess, professor of science and technology studies at Rensselaer.

Hess’s research focuses on the social and policy studies of science, technology, health, and the environment.

“There are many studies of state and local government energy policy that focus on policies that drive ‘demand’ for energy efficiency and renewable energy products,” Hess said. “This research report is different because it looks at the emerging suite of ‘supply’ policies needed to create the businesses that will provide green jobs.”

Hess received a \$249,000 National Science Foundation (NSF) grant to support a 10-week graduate training seminar and additional research sponsored by the organization’s Science and Technology Studies Program. Eight graduate student assistants were recruited from around the country to participate in the seminar. Each student conducted interviews and field research to develop a detailed case studies of state and city policies. Based on a survey of 30 state governments and 25 cities, the study identifies 15 best practices and policies for states and another 15 best practices for cities.

The study explores the full range of green jobs, from weatherization jobs to manufacturing to research, development, and business start-ups. It also focuses on policies that help to promote five clean-energy industries: bio-fuels, smart-grid and buildings technologies, solar, transportation and energy storage, and wind.

The Results

According to the study, California, Massachusetts, Michigan, New York, and Ohio are among the states that have a strong set of policies that support green-business creation. The findings also feature the cities that have sought to create a full range of green jobs, including jobs in manufacturing and technology.

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Examples include: Austin, Texas; Boulder, Colo.; Cleveland, Ohio; Los Angeles, Calif., the San Francisco Bay area cities; and Minneapolis-St. Paul, Minn. Additionally, Newark, N.J., and several cities in California including – Los Angeles, Oakland, and San Francisco – have been successful in creating green jobs that provide living wages.

“Many cities and states are claiming to become the ‘capital’ of green technology, but only a few really have strong, proactive policies in place to make that claim stick in order to create the full range of green jobs,” Hess said. “During our research, we found that only some states and cities were able to bring together the research and innovation side with support for funding, technology transfer, business development, and green jobs training.”

“Every state and city is different. They all have their unique industry strengths, socioeconomic concerns, and geographical constraints. But some have done better at addressing their needs than others,” said Jaime D. Ewalt, a researcher on the team and Ph.D. candidate in the chemistry and environmental science department at New Jersey Institute of Technology.

“Already we are seeing that some states and cities have moved ahead to become leaders in the new industries,” Hess said. “Our findings suggest that if policymakers are serious about getting and keeping the upper-end green jobs in manufacturing and innovation, they need to assemble a suite of policies.”

The research provides successful examples of existing initiatives that may offer other state and city governments with potential ideas that they may consider when implementing their strategies in order to connect energy policies with job creation and business development.

“Some of the best students of the next generation of environmental studies and policy have worked with me to develop this study,” Hess added.

The graduate students involved in project are: David A. Banks, Joseph Datko, and Logan D.A. Williams from the science and technology studies department at Rensselaer; Bob Darrow from the science and technology studies department at Virginia Tech; Jaime D. Ewalt from the department of chemistry and environmental science at New Jersey Institute of Technology; Rebecca Gresh from the sociology department at the University of Illinois at Urbana-Champaign; Matthew Hoffman from the sociology department at Loyola University; and Anthony M. Sarkis from the environmental studies department at Antioch University New England.

Throughout the summer and into the fall, Hess and several of the students will be presenting their findings to state and city governments and advocacy organizations. They have already delivered presentations in New York and Pennsylvania with additional presentations planned for New Jersey, Ohio, and Vermont.

Connecting the Dots: Research Intersections

Hess has been working on a multi-volume series that explores the intersections of social movements, industry, sustainability, and justice in the United States. According to Hess, the specific problem is to find points of entry where countervailing forces exist to the “brown” industries, that is, industries that actively attempt to delay the policy transition to a greener economy.

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Hess is working on the third volume. The book will build on the current research report by examining federal, state, and local government policies that are needed to develop successful clean-energy manufacturing industries in the U.S.

In 2007, Hess published the first volume, *Alternative Pathways in Science and Industry* (MIT Press). One of the central arguments of the book is that social movements play a generative role in scientific and technological change, rather than merely a role of opposing some new forms of technology or demanding access to others. He showed how activists frequently created new technologies and products that have become the basis for new “green” industries.

In 2009, he published the second volume, *Localist Movements in a Global Economy: Sustainability, Justice, and Urban Development in the United States* (MIT Press). The book examines the social and environmental aspects of the “localist movement” of advocacy for increased local ownership, such as in “buy local” campaigns. The first two volumes were completed with support from the Science and Technology Studies (STS) Program of the National Science Foundation.

To view the new report, *Building Clean-Energy Industries and Green Jobs*, visit:
www.davidjhess.org/greenjobs.html

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