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Op-Ed

Word Count: 799

November 19, 2007

Cleaning the Air About Environmental Misperceptions & Opportunities For Iowa

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“Green” – one of the buzzwords du jour – has captured a lot of attention lately from local, national and international leaders. In response to the increased awareness of environmental issues, the American Institute of Architects conducted a survey of registered voters across the United States to determine people’s perceptions of challenges to the environment. Respondents were asked one simple question “What do you think is the top cause of greenhouse gas emissions today? Exhaust from cars and trucks, emissions from aerosol cans, emissions from commercial buildings, or emissions from power plants or natural causes?”

The results of this survey are a testament to the misperceptions people have about the potential causes of climate change and challenges facing the environment – 40% of the people thought cars and trucks were the greenhouse gas culprits, 19% thought power plants were to blame, 15% thought natural causes are to blame, and only 7% thought commercial buildings generated the most emissions.

However, in reality, buildings and the embedded energy within their interiors account for an estimated 48% of all greenhouse gas emissions, far more than the 27% for transportation and 25% for industry. Additionally, 76% of all electricity generated by power plants goes toward operating buildings. The biggest portion of energy usage in the United States comes from the construction and maintenance of these buildings. What a surprise!

This fall, architects from around Iowa gathered to discuss the future of our environment and sustainability through green design at the Iowa Chapter of the American Institute of Architect’s Fall Convention, “Now What?” To respond to these misperceptions, an ambitious new approach to ensuring sustainability was presented in the form of a challenge – the 2030 Challenge.

The goal of the 2030 Challenge is to reduce the current level of energy consumption and carbon emissions 50% by the year 2010 and achieve 10% reduction in each of the following five years until buildings are producing zero emissions and consuming no energy by the year 2030. This will have an extraordinary impact on the environment and the future sustainability of the planet. However, the obstacles to achieving this goal are the misperceptions of the problem at hand, made apparent by the survey conducted by AIA.

As a result of this initiative, the US Conference of Mayors unanimously endorsed adoption of the American Institute of Architects 2030 Challenge. The mayor's group approved the 2030 Challenge for city buildings, citing the similar sustainable design resolution passed by AIA. In addition to this group, the state of New Mexico, counties and cities in the states of Oregon, California, Illinois, Alabama and others have adopted similar resolutions to help achieve the 2030 Challenge.

The 2030 Challenge works to stabilize and reduce the negative effects of climate change through the design of high-performance and high-efficiency buildings. This challenge considers all elements of the basic ecosystem of a structure – including site selection, water, energy-use, materials and resources and indoor air quality. All of these elements need to be designed and managed so they do not create any greenhouse gas emissions or consume any energy. The use of renewable energy sources such as sunlight, the creation of more effective ventilation systems, better management of construction sites, recycling waste materials – the list could go on.

The problems the 2030 Challenge addresses can be achieved by changing our opinions, priorities and most importantly, engaging ourselves in the discussion and taking action to address the issue of climate change. The Challenge needs to lead the people involved in developing, designing, engineering, constructing and maintaining the buildings. These are the everyday people who can actually make a difference, ensuring a future of sustainability. It is the everyday person like you and me, who must continue this dialogue, informing our friends, families and coworkers about the 2030 Challenge to provoke the necessary actions to sustain our future.

While continuing the dialogue is a start, it is not enough. You and your neighbors need to continue to appeal to local government and private industry leaders, calling for building projects and substantial building renovations utilizing green building standards. Invest in and fund pilot projects and public building renovations, demonstrating the financial feasibility of green design. Lobby to introduce measures that would provide tax incentives for green projects undertaken by the private sector. Work with government representatives to establish benchmarks for reduction of greenhouse gas emissions outlined in the 2030 Challenge.

People need to realize the growing body of evidence that demonstrates current planning, design, construction and real estate practices contribute to patterns of resource consumption that seriously jeopardize the future of earth's population. By accepting responsibility for our role in creating the built environment, understanding the problem and taking these actions, we encourage ourselves and others to change the course of our planet's future – a more sustainable future. Are we up to the challenge?

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