American Association of Wind Engineers ♦ American Council of Engineering Companies ♦ American Institute of Architects ♦ American Public Works Association ♦ American Society of Civil Engineers ♦ Applied Technology Council ♦ Association of State Floodplain Managers ♦ Colorado State University - Wind Engineering and Fluids Laboratory ♦ Florida International University --International Hurricane Center ♦ Institute for Business and Home Safety ♦ International Code Council, Inc. ♦ Louisiana State University – LSU Hurricane Center ♦ Manufactured Housing Association for Regulatory Reform ♦ Manufactured Housing Institute ♦ National Association of Mutual Insurance Companies ♦ National League of Cities ♦ National Fire Protection Association ♦ National Storm Shelter Association ♦ North Carolina State University -- College of Physical and Mathematical Sciences ♦ Portland Cement Association ♦ Safe Building Coalition ♦ Saffir Consulting Engineers ♦ Solutia Inc. ♦ Steven Winter Associates, Inc. ♦ Wind Science and Engineering Research Center, Texas Tech University ♦

For More Information:
202/789.7850 (ASCE)
www.windhazards.org
♦♦♦♦♦♦♦

June 2, 2006

Dr. Gene Whitney
Science Policy Analyst
National Science and Technology Policy Council
Office of Science and Technology Policy
Executive Office of the President
Washington, DC 20502

Dear Dr. Whitney:

The Wind Hazards Reduction Coalition is pleased to have an opportunity to make comments on the Windstorm Impact Reduction Implementation Plan. The Coalition would like to thank the Office of Science and Technology Policy for moving forward with the creation of the implementation plan.

The Coalition played a significant role in the 2004 authorization process that produced Title II of P.L. 108-350, which authorized the National Windstorm Impact Reduction Program. **We believe that any implementation plan for the Windstorm Impact Reduction Act should rely primarily on the public law.**

The Coalition

The Wind Hazard Reduction Coalition represents professional societies, research organizations, industry groups and individual companies with knowledge and experience in dealing with the impact of high winds and who are collectively committed to the creation and success of the National Windstorm Impact Reduction Program. The Coalition shares the goals of the Program to significantly reduce loss of life and property damage in the years to come. The Wind Hazard Reduction Coalition was formed due to the recognized need for better research and action (or mitigation) into predicting and mitigating the damage from major wind events.

Members of the Wind Hazard Coalition worked closely with members and staff in both the House and Senate in crafting the language contained in H.R. 2608, which became Title II of P.L. 108-360. We strongly support the results and believe that, if fully carried out, the new law will result in reduced vulnerability to high winds and will lead to real and significant reduction in the loss of life and property. The United States currently sustains billions of dollars per year in property and economic loss due to windstorms – no doubt 2005 will prove to be the worse ever. The Federal government's response to such events is to initiate search and rescue operations, help clear the debris and provide financial assistance for rebuilding.

With this legislation, the Federal government can provide increased research funding to mobilize the technical expertise already available to help reduce the significant annual toll in casualties and property damage from windstorms.

Comments on the Windstorm Impact Reduction Implementation Plan

First and foremost, the Wind Hazards Coalition believes that any implementation plan should reflect Title II of P.L. 108-360. This includes recognizing the key role that the Office of Science and Technology Policy (OSTP) plays. Also, the Coalition feels that the critical role of the **Interagency Coordinating Committee** and its leadership role should be properly reflected in the implementation plan. The Coalition feels strongly that coordination between the relevant federal agencies and coordination with relevant state agencies is the key for a program such as the National Windstorm Impact Reduction Program to be successful. With many agencies in different departments, leveraging the efforts of its component parts will always be difficult. However, without a strong Interagency Coordinating Committee it will be impossible.

The Coalition also feels strongly that the **National Advisory Committee on Windstorm Impact Reduction** as established by Title II of P.L. 108-360 should receive a prominent role the Implementation Plan of the Windstorm Impact Reduction Program. As required by the law, the advisory committee should consist of non-Federal members, including representatives of research and academic institutions, industry, and state and local government, who are qualified to provide advice on hazard reduction. The role of the advisory Committee is to assess: trends and developments in the science and engineering of windstorm impact reduction; the effectiveness of the program; the need to revise the Program; and the management, coordination, implementation, and activities of the Program. These activities are vital to the success of the program.

Building Codes and Standards - The Coalition believes that building codes and standards are the foundation upon which loss reduction will be achieved for new construction. Improvements in building codes and standards for buildings and structures and the widespread adoption of these standards has and continues to offer one of the best possibilities for reducing losses in existing buildings and structures. While there have been some dramatic improvements in the structural performance of buildings built to the latest codes and standards, much remains to be done to achieve across the board reductions in losses, especially in our nation's existing building stock. Building codes and standards govern all aspects of new building construction and they need to provide a balance between performance and affordability goals. On-going research is needed to provide a continuing mean for addressing these competing goals. Furthermore, it is clear that simply having strong building codes and standards is not enough. Key factors affecting building performance and loss mitigation include the education of building officials, architects, engineers, builders and sub-contractors and the effective implementation and enforcement of the codes and standards.

Research into the performance of buildings built to the latest building codes and standards versus those built using conventional construction norms, that were impacted by the 2004 and 2005 hurricanes, has shown average reductions in losses of as much as 30 percent for the homes built to the latest standards. We believe that even greater reductions are possible at relatively modest

increases in costs if water intrusion issues are effectively addressed and if the performance of roofs is further improved. These efforts will require significant new research and development of new test facilities and test standards that better simulate windstorm events. This research will likely introduce changes to even the latest codes and standards, and necessitate additional education of those involved in the design and construction of buildings and structures and better implementation of the codes and standards.

Storm Surge - The plan states that the issue of storm surge and flooding will be examined. From the beginning, the focus of this project/initiative was to provide research into the dynamic effects of high winds on the built environment. This goes beyond the goals of the program and the law. We agree that the issue of storm surge needs to be addressed; however it should not be the focus of this program.

The study of the effects of water will require a great deal of research that we believe will require either a separate source of funding with a totally different set of technical researches or a redefining of the program. This is clearly an area that needs study and the Coalition would welcome study and research in this area, however we are concern that the addition of this area of study into the National Windstorm Impact Reduction Program would divert what little funding is available.

Organizational References - On page 7, a reference is made to the Institute for Home and Business Safety (IBHS). There are many other groups deserving of mention but are not listed in the report. Our concern is that IHBS will be viewed, by readers of the plan, as being the only organization in the marketplace that is capable of conducting research. This is truly not the case and the Coalition believes that specific organizations should not be referenced.

Additional Areas in Need of Study – The Coalition also believes that the huge amount of existing construction is likely to be a serious problem for many years to come and the possibility of reducing losses in this existing construction through research and incentives should also be focus of the implementation plan. Specifically, the plan should focus efforts to:

- Developing materials and procedures for retrofitting existing structures including residences (note that earthquake R&D has developed this well for transportation, schools, hospitals etc. For windstorms we need to develop for power, schools, hospitals, emergency operating centers and so on). These materials and procedures should be affordable and cost-effective.
- Accumulation of wind data to improve hazard vulnerability, reliability and developing cost effective construction in hurricanes, tornadoes and thunderstorms
- Developing/educating new cadre of professionals for professional practice, research and education
- Thunderstorms and tornadoes not only cause same amount of wind induced property damage as hurricanes, but also potential for a large number of fatalities.
- Industries such as computer chip manufacturers, call centers, educational institutions, computer centers are asking architects and consulting engineers for tornado resistant design; currently we do not have the research needed to always properly meet these needs. .

Conclusions

Thank you for the opportunity to comment and we look forward to continuing to work with OSTP and the other Windstorm Impact Reduction Program member agencies to implement and ensure the success of the Program. If we can be of further assistance, please do not hesitate to let us know.

Sincerely

Brian Pallasch
Chair
Wind Hazards Reduction Coalition