

Energy Efficient Building Design

a. **Description:** Establishment of programs to encourage building design professionals to use energy efficient design practices from inception to completion of building projects.

b. **Public Policy Rationale:** Encouraging energy efficient design prior to building construction ensures that energy efficiency concerns are incorporated into building construction and can be less costly and more effective than attempting to improve the energy efficiency of buildings on a post-construction basis.

c. **Examples of Implementation:**

- The *Architecture + Energy: Building Excellence in the Northwest Program* (A+E program) is sponsored by the Portland, Oregon chapter of the American Institute of Architects. The A+E program receives its funding from the Northwest Energy Efficiency Alliance (NEEA), and seeks to encourage commercial building design professionals to use energy efficient commercial building design practices. The program has three major components: 1) an annual award program recognizing design excellence for energy efficient nonresidential buildings throughout the Pacific Northwest region; 2) an interactive workshop held in conjunction with the award program; and 3) a regional educational workshops for architects and engineers on the integration of architecture and energy into building design. The regional workshops serve to transfer the experience of winning projects to architects and engineers in various locations. For more information, click here <http://www.nwalliance.org/resources/reports/99033.pdf>
- Natural Resources Canada's Commercial Building Incentive Program (CBIP) offers a financial incentive for the incorporation of energy efficiency features in new commercial/institutional building designs. The objective of this new incentive is to encourage energy-efficient design practices and to bring about lasting changes in the Canadian building design and construction industry. A financial incentive of up to \$80,000 will be awarded to building owners whose designs meet CBIP requirements. The program requirements are based on two documents: the [Model National Energy Code for Buildings](#) and [CBIP Technical Guidelines](#). An eligible building design must demonstrate a reduction in energy use by at least 25% when compared to the requirements of the MNECB. The duration of the program will be from April 1, 1998, to March 31, 2004.
- Canada's Federal Buildings Initiative helps government departments cut energy costs while improving comfort and workplace productivity. The program offers information on innovative financing options for retrofitting federal buildings without using capital funds. Click here for more information: http://buildings.nrcan.gc.ca/fbi/home_e.htm

d. **Political Feasibility:** There are no political barriers to the feasibility of implementing programs to promote and award energy efficient building design. No action by state legislatures or regulatory agencies is required.

e) **Costs and Benefits:** The NEEA invested approximately \$500,000 into the A+E program over a two year period. The program showed moderate success in increasing the awareness of architects and building designers in the use of energy efficient design techniques in constructing new commercial buildings. In a poll of 30 A+E workshop participants, the vast majority of respondents indicated that the workshops influenced their building design plans (see table below). According to a report prepared for NEEA, however, attendance numbers at the A+E workshops were not as high as had been hoped for.

**INFLUENCE OF A+E ON PARTICIPANTS' DESIGN PRACTICES
(N=30)**

A+E INFLUENCE ON DESIGN	NUMBER RESPONDING
A+E Ideas Used In Specific Project	4
A+E Ideas Directly Influence Practice	14
A+E Ideas Indirectly Influence Practice	10
No Influence On Practice	2

f) **Interaction with other policies:**

g) **Quantifiable under SIPs:**

h) **Required Actions to Implement:**