

**NORTH DAKOTA LEGISLATIVE COUNCIL
ENERGY DEVELOPMENT AND TRANSMISSION COMMITTEE
TUESDAY, AUGUST 5, 2008, 10:50 A.M.
ROUGH RIDER ROOM, STATE CAPITOL
SENATOR RICH WARDNER, CHAIRMAN**

**BILL HUETHER, MANAGER OF OFFICE OF RENEWABLE ENERGY AND ENERGY EFFICIENCY,
NORTH DAKOTA DEPARTMENT OF COMMERCE**

Mr. Chairman and members of the Energy Development and Transmission committee, my name is Bill Huether and I'm the Manager of North Dakota Office of Renewable Energy & Energy Efficiency. I took over these duties on May 1st of this year, so I'm still relatively new in this position. Before that, I was State Energy Engineer with responsibility for the technical aspects of North Dakota's energy programs. I have a Bachelor of Science degree in Mechanical Engineering from the South Dakota School of Mines and Technology and a Master's in Management degree from the University of Mary. I am a registered professional engineer in five states and a Certified Energy Manager and Green Building Engineer, along with being a member of the American Society of Heating Refrigerating and Air-conditioning Engineers, the Association of Energy Engineers, and the National Society of Professional Engineers. My entire 27 year career has been spent in the energy industry.

The first bill draft I'm going to discuss would make some important revisions to North Dakota's energy code. Before I get into that, however, I'd like to spend just a minute or two reviewing what an energy code is.

On the first page of my handout, in the sidebar on the right-hand side, you will see that energy codes typically specify requirements for the "thermal resistance" or insulating value of a building's shell and windows, as well as the allowable air leakage and the minimum efficiency of the heating and cooling equipment. The reason this is done is to eliminate inefficient construction practices with only modest increases in up-front costs. The best time to do this is during new construction and major renovations so that the improvements will save energy throughout the life of the building and because it usually costs less when done then. The last paragraph of the sidebar notes that energy codes are generally developed at the national level, adopted at the state level, and implemented and enforced by local government.

The reason energy codes exist is because energy use in buildings accounts for one-third of the total energy used in the United States and two-thirds of the total electricity demand. Energy codes are a cost-effective strategy to overcome barriers to energy efficiency in buildings. The most common barrier is a desire to construct a building with the lowest up-front cost possible, without consideration of the overall cost of owning and operating the building over its lifetime. While this may seem to be a good approach in some situations, it can ultimately result in significant cost penalties to building owners, tenants and to society as a whole as a result of higher than necessary utility costs.

In addition to energy savings, building codes produce a variety of environmental and economic benefits. These items are covered very well in the handout, so I won't use our limited time going