

**Testimony
Sam Johnston
Energy Independence, LLC
Before the
Banks Committee
February 17, 2009**

**Re: 5911, An Act Concerning the Valuation of Geothermal Units in
Home Appraisals**

Energy Independence, LLC, a Direct Exchange Geothermal company based in Suffield, supports HB-5911, which will help support the development of innovative, alternative and renewable energy systems such as geothermal by requiring appraisers to recognize their value in appraising the value of a home.

Direct Exchange (DX) Geothermal is a proven technology that has saved consumers thousands of dollars in energy costs. In addition, it is a safe, reliable and energy efficient technology that will help reduce Connecticut's carbon footprint by eliminating tons of carbon dioxide and significantly reducing emissions.

Recognizing this, the federal Energy Policy Act of 2005 authorizes tax credits to encourage homeowners and businesses to use DX Geothermal heat pump systems. In Fact, the U.S. Environmental Protection Agency (EPA) has spent millions researching this technology and has concluded that DX Geothermal is the most efficient and environmentally safe heating-cooling system available today and they encourage its use.

DX Geothermal uses copper tubing to harvest the earth's thermal energy for heating and cooling. In DX geothermal, refrigerant is circulated through highly conductive copper earth loops buried in the earth, enabling the direct transfer of thermal energy from the earth to the building. A few feet below the surface, the earth remains at a stable temperature throughout the year; in New England this is about 55 degrees Fahrenheit. In the summer months, the heat pump operates like the compressor in an ordinary refrigerator or an automobile air conditioner; it transfers heat from the building to the earth, and thus cools the building. In the winter, the pump's action is reversed, and it transfers heat from the earth to the building, providing comfort in the coldest weather.

DX Geothermal is remarkably efficient. According to U.S. Department of Energy, DX Geothermal provides three to four units of energy for every unit of electrical energy used to run them. Moreover, the United States Green Building Council, which has created the "Leadership in Energy and Environmental Design" or LEED point rating system – a system supported by the Governor and the Connecticut General Assembly – includes DX Geothermal in meeting the LEED energy performance standards.

We must therefore nurture the growth of technologies such as DX Geothermal by creating a supportive regulatory environment. This is consistent with the public policy of the state, which has authorized tax credits and grants to support DX Geothermal and other geothermal energy systems. **We therefore respectfully request your support for HB-5911.**

Thank you.