

## **Mid-Year Report to the IEEE-USA Government Fellowship Committee**

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During the six months I have served in the office of Senator Ron Wyden (Democrat from Oregon), I have concentrated on energy policy. My activities covered developing energy legislation introduced by the Senator, working on the energy bill that was recently reported out of committee, and evaluating candidates for the many open energy-related positions in the Executive Branch. Associated with these activities were numerous hearings, briefings, and meetings.

Working with the legislative staff, I helped write the nine bills that the Senator introduced at the end of May. These bills were based on the Senator's energy policy of cutting our use of fossil fuels to reduce greenhouse gases in our atmosphere, removing our dependence on foreign oil, and increasing energy efficiency. Underlying these policies is the principle of technology neutrality so that the market place – not Congress – can decide the winners and losers. The nine bills covered diverse topics including promoting the use of renewable and low-carbon fuels, providing tax credits for purchasing fuel-efficient vehicles, offering loans for clean-energy investments, providing grants to universities for research into regional energy solutions, and helping community colleges train workers for green jobs.

I was given the opportunity to work on my own bill, part of the nine-bill package, to provide investment tax credits for energy storage systems. Until this bill was introduced, all the energy legislation in Congress addressed topics like generation, transmission, efficiency, and renewable fuels; but none addressed energy storage. Storage is needed for the efficient use of intermittent renewable technologies, especially wind and solar power. For example, wind energy is strongest at night, when demand is low. Storage systems, including compressed air, batteries, fuel cells, and flywheels, can be connected to the electric grid or can be used in businesses and homes to store energy. The bill is technology neutral and provides credits for storing electrical energy or any other type, such as thermal energy in the form of heat or ice.

This bill, more than the others, received attention throughout the industry, not only from manufacturers of storage systems, but from power utilities as well. When I attended a meeting of the Electric Storage Association in Washington, I was asked to say a few words about the bill at the luncheon. I also had the opportunity to speak before the IEEE-USA Energy Policy Fly-in. What I have learned from this experience is that the legislative staff often has to spend more effort to promote a bill than they do to write one.

The Senate Energy and Natural Resources Committee spent the first half of 2009 drafting a new energy bill. The committee began with briefings to inform the staff of issues that would appear in the bill, including electrical transmission, renewable electricity, energy efficiency, cyber security, and smart grid technologies. The committee then held hearings to inform the Senators

who serve on it. As the committee staff prepared the energy bill, one part at a time, the legislative staffs of the members had to review these draft pieces of legislation and prepare amendments to modify the legislative language to fit each Senator's energy policy. I spent numerous hours on these activities, and during late spring, the draft energy bill went to a formal "markup" session in the committee. The bill was so large that we had eleven markup sessions to cover not only the draft legislation, but hundreds of amendments. We had to review each amendment and make recommendations to the Senator as to how we thought he should vote for it. The bill is finally out of committee and should be taken up by the Senate in the Fall.

The third area related to energy was to evaluate President Obama's nominees for appointments to executive positions. Typically, these nominees come to committee members' offices before their nominations hearings, and I was able to interview several of them, including Steven Chu, the new Secretary of Energy, and Kristina Johnson and Steven Koonin, the new Under Secretaries of Energy.

While all this was taking place, dozens of representatives of interest groups came to the office for meetings to tell us of their views on energy and to discuss their initiatives. Although lobbyists generally have a bad name outside Washington, I found most of the meetings to be quite informative and obtained good information that we needed. At later times, when I have had other questions, I found these people more than willing to answer them. In particular, they provided good feedback on our own energy legislation; and through discussions of our bills with other Senate offices, they have helped us get cosponsors.

Because of my background in telecommunications, I have also provided technical advice and recommendations on issues concerning telecommunications policy, consistent with the Senator's position on network neutrality.

The biggest challenge I have had was understanding the Senate culture and the way business is conducted, both formally and informally. I am learning a great deal from the people with whom I work. They patiently answer questions and are always ready to help and offer suggestions. The interactions I have had range from discussions on energy technologies to discussions about the way the Senate really works. All are valuable to me.

Despite the hard work and long hours that seem envelop the office staff, we managed to find the time to win the Capitol Hill Walking Challenge. There was a lot of competition, but everyone pitched in to "walk that extra mile," including the Senator.