



Lynn Hinkle, policy director, Minnesota Solar Energy Industries Association, John Doll, former Minnesota State Senator

Civic Caucus, 8301 Creekside Circle #920, Bloomington, MN 55437

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Present : Verne Johnson (chair), Janis Clay, Paul Gilje, Sallie Kemper, Dan Loritz (phone), Tim McDonald

Summary of meeting: John Doll, former state Senator and Lynn Hinkle, policy director for the Minnesota Solar Energy Industries Association, describe the detail behind Executive Order 11-12 signed by Governor Dayton earlier this year. That order calls for use of existing laws for financing energy saving capital improvements of public buildings through the investment of private funds, which are repaid over time by the guaranteed annual realized energy savings.

The companies willing to do the retrofit work quantify the estimated amount of savings, and form an agreement with the building's owner to be repaid, with interest, from the savings preventing the building owners from having to raise their own capital. The speakers say the state aims to save \$200 million and create 3,000 jobs with this effort.

A. Welcome and introductions

John Doll is a former member of the Minnesota Senate from the southwest Metro. He was first elected in 2006, and was a member of, among others, the Energy, Utilities, Technology and Communications Committee before being unseated in 2010. He also served on the Finance Subcommittee for the Transportation Budget and Policy Division. Doll attended the University of Minnesota and Anoka-Ramsey Community College. He has run a successful tile and stone installation company.

Lynn Hinkle is Policy Director for the Minnesota Solar Energy Industries Association (MnSEIA), which represents and serves Minnesota and solar energy businesses. He helped lead the recent effort to pass Minnesota Property Assessed Clean Energy (PACE) legislation to enable counties and cities to finance energy efficiency/solar installations on commercial and residential properties. A principal in HK Climate Solutions, Lynn has implemented commercial retrofit projects incorporating

new energy saving technology. Hinkle lead UAW Local 879's "Green Plant, Green Product" efforts to convert the Twin Cities Ford Assembly Plant prior to 2006, co-chaired the State's Plug-In Hybrid Electric Vehicle Task Force in 2007 and helped launch the Mayors' Green Manufacturing Initiative.

B. Discussion

Facilitating private investment in energy efficient capital projects

Lynn Hinkle: I am thrilled to have an opportunity to discuss a couple of policies that are important to alternative energy in the state. I'll be talking a little bit about the Executive Order 11-12 and "property-assessed clean energy" or PACE legislation. Both deal with the redirection of dollars currently being spent on inefficient energy use toward installation of energy efficiency and renewable energy improvements. We don't feel the scale of implementation is nearly what it should be, but we're getting there.

John Doll : As a Minnesota state senator I was Vice Chair of the Energy Committee. In that position, I'd often have people come in asking questions about how to subsidize energy bills for the poor and elderly. Having a background in construction, I got to thinking about how we could spend money on the front end to save money over time, rather than simply subsidizing peoples' energy bills.

Fostering improvements and jobs with energy efficiency and renewable energy

Hinkle: This is an important opportunity for economic development. When you look at other states like Pennsylvania, the Governor there was in a huge budget crunch, but meanwhile had to do a large amount of capital improvements after years of rolling deferred maintenance. Someone suggested using existing statutes for use of energy savings to finance deep retrofits with private dollars.

Pennsylvania has since implemented over \$600 million worth of contracts for energy savings and renewable energy. This has created an estimated 14,000 jobs. That's all repurposed money that is not being wasted, but being used to install HVAC(heating, ventilation, and air conditioning) systems, new windows and roofs - "deep" retrofitting, as the industry calls it, that gets the whole job done not just smart thermostats and new lighting. These holistic retrofits create both enormous energy savings and jobs as well.

A coalition called the Energy Jobs Initiative went to Governor Dayton with this idea, and it resulted in Executive Order 11-12. (See: <http://bit.ly/nbmgky>) The order stipulates that state agencies adopt "cost-effective energy efficiency and renewable energy strategies... to achieve no less than an aggregate 20 percent reduction in energy use." The executive order also requires that state agencies "implement ... energy improvements utilizing Guaranteed Energy Savings Contracts, the State Energy Improvement Financing Program, or other...financing mechanisms that may be appropriate." A goal of \$200 million in contracts, and the creation of 3,000 jobs in Minnesota has been set as goals.

A "guaranteed energy savings"

Q: Where does the money come from?

Hinkle: A private company determines through a rigorous audit the range of installations possible and the dollar value of energy savings that can be realized.

Private companies called Energy Service Companies (ESCOs) will be paid back through the savings that they use to advance the money for the retrofit. In Pennsylvania's case \$600 million in private money has been fronted. This payback method is intentionally called "guaranteed energy savings" because the retrofitting companies guarantee through contracts that the dollar amount of annual energy cost saved will be sufficient to repay the cost of the retrofitting over a given period of time-otherwise the companies absorb the difference as a loss.

Q: How does this work-walk us through the public transaction. There is a public building that stands to benefit from the program. A retrofit would cost \$500,000. What happens?

Hinkle: A private company would come in and say they can achieve a \$50,000 reduction in energy cost per year for a retrofitting project with a price tag of \$500,000. The company will be paid back with interest through the savings that are actually realized, which savings they must guarantee-otherwise they eat the cost, and write a check to the property owner for the difference. So in this example the contract runs for 10-12 years depending on debt service.

Q: How accurate are the energy savings assessments?

Hinkle: When the company comes in it has to be pretty thorough in its initial energy assessment. They have to assess deferred maintenance, physical plant condition, opportunities for savings; they spell out how it will work, and negotiate what they believe to be a reasonable set of improvements. Sometimes the company will offer to do the on-going operation and maintenance to make sure the resulting system works as effectively as it should. These companies are established and well-known: Honeywell, Ameresco, Johnson Controls, etc. with capacity to ensure reliable long term contracts.

Doll: The parties use Investment Grade Audits (IGA) and the International Performance Measurement and Verification Protocol (IPMVP) in structuring the deals. These are industry standards that have been established to guide projects just like this.

Q: Is this mechanism available for all public buildings or just State buildings?

Hinkle : Yes - There are Minnesota statutes enabling this mechanism for three categories of public buildings: state, municipalities, and school districts.

Q: Does solar energy fall under this?

Hinkle: This can be a source of financing solar-this is what's important about the longer-term window for financing and bundling all the potential energy savings together. The longer terms for these contracts helps to pay off clean energy improvements that are more expensive at first.

Q: Sounds like this is very finance-driven and not driven by engineering and construction expertise. Are the incentives properly aligned?

Hinkle: The investment-grade audit is done by engineers. They aren't sales people-the people walking through buildings drawing up the list of installations are engineers. They need to spec these at very high levels in order for them to be viable. You're not spec'ing the buildings by conjecture; it has to be done by people that have been doing this for a very long time.

This financing can help building owners invest in energy saving upgrades

Q: What are the major areas of potential savings?

Hinkle: Windows and glazing, heating, energy control, insulation, water, waste and recycling. Controls are pretty high on the list of priorities-heating and ventilation controls, for example, in a very large building. When you have a sophisticated controls system you can save a lot of money-particularly in an older building.

Doll: The easiest one is the lighting-that's the "low-hanging fruit". We try to incorporate are what you could call "lifetime costs", those things that are costing you money each month but which require more money than you have to spare all at once. So what this seeks to do is bundle the easier smaller items so you can actually stop deferring the more costly but necessary retrofits.

Q: If I'm acting in my own self-interest as a business director of a school district, why haven't I already done this, with windows, boilers, etc?

Hinkle: Good question. There has been increased budget pain in school districts in particular with the deferred asset maintenance, and it will continue to be difficult to find ways to maintain school infrastructure. They will probably do a combination of things. This is a way to deal with deferred maintenance and use private dollars to cut costs for public buildings and focus public dollars to educate Minnesota youth for the clean energy economy.

This Executive Order can play the role of a solution-why raise taxes through public referendum when you can use these kinds of jobs programs with private dollars?

Some of the hesitation will be because facility managers think they will get around to doing these savings themselves. There is story after story of property owners that look at the sheet of recommendations that an energy company comes in and gives them, and say 'we can do these ourselves.' But they don't. Then a decade later they're saying, 'wow, we could have done that.' Now is the time to use holistic energy savings for all of Minnesota's public buildings.

Doll: Schools are the biggest users of energy saving technologies now. If you look at Johnson Controls' list of where they're working, most-maybe three-quarters-of it will be schools right now.

I agree with Lynn that people in maintenance departments say they will get around to financing energy improvements with their annual budget. But now this executive order guarantees results, brings the money in from other sources of financing, and enables the savings to play out over many years.

Examples of where this has already worked in Minnesota

Hinkle: There are case studies for savings. The city of Rochester is a good example having done a large project. It has been a positive experience for them. Rochester did more than \$5 million in city projects (ice arena, city arena, motor pool, etc) that are being financed this way, based on engineers' calculated energy savings.

The county of Anoka has been very excited with the results. U of M Morris, the Duluth schools are also examples of positive results. The list crosses many sectors. The executive order encourages all of Minnesota agencies to dive deeper than public financed lighting and retro commissioning

Creating more private sector jobs with private sector buildings

Q: How can this be extended to the private sector?

Doll: I'm glad you brought that up, because that's the long-term goal here, to get to the larger set of buildings in the private sector. The mechanism is called Property Assessed Clean Energy or PACE. The law we passed in Minnesota enables a public entity to use proceeds from revenue bonds to finance energy improvements on commercial and industrial buildings that are repaid by the energy savings as voluntary special assessments. It uses energy saved and generated to finance the cost of installation similar to public buildings with Executive Order 11-12.

Doll: There are municipalities that are interested and are exploring implementation, but haven't signed up yet. The law was just recently enacted in 2010. The conversation when it was passed was to have best practice in place at the outset, but after working with the language we can see the need to add some more tools. Expanding options for implementation of PACE will help this type of financing the private sector.

Hinkle: There has been discussion around the state about the potential to issue revenue bonds to provide the upfront costs for energy improvements, but interest rates are not attractive. PACE as a way of private/public financing has enormous potential. When you put the public and private building stock together you make it possible to dramatically increase the jobs and economic impact.

C. Closing

\$200 million in targeted savings for Minnesota Public Buildings, and 3,000 jobs

Q: Is there a number figure you can put on potential savings for the tax dollar

Doll: I don't know if I can give you an example for the whole state, but I can give you examples: A large school district can save \$1 million per year in energy costs. You should be able to reduce energy consumption by up to 20 percent without any major change in quality of life.

Hinkle: We did project that we could do \$200 million in projects over five years. That was based on Pennsylvania's saving \$600 million in a shorter timeframe. We want to have an achievable goal. Another way to quantify it is that we estimate our \$200 million in projects could create 3,000 jobs.

This is about the energy savings and improvements, but just as important, it is also about the jobs. There is talk in the executive order about what can come from creating jobs through this effort. We have a major window and HVAC manufacturers in the state. We have solar manufacturers, and a supply chain, throughout the Minnesota. It creates a jobs multiplier effect as these manufacturers ramp up to meet the increased installation demand.

Doll: Now that the Governor's executive order has said the state will focus on it, companies in this field are starting to look at Minnesota. We think this is very important because it will save a lot of money, not just now but for the next generation. While creating thousands of jobs.

Hinkle: The importance of these programs is that they are economic development tools. That frame of reference is important, especially in these times. The only way we will solve the budget problem is to grow the economy. With an effort such as this, government can be used as a way to facilitate economic expansion.

There will be information available through the state as the Office of Guaranteed Savings Programs gears up. You can go to any of the ESCOs websites, and they will have the essential features about what we're talking about and actual case studies. Another website you may want to look at is <http://pacenow.org/blog/> for current information about PACE financing.

Thanks Lynn and John, for an interesting and informative meeting.