

**House Consumer Affairs Committee Hearing on HB 1580  
November 17, 2011**

Testimony of Dean Musser, PE for Tangent Energy Solutions

Chairman Godshall, Chairman Preston and honorable members of this Committee.

Thank you for giving me the opportunity to present my company's perspectives on House Bill 1580. This is an important piece of legislation and I appreciate the amount of time that you are focusing on it.

I will begin with information about my company. Tangent is a successful Energy Solutions Company located in Kennett Square, PA. We lower energy costs for school districts and manufacturers by helping them avoid high costs during peak electricity demand periods. When we do this, we also improve grid reliability; avoid capital costs for utilities and their customers, and lower costs in the wholesale electricity market.

Our approach includes two key components. First, we provide on-site electric generation equipment at no capital cost to customers. Second, we monitor wholesale prices in order to balance customer supply and demand. The role of on-site generation is especially critical because it enables business and schools to sustain normal operations while providing relief to the grid and power pools. The on-site generation asset is based on the client's needs and may be solar energy systems or natural gas fired co-generation equipment that provides heat or steam in addition to electricity.

To date we have raised \$175M in project equity from investors from the United States and Europe. We have built approximately 5MW of solar projects across the Commonwealth.

Tangent has directly created over 50 PA based jobs in the last year and has indirectly prevented the loss of many others by providing budget relief to cash challenged school districts by reducing their energy costs. For example, in one PA school district we project energy savings of \$3.8M over a 20 year period. So that you can see the extent of our business, the attached table gives you a complete overview of our current Pennsylvania projects.

The energy demand response programs operated by utilities and others make possible energy savings but only when customers cut consumption by reducing or eliminating operations. Many of our customers need to continue their business regardless of electricity prices so they cannot simply avoid high prices by cutting consumption from the grid. A key value we bring is to make possible both continued, normal operations and energy cost savings. Our customers reduce the use of electricity from the grid when prices are high but still operate at normal levels using our on-site electric generating equipment.

My testimony today is from our business perspective and is aimed at addressing two misconceptions about solar energy. The first misconception is that SREC market does not need to be reformed because the spot market price is already too high. The second misconception is that solar energy is an added burden to an already stressed transmission and distribution system.

With respect to SREC pricing, our project pipeline is filled with long-term, Pennsylvania-based projects backed by private funding sources. The financial models supporting these deals are based on SRECs that will be sold over a number of years. These projected SREC sales are at prices that are a fraction of the spot market prices in New Jersey. Investors accept these discounted SREC prices when they are certain about the stability of future prices. This is how the vast majority of SRECs are sold; at the discounted rate, not the spot market rate. The tradeoff is that we accept lower SREC revenues in exchange for price certainty in future years.

However, this model no longer works in Pennsylvania. Due to the ongoing oversupply of SRECs the long-term SREC price is highly unstable. This volatility makes planning virtually impossible. Until there is an acceptable level of certainty about future SREC prices, we will not be building any more solar assets in this state and our business will be re-focused on Massachusetts and Ohio. Let me emphasize that I am not advocating for high prices on the order of what has been seen in New Jersey. Instead, I am saying that it is volatile prices that are undermining our ability to do business here. I believe that the small modifications proposed in House Bill 1580 will provide that certainty.

I also want to reassure this Committee regarding costs and reliability impacts of solar on other customers. Utilities worry that extensive solar development may stress the grid and create the need to upgrade distribution circuits, thus increasing costs to consumers. This concern is only valid for very large utility scale projects that connect directly to the grid. The behind the meter solar systems we build amount to a small fraction of those large projects. We have the opposite effect, avoiding customer costs and enhancing reliability. Our projects are designed to supply electricity directly to the customer, not for profit making through sales to the grid. Our onsite assets reduce pressure on the grid and this improves reliability and avoids utility spending on grid upgrades. All behind the meter generation has these advantages but, due to environmental requirements, space limitations, and zoning restrictions, solar is the only practical alternative for many customers. To sum up, solar electricity generated at a customer's site reduces that customer's energy costs but also benefits other customers.

My testimony today focuses on solar because that part of our business is affected by House Bill 1580. Nevertheless, Tangent supports a balanced approach and will use natural gas generating equipment where the customer's needs and the site requirements make that the right

choice. As I mentioned above, for those projects where solar is the right choice, we need stable SREC prices.

In closing, I must tell you that approval of this bill is critical for Tangent's ability to continue to develop projects in Pennsylvania. We strongly believe this proposed bill provides the necessary adjustments for the SREC market to keep solar as an option in the Commonwealth. With a stable SREC market, we can ensure that customers have maximum flexibility to manage their energy use in way that also benefits all Pennsylvanians.

Thank you again for this opportunity to tell you about our business and how stable SREC prices make it possible for us to continue installing projects in Pennsylvania. I welcome your questions.

**Tangent Energy Solutions - Inventory of Pennsylvania Projects**

<b>Status</b>	<b>PROJECT</b>	<b>LOCATION</b>	<b>VALUE (\$000)</b>	<b>kW</b>	<b>kWh/yr. (000)</b>	<b>\$ saved over 20 years)</b>
Completed	Bethlehem Area School District	Bethlehem, PA	\$ 6,200	1,600	2,000	\$ 1,650,000
Completed	Colonial School District	Plymouth Meeting, PA	\$ 2,200	689	835	\$ 1,500,000
Completed	Yuasa Battery, Inc. East Marlborough Township	Laureldale, PA	\$ 1,200	240	300	\$ 301,000
Completed	Career Institute of Technology	East Marlborough, PA	\$ 100	20	24	\$ 5,000
Under Construction	MFG Co. (NDA)	Easton, PA	\$ 2,100	496	627	\$ 640,000
Completed	Gale Lane	Western PA	\$ 6,700	1,500	1,760	\$ 1,900,000
<b>Total</b>		Kennett Square, PA	\$ 450	101	121	\$ 123,000
			<b>\$ 18,950</b>	<b>4,646</b>	<b>5,667</b>	<b>\$ 6,119,000</b>