MSEIA
MID-ATLANTIC SOLAR ENERGY INDUSTRIES ASSOCIATION

600 College Road East, Suite 4400
Princeton, NJ 08540
T: 609.513.7295
F: 610.988.0862

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SUPPLEMENTAL INFORMATION ON SB 1, Special Session No. 1 of 2007-2008

FREQUENTLY ASKED QUESTIONS

What does it cost to produce a kilowatt of solar power and how does this compare to electricity produced from fossil fuel?

In Pennsylvania solar costs from $0.17 to $0.23 per kilowatt hour (kWh) compared to $0.14 to $0.16 per kWh for electricity in the PECO service territory. Other electricity providers in Pennsylvania are somewhat less than PECO. By 2010 the Solar Industry expects its costs to be $0.13 to $0.18 per kWh and to achieve parity with national electric rates by 2015. We project that in Pennsylvania solar rates will achieve parity with electric rates in the next 5 to 7 years.

Why should Pennsylvania put money into developing solar energy?

The benefits of solar are well documented. It creates no pollution; it is backup for critical services and first responders during power outages; it is a hedge against increasing fuel costs; it creates jobs. Building the infrastructure to capture and use solar will cost money, but once it is built, there will be no fuel costs. In the coming years Pennsylvania will have to find ways to meet growing demand for electricity and the need to replace or upgrade existing fossil fuel fired plants. These kinds of costs are usually passed on to ratepayers. If ratepayers are going to be paying for building infrastructure, it makes sense to build options and alternatives into the infrastructure so we are not wedded to one way of producing energy.

Why should Pennsylvania put money into developing solar energy when it is so much more expensive compared with other sources of energy?

An investment now in solar energy will lower the costs and hasten the day when the Commonwealth receives the benefits of solar. The price of solar falls about 5% to 7% annually. For every doubling in solar sales, costs decline by at least 10%.

Why should Pennsylvania provide rebates to develop solar resources when solar manufacturers appear to be quite profitable?

Historically, the government has been involved in fostering a strong energy infrastructure. Making solar equipment affordable is a challenge for business as well as government. In all markets solar equipment is paid for through a combination of components: up front equity, sale of SRECs, energy savings, and government incentives (including tax credits or accelerated depreciation) or rebates. Governments that want a broad based and robust solar program have

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done so by providing an attractive government incentive that is immediately available thereby shortening the payback period for purchasers and bringing down the cost for the average homeowner or business.

How long do you expect rebates would be necessary?

Pennsylvania's Alternative Energy Portfolio Standard (AEPS) requires about 4 MW in 2010 , increasing to about 19 MW in 2011 and to 49 MW in 2012. Projects needed to meet those goals should be in the planning stage NOW. We are proposing rebates for an initial 5 to 7 year period in order to spur interest in solar developers to come into Pennsylvania and plan projects. We anticipate that the momentum and experience from this will prompt electric distribution companies to make commitments to these projects and enter into long term contracts to purchase the SRECs they will generate. This, in turn, should allow the financial community to feel confident about financing projects based on the future income stream from the SRECs generated.

How many jobs do you project will be achieved by a rebate program?

The Solar Industry projects that approximately 40 jobs are created for every 1 MW of solar that is constructed.

Does SB 1 offer enough funding for the Solar Industry to grow in Pennsylvania?

Unfortunately, it does not. SB 1 is structured so that solar technologies must compete for funding with energy efficiency measures and other technologies. For solar businesses to start up and grow in Pennsylvania, there needs to be a dedicated source of funding; otherwise, funding will be too uncertain for solar businesses to sustain themselves.

An additional issue is the language in SB1 that states:

> *An applicant shall be eligible for up to 50% of the purchase and installation price of solar or solar photovoltaic panels manufactured in this Commonwealth.*

We support incentives for manufacturing in Pennsylvania. We are concerned that as presently written, this language raises dormant Commerce Clause issues and could foreclose opportunities for PV panels manufactured out of state to support growth of a solar capability in Pennsylvania. Currently, however, there are no solar photovoltaic panels manufactured in Pennsylvania. Typically, solar contractors buy their products through distributors, which supply the panels with pre-packaged systems. It could take years before a PV manufacturing plant is built and making panels, let alone set up sales with the distributors. The PV panels would have to be compatible with several inverter products as well as mounting structures, so that they can be sold as packaged systems. Limiting these funds to only products manufactured in Pennsylvania will significantly restrict any solar development in this state in the most important early years of the Solar Share compliance.

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How much funding is needed to kick start solar development in Pennsylvania?

We project that a fund of about $200M to be used for solar rebates and incentives over seven years will result in at least 180 MW of solar PV capacity in Pennsylvania. This amounts to an average cost of $1.1 million of incentives per MW of installed PV capacity.

With funding at this level, we propose a two part system for the residential and commercial sectors. This would consist of a rebate for the residential sector of $3.50/watt (approximately 50% of the installed cost) in the first year. The rebate amount would decline on a predetermined schedule to under $1/watt by year seven. This would yield about 80 MW of PV capacity for about 20,000 homes in Pennsylvania. The non-residential sector would not receive a rebate, rather it would be offered a performance-based incentive of about $0.28/kWh of solar electric generation for four years. This incentive also would decline over the next few years. Incentives for the non-residential market are projected to yield about 100 MW of installed PV capacity.

180 MW of installed PV capacity by 2014 would cover about 21% of the AEPS Solar Share requirement, leaving the remainder to be completed by the Solar Industry without incentives.