



**Green Energy Capital Partners, LLC**  
**319 Barren Hill Road, Suite 400**  
**Conshohocken, PA 19428**  
**Ph: 877-777-0177**  
**Fax: 484-351-8020**  
**www.GreenEnergyFinder.com**

**STATEMENT OF  
GREEN ENERGY CAPITAL PARTNERS, LLC**

**SUBMITTED FOR THE RECORD OF THE  
HEARING OF THE PENNSYLVANIA  
HOUSE ENVIRONMENT RESOURCES AND ENERGY COMMITTEE  
HELD ON MAY 21, 2009  
HARRISBURG, PENNSYLVANIA**

Green Energy Capital Partners, LLC (“GECP”) is a Pennsylvania-based developer of renewable energy with its main office located in Conshohocken. Currently, we are developing the PA SOLAR PARK, a 10 MW Solar Power Plant in Nesquehoning, Carbon County. The project was initiated in July 2008. The completed cost is estimated at \$60M. The project will include a Green Job Training and Sustainability Education Center, which is expected to be shovel-ready in August 2009.

PA SOLAR PARK will produce 16,000,000 annual peak load-following kWhs, which is enough energy to provide power to nearly 1,450 PA homes for a year. Environmentally, the carbon offset over 30 years is equivalent to planting 25,000 acres of trees. The project will create 200 jobs during construction and have \$18M in direct economic impact for Pennsylvania-based white, blue and green collar companies. This is noteworthy and equates to approximately \$1.8M per of installed MW (which will be discussed later in this statement). Additionally, GECP has a pipeline of multiple Pennsylvania-based utility-scale solar farms in planning that will attract \$200M in project capital as well as \$60M in direct economic stimulus for companies based in the Commonwealth.

Our concerns with HB 80 arise out of our desire to see the continued creation of “green jobs” and “green” economic development (where “green” is the color of money) within the Commonwealth. Thus, this statement focuses on two points: (1) out-of-state generation of Alternative Energy Credits (“AECs”) or Solar Alternative Energy Credits (“SAECs”) should not qualify as a source that can satisfy the requirements of the Alternative Energy Portfolio Standard Act (“AEPS Act” or “AEPS”) and, (2) the AEPS requirements for solar must be significantly increased and loaded on the front-end in order to achieve the desired renewable energy market robustness, economic development and job creation that the General Assembly has been striving to achieve.

Addressing these two critical issues will significantly change the landscape of the renewable energy market in Pennsylvania and strive toward the creation of “green jobs” and promotion of “green” economic development, which are desperately needed to drive the Pennsylvania economy in the near- term versus ten to fifteen years from now.

**I. Out-of-State Solar Generation Facilities Must Be Eliminated From the Types of Sources that Satisfy AEPS Requirements.**

Currently, under the existing AEPS Act and the proposed HB 80, any solar facility located outside of the physical boundaries of Pennsylvania but located within PJM Interconnection, LLC (“PJM”) is eligible to retire or sell SAECs to meet the requirements under the AEPS Act. In addition, a small portion of the Western Central part of the Commonwealth is located in the Midwest ISO (“MISO”). Under both the existing AEPS Act and HB 80, as currently drafted, out-of-state solar generation from the MISO region would also be able to count toward the compliance requirements.

Setting aside the MISO region, please make note of the significant size of the PJM territory, as indicated by **Figure One** on the next page of my testimony. PJM is comprised of 13 states, including Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. Thus, there are a substantial amount of states from which Electric Distribution Companies (“EDCs”) and Electric Generation Suppliers (“EGSs”) can go to meet their AEPS compliance requirements.

In a renewable energy market that is still developing, and one that lacks depth and liquidity, allowing out-of-state AEC/SAEC dumping has the immediate effect of creating an artificial over-supply of AECs/SAECs, which then drives down demand and produces an artificially low AEC/SAEC value.

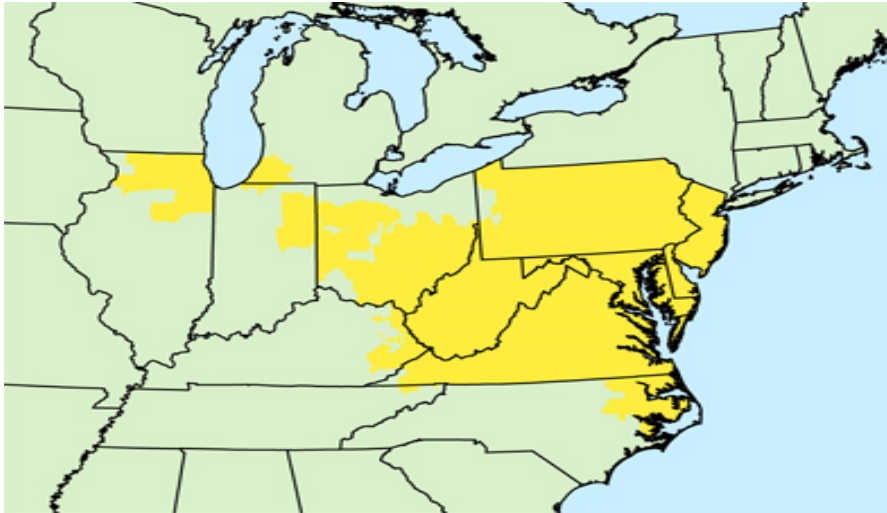
This seemingly innocuous loophole certainly has severe economic and environmental implications, including the following: (i) Pennsylvania ratepayers shouldering the cost of other state’s projects; (ii) reducing the Commonwealth’s tax revenues from projects that do not get built in Pennsylvania; (iii) limiting the goals of Pennsylvania Energy Independence and of Act 129; (iv) reducing “green jobs” in Pennsylvania while subsidizing the creation of green jobs in surrounding; and (v) negatively impacting “green” economic development through the loss of contracts, project development and revenue for Pennsylvania-based companies involved in solar renewable energy development.

Lastly, due to the fact that many PJM states have low SREC values, it is logical to assume that SRECs generated in a PJM state with low SREC values will look to sell these SRECs where they can get the highest price. New Jersey, for example, has a very robust market commanding average SREC prices for one MWH trade in the high \$400 range and individual transactions have been recorded as high as \$680. New Jersey does not allow out-of-state SREC generation to count towards RPS compliance. Thus, many project developers flock to develop solar generation in New Jersey.

If out-of-state solar projects are prohibited from meeting the AEPS requirements, our opinion is that Pennsylvania SAECs will trade in a range

between \$320 and \$450 over the next 10 years, which will attract project developers. If the the reverse scenario remains true, we believe SAECs will trade in the low \$200s, which would make most projects impossible to build without significant financial incentives.

**Figure One: PJM Regional Transmission Organization Service Territory**



Source: PJM

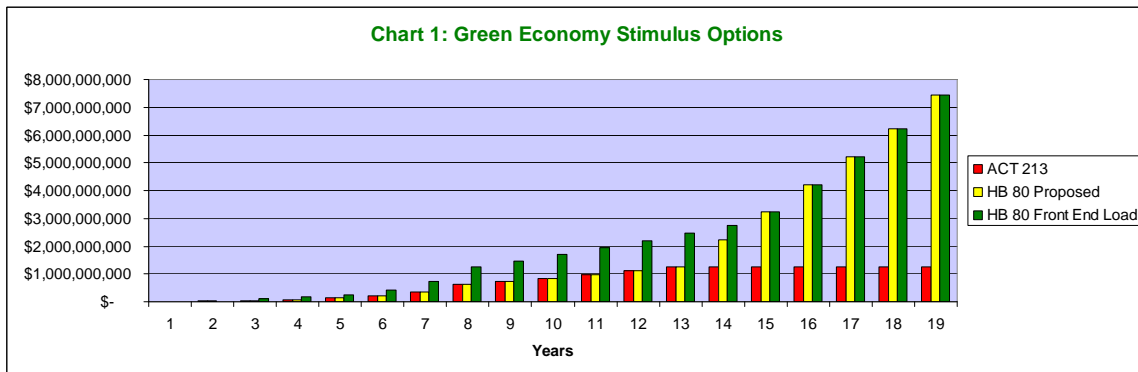
**II. Front End Load the AEPS for Immediate “Green” Economic Development**

Pennsylvania needs to drive its green economy now, not in the next 10 to 15 years. The AEPS requirements were written before toxic loans created chaos for the Commonwealth’s economy. Although HB 80 increases the solar carve-out 5 fold in 15 years, it remains exactly the same for the first 9 years and creates no new jobs or economic development. Of all the existing avenues, green jobs and the green economy have the greatest potential alongside infrastructure projects to create meaningful economic development within the Commonwealth in the immediate future. The AEPS Act must be front-end loaded to create green jobs and attract project developers as soon as possible through bi-partisan cooperation.

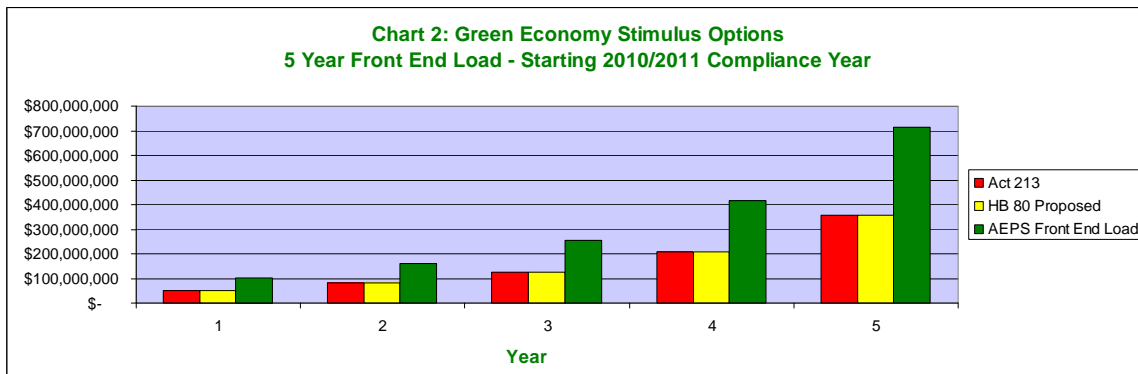
While solar energy plant equipment components costs will decrease over time, the economic stimulus of \$1.8M per MW installed is likely to stay constant or increase slightly with inflation. We have developed a model to help illustrate our point about the benefits of front-end loading the AEPS requirements. In developing our model, we have been conservative with our estimates and have not increased the MW installed costs over time.

Under our model, we advocate for the solar compliance requirements to start in the 2010-2011 reporting year; however, with AEC banking of the current reporting period plus two years the 2011-2012 reporting period could be used as an alternative to give the EDCs and EGSs time to adjust their plans. The net effect of front-end loading the compliance requirements is to bring forward the current 0.5% solar AEPS mandate from 2021 to 2016 and doubling the early year requirements to get projects in the ground through the creation of a thriving AEC/SAEC market that has liquidity, transparency, depth, integrity and oversight. All of which will ensure compliance with the AEPS Act and eliminate any possibility for the potential invocation of the Force Majeure provision under the AEPS Act (which is a growing possibility in Pennsylvania).

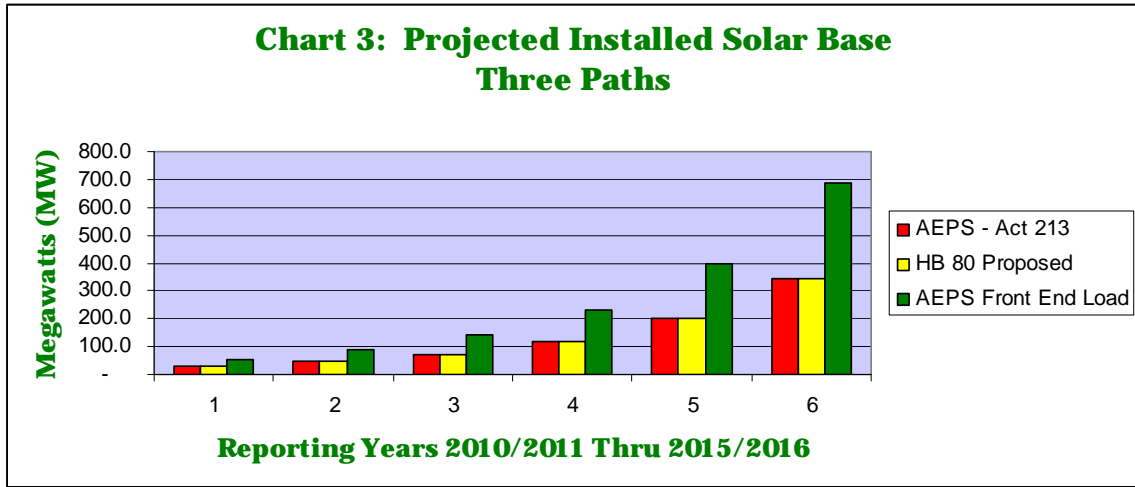
**Chart One** below illustrates how a front-end loaded AEPS creates evenly increasing frequency while creating immediate early year stimulus without changing the long term goal of a 3% Solar AEPS Requirement in HB 80.



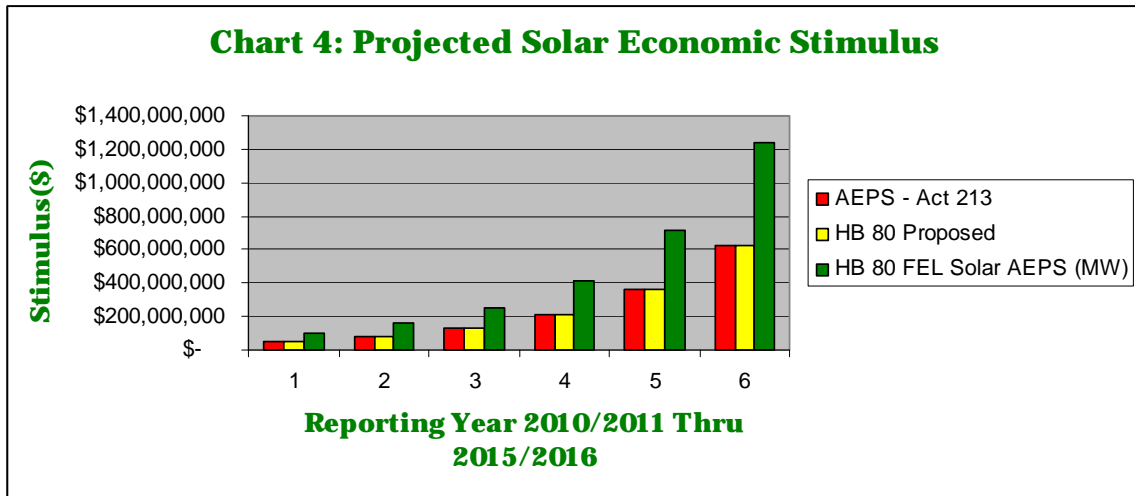
**Chart Two** below illustrates the impact of front-end loading AEPS in the early years beginning with 2010/2011 compliance year, when the green economy and economic development are desperately needed.



**Chart Three** below illustrates that front-end loading of the AEPS Act has a substantial impact on solar installations shifting 690 MWs of solar installed base forward from 2021 to 2016.



**Chart Four** below illustrates that front-end loading the AEPS requirements has a substantial impact on Pennsylvania solar economic development. The impact on the green economy is dramatic, with a cumulative increase of \$1.4 Billion in the first 6 years.



I have attached as **Table One**, the supporting spreadsheet details of a proposed AEPS Front End Load scenario at the end of my statement.

### **III. Conclusion**

Today the installed price of solar energy installations is dropping rapidly and grid parity is expected to be achieved by 2013. Solar energy has the ability to become a well adopted mainstream energy technology for Pennsylvania in the future. This will happen if, and only if, there is a robust market for AECs/SAECs and developers can enter into long term (10-15 Year) bilateral agreements with EDCs for AECs/SAECs.

It is critical that we front-end load the AEPS and only allow Pennsylvania-based generation of AECs/SAECs to qualify for AEPS compliance. These policies allow the Commonwealth to benefit substantially in areas that are critical for jobs, economic development, energy independence and the environment.

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**For questions regarding this Statement, please contact:  
John Curtis, Founder and CEO  
[jc@GreenEnergyFinder.com](mailto:jc@GreenEnergyFinder.com)  
(877) 777-0177 ext. 707**

## Table One: Front End Loaded AEPS

	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/09</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/10</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/11</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/12</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/13</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/14</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/15</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/16</u>
<b>Solar Requirement - % of Load</b>								
AEPS - Act 213	0.0063	0.012	0.0203	0.0325	0.051	0.084	0.144	0.25
HB 80	0.0063	0.012	0.0203	0.0325	0.051	0.084	0.144	0.25
AEPS - Front End Loaded (FEL)			0.0406	0.065	0.102	0.168	0.288	0.5
<b>Solar Requirement - MW</b>								
Act 213 - Solar - AEPS (MW)	8.7	16.6	28.0	44.9	70.4	115.9	198.7	345.0
HB 80 - Solar - AEPS (MW)	8.7	16.6	28.0	44.9	70.4	115.9	198.7	345.0
HB 80 - FEL - Solar - AEPS (MW)			56.0	89.7	140.8	231.8	397.4	690.0
<b>Solar Economic Stimulus (\$)</b>								
AEPS - Act 213	\$ 15,649,200	\$ 29,808,000	\$ 50,425,200	\$ 80,730,000	\$ 126,684,000	\$ 208,656,000	\$ 357,696,000	\$ 621,000,000
HB 80 Proposed	\$ 15,649,200	\$ 29,808,000	\$ 50,425,200	\$ 80,730,000	\$ 126,684,000	\$ 208,656,000	\$ 357,696,000	\$ 621,000,000
HB 80 FEL Solar AEPS (MW)			\$ 100,850,400	\$ 161,460,000	\$ 253,368,000	\$ 417,312,000	\$ 715,392,000	\$ 1,242,000,000
<b>Cumulative Solar Stimulus (\$)</b>								
AEPS - Act 213	\$ 15,649,200	\$ 45,457,200	\$ 95,882,400	\$ 176,612,400	\$ 303,296,400	\$ 511,952,400	\$ 869,648,400	\$ 1,490,648,400
HB 80 Proposed	\$ 15,649,200	\$ 45,457,200	\$ 95,882,400	\$ 176,612,400	\$ 303,296,400	\$ 511,952,400	\$ 869,648,400	\$ 1,490,648,400
HB 80 FEL Solar AEPS (MW)			\$ 100,850,400	\$ 262,310,400	\$ 515,678,400	\$ 932,990,400	\$ 1,648,382,400	\$ 2,890,382,400
<b>Total Statewide Load (MW)</b>	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000
<b>Economic Stimulus (MW)</b>	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000

<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/17</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/18</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/19</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/20</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/21</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/22</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/23</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/24</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/25</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/26</u>	<u>AEPS</u> <u>Reporting Year</u> <u>Ending</u> <u>06/01/27</u>
0.2933	0.34	0.39	0.4433	0.5	0.5	0.5	0.5	0.5	0.5	0.5
0.2933	0.34	0.39	0.4433	0.5	0.9	1.3	1.7	2.1	2.5	3
0.5866	0.68	0.78	0.8866	1	1.1	1.3	1.7	2.1	2.5	3
404.8	469.2	538.2	611.8	690.0	690.0	690.0	690.0	690.0	690.0	690.0
404.8	469.2	538.2	611.8	690.0	1,242.0	1,794.0	2,346.0	2,898.0	3,450.0	4,140.0
809.5	938.4	1,076.4	1,223.5	1,380.0	1,518.0	1,794.0	2,346.0	2,898.0	3,450.0	4,140.0
\$ 728,557,200	\$ 844,560,000	\$ 968,760,000	\$ 1,101,157,200	\$ 1,242,000,000	\$ 1,242,000,000	\$ 1,242,000,000	\$ 1,242,000,000	\$ 1,242,000,000	\$ 1,242,000,000	\$ 1,242,000,000
\$ 728,557,200	\$ 844,560,000	\$ 968,760,000	\$ 1,101,157,200	\$ 1,242,000,000	\$ 2,235,600,000	\$ 3,229,200,000	\$ 4,222,800,000	\$ 5,216,400,000	\$ 6,210,000,000	\$ 7,452,000,000
\$ 1,457,114,400	\$ 1,689,120,000	\$ 1,937,520,000	\$ 2,202,314,400	\$ 2,484,000,000	\$ 2,732,400,000	\$ 3,229,200,000	\$ 4,222,800,000	\$ 5,216,400,000	\$ 6,210,000,000	\$ 7,452,000,000
\$ 2,219,205,600	\$ 3,063,765,600	\$ 4,032,525,600	\$ 5,133,682,800	\$ 6,375,682,800	\$ 7,617,682,800	\$ 8,859,682,800	\$ 10,101,682,800	\$ 11,343,682,800	\$ 12,585,682,800	\$ 13,827,682,800
\$ 2,219,205,600	\$ 3,063,765,600	\$ 4,032,525,600	\$ 5,133,682,800	\$ 6,375,682,800	\$ 8,611,282,800	\$ 11,840,482,800	\$ 16,063,282,800	\$ 21,279,682,800	\$ 27,489,682,800	\$ 34,941,682,800
\$ 4,347,496,800	\$ 6,036,616,800	\$ 7,974,136,800	\$ 10,176,451,200	\$ 12,660,451,200	\$ 15,392,851,200	\$ 18,622,051,200	\$ 22,844,851,200	\$ 28,061,251,200	\$ 34,271,251,200	\$ 41,723,251,200
138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000	138,000
\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000	\$ 1,800,000