

CITIZEN POWER

Public Policy Research Education and Advocacy

**COMMENTS OF CITIZEN POWER
ON IMPLEMENTATION OF THE ALTERNATIVE ENERGY PORTFOLIO
STANDARDS ACT OF 2004, PaPUC DOCKET NO. M-00051865**

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Citizen Power is a regional public interest organization that advocates for the increased use of renewable energy and energy efficiency technologies. As part of this work, Citizen Power participated in the legislative process that led to passage of the Alternative Energy Portfolio Standards Act (AEPSA), in an attempt to help fashion the best Renewable Portfolio Standard possible.

Citizen Power appreciates the opportunity to submit comments to the Pennsylvania Public Utility Commission on the implementation of the AEPSA. It is our hope that proper implementation of the AEPSA will result in a significant market for new wind power development to meet the Tier I requirements and a large reliance on energy efficiency and demand reduction methods in Tier II.

Our comments discuss the following 13 issue areas:

- 1. Low-Impact Hydropower Must be Further Defined to Resolve “New vs. Existing” Issue**
- 2. Model for Energy Efficiency / Demand Side Management Credit Measurement**
- 3. Minimum Costs for Efficiency Investments**
- 4. Force Majeure**
- 5. Rural Electric Cooperatives**
- 6. Net Metering**
- 7. Transparency in Credit Trading Program**
- 8. Credit Trading Program Administration – Geography and Double-Counting Issues**
- 9. “Landfill Methane Gas”**
- 10. Agricultural Sources Need Further Definition**
- 11. Coal-Mine Methane, not Coal-Bed Methane**
- 12. Municipal Solid Waste Incineration**
- 13. Environmental Compliance**

1. Low-Impact Hydropower Must be Further Defined to Resolve “New vs. Existing” Issue

While awkwardly worded, the low-impact hydropower definition is clearly intended to apply only to expanded capacity at existing hydroelectric dams. This is evident in the use of the term “incremental” in “provided such incremental hydroelectric development...” To define this properly, the commission must set a cut-off date to make it clear whether certain hydropower capacity is “incremental” or not. For example, the term could be defined as capacity expansions put online after January 1st, 2004 at existing water impoundments.

It would be a mistake to allow existing, non-incremental hydropower to qualify in Tier I through the low-impact hydropower definition. Doing so would enable huge quantities of existing, cheap hydropower to easily fill the Tier I requirements, leaving no room for other technologies to compete. This is possible because 50-69% of existing dams can already meet the low-impact criteria established by the Low-Impact Hydropower Institute and American Rivers and because the geographic scope of the standard includes MISO, reaching out to eastern Montana and the entire province of Manitoba, Canada, where large quantities of hydropower exist.

2. Model for Energy Efficiency / Demand Side Management Credit Measurement

When an investment is made in energy efficiency or demand reduction measures of any sort (hereafter referred to as “EE”), the savings ought to be estimated over the lifetime of the measures deployed.

Only the projected demand reductions in each given year should be turned into credits for that year. Traditional generation technologies can't count future generation in the first year of operation. EE should be the same. While the savings may be estimated, they should be credited throughout the estimated lifetime of the EE measure, not all at once. The demand reduction in a given year must be real in that year.

For example, if a company invests in efficiency measures that are projected to result in 100 MWh of energy savings over 10 years, they'd generate only 10 credits in the first year, 10 credits in the second year, etc.

Standards ought to be developed to place caps on the number of years that a given technology can be utilized to generate credits. These limits should take into account the average lifetime of the product and the payback period for realizing energy efficiency savings vs. upfront costs. Investments in energy efficient lighting might have a limit of 3-5 years, while investments in air conditioners or refrigerators might have a 10 year limit.

3. Minimum Costs for Efficiency Investments

Electric distribution companies and electric generation suppliers should be permitted to count the entire energy savings associated with an efficiency technology without having to pay the full incremental cost of the technology. For example, if an energy efficient air conditioner costs \$100 more than a typical air conditioner, a company shouldn't have to pay the full \$100 to realize full credit for savings over the lifetime of the technology.

While it's important to ensure that efficiency measures are cheap and competitive with other technologies in Tier II, some minimal requirements should exist to prevent fraud and abuse. For example, a company should not be allowed to realize full credit for purchase of efficient appliances if all they do is make \$1 coupons available on the counter at a retail point of sale for an item that has a \$100 premium. Some measures should be developed to ensure that energy companies aren't simply collecting credits for investments that would have occurred without their help.

4. Force Majeure

The "reasonably available in the marketplace" language in the force majeure clause should be defined to make it clear what criteria the PUC would use to invoke such drastic measures as reducing an obligation or recommending that the legislature eliminate the standard.

The “reasonably available” measure should not be based simply on the amount of renewable energy installed in PJM and MISO. It should include an analysis of whether sufficient production capacity exists to manufacture the equipment necessary to build the renewable resources in question. It should also look at whether there is enough wind, solar and other “alternative” energy available to be harvested in the PJM/MISO territory.

Force majeure shouldn't be invoked simply due to a failure of electric distribution companies and electric generation suppliers to make the investments necessary to develop the needed capacity.

One requirement that should be met before any recommendations are made to the General Assembly to eliminate the standard is that there must be a chronic shortage of capacity despite genuine efforts to procure such capacity. This could be measured, in part, by at least half of the statewide standard being met through alternative compliance fees for three years or more. Similar, but lower, measures could be used to determine whether a specific supplier's underlying obligation should be reduced. For example, if the capacity isn't available in the marketplace and if over 30% of their obligation is being met through compliance fees for two or more consecutive years, this might be grounds for reducing an obligation.

5. Rural Electric Cooperatives

The PUC should specify that rural electric cooperatives must actually turn in sufficient efficiency credits to meet the requirement through the voluntary energy efficiency and demand-side management programs they are required to offer.

6. Net Metering

Only wind and solar energy systems should be eligible for inclusion in the net metering standard. Utilities should be required to install the necessary equipment at the customer-generator's site within 60 days of a request from the customer-generator.

7. Transparency in Credit Trading Program

The statute specifies that a registry must be made available to electric distribution companies, electric generation suppliers and the general public. As Maryland's RPS law requires, the credit trading information should be made publicly available through an Internet web site. All information that is made available to electric distribution companies and electric generation suppliers should also be made available to the general public through a public website.

The information made available in the registry should include:

- the current status of credits as they're generated, specifying the facility that generated the credit, the fuel type, location (city, county and state) and owner of the facility
- the annual obligation of each electric distribution company and electric generation supplier and their specific means of compliance, including how many credits met through alternative compliance payments
- identification of each credit with either Tier I or Tier II

The information should be made available in an online database that can be searched and sorted by tier, facility, technology (including breakdowns by types of biomass or other fuels), location and owner. It should also be available to be downloaded in its entirety in a commonly-available database format, like Microsoft Access. Reports should also be available for download in non-proprietary "flat" formats such as comma-delimited text.

8. Credit Trading Program Administration – Geography and Double-Counting Issues

The statute requires the PUC to approve an "independent entity to serve as the alternative energy credits program administrator." The presumption, to date, seems to be that PJM will be approved to use their Generation Attributes Tracking System (GATS) for this purpose. However, since the geography of the portfolio standard includes the MISO RTO, the Commission must ensure that any entity administering the program has in place a tracking system that includes the entire MISO territory as well as PJM.

To prevent consumer fraud and abuse, it's important that the credit trading program guard against all forms of double-counting, not just the double-counting with other state RPS programs. Of the five other types of double-counting it's important that the trading program guard against at least the following three:

- **Double-counting with green pricing programs.**

Currently, many customers, including large institutional buyers like the Commonwealth of Pennsylvania and many universities in the state, are voluntarily paying more to support wind power and other renewable energy sources. If double-counting with green pricing programs were allowed, it could threaten the voluntary purchasing market, since customers are unlikely to want to pay more for a product that a company is required to provide anyway. Voluntary purchasing of green power should go above and beyond the portfolio standard requirements. This can only be guaranteed by having safeguards against this form of double-counting.

- **Double-counting with energy supported by captive ratepayers in other states**

Only 18 states have "deregulated" electric industries. Some states, like West Virginia, still regulate their utilities and have renewable energy projects that are being paid off by captive utility ratepayers. Many states within PJM and MISO are still regulated. Regulated power generation in these states – if the full costs of the generation are being recovered from their rate base – should not be allowed to "double-dip" by selling the already-paid-for attributes of the power into Pennsylvania's Alternative Energy Portfolio Standard. It's also abusive to consumers to charge Pennsylvania electric customers a premium for energy that out-of-state ratepayers are already paying for.

- **Double-counting with emissions attributes markets**

The third type of double-counting involves double-selling of the environmental attributes of power by selling into emissions attributes markets (such as those for sulfur dioxide and carbon trading). There is a growing market for carbon credits and as this develops, there is concern that selling environmental attributes into carbon markets as well as into state

portfolio standard programs constitutes consumer fraud. It has been compared to selling someone a car, then turning around and selling the tires, engine and steering wheel to other buyers. Renewable energy certificates are intended to include all environmental attributes relating to the value of the energy product.

This issue has been analyzed well by the organization that sponsors the nation's leading green energy certification body, Green-e. They have chosen not to allow the sales of tradable renewable certificates (like the Pennsylvania wind energy credits being purchased by the Commonwealth and many Pennsylvania universities) in their program if any of the environmental attributes have been separated and sold into other programs like carbon markets. The March 2004 report, titled "*Tradable Renewable Certificates and Emissions Values: The CRS Perspective on Best Practices in Marketing*" can be found here: http://www.crs2.net/lib/TRCs_and_Emissions.pdf

Also, in 1999, the National Association of Attorneys General issued environmental marketing guidelines for electricity products, which address the consumer fraud issues with electric sales. These guidelines oppose double-counting and specifically argue that the environmental attributes of electricity should not be double-sold. Text from their guidelines are as follows:

Page 5 of the Guidelines (page 9 of the PDF)

b. Substantiation (last paragraph before Comment)

"In addition, no more than one certificate should be issued for any one unit of power."

Page 7 of the Guidelines (page 11 of the PDF)

b. Substantiation

Comment. (last paragraph before examples)

"The Attorneys General do not take a position on which method of substantiation – auditable contract paths, tradable certificates, or some other method – a state should adopt. However, recognizing that some states are already moving in the direction of permitting either auditable contract paths or tagging as means of substantiation, the Attorneys General have adopted a Guideline that seeks to ensure that whichever system is used, (1) reasonable substantiation exists prior to the time an environmental marketing claim is made, (2) substantiation data can be averaged over a fair and reasonably recent period of time, and (3) *claims relating to electricity (or its attributes) are not double-sold*. If a tagging system is adopted, the Attorneys General also recommend that disclosure be made so that consumers understand the meaning of tagging-based claims."

The full National Association of Attorneys General energy marketing guidelines can be found here: http://www.naag.org/issues/pdf/Green_Marketing_guidelines.pdf

9. "Landfill Methane Gas"

As part of the "biologically derived methane gas" definition, the term includes "landfill methane gas." There is no such thing as "landfill methane gas." Landfill gas is about half methane. The remainder of landfill gas is mostly carbon dioxide with varying amounts of nitrogen, oxygen and a wide range of contaminants, including sulfur, mercury and hundreds of organic compounds,

known as "non-methane organic compounds" or NMOCs. Many of the NMOCs are toxic, as are mercury and other inorganic contaminants sometimes found in landfill gas, like tritium – a radioactive contaminant that has been found in landfill gas in Pennsylvania.

Since the standard is for the burning of methane, not of toxic mixtures that include methane, the standard should only allow landfill gas to be burned if these toxic contaminants are filtered out prior to being combusted for electricity generation. Currently, only sulfur and water vapor tend to be filtered out. However, technology exists to remove many of the other contaminants, which ought to be filtered into a solid medium that is not destined for thermal treatment or incineration, since the burning of these toxic chemicals can increase their toxic hazards.

10. Agricultural Sources Need Further Definition

The “agricultural sources” term in the biomass energy definition should be clarified so that there is no doubt that it’s intended to include only vegetative (crop and crop wastes) sources. This will ensure that the term is not construed to apply to direct incineration of animal wastes.

The statute makes it clear that animal waste belongs in the category with “biologically derived methane gas,” where the waste won’t be directly combusted, but the gas produced from digestion of the waste can be combusted.

This may seem like a small point, but there is a proposal for a large poultry litter incinerator in eastern Maryland, that would be a major source of arsenic pollution (arsenic is used in poultry feed and ends up in the waste). Poultry litter incineration was included in the Maryland RPS, but with serious restrictions so as not to harm the poultry litter pelletization market, which is a more environmentally-sound solution to poultry litter management.

Since Pennsylvania doesn’t have a comparably large supply of dry, burnable animal wastes, there are no proposals for electricity-generating animal waste incinerators in Pennsylvania. The Pennsylvania RPS should not contain unqualified support for technologies that a neighboring state has sought to limit.

The “such as” examples in the biomass energy definition are all vegetative sources and are indication of legislative intent to stick to crop-based agriculture in that definition.

11. Coal-Mine Methane, not Coal-Bed Methane

The coal-mine methane definition must be strictly followed so that it doesn’t apply to the larger category of coal-bed methane.

Coalbed methane (CBM) is methane contained in coal seams. It is accessed with either natural gas drilling equipment or with modified water well drilling equipment. Methane is loosely bound to coal held in place by the water in the coal deposits. The water contributes pressure that keeps methane gas attached to the surface of the coal. In CBM development, water is removed from the coal bed (by pumping), which decreases the pressure on the gas and allows it to detach from the coal and flow up the well. Environmental impacts include haze, dust, lowered water tables, drained aquifers, and the disposal of pumped water contaminated with metals, salts and VOCs.

Coal mine methane (CMM) is the subset of CBM that is released from the coal seams during the process of coal mining. The statute includes coal-mine methane, but not the full category of coal-bed methane. The key word in the coal-mine methane definition (“methane gas emitting from abandoned or working coal mines”) is the term “emitting.” If an operation involves extracting gas that isn’t already being emitted due to current or past mining activities, then it shouldn’t count as coal-mine methane under the standard.

12. Municipal Solid Waste Incineration

Municipal solid waste incinerators should be limited to the existing five facilities in Pennsylvania:

- Wheelabrator Falls, Bucks County
- York County Resource Recovery Facility
- Delaware County Resource Recovery Facility
- Lancaster Waste to Energy Facility
- Montgomery County Resource Recovery Facility

The Harrisburg incinerator has been closed and decommissioned. Since the statute applies only to existing facilities, the new incinerator being built in Harrisburg, and any future incinerators built in the state, should not be eligible.

Trash incinerators in other states should not be eligible, since the Department of Environmental Protection does not determine compliance of facilities outside the Commonwealth. Since the definition of “municipal solid waste” in the statute includes a determination of compliance by the DEP, out-of-state incinerators cannot be permitted to qualify.

Finally, if any of the above five municipal waste incinerators are burning wastes other than municipal wastes, they should not qualify. Some burn residual wastes, which are not included as part of the definition of eligible fuels in the statute.

13. Environmental Compliance

The statute states that "the department shall ensure that all qualified alternative energy sources meet all applicable environmental standards." Similar language is repeated in the municipal solid waste definition. The Pennsylvania Department of Environmental Protection (DEP) does not have a clear process where facilities are either “in compliance” or “not in compliance.” For the purposes of implementing the portfolio standard, this process needs to be defined.

A facility should be deemed to be in compliance if there have been no Notices of Violation (NOV's) issued in the past year – regardless of how quickly the violation may have been resolved – and no more than two NOVs in the last three years.