

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Rulemaking Re Electric Distribution
Companies' Obligation to Serve Retail
Customers at the Conclusion of the
Transition Period Pursuant to 66 Pa. C.S.
§ 2807(e)(2)

Docket No. L-00040169

Petition of Direct Energy Services, LLC
To Reopen the Comment Period

Docket No. L-00040169

Implementation of the Alternative Energy
Portfolio Standards Act of 2004

Docket No. M-00051865

**Comments of the Pennsylvania Department of
Environmental Protection**

Overview

The Pennsylvania Department of Environmental Protection thanks the Commission for this opportunity to comment on issues related to Act 213 and default service implementation.

Act 213 of 2004, the Alternative Energy Portfolio Standards Act (AEPS) places special responsibility for implementation on the Department of Environmental Protection (DEP) and encourages DEP and the PUC to work together to implement the act. Since the Act's passage DEP and the PUC have worked collaboratively on the Act's implementation and have accomplished a number of milestones, including a Technical Guidance Manual for Demand-Side Management Resources, proposed final net-metering and interconnection rules, and interim resource qualification in the Generation Attributes Tracking System.

The implementation of AEPS and Default Service regulations will help set conditions under which new, alternative energy generation can be developed to serve Pennsylvania's retail load. Pennsylvania's electricity sector remains reliant primarily on two fuel sources to serve its base load, coal and nuclear, with natural gas as the primary price setter during peak electricity periods. One of the objectives of AEPS is to diversify Pennsylvania's energy resources. Resource diversification can help ensure that Pennsylvania is insulated from potential future price shocks resulting from natural gas constraints. Continued reliance on natural gas for peak electricity can make Pennsylvania's electricity sector reliant on imported energy in the form of liquefied natural gas, whereas, to date Pennsylvania's electricity sector has been largely fueled by domestic resources.

For these reasons it is essential that the rules pertaining to AEPS promote the development of a diversity of electricity generators that can provide reliable, secure and affordable energy resistant to constraints from reliance on a single fuel or technology.

Over the past three years, DEP in concert with the Pennsylvania Department of Community and Economic Development has met with many power plant developers. The objectives of these developers have varied. Some have focused on developing renewables to meet Pennsylvania's AEPS or portfolio standards in other states, some have sought to serve specific industrial loads, while others simply have looked at traditional relationships with EDCs or EGSs. In all cases, these developers have had one thing in common, the need to secure long-term power purchase agreements in order to achieve project finance. It is imperative, that long-term contract options be available to

EDCs to meet their default service obligations in order for new alternative energy generation to be developed in Pennsylvania.

Commission Questions

Should Act 213 cost recovery be addressed in Default Service regulations as opposed to a separate rulemaking? Is it necessary to consider Act 213 cost recovery regulations on a different time frame in order to encourage the development of alternative energy resources during the “cost recovery period”?

Our initial comment is to emphasize that Act 213 was passed in full knowledge of the Electricity Generation Customer Choice and Competition Act. Therefore, full weight should be given to the provisions of Act 213, which should be read separately from the Electricity Generation Customer Choice and Competition Act. In other words, there is no language within Act 213 that gives particularly weight or deference to the Electricity Generation Customer Choice and Competition Act. As such, the Commission should not seek to artificially apply concepts such as “prevailing market price” to the requirements of Act 213. Instead, the Commission should adopt policies and rules relative to Act 213 that best meet the objectives of Act 213 to provide for the sale of electricity from alternative energy sources to retail customers in Pennsylvania.

The Department encourages a separate rulemaking for AEPS cost recovery. Given the comments of the IRRC relative to the default service regulations our concern is that the final default service rules will not be promulgated until a much later date. The AEPS cost recovery mechanism provides a meaningful tool to encourage investment in energy projects in Pennsylvania. Developers need certainty in how the cost recovery

rules pursuant to AEPS will be effectuated. Delaying these rules to coincide with the default service rules will act as a continued barrier to alternative energy development in Pennsylvania.

Our estimates demonstrate that in 2011, the first full year that all EDCs must comply with AEPS, approximately 5,500,000 Tier I alternative energy credits will be necessary. Meeting this standard would require approximately 1,900 megawatts of wind or approximately 1,000 megawatts of a combination of Tier I resources including biomass co-firing, landfill gas, and wind. In either case, these are meaningful investments in new electricity projects that will require some time to develop. Developing clear cost recovery rules quickly is vital to promoting alternative energy deployment in Pennsylvania.

Do the prevailing market conditions require long-term contracts to initiate development of alternative energy resources? May Default Service Providers employ long-term fixed price contracts to acquire alternative energy resources? What competitive procurement process may be employed if the Default Service Provider acquires alternative energy resources through a long-term fixed price contract?

DEP has met with many energy developers over the last several years, as have our counterparts at the Department of Community and Economic Development. In these meetings, one consistent theme has emerged: it is impossible to obtain project finance without long-term contracts. This is a market reality for all resources whether they are alternative or conventional coal or natural gas plants.

The key objective of AEPS is promoting the development of alternative energy projects, preferably in Pennsylvania. In order to achieve this goal it is essential that Pennsylvania's market conditions support investments in alternative energy. Since the majority of Pennsylvania's load is likely to continue to be served by default providers, it is imperative that default providers have the option to enter into long-term contracts with alternative energy projects. Failure to provide this option will push alternative energy projects to states with rule regimes more favorable to energy investment.

We note that allowing EDCs to enter into long-term contracts would not be a requirement, but an option. Additionally, alternative energy requirements would only make up limited part of an EDC's load (18% in 2021 and thereafter). Given the tremendous price volatility in fuels that we have been experiencing it seems prudent to allow default providers to enter into long-term contracts as a hedge against such volatility. In fact, renewables, which tend to have zero or low fuel cost are a perfect hedge in an environment in which electricity price increases are caused by fuel price volatility.

Therefore, DEP's answer to the first two parts of the question above is that it is essential that default service providers have the option to employ long-term fixed price contracts to acquire alternative energy resources. This is the best way to ensure that projects are developed in a timely, low-cost manner. An alternative energy market absent the ability for long-term contracting will not be able to develop projects with sufficient lead time for EDCs to meet their AEPS obligations.

We agree with the premise set forth in the question that the procurement process for long-term, fixed priced contracts for alternative resources should be competitive. We

could envision an RFP process that would be part of a default service RFP, but that would take into account an EDC's long-term obligations under AEPS.

Should the force majeure provision of Act 213 be integrated into the Default Service procurement process? Should Default Service Providers be required to make force majeure claims in their Default Service implementation filing? What criteria should the Commission consider in evaluating a force majeure claim? How may the Commission resolve a claim of force majeure by an EGS?

To reiterate, because Act 213 is clearly separate from the Electricity Generation Customer Choice and Competition Act force majeure provisions should not be part of the default service procurement process, but a separate proceeding associated with Act 213 implementation.

Act 213 establishes obligations for EDCs and EGSs. Before any EDC's or EGS's force majeure claim is granted they should be required to demonstrate their attempts to procure alternative energy sufficient to meet their requirements. Because Act 213 provides for cost-recovery force majeure can only be granted in cases in which the technologies required to meet their obligations do not exist. Given that all of the technologies defined as alternative under Act 213 are commercially available claims of force majeure face a very high hurdle.

Act 213 has robust banking rules, which allow EDCs and EGSs to bank credits for the entire duration of their transition period. As a result, EDCs and EGSs should begin to acquire credits during the transition period in an effort to ensure compliance. EDCs and EGSs seeking a force majeure ruling immediately after their transition period

should have to demonstrate why they failed to participate in credit banking during their transition period.

In evaluating a force majeure claim, the Commission should make the following assessments:

- Did the EDC/EGS aggressively pursue banking opportunities during their transition period?
- Have other EDCs/EGSs had difficulty in identifying alternative energy resources to meet their compliance obligations?
- Are there alternative energy projects existing or being developed within the area of geographic eligibility for which alternative energy credits have not already been purchased?
- Has the EDC/EGS aggressively pursued long-term contracts with alternative energy developers as a means to meet their compliance obligation?

We again reiterate that Act 213 provides for EDC cost-recovery and that all technologies defined as alternative are commercially available, therefore, the burden of proof for force majeure is very high.

Given that Act 213 includes a minimum solar photovoltaic requirement as part of Tier I, should these resources be treated differently from other alternative energy resources in terms of procurement and cost recovery?

By carving out a specific solar share the General Assembly clearly provided a specific emphasis on solar photovoltaics (PV). As such, it is appropriate that solar PV

resources be treated differently than other Tier I resources to ensure the fulfillment of the solar share in a timely and cost effective manner.

DEP has analyzed the potential requirements necessary to meet the solar share. Our analysis demonstrates that the first solar share ramp-up phase will require approximately 2 MW of solar capacity by 2010. Given that Pennsylvania is nearing 1 MW of capacity currently, this first step should be easily achievable. However, by 2011, our analysis demonstrates that Pennsylvania will need approximately 24 MW of solar capacity when the second step in the ramp-up occurs. This is still very manageable. Pennsylvania would need to install approximately 3.4 MW of capacity each year, beginning in 2006, to achieve this goal. This demonstrates the need, however, to begin investing in solar projects with immediacy. We encourage the Commission to begin developing a solar program now in order to ensure the investments necessary to meet the share.

The Commission should also consider developing, to the extent allowed under Act 213, banking rules specific to the solar PV requirement. Unlike the rest of Tier I and Tier II which require increasing percentages every year, the solar share is a four-stage ramp-up with sharp requirement increases in years one, five, ten, and fifteen. To review the language in Act 213:

Of the electric energy required to be sold from Tier I sources, the TOTAL percentage that must be sold from solar photovoltaic technologies is for:

- (i) Years 1 through 4 – 0.0013%*
- (ii) Years 5 through 9 – 0.0203%*
- (iii) Years 10 through 14 – 0.2500%*

(iv) *Years 15 and thereafter – 0.5000%*

The requirements are particularly pronounced in the tenth and fifteenth year in which our estimates demonstrate solar PV capacity requirements of 322 MW and 690 MW. For these reasons solar credits should be able to be banked over a minimum five year period so that those credits can be applied to each year in a single percentage step-up. For example, our analysis demonstrates the following credit and capacity requirements for years ten through fourteen¹:

Year	Credits	Estimated Capacity
10	442,894	322
11	428,814	326
12	434,818	331
13	440,905	336
14	447,078	340

Clearly, it would be prudent for solar credits to be banked in preceding years and to allow those credits to be used over the entire percentage ramp-up step so as to maximize our ability to meet the solar share.

In short, DEP does support treating the solar PV requirement differently from other Tier I and Tier II resources and believes this was the express intention of the General Assembly when they created a separate solar share requirement. At this time we

¹ Solar credit and capacity estimates are based on PJM's projected 1.4% growth in electricity demand and a 15% average capacity factor for solar PV installations.

do not have specific opinions on solar PV program design, but would be supportive of efforts to put a specific solar PV program in place.

Further, we encourage the Commission to begin the development of a solar program immediately and to review the banking rules associated with solar to allow for maximum flexibility for credits produced in the early compliance years to count towards future compliance requirements. Taking these steps can smooth the transition to each percentage ramp-up by encouraging the early year investments necessary to successfully meet the Act's long-term solar PV compliance requirements.

Should the Commission integrate the costs determined through a § 1307 process for alternative energy resources with the energy costs identified through the Default Service Regulations? How could these costs be blended into the Default Service Provider Tariff rate schedules?

DEP again emphasizes that Act 213 was passed in full knowledge of the Electricity Generation Customer Choice and Competition Act and that full weight must be given to the provisions of Act 213, which must be read separately from the Electricity Generation Customer Choice and Competition Act. There is no language within Act 213 that gives particularly weight or deference to the Electricity Generation Customer Choice and Competition Act.

We also emphasize important provisions in Act 213 relative to this directed question. Act 213 provides for the recovery of the costs of compliance with the Act pursuant to Section 3(a)(3). That Act 213 includes cost-recovery provisions assumes that at times there may be costs that are different than the real-time locational marginal price

(or its successor) and that these costs may be recovered. Nor does Act 213 include any language that would preclude long-term contracting as a means to comply with Act.

In other words, there is no language within Act 213 that gives particularly weight or deference to Electricity Generation Customer Choice and Competition Act. As such, the Commission should not seek to artificially apply concepts such as “prevailing market price” to the requirements of Act 213. Instead, the Commission should adopt policies and rules relative to Act 213 that best meet the objectives of Act 213 to provide for the sale of electricity from alternative energy sources to retail customers in Pennsylvania.

With these comments in mind, DEP is not opposed to using the § 1307 process as the instrument for cost recovery so long as that process can sufficiently account for the provisions of Act 213 cost recovery discussed above. If the § 1307 process cannot properly account for those provisions then the Commission should consider developing a separate cost-recovery process for AEPS.

May a Default Service Provider enter into a long-term fixed price contract for the energy supplies produced by coal gasification based generation if the resulting energy costs reflected in the tariff schedules are limited to the prevailing market prices determined through a competitive procurement process approved by the Commission.

Coal gasification holds tremendous promise for Pennsylvania. The General Assembly recognized IGCC’s potential to produce clean electricity from one of our most abundant natural resources when it included IGCC as an eligible resource. DEP and DCED have met with numerous parties seeking to develop IGCC power plants in

Pennsylvania. Each of them have stressed that long-term off-take agreements are essential to financing any IGCC power plant. Act 213's Tier II obligations can serve as an excellent vehicle to achieve the dual goals of achieving EDC compliance with AEPS and providing an incentive for EDCs to enter into the long-term contracts necessary to finance an IGCC power plant.

To directly answer this question it is necessary to review several key provisions of Act 213:

- (i) Nowhere does Act 213 speak to the concept of "prevailing market price." This is a term used in the Electric Generation Customer Choice and Competition Act. Given that Act 213 includes specific provisions for cost recovery it is clear that the General Assembly believed there would be occasions in which the cost of electricity from eligible resources would be different than the real-time locational marginal price or its successor.
- (ii) Act 213 allows for the recovery of all costs for:
 - i. *The purchase of electricity generated from alternative energy sources, including the costs of the regional transmission organization, in excess of the regional transmission organization real-time locational marginal pricing, or its successor, at the delivery point of the alternative energy source for the electrical production of the alternative energy sources; and*
 - ii. *Payments for alternative energy credits, in both cases that are voluntarily acquired by an electric distribution company during the cost recovery period on behalf of its customers*

Clearly, these cost-recovery provisions apply to IGCC, since it is listed as a source eligible for AEPS compliance.

- (iii) Act 213 provides a list of fuels and technologies that are eligible resources, including IGCC. Act 213 allows EDCs and EGSs to choose any of these resources for compliance with their AEPS obligations.
- (iv) There is no language in Act 213 that prohibits EDCs from entering into long-term contracts with eligible resources.

Given these provisions, DEP believes that EDCs may enter into long-term fixed price contracts for energy supplies from IGCC facilities in order to meet their obligations under Act 213 and that EDCs may recover the costs of energy purchases pursuant to the cost-recovery provisions of Act 213.

Concluding Summary

The details of AEPS implementation as embodied in our response to the directed questions are critical to ensuring that Pennsylvanians enjoy the maximum benefits of the Act. The following elements are essential to the successful implementation of AEPS:

- AEPS proceedings and rulemakings separate from the Default Service proceedings. The proceedings should begin immediately.
- A separate program for solar PV implementation with banking rules that recognize the unique construction of the solar PV tier.
- The ability for EDCs to enter into long-term contracts with alternative energy resources in order for EDCs to meet their AEPS obligations.

These contracts may be fixed-price as conditions warrant. AEPS recognizes that EDCs may recover their compliance costs, pursuant to the

provisions of the Act. Cost-recovery provisions apply to any contract regardless of length.

- The ability for EDCs to enter into long-term contracts with IGCC facilities and to recovery costs to the extent electricity is purchased from these facilities to meet their Act 213 obligations.