

MINUTES OF MEETING  
BOARD OF DIRECTORS  
PENNSLVANIA ENERGY DEVELOPMENT AUTHORITY  
SEPTEMBER 18, 2019

**Board Members Present**

Hon. Patrick McDonnell, Chairman  
Alt. Denise Brinley (for Hon. Dennis M. Davin)  
Alt. Darryl Lawrence (for Tanya McCloskey)  
Alt. Cheryl Cook (for Hon. Russell C. Redding)  
Alt. Timothy Collins (for Hon. John Yudichak)  
Michael Welsh

**Board Members Present (via telephone)**

Romulo L. Diaz, Jr.  
Sarah Hetznecker  
Laureen Boles  
Hon. Gene Yaw  
Bernie Lynch

**DEP Staff**

David Althoff, Jr., PEDDA Staff, EPO  
Christopher Noble, PEDDA Staff, EPO  
Libby Dodson, PEDDA Staff, EPO  
Lindsay Byron, Environmental Group Manager, EPO  
Allen Landis, Policy Office  
Jessica Shirley, Policy Office

**Public Attendees**

Thomas J. Tuffey, Community Energy Solar, LLC  
Wayne Krouse, Hydro Green Energy, LLC  
Keith Welks, Pennsylvania Treasury  
Evan Endres, PA Chapter Nature Conservancy

**CALL TO ORDER AND APPROVAL OF MINUTES**

The meeting was called to order at 1:00 p.m. in Room 105 of the Rachael Carson State Office Building, 400 Market Street, Harrisburg, PA. The Board considered its first item of business – the May 18, 2015, PEDDA Board meeting minutes.

Cheryl Cook moved to adopt the May 18, 2015 meeting minutes.  
Denise Brinley seconded the motion, which was unanimously approved by the Board.

## **ELECTION OF OFFICERS TO THE BOARD**

### **Secretary**

Denise Brinley alternate for Secretary Dennis Davin informed the PEDA Chairman that Secretary Dennis Davin was interested in continuing on as Secretary of PEDA;

Cheryl Cook moved to nominate Secretary Denis Davin as Secretary.  
Mike Welsh seconded the motion, which was unanimously approved by the Board.

### **Treasurer**

The Treasurer position was vacant due to the retirement of Representative Pete Daley.

Bernie Lynch moved to nominate Romulo Diaz as Treasurer.  
Mike Welsh seconded the motion, which was unanimously approved by the Board.

### **PEDA Executive Director**

A discussion regarding filling the position of PEDA Executive Director was held in order to conduct the business of PEDA. DEP provides the staffing for the PEDA Executive Director. The past Executive Director, Hayley Book who was previously confirmed by a vote of the board, has left the employ of DEP. It was discussed that the current DEP Energy Programs Office Director, who has been overseeing the business as PEDA in the interim, could serve as the Acting PEDA Executive Director until such time that DEP chooses to hire a person with the specific position description inclusive of the PEDA Executive Director duties.

Mike Welsh moved to nominate David Althoff the current Director of DEP's Energy Programs Office as the Acting PEDA Executive Director.  
Sarah Hetznecker seconded the motion, which was unanimously approved by the Board.

## **FINANCIAL REPORT**

David Althoff provided a review of the financial status of the three funds from which PEDA is/was utilizing funding during the period since the last board meeting.

Duquesne Light Settlement Funds: All funds have been utilized.

Growing Greener (GG): has an available balance of \$1,215, 770  
Currently \$549,913 of the funds are committed in two projects.

Energy Development Fund (PEDA): has an available balance of \$3,406,400. Currently there are \$0 in commitments.

PEDA is currently processing grant amendment paperwork to move \$499,913 of the commitments in the GG fund for the Hydro Green Project to the PEDA fund. The purpose for the movement of commitment between the funds is due to the expectation that the GG funds must be expended by May 2021. The Hydro Green project is currently not scheduled to be

completed until after May 2021. As the PEDA funds do not have a “spend-by” date it was appropriate to move the commitment to insure fund availability for the Hydro Green project.

This exchange of commitments between funds will result in an available balance of: GG \$1,715,683 and, PEDA \$2,906,487

Chairman McDonnell asked for comments.

Romulo Diaz asked if there were any reporting requirements for the Duquesne Funds and if so, has PEDA fulfilled those requirements? David Althoff reported that PEDA has not received any requests for a specific reporting from the PA Public Utility Commission (PA PUC) and that PEDA reports on the status of the fund in each annual report.

Bernie Lynch inquired if there were any additional requirements with the funding changes on the Hydro Green Project and, when the completion date will be. David Althoff indicated the only changes required were the funding codes affixed to the contract. All the signatures have been affixed from both parties and the amended grant agreement is currently being processed through Fiscal and the Comptroller for final approval. The current contractual completion date is in 2022. Dave stated that Mr. Wayne Krouse will be presenting on this project later in the agenda and would be available to answer any questions regarding the progress on the project.

Romulo Diaz motioned to accept the financial report.

Mike Welsh seconded the motion, which was unanimously approved by the Board.

### **STATUS OF THE 2014 PEDA PROJECTS**

David Althoff provided an update on the 2014 PEDA projects:

184 applications were submitted in August 2014 to be considered for financial assistance awards. Twenty-eight projects were selected totaling nearly \$12.5 million in financial assistance. The awarded projects were in the following categories:

- 19 Advanced Energy Projects

- 5 Clean Alternative Energy Projects

- 3 Advanced Energy Projects to be deployed in the Duquesne Light service territory

- 1 Community Environmental Initiative project which was a Growing Greener funded project reviewed under PEDA

21 projects were successfully deployed (the Hydro Green Energy Project is being deployed - still under construction). Additionally, seven (7) projects were mutually determined to be unable to move to completion as proposed, no funding was expended for these projects.

To highlight success of projects, PEDA has so far completed 15 case studies based on both final and one-year follow-up reports received from Grantees. These reports along with additional correspondence with each grantee confirmed actual outcomes versus the anticipated outcomes described in the applications. Four (4) case studies are still under development. One project is yet to submit a one-year follow-up report and one project is not yet completed – Hydro Green.

The rolled-up actual outcomes for 19 of the 2014 PEDA projects are: electricity savings: 12,221 MWh/yr., alternative energy generation: 11,710 MWh/yr., and natural Gas savings: 35,372 Mcf/yr.

The PEDA Case studies developed include: project size, project cost, grant share, statement from the grantee with quote, pictures, and, results and benefits. Three case studies were included the board member's materials,

- ESTES Express Lines, the largest roof-mounted solar array located in Northwestern PA.
- The Shamokin Are School District case study,
- Robert Packer Hospital Energy Conservation

PEDA Staff is continuing to complete case studies. PEDA Staff also created a PEDA Story Map, which includes a GIS map identifying the location every project in the state. Each location includes pictures of the project, a brief synopsis of the project and a link to the completed case studies. PEDA will continue to add to this story map as additional case studies are completed.

The link to the PEDA Story Map was provided the PEDA presentation and is accessed through the PEDA website.

Chairman McDonnell asked for comments.

Denis Brinley asked if there is an accounting of carbon savings and other data since the beginning of PEDA. It was suggested that an analysis of the historical PEDA data could help identify how to get the best economic and environmental benefits for expenditures of PEDA funds going forward.

Dave Althoff indicated that DEP has looked at past PEDA data. Due to changes in reporting requirements used now in comparison to 2005 – 2011 the data and reporting requirements are not of the same quality and relevance. Mostly there were only final reports and not annual follow-up reports which reported on quantitative data. In 2014, DEP added the one-year follow-up report that gathers the data to confirm actual energy savings and energy generation. This data is what was used for the case studies here today.

Romulo Diaz commented that there was always an emphasis on job creation , which he did not see in the case summaries, and would like to see that be reported going forward. PEDA took that comment and will look to review job data for the 2014 projects.

Chairman McDonnell closed indicating no formal action is required for this agenda item.

## **PEDA PROJECT PRESENTATIONS**

Chairman McDonnell introduced Tom Tuffey (participating by phone). Tom Tuffey, Principal at Community Energy Inc. described the Elizabethtown Solar project. The Elizabethtown Solar project is a 2MW solar photovoltaic project on 11 acres located adjacent to Elizabethtown College campus, supplying approximately 30% of the College's electricity on an annual basis.

The project was built in 2015 and became operational in February 2016. The system generates approximately, 3500 MWh/yr.

The Project early on experienced a heavy snow that damaged the racking system. The damage did not affect generation but affected the warranty and structural integrity of the installation. This damage occurred prior to final payment to the contractor. The Contractor was not paid and after several years of negotiation of fault and insurance claims, Community Energy has since signed with a new contractor to remove and replace the racks and reassemble the project. Equipment orders have been placed and site work has begun and is scheduled for completion by the end of the year 2019.

David Althoff commented that PEDA has held 10% of the grant fund (\$50,000) until completion of the repair. Community Energy still needs to provide provide proof of payment for the racking system prior to PEDA releasing the final 10% or \$50,000.

Chairman McDonnell asked if there were any questions.

Chairman McDonnell introduced Wayne Krouse, Chairman, Chief Executive Officer and Founder, Hydro Green Energy (HGE) to talk about Hydro Green's project located on the Monongahela River, approximately 7 miles east of Pittsburgh. The project consists of seven turbines with a nameplate capacity of 5.25 MW. HGE expects to generate approximately 32 MWh/year when fully operational. Mr. Krouse discussed the extensive licensing requirements necessary for construction of the project.

Mr. Krouse detailed the licensing and permits obtained to date as well as detailing the geotechnical drilling program at the dam required by the US Army Corps of Engineers (USACE). Mr. Krouse discussed progress made on a Power Purchase Agreements for the energy to be produced from the project. Mr. Krouse also has two construction debt term sheets from banks to finance the construction of the project.

The construction timeline is as follows: complete the USACE 404/408 by June 2020, financial close of construction by June 2020, construction completed by December 2021, start-up by February 2022 and commercial operation date by March 2022.

Chairman McDonnell asked if there were any questions.

Romulo Diaz, asked for clarification that this project was a grant, and that \$500,000 of the grant leverages \$23 million for construction. Wayne Krouse stated that was correct. David Althoff indicated that the grant was for equipment.

Bernie Lynch commented that hydro is underused as an energy resource and she would like to see if there is a way to better support these projects, by working with the federal government to make the permitting process better.

Chairman McDonnell agreed, and commented that DEP has done quite a bit of work with the USACE and the 105 Wetlands and Streams program.

Chairman McDonnell closed the discussion indicated that no formal action is required for this agenda item.

### **DRAFT ENERGY DEVELOPMENT PLAN (EDP)**

The PEDAs statute requires that an EDP be published and also established procedures for periodic updating of the plan. PEDAs last went through the EDP process and updated and published on October 16, 2014.

PEDA Staff provided an updated version of the plan to the board for this meeting. Dave Althoff walked the Board members through the items that changed and items that stayed the same in the plan.

A synopsis of the changes is as follows:

- Modernized first paragraph, provided more detail on the Authority and how it was created.
- Edited the wording in the mission statement, “The Authority’s mission is to expand the market for Pennsylvania’s clean, diverse, indigenous energy resources, and to make the greatest possible contributions to energy conservation, efficiency, and development, while stimulating economic development and job creation in Pennsylvania in a manner that also benefits and protects the environment.”
- Updated Pennsylvania Energy’s Portfolio to reflect the current energy generation numbers using the most current sources.
- A paragraph was also added describing “Energy and Environmental nexus”.
- Updates were provided to reflect the current status of Pennsylvania’s Alternative and Clean Energy programs, policies and actions.
- One minor change was made in the procedures for re-evaluation and updating the plan to at least once every five years was identified. The section, however, retained the language, or more often as appropriate.

No significant changes were made in:

- The Authority, Structure and Governance.
- Defining clean and advanced energy,
- PEDAs policy objectives, operational guiding principles, criteria for evaluating programs and projects.

Dave Althoff described the next steps in updating the EDP.

Today, the Board approves and/or discusses and suggest additional changes to the plan at this meeting such that the plan can be prepared to receive public comment. Upon making any Board

suggested changes, DEP will post the draft EDP for a public comment period. DEP will gather comments to consider and edit the plan. The final plan with edits will then be presented to the PEDDA Board at the next meeting and a formal vote to approve/disapprove the plan will be taken.

Chairman McDonnell opened the floor for comments on the plan.

Romulo Diaz, inquired as to a referenced document in the Energy and Environmental Nexus, The Energy Assessment Report. Dave Althoff discussed that this report was executed through the PA DEP Energy Program's Office in support of the 2018 Climate Action Plan and included an evaluation of both the technical and economic potential for energy resources in Pennsylvania while achieving the climate goals in Pennsylvania.

Bernie Lynch commented that the mission statement does not include energy security and energy independence. It was suggested to insert the term resiliency which encompasses energy security and energy independence.

Romulo Diaz commented that it is in our best interest to emphasize greater diversity in our criteria as it is in the best interest of the Commonwealth.

Chairman McDonnell agreed that energy diversity and resiliency go hand-in-hand and DEP look into including that in our evaluation criteria.

Romulo Diaz asked if Public Health is part of the mission. Chairman McDonnell expressed that Public Health is one of our core missions for the DEP's programs and so by extension it should be with PEDDA as well.

A discussion occurred regarding that in addition to reduction of greenhouse gas emissions, public health should be a part of the Energy Development Plan. Additional discussion identified that there be a focus on inclusion of these topics (GHG emissions reductions, resiliency and public health) into the mission statement to set the tone for the document.

The discussion ended by agreeing to have the board members provide further input on the mission statement to Dave Althoff via email in the next week following the Board meeting.

Chairman McDonnell agreed and asked for a motion to accept the Energy Development Plan to submit for public comment with the caveat to re-send the updated mission statement to the Board for input prior to making the Energy Development Plan available for public comment.

Darryl Lawrence motioned to accept the Energy Development Plan as Chairman McDonnell proposed.

Romulo Diaz seconded the motion, which was unanimously approved by the Board.

### **Future Funding/Opportunities**

Chairman McDonnell stated as a follow-up to the PEDDA Board Meeting in May 2015 the PEDDA Board identified a need for an evaluation, guidance and direction regarding making choices

between grants and loans. The Board directed that PEDAs explore a Gap analysis of financial assistance programs, and for DEP/PEDA staff to share those results when the board convenes. This portion of the agenda was to report out on our findings.

David Althoff led the discussion.

DEP's Energy Programs Office contracted with Harcourt, Brown and Carey to conduct a GAP analysis on energy efficiency financing in Pennsylvania. The report was completed in 2017 and was useful both for the Energy Programs Office and PEDAs. Three of the recommendations in the GAP analysis are of particular use for PEDAs:

- *In the commercial sector consider **engaging a finance facilitator who can serve to translate, coordinate and provide a communication bridge between contractors and finance providers.***
- *Consider other mechanism such as a **specific finance product or market facilitation to connect the large amount of capital available.***
- *Provide product enhancements for the small commercial and small agricultural sectors such as **buy-down, loss reserve and other credit enhancements** to make financing product more marketable and accessible.*

Additionally, the Pennsylvania Chapter of the Nature Conservancy issued two reports on clean energy financing capabilities in Pennsylvania supported by the Coalition for Green Capital.

- *The Pennsylvania Clean Energy Market Report (February 2017) and*
- *The Pennsylvania Energy Investment Partnership Report (July 2017).*

The reports demonstrate there is an untapped market potential for a billion-dollar clean energy investment due to the lack of a coordinated energy investment partnership strategy, also referred to as, "Green Banks".

Dave reviewed examples of current PA Green Bank-like products in Pennsylvania:

- ***DEP's Green Energy Loan Fund (GELF):** The Green Energy Loan Fund is a statewide revolving loan fund using \$12 Million of American Recovery and Reinvestment Act:*
- ***Commercial Property Assessed Clean Energy (C-PACE):** C-PACE in Pennsylvania was enacted on June 12, 2018, when Governor Wolf signed SB 234 into law (Act 30 of 2018). PA was the 34<sup>th</sup> state to pass C-PACE enabling legislation.*

Dave reviewed several other types of Green Banks which are operating in other states with projects that may fit PEDAs's mission:

- *The **Montgomery County Green Bank**, capitalized with \$14.1 million in funding from settlements funds from the Exelon-Pepco Merger, launched its first program in 2018, the *Commercial Loan for Energy Efficiency and Renewables (CLEER)*, a loan-loss reserve product that gives commercial and industrial property owners (including multifamily, nonprofits, and common ownership) in the County the opportunity to access affordable*

financing for clean energy and energy efficiency upgrades. The first two lending partners of the program are making \$20 million in loan capital available under the program.

- **Rhode Island Infrastructure Bank** operates *The Efficient Buildings Fund* which provides below-market interest rate loans to municipalities, school districts and quasi-state entities to invest in clean energy projects. Since 2016, the Efficient Buildings Fund has reduced energy and maintenance costs for municipalities by approximately \$66 million dollars through investments. The Efficient Buildings Fund complements the Bank's Commercial Property Assessed Clean Energy program.
- The **DC Green Bank** will leverage public capital to increase and accelerate private investment to achieve Clean Energy goals. The Green Bank will offer funding options that lower the cost of capital for energy efficiency and clean energy projects. Products are to include: loans for commercial and multi-family properties, and gap financing for solar projects.
- The **NY Green Bank** has received over \$3.1b in investment proposals and made \$638m in investments to support clean energy projects with a total project cost of up to \$1.75b in New York State. Those investments in solar, community solar, energy efficiency and clean transportation contributed to estimated gross lifetime GHG reductions of between 8.3 and 10.3 million metric tons. NY Green Bank is working to raise additional \$1b in third party capital.
- **Michigan Saves**, Michigan's Green Bank, received a four-year commitment from a Michigan utility to launch a revolving loan fund for clean energy upgrades for LMI residents.

Dave discussed key questions PEDA staff have been evaluating:

- How do green banks operate?
- How to utilize PEDA's current incentive funds (PEDA and GG) to enable investment of tens of millions in other capital to support deployment of clean energy projects?
- How to support rather than compete with new programs like CPACE, GELF etc.?

Dave discussed that DEP has identified a potential partnership between PEDA and the PA Treasury to establish a Green Bank. A Pennsylvania Green Bank established initially by commitments from PEDA and Treasury could:

- Create a new specific finance clean energy product fitting PEDA's Mission.
- Produce opportunities for clean energy market facilitation in Pennsylvania.
- Serves as an opportunity to work to raise additional 3<sup>rd</sup> Party capital to leverage to PEDA's incentive funds or attract additional incentive funds to PEDA.

To provide further insight and experience in this area, Dave introduced Keith Welks, Deputy State Treasurer for Fiscal Operations/Policy.

Mr. Welks talked about the success of the Keystone HELP, a residential energy efficiency finance program that started with PEDA providing \$500,000 of incentive funds fourteen years ago. Mr. Welks cited Keystone HELP as an example of what can be done by working together.

Mr. Welks described that Treasury does not function as a public entity and is required by law to operate like a private party investor and so it was necessary for an investor like PEDA, who tolerates risk and return to help Treasury be successful in the implementation of the Keystone HELP program.

Keystone Help had a Green Bank-like structure: a capital stack, aggregation of financing dollars made up from various sources or sponsors such as PEDA who will tolerate below market interest returns or above market risk.

Keystone HELP was a very successful program. It was recognized nationally over the course of 15 years, with approximately \$112M deployed in 14,000 loans for Pennsylvania homeowners to make their homes more energy efficient.

Keystone HELP program had an annual loss rate in the of less than 1%.

The support for capital such as PEDA's funds gets paired with a traditional market lender.

Mr. Welks stated that the creation of a PA Green Bank would attract creative financing in an otherwise, unresponsive market for Clean Energy Projects. Creating an effort with a capital structure from Treasury supported by PEDA could lead to an aggregation of capital from a variety of sources. By blending capital, a program can develop a loan product that is attractive to both investors and entities with potential projects as the cost to borrow is reduced and paybacks from projects are realized faster.

Treasury is already assessing this opportunity internally and identifying a structure where Treasury could pull from extensive contacts in banking and other investment sources to develop an initial suite of opportunities. Mr. Welks also stated that to make this partnership move forward, an investment partner with experience who can make prudent investment decisions, determine which projects are best credit risks, and provide loan documentation would be needed.

Chairman McDonnell commented that there have been several discussions over the past several months and are excited to further explore given what all the other states have been able to achieve.

Dave discussed that before PEDA staff continues exploring opportunities, DEP desires feedback from the PEDA Board.

Chairman McDonnell opened the floor for comments.

Romulo Diaz queried if will some funds will still be available for grants for long term payback projects that may not have the ability to compete in the market place.

This resulted in a discussion of the two funds with available funding and follow on decisions about eligible uses of those funds due to their individual attributes.

Comment: Green Bank construct make sense as a way to buy-down the market cost of capital for meritorious projects. A discussion followed regarding risk management and the cost to the agency and PEDDA.

Chairman McDonnell responded that PEDDA should look to have a position in governance in structuring of a program that matches our Energy Development Plan. A Green Bank structure may be a strategic way to leverage the limited dollars available to move the market.

Comment: several board members indicated that a green bank would a good idea for leveraging dollars to do more work.

Comment: A board member commented that development of this kind of strategy to utilize PEDDA funding was overdue and that she would be happy to make introductions with others in the private sector that may be interested and in furthering these conversations.

Chairman McDonnell closed by saying there doesn't need to be a formal action, as there is more information, DEP will share it with the Board.

### **Public Comment**

Chairman McDonnell asked for public comment.  
None were noted.

### **Other Business**

Chairman McDonnell commented that if anybody has any changes to their contact information or alternates let DEP know.

David Althoff reported the next meeting will be 1<sup>st</sup> Quarter, 2020 where there will be a draft of the PEDDA Plan, a complete annual PEDDA report and more information on financial opportunities. If anybody has any ideas for topics or speakers, please notify him.

### **Meeting Adjourned**

Chairman McDonnell motioned to adjourn the meeting. Romulo Diaz seconded the motion, which was unanimously approved by the Board. The meeting adjourned at 3:21 p.m.