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Testimony of Gene Alessandrini Regional Vice President, PJM Brookfield Renewable

Senate Consumer Protection & Professional Licensure Committee

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Senate Environmental Resources and Energy Committee

May 1, 2019

Good morning Chairman Tomlinson, Chairman Boscola, Chairman Yaw, Chairman Yudichak, and distinguished Members.

My name is Gene Alessandrini. I am a Regional Vice President at Brookfield Renewable.

Brookfield Renewable Partners L.P. ("Brookfield Renewable") has a substantial presence in the Commonwealth, including over 750 MW of installed hydroelectric capacity across the state — enough to power 236,000 Pennsylvania homes annually. These facilities provide renewable, carbon-free power, local tax revenues, recreational opportunities, and both direct and indirect jobs throughout the Commonwealth. Brookfield Renewable's hydroelectric projects often represent the largest taxpayer in their local communities, provide critical funds for local schools, fire departments and other public services. While most know us because of our hydropower assets, we are one of the largest owners and operators of renewable energy resources in the country, including a diverse portfolio of hydro, wind, solar and pumped storage.

Hydropower generating facilities are important and valuable resources to the state of Pennsylvania and the region. Hydropower:

 Is a valuable electricity supply resource that provides dispatchability, resiliency and fuel diversity to grid operators,

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- Balances the intermittency of wind and solar resources,
- Provides black start capabilities during grid outages,
- Serves as an alternative fuel for reliability and provides a cost-effective resource during extreme weather events like the polar vortex, and most importantly
- Is clean, non-emitting, and renewable.

In 2004, Pennsylvania enacted the Alternative Energy Portfolio Standard, or AEPS, which provides a marketplace, through regulation, for 16 forms of clean energy. This year, the legislature is considering multiple bills to expand the program:

- SB600 expands the AEPS Tier I category from 8% to 30% by 2030, and;
- SB510 seeks to 'level the playing field' by creating a 50% clean energy Tier III and adding currently ineligible clean resources, such as nuclear generators, who compete with:
 - o Polluting resources that do not bear the cost of their emissions, and
 - The resources in the AEPS that currently receive Alternative Energy Credit
 (AEC) revenue from ratepayers for their clean energy characteristics.

However many local hydropower resources, despite being Pennsylvania's longest standing clean, renewable resource, are not eligible under the renewable Tier I or the proposed clean Tier III categories, meaning that, by attempting to expand the program and 'level the playing field' for nuclear resources, SB510 and SB600 further exaggerate the inequity of omitting in-state hydropower facilities in the AEPS program.

If enacted, SB510 and SB600 should prioritize and preserve the state's existing baseline of local, clean, and carbon-free resources in a non-discriminatory manner by including in-state hydropower in the Tier I and Tier III categories. I'd like to address a few issues:

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Clean, renewable, and carbon-free attributes that hydropower has provided and continues

to provide to Pennsylvania should be valued.

While SB510 and SB600 recognize the environmental attributes of certain renewable

technologies plus nuclear energy, it continues to neglect the contributions of local Pennsylvania

hydropower. In fact, this omission prevents approximately 740 MW of hydropower capacity and

many Pennsylvania facilities from participating in the program.

Pennsylvania hydropower facilities provide direct economic benefits to ratepayers and

should be valued alongside out-of-state eligible facilities.

For reference, the 2017 Annual Report from the Pennsylvania Public Utility Commission

identifies that nearly 75% of the Alternative Energy Credits (AECs) used for compliance in the

2017 reporting year came from out-of-state facilities¹. In fact, the cost for the Tier I category

totaled nearly \$121M, and over \$87M of those AEC market payments went to facilities located

outside the Commonwealth – facilities that provide less direct economic benefit to

Pennsylvania's ratepayers.

In contrast, Brookfield's local hydropower facilities provide the following direct benefits to

Pennsylvania:

• 70 direct jobs, 225 indirect jobs

• \$254M in planned investment over the next 20 years

• Employment of 610 vendors throughout the state

• Pay more than \$1.4m in property taxes annually

• Provide access to over 25 recreational areas

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¹ 2017 Annual Report, Alternative Energy Portfolio Standard Act of 2004, Table 4

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Including local hydropower facilities in the AEPS is a small change and leaves the majority

of expansion to other eligible resources.

As previously stated, 740 MW of local hydropower capacity added to the AEPS would represent

about 2900 GWh, or 2.1% of Pennsylvania's historical load.

SB510 inclusion:

If this generation were eligible in Tier III, the impact on other eligible clean energy

resources would be minimal. First, hydropower resources would need to apply and be

selected for Tier III participation. Hydropower facility compensation under the Tier III

program would correspond to about \$20M annually (assuming \$7/MWh), leaving nearly

\$470M for other clean eligible technologies, specifically in-state nuclear resources.

Lastly, this adjustment doesn't add additional cost to the program. It simply gives

hydropower facilities the opportunity to receive consideration as local, in-state clean

energy resources.

SB600 inclusion:

If this generation were eligible in Tier I under a 30% expansion, the impact on other

eligible Tier I resources would also be minimal. Actually, over 90% of the expansion

would be available for other Tier I resources, specifically the development of wind and

solar resources. Lastly, this adjustment doesn't increase the total cost of the program;

instead it increases PA's ability to achieve its Tier 1 targets while reducing ratepayer

costs by increasing the supply of eligible Tier 1 resources.

In closing, Pennsylvania's AEPS should appropriately value local hydropower resources. The

legislature has a chance now to recognize the clean, renewable energy provided by in-state

hydropower resources and the many benefits provided to the Commonwealth.

I appreciate your time.