

### RECEIVED **CASE MANAGEMENT**

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April 15, 2019

Via overnight mail and email o-Welch, Secretary
oard of Public Utilities
ton Avenue, 3<sup>rd</sup> Floor, Suite 314

8625-0350

I/M/O Petition of Public Service Electric & Gas Company for Approval of its Aida Camacho-Welch, Secretary New Jersey Board of Public Utilities 44 South Clinton Avenue, 3rd Floor, Suite 314 P.O. Box 350 Trenton, NJ 08625-0350

Re:

Clean Energy Future-Energy Efficiency ("CEF-EE") Program on a Regulated

Basis

Presiding Officer: Commissioner Solomon

BPU Docket Nos. GO18101112 & EO18101113

Dear Secretary Camacho-Welch:

We represent Interveners Environment New Jersey ("ENJ"), Sierra Club ("SC"), Environmental Defense Fund ("EDF"), New Jersey League of Conservation Voters ("NJLCV") and Natural Resources Defense Council ("NRDC") in the above-referenced matter.

Attached please find Rebuttal Testimony of Amanda Levin on behalf of the abovementioned interveners. We will send one (1) original and six (6) copies of this Rebuttal Testimony by overnight mail and serve all parties on the Service List electronically.

Sincerely yours,

Aaron Kleinbaum, Esq. Daniel Greenhouse, Esq.

Eastern Environmental Law Center

Attorneys for Interveners

Att.

C: Service List, via email

# In the Matter of the Petition of Public Service Electric and Gas Company for Approval of its Clean Energy Future – Energy Efficiency ("CEF-EE") Program on a Regulated Basis

#### BPU Docket Nos. GO18101112 & EO18101113

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BOARD OF PUBLIC UTILITIES
TRENTON, NJ

Environment New Jersey, Environmental Defense Fund, Sierra Club, New Jersey League of Conservation Voters, and Natural Resources Defense Council

In the Matter of the Petition of Public Service Electric and Gas Company for Approval of its Clean Energy Future – Energy Efficiency ("CEF-EE") Program on a Regulated Basis STATE OF NEW JERSEY BOARD OF PUBLIC UTILITIES

DIVISION OF ENERGY AND OFFICE OF CLEAN ENERGY

COMMISSIONER SOLOMON

BPU DOCKET NOS GO18101112 & EO18101113

REBUTTAL TESTIMONY OF AMANDA LEVIN ON BEHALF OF INTERVENERS, ENVIRONMENT NEW JERSEY, ENVIRONMENTAL DEFENSE FUND, SIERRA CLUB, NEW JERSEY LEAGUE OF CONSERVATION VOTERS AND NATURAL RESOURCES DEFENSE COUNCIL

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#### I. INTRODUCTION

- Q. Are you the same Amanda Levin who provided in this proceeding Prefiled Direct Testimony 2 and supporting exhibits on April 15, 2019, on behalf of Environment New Jersey ("ENJ"), Environmental Defense Fund ("EDF"), Sierra Club ("SC"), New Jersey League of Conservation Voters ("NJLCV") and the Natural Resources Defense Council ("NRDC")?
- Yes. A.

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- Q. What is the purpose of this rebuttal testimony? 7
  - I respond to statements in the testimony of David Dismukes and Ezra Hausman. My rebuttal will A. discuss Rate Counsel's testimony concerning the Green Enabling Mechanism (GEM) and the Societal Cost Test (SCT). This includes a discussion the compatibility of GEM with the "Clean Energy Act of 2018" (or "Act") and the value of decoupling in the context of the goals of the Act. I also provide further support on the benefits ratepayers would see from a decoupling mechanism. as opposed to a more narrowly tailored lost revenue adjustment mechanism. My rebuttal testimony will also provide comments and recommendations on elements of the SCT, including appropriate discount rates, environmental valuation, and the inclusion of monetary benefits related to price volatility risk and demand-related price suppression (i.e. DRIPE). Lastly, I will also discuss why the Board should not wait to move forward on PSE&G's proposal or need to hold a state-wide proceeding to address a utility's throughput incentive.

#### II. ISSUES RELATED TO GEM

Q. Dismukes argues that GEM is inconsistent with the Clean Energy Act, stating that the Act only allows utilities to seek recovery of sales losses associated with specific efficiency-related

### reductions (pg. 30). Is that your interpretation of the Act?

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No. While I am not a lawyer, I do not see anything in the law limiting PSE&G or any utility from filing a more holistic mechanism like decoupling. Dismukes' response selectively pulls from the law's language to support his conclusion that GEM is incompatible with the Act. However, one needs to consider the full sentence:

"Each electric public utility... shall file annually with the board a petition to recover on a full and current basis through a surcharge all reasonable and prudent costs... *including but not limited to* recovery of and on capital investment, and the revenue impact of sales losses resulting from implementation of the energy efficiency and peak reduction schedules." (emphasis added).

The legislation also notes that the Board must consider "weather, economic factors, customer growth, outage-adjusted energy factor, and any other appropriate factors" in its methodology to establish the quantitative performance indicators for the utilities' energy efficiency programs. Given the Act's own recognition of other factors and its inclusion of "including, but not limited to" when listing the above utility filings, I see no reason to believe that the Act intended to limit filings to only narrowly allow for recovery of costs related to specific energy efficiency sales losses.

This interpretation also seems inconsistent with the much broader scope of the Act. The Act covers a broad range of clean energy technologies, both on the supply- and demand-side, shaping a significant transition towards a much cleaner, intelligent energy system and utility business model. Limiting recovery just to efficiency-related losses, when the Act also includes language and targets for other customer-side technologies like rooftop solar that pose similar challenges related to the "throughput" incentive, would appear counterintuitive and ineffective.

Q. Do you believe a narrower mechanism, like a lost revenue adjustment mechanism that is compliant with Rate Counsel's interpretation, would be as effective as GEM?

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No. There is substantial evidence that a mechanism that only accounts for losses related to verified utility efficiency savings is less effective at removing a utility's "throughput" incentive and is correlated with weaker energy efficiency performance.

First, evidence finds that decoupling is associated with higher energy efficiency savings and spending, both compared to utilities with no regulatory mechanisms in place and to those with LRAMs. An ACEEE review¹ of performance incentives found that decoupling had a significant impact on energy efficiency savings: decoupled utilities achieved an average of 1.4 percent annual energy savings, compared to non-decoupled, non-LRAM utilities' average of 0.5 percent savings. Unlike decoupling, LRAM was not associated with higher or lower energy savings, with LRAM utilities achieving average savings of 0.6 percent. These trends held true when accounting for energy efficiency standards (EERS). States with both EERS and decoupling reported average savings of 1.4 percent, states with only EERS (no LRAM or decoupling) reported an average of 0.9 percent savings. States with an EERS and LRAM reported the same level of savings – 0.9 percent.

This finding is also apparent when looking at the most recent ACEEE state rankings for energy efficiency. Each state currently achieving 2 percent or greater annual incremental electricity savings (as a percent of retail sales) has decoupling. In fact, all but three of the top 20 states – and the only states achieving the level of minimum savings mandated by the Clean Energy Act – have

<sup>&</sup>lt;sup>1</sup> Molina, M., & Kushler, M. (2015). Policies matter: Creating a foundation for an energy-efficient utility of the future. *ACEEE, Washington, DC*. <a href="http://aceee.org/sites/default/files/policies-matter.pdf">http://aceee.org/sites/default/files/policies-matter.pdf</a>

decoupling in place, as show below.

Savings Ranking	State	Percent Saved (2017)	Revenue Mechanism
1	Vermont	3.33	Decoupling
2	Rhode Island	3.08	Decoupling
3	Massachusetts	2.57	Decoupling
4	California	1.97	Decoupling
5	Connecticut	1.62	Decoupling
6	Michigan	1.48	Decoupling
7	Hawaii	1.45	Decoupling
8	Washington	1.35	Decoupling
9	Illinois	1.34	Decoupling
10	Arizona	1.33	LRAM
11	Minnesota	1.31	Decoupling
12	Oregon	1.21	Decoupling
13	New York	1.17	Decoupling
14	Maryland	0.97	Decoupling
15	Idaho	0.96	Decoupling
16	Ohio	0.96	Decoupling
17	Colorado	0.88	Decoupling
18	lowa	0.87	None
19	Maine	0.85	Decoupling
20	Utah	0.84	None
21	Missouri	0.78	LRAM
22	D.C.	0.75	Decoupling
23	New Hampshire	0.71	LRAM
24	Arkansas	0.69	LRAM
25	North Carolina	0.69	LRAM
26	Wisconsin	0.66	None
27	Nevada	0.60	LRAM
28	Pennsylvania	0.55	None
29	New Jersey	0.55	None
30	New Mexico	0.52	None

The finding that decoupling mechanisms are correlated with stronger energy efficiency performance than LRAMs makes sense given the mechanical differences between the two mechanisms. LRAMs do not fully eliminate the strong utility incentives to promote increased electricity use, since a utility would still keep any resulting cost recovery in excess of that

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authorized by the Commission due to higher-than-forecasted sales. LRAMs can also create incentives for utilities to promote programs that look much better on paper than in practice – such as promoting poorly designed efficiency equipment that customers later replace or disconnect but result initially in lost revenue recovery.

It is worth noting that given the LRAM's dependence on (and the rate/cost implications of) the measurement and verification (M&V) process, the litigation and resources spent over M&V reports will be significant, compared to both current day and a GEM future. GEM would both eliminate the incentive to promote increased electricity use and the incentive to promote less-effective efficiency programs by fully eliminating the opportunity to collect revenue in excess of authorized levels, while also reducing the resource burden and complexity of addressing this utility disincentive.

In addition, not all cost-effective electricity savings come directly from utility programs, such as from federal efficiency standards, federal efficiency programs, state building codes, and other non-PSE&G programs in its territory. Preventing utilities from accounting for these cost-effective savings not directly associated with their programs can penalize PSE&G and its customers. It would reduce PSE&G's fixed cost recovery and potentially discourage PSE&G from fully participating in and mobilizing its customer base, and thus, also greatly reduce the reach and effectiveness of these non-utility administered standards. GEM would allow PSE&G to be a full, productive partner in all types of efficiency programs as savings from these programs would also be captured in any future adjustments.

Dismukes also states that the Clean Energy Act already "directly addresses utilities' incentives for energy efficiency, eliminating the need for the GEM or any other type of revenue

decoupling mechanism." (pg. 30) Do the standards and financial incentives included in the Act eliminate the need for a decoupling mechanism?

No. Making energy efficiency work for utilities is often portrayed as a three-legged stool. This common structure has been detailed by energy experts, federal agencies, and efficiency advocacy groups.<sup>2</sup> Each leg addresses a different barrier to utility-driven energy efficiency efforts. The three legs are: program and administrative costs, lost revenues, and incentive payments.

The Clean Energy Act of 2018 includes provisions that address all three of these legs, ensuring that utilities can file for prudent recovery of program costs, revenue losses associated with sale loss from a number of measures including, but not limited to, energy efficiency and other demand-side measures, and financial incentives and penalties related to program performance.

Decoupling addresses the second leg – that of lost revenues associated with decreased sales. This is the "throughput" incentive, which arise from the fact that utilities recover both "variable" and "fixed" costs through volumetric rates. Neither elements associated with the first or third legs address the throughput incentive – and thus without the approval of GEM or a similar mechanism, the other elements of the Clean Energy Act will not be sufficient to fully address the myriad of barriers and disincentives a utility faces to pursue all cost-effective energy efficiency savings.

Financial incentives and minimum savings targets like those in the recent "Clean Energy Act of 2018" address the third leg of the stool. This leg does not address "throughput"-related issues, but instead addresses incentives arising from the treatment of supply-side versus demand-side additions under traditional ratemaking. Under traditional regulation, investor-owned utilities earn returns on capital invested in generation, transmission, and distribution. They do not see a similar

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<sup>&</sup>lt;sup>2</sup> See NRDC/EDF Response to RCR-NRDC-4 for a list of studies.

opportunity to profit from the energy efficiency investment. Providing financial incentives to a utility if it delivers stronger energy efficiency performance can make efficiency a similarly profitable activity to traditional supply-side alternatives.

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- Q. Is it true that "few states have been moving forward with adopting revenue decoupling over the past several years" (Dismukes, pg. 27-28)?
  - A. No. In 2013, NRDC found that 29 electric utilities were decoupled. As of December 2018, 42 electric utilities are now decoupled (39 investor-owned and 3 public utilities) across 16 states and D.C. This is a 45 percent increase since the end of 2013. Decoupled electric utilities now serve over 40 percent of all customers with investor-owned utilities, up from a little less than 25 percent five years ago.

And even just since 2016, we have seen continued progress and interest in decoupling. This includes the approval of decoupling mechanisms in Washington in 2016, Colorado in 2017, and Ohio and New Hampshire in 2018. Two states, Illinois (2016) and (as of just April 9, 2019) New Mexico<sup>3</sup>, passed legislation explicitly calling for state investor owned utilities to submit and get approval for decoupling mechanisms. Michigan (2016) and Pennsylvania (2018) also passed legislation in the last year or two explicitly allowing regulators to approved decoupling mechanisms.

### III. ISSUES RELATED TO THE SOCIETAL COST TEST

Q. Dismukes suggests that PSE&G's discount rate of 2.77% for the SCT is too low and uses a discount rate of 6.8 percent (equal to the Company's weighted average cost of capital) for his

<sup>&</sup>lt;sup>3</sup> https://www.utilitydive.com/news/new-mexico-efficiency-bill-ensures-utilities-dont-take-hit-from-lower-ener/552110/

### own recalculation of the SCT (pg. 9, 24). Is this higher discount rate appropriate?

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No. It is common practice to use a variety of discount rates for different energy efficiency cost-effectiveness tests, including: a utility's weighted average cost of capital (WACC), customer discount rates, risk-free discount rates, and societal discount rates. The appropriate discount rate will depend on the specific question each test is trying to answer.

For the Societal Cost Test (SCT), a social discount rate should be used, not a utility's WACC. The purpose of a SCT is to attempt to quantify total resource costs to society as a whole, rather than only to the service territory (the utility and its ratepayers). The test's perspective is all of society – not just a single participant or the utility and its shareholders. The discount rate needs to appropriately reflect benefits to the society in the long term and reflect the reduced risk of an investment that is spread across all of society. As noted by multiple sources<sup>4</sup>, one of the key elements on the SCT (and differences from other screening tests) is that "a societal discount rate should be used."

The societal discount rate is a low discount rate (and lower than the other four main cost effectiveness tests). As noted in Northeast Energy Efficiency Partnership's cost-effectiveness screening manual:<sup>5</sup>

"society has a broader tolerance for incurring costs in the short-term in order to experience benefits over the long-term. In addition, society, as represented by government agencies, is generally better able to access funds at a relatively low borrowing cost. Consequently, the societal discount rate tends to be lower than the discount rates of all of the [other stakeholder perspectives — like utility customers, participants, or a utility itself]."

<sup>&</sup>lt;sup>4</sup> CPUC Workshop on Societal Cost Test, June 2013, Presentation, <a href="http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11819">http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11819</a>; Northeast Energy Efficiency Partnerships (NEEP), "Cost Effectiveness Screening Principles and Guidelines", November 2014, <a href="https://neep.org/file/2873/download?token=f4VbVWAH">https://neep.org/file/2873/download?token=f4VbVWAH</a>.

<sup>&</sup>lt;sup>5</sup> NEEP, "Cost Effectiveness Screening Principles and Guidelines", November 2014, Pg. 45.

PSE&G's use of a long-term treasury bond rate is an appropriate, and very common, source for a SCT discount rate. Of the five state SCT discount rates noted in workshop materials from the California Public Utilities Commission's Workshop on the SCT<sup>6</sup>, four (80 percent) use a long-term treasury bond to determine the societal discount rate. DC and Maine use a 10-year note, Iowa an average of the 10- and 30-year note, and Minnesota the 20-year treasury note. Vermont uses a 3 percent real discount rate. Dismukes' statement that PSE&G's 2.77 percent discount rate is "lower than most "rules of thumb" that are commonly employed for societal discount rates of around three to four percent," thus conflates the methodology behind choosing a discount rate (i.e. using a long-term treasury bond rate) and the resulting range of rates, historically, from using a treasury bond rate proxy (e.g. "3 to 4 percent"). Long-term treasury bond rates have fallen in recent years, with long-term bond rates usually hovering between just 2 and 3 percent since August 2014. This means that the appropriate rate for a SCT done today would now also be lower than the historical "3 to 4" percent figure Dismukes cites, such as PSE&G's 2.77 percent rate.

- Q. Dismukes suggests that PSE&G use a "market-based" value for environmental externalities (e.g. RGGI Carbon prices) for the Societal Cost Test (pg. 17). Do you agree?
- A. No. I believe that using the RGGI prices would significantly undervalue the benefit from emissions reductions and would not reflect an appropriate, reasonable estimate for calculating the benefits to society from reductions in carbon emissions. PSE&G should continue to use the Social Cost of Carbon (SCC) as derived by the EPA Interagency Working Group to calculate the value of

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<sup>&</sup>lt;sup>6</sup> CPUC Workshop on Societal Cost Test, June 2013, Presentation, http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=11819

<sup>&</sup>lt;sup>7</sup> See pg. 9 of his testimony.

<sup>&</sup>lt;sup>8</sup> For example, at the start of 2004 (10 years ago), the long-term treasury rate was 5.05% percent. At the start of 2014 (5 years ago), it was 3.66%. The rate has been below 3% for a majority of the time since August 2014. https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=longtermrateAll

emissions reductions related to energy efficiency programs.

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I agree with Dismukes that there is some range of uncertainty in the value of carbon reductions. However, this does not mean that the EPA's social cost of carbon is faulty or should be ignored. While the value of environmental (e.g. carbon) costs used varies between utilities, I would state that the EPA Interagency Working Group's SCC is a common source, and likely one of the most common sources, for calculating the environmental social benefit from EE and other DER measures. Several states already or are in the process of requiring regulated utilities to use the EPA Interagency Working Group's Social Cost of Carbon or SCC in both EE societal cost tests and, if applicable, when determining the mix of demand- and supply-side resources in utility integrated resource planning (IRP) proceedings. For example, New York — which is a member of RGGI — sets the value of avoided CO2 emissions for purposes of its Clean Energy Standard Tier 1 REC as the federal SCC net of the RGGI clearing price. This essentially serves to ensure that clean energy producers are credited for the full SCC value (since the RGGI clearing price would be reflected in NYISO's wholesale energy prices).

### Q. Do you have any other comments on Rate Counsel's objections and/or alterations to the SCT?

Yes. I want to briefly discuss two benefits which Rate Counsel excluded from their revised SCT calculation. Many benefits are hard to quantify, or have some level of uncertainty around them. However, this should not mean that those benefits are excluded. My direct testimony noted this in the context of a Resource Value Framework, where a guiding key principle is symmetry: all *relevant* costs and benefits must be considered, as well as the recommendation for a "low-income societal benefits adder" to represent the higher benefit energy efficiency has for high energy burden

<sup>&</sup>lt;sup>9</sup> See Ms. Levin's Response to PS-EELC-8.

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households. As I will discuss in more detail below, Rate Counsel's decision to exclude both Demand Reduction Induced Price Effects (DRIPE) and reduced natural-gas-related price volatility risk inappropriately ignore real, measurable benefits of energy efficiency. These are relevant benefits and should be included in the SCT if it is to be a fair, unbiased analysis of both the costs and benefits of energy efficiency from society's perspective.

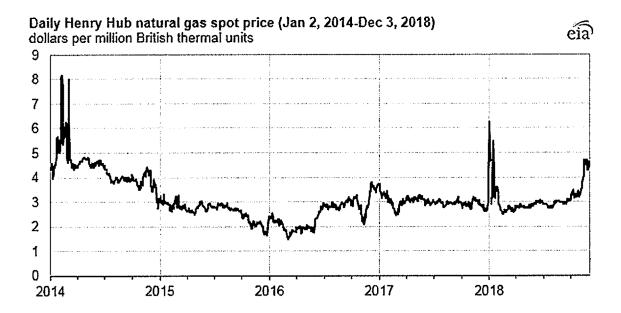
First, Dismukes excludes DRIPE (Demand Reduction Induced Price Effects) because the values are tabulated using the AURORA model. These benefits should not be excluded, as they represent a known type of benefit, and thus the exclusion of those benefits from the cost-benefit analysis would improperly skew the test. Furthermore, AURORA is a common, well-cited power sector model. Most, if not all, power sector dispatch and capacity expansion models suffer from some level of being a "proprietary, black-box type model" due the fact that they are modeling a power system where providing fully transparent bid and cost data inputs could harm a generator's competitive advantage. However, this does not mean that outputs from AURORA are invalid. AURORA has been noted as a common model use by utilities and regulators by the Department of Energy. AURORA has been used by utilities across the country, including Dominion, Avista, Entergy, and Puget Sound Energy. The long history and common usage of these models should be sufficient to support the inclusion of these measurable and important benefits.

Second, Dismukes also excludes PSE&G's estimated monetary benefit associated with the claimed volatility hedge benefit. He takes issue with the studies used to determine the value of this risk hedge and appears to argue that gas is less volatile now than when many of these studies were

<sup>&</sup>lt;sup>10</sup> See DOE's "Power Sector Modeling 1010" presentation, <a href="https://www.energy.gov/sites/prod/files/2016/02/f30/EPSA\_Power\_Sector\_Modeling\_FINAL\_021816\_0">https://www.energy.gov/sites/prod/files/2016/02/f30/EPSA\_Power\_Sector\_Modeling\_FINAL\_021816\_0</a>. <a href="https://www.nrel.gov/docs/fy140sti/60047.pdf">https://www.nrel.gov/docs/fy140sti/60047.pdf</a>

conducted (e.g. 2013 – 2014). However, the U.S. has continued to see significant gas price volatility in the last few years; volatility has not decreased, in fact, evidence would point to the opposite. The 2018-2019 winter has seen the highest natural gas prices since 2014, and also the most prompt month price volatility in over a decade. Energy efficiency, thus, should still produce volatility hedge benefits, and possibly provides even greater risk reduction benefits today than in prior years.

I have provided two graphics to illustrate the continued volatility in the natural gas markets. The first, from EIA<sup>12</sup>, shows the daily Henry Hub price (chosen as a simple, general proxy for the volatility of natural gas prices) over the last five years.



The second, from S&P Global Market Intelligence<sup>13</sup>, shows monthly spot and forward prices for both Henry Hub and the Northeast gas hubs for 2018 and 2019. As shown in the second figure, the northeast gas hubs have seen even higher levels of volatility than the Henry Hub price in the

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https://www.forbes.com/sites/judeclemente/2019/01/15/u-s-natural-gas-demand-for-electricity-can-only-grow/#646cdaa444c7; https://www.cnbc.com/2018/11/14/natural-gas-prices-surge-jumping-as-much-20-percent-in-wild-trading html

<sup>12</sup> https://www.eia.gov/todayinenergy/detail.php?id=37713

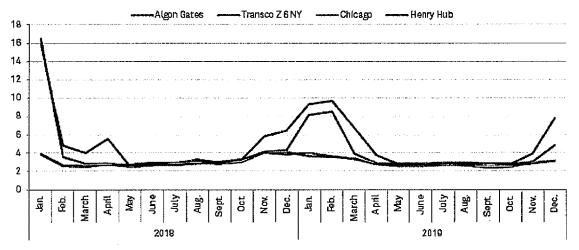
<sup>&</sup>lt;sup>13</sup> Duquiatan, Anna, "S&P Exclusive: Weather-driven power, gas price spikes seen continuing in 2019", January 7, 2019. (subscription required)

last year, due to winter demand, and natural gas forward prices exhibit the same trend. PSE&G's inclusion of a volatility hedge benefit, and its calculation of the monetary value of this benefit, is wholly warranted and reasonable. This benefit, in addition to the DRIPE benefit, from energy efficiency should be included in the SCT. To do otherwise would be to ignore tangible, relevant benefits and inappropriately skew the SCT.

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### Eastern/Central monthly spot & forward natural gas prices (\$/MMBtu)



Data compiled Jan. 3, 2019.
Day-ahead prices are until Dec. 31, 2018. Forward prices start from Jan. 1, 2019.
All monthly forward curves as of Dec. 27, 2018.
Source: S& P Global Market Intelligence

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### IV. ISSUES RELATED TO TIMING OF THE CEF-EE

### Q. How does this PSE&G filing fit in relation to the statewide energy efficiency proceeding?

It is true that PSE&G's CEF-EE filing comes at a time when the Board is undertaking a number of rule makings under the Clean Energy Act, including the statewide energy efficiency proceeding. However, rather than being considered premature, PSE&G's CEF-EE plan can be considered as a proposal designed to meet the ambitious utility mandates – and timeline of those mandates – as outlined by the Clean Energy Act. Further, a review of the stakeholder comments submitted in the

statewide energy efficiency proceeding indicates that fundamental components of the PSE&G filing, in particular: decoupling revenue streams as proposed by GEM, transitioning to more utility-administered programs, and centering societal cost factors in cost-benefit analysis are broadly supported by New Jersey stakeholders. While broad stakeholder support is not an infallible predictor of the final BPU rules, it can be an indicator of future direction and should be taken into consideration, at least in the absence of further stakeholder engagement and action. Finally, while stakeholder processes at the state level should never be rushed, it is notable that the most substantive exchange of regulatory design components in the state has occurred in the CEF-EE settlement process.

### Q. What steps should the Board take now on PSE&G's filing?

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- A. The Clean Energy Act of 2018 envisions a significant and swift shift towards a cleaner, more efficient energy system and utility. The Board has the unenviable task of having to balance the need for quick action and the desire for a comprehensive, inclusive process. I recognize and appreciate the varied perspectives on next steps but do want to offer a few recommendations to the Board. These recommended actions are not dependent upon each other; if the Board decides against following one recommendation, it doesn't preclude the Board from acting on another.
  - 1. The Board should approve the Company's GEM proposal and require an audit be performed on following an initial period of time.
    - As noted in my direct testimony, this audit should be undertaken in consultation with Board Staff and interested stakeholders and would review the impacts of GEM on customers, including special focus on sub-classes of specific interest, and the utility's financial and efficiency program performance, among other things. The Board would

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decide how the audit should be funded, either by the Company and its shareholders or passed to ratepayers through rates, depending on which approach they find prudent and in the interest of the Public.

- Decoupling is a tried and tested ratemaking approach, both across the U.S. and in New Jersey itself. In addition, decoupling mechanisms are utility-specific; even within a state, the structure and details of each decoupling mechanism vary and thus would require an additional step after a statewide proceeding to implement. To hold off on approving a mechanism until the Board has completed a separate proceeding, especially when a number of stakeholders in the statewide proceeding have expressed support, would be an unnecessary delay.
- 2. The Board should approve or otherwise support the development of a new primary cost effectiveness test using the Resource Value Framework. At the same time, the Board should clarify and rule on what assumptions and sources are valid and appropriate for different cost effectiveness tests.
  - Clarifying what discount rates, values and methodologies for hard-to-quantify benefits, and costs and benefits are relevant for each test will be important moving forward for both PSE&G and all other utilities. These decisions will also be useful and relevant for establishing a Resource Value Test.
  - Given that the topic has come up and been discussed at length in this CEF-EE filing, the
     Board should review the arguments made and issue its decision on these matters in this
     proceeding.
- 3. The Board should approve PSE&G's proposed pilots, if PSE&G agrees to create a transparent and collaborative process from start to finish for each pilot.

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- As noted in my direct testimony, there are several steps PSE&G should take. At the start, PSE&G should reach out and work with Board Staff, Rate Counsel, and other interested stakeholders to provide feedback on proposed pilot design, selection of contractors, and proposed technology and marketing approaches to be implemented. PSE&G should also provide for a more open process at the tail-end of the pilot program and use the EM&V process as another opportunity for stakeholder collaboration and engagement. PSE&G in consultation with stakeholders and, if applicable, facilitators/contractors would establish expectations for the EM&V process (e.g. areas and timing of input and feedback), the key purposes and questions to be answered for each pilot, the format and scope of the final EM&V product, and specific metrics and impacts to be studied, among other things. At the end of the pilot, interested stakeholders would be given the opportunity to review and provide comment on draft EM&V materials prior to the submission of a final EM&V report and any action taken to extend or expand the pilot in future years.
- The Board should move forward with these pilot designs, even if it declines to approve the other subprograms in this filing. These pilots reflect innovative, advanced approaches to energy efficiency and grid management. These pilots are non-duplicative; no other utilities or agencies in the state offer similar programs. These pilots have a huge potential to transform the way PSE&G, other NJ utilities, and customers think about energy efficiency, and approving these programs in this proceeding would build upon and complement any actions taken by the Board in the number of proceedings currently underway.
- 4. Given the need for aggressive action to achieve the timetable and savings envisioned in the

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Clean Energy Act, the Board should either commit to finishing the statewide proceeding in a timely manner, or otherwise approve PSE&G's other proposed sub-programs, upon review of and incorporation of the substantive comments and recommendations in this filing.

- If the Board believes that the statewide proceeding be completed first, the Board should establish a deadline for the statewide proceeding, to ensure that the momentum around the implementation of these clean energy goals remains strong.
- In this case, the Board should still approve the Company's GEM and pilot programs. However, it could hold off on ruling on the non-pilot proposed subprograms in this CEF-EE filing ahead of the deadline. If the deadline passes without action or resolution from the Board and stakeholders in the statewide proceeding, the Board should consider and rule upon the proposed non-pilot programs in this filing. If timely action is taken in the statewide proceeding, PSE&G would submit a revised filing in accordance with the Board's order in that broader proceeding.
- on the Company's filing, I would recommend that the Board accept my recommendations on the Company's proposed multi-family and income eligible programs. The Board should approve these programs with my recommended alterations, including: (a) the replacement of oil-to-gas measures with oil-to-electric measures in the income eligible program; (b) the lowering of the income threshold for its' income eligible program and/or setting goals and tracking participation for sub-income groups to ensure that those with the lowest incomes are taking advantage of and receiving appropriate levels of funding; and (c) enhanced reporting and corrective action requirements for these programs (as detailed in my direct testimony on page 19).

• The Board should also review and consider the testimony filed by others on other subprograms. The Board should consider and act on the constructive feedback offered in the other parties' testimony.

### V. CONCLUSIONS

### Q. DOES THIS CONCLUDE YOUR TESTIMONY?

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