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RM9-2015-01: Sixth Working Group Meeting
1325 G Street, N.W., Suite 800
Washington, D.C. 20005

RM9-2015-01, IN THE MATTER OF 15 DCMR CHAPTER 9 — NET ENERGY METERING- COMMUNITY RENEWABLE ENERGY AMENDMNET ACT OF 2013

SIXTH WORKING GROUP
MEETING MINUTES

Meeting Commencement

Pursuant to Order Nos. 19676 and 19692, the Public Service Commission of the District of Columbia ("Commission") convened the sixth Rulemaking ("RM") 9 Net Energy Metering ("NEM") working group meeting on Wednesday, October 23, 2019, in the Commission's Hearing Room, to further discuss: Community Renewable Energy Facility ("CREF") interconnection costs and CREF-specific rule changes.

Attendees

Sign-in Sheet (see Attachment A)

Issues Discussed (see Agenda at Attachment B)

CREF Rule Revisions, Allocation of System Upgrade Costs, and Incremental Increase of the NEM facility Generation Threshold.

Adjournment

The working group adjourned at 12:58 p.m.

Synopsis of Issues Discussed

- **Briefing of Past Meetings**
  - Staff discussed previous meeting with OPC, DOEE and Pepco to revise CREF rules, including a specific set of rules separate from Net Energy Metering (NEM).
  - Concern was raised about including those rules with NEM rules. Pepco combined the two revised rules, and that was circulated to the group last week. Also circulated was Pepco's cost estimate breakdown, draft matrix to demonstrate line item costs for construction, and cost sharing analysis.

- The WG looked at the redline revised rules, with the intent to release a NOPR within 30 days and receive comments by the end of the year.
- CREF Rule Revisions—Separate meetings with developers were held and draft red-line rules were circulated.
- Pepco reiterated that developers want a shorter, defined timeline for CREFs to reach Approval to Install (ATI), certainty and accuracy of cost. The "simple" projects would be completed more quickly, and more complicated projects with unique construction would have more time to complete.
- The Cost Matrix was developed to give developers guaranteed costs for certain types of installations. Pepco incorporated these ideas into their revision of rules.
- Added in redline 25 business days or below to get to ATI and final cost letter for projects falling within the matrix.
- Pepco notes that a minority of projects are complex and need up to 60 business days to get to ATI and a final cost letter. Developers stated they need certainty of costs earlier than that, and Pepco would provide a cost estimate within a range at around 40% completion.
- The revised rules have a section to cover the more complex rules. Pepco states Virtual Net Metering (VNM) is also being addressed by the cost matrix and does not need believe it requires specific rules changes. The issue is more of a construction issue, not that the project is specifically a CREF. Pepco made changes to definitions to ensure the placement of each Level is appropriate.
- DOEE distributed their edits to rules before the meeting. Emphasizes that interconnection rules are for safety and reliability, and should not materially treat systems differently regardless of whether they are NEM or CREF. DOEE envisions a very specific rules process for the installation of any system, whether Virtual CREF, front-of-the-meter CREF, or NEM, that has a clearly elaborated process flow for when additional interconnection facilities and/or distribution system upgrades are required. There is already a timeline and process for interconnections in the existing rules, including for both interconnection facilities and distribution system upgrades.
- The triggering of distribution system upgrades is addressed. DOEE wants VNM to be laid out in the rules for each level, or if an application is not able to utilize VNM, for Pepco to give a technical justification for that.
- DOEE added a public queue section to the rules. Staff indicates VNM generally refers to community net metering (or solar garden) which is different from virtual CREF which is the third category (not NEM or CNM). DOEE agrees to change VNM to Virtual CREF to avoid confusion.
- Staff noted CREF is in general in front of the meter in production meters, 27 of which are operational, and asked, does Virtual CREF mean behind the meter? Pepco states yes, that there will always need to be a production meter in addition to the regular

billing meter to track generation. Changes to billing system need to be made. Customers will have to pay for the production meter.

- Staff discussed the definition of Virtual CREF, and asked, would production offset consumption? Pepco responds yes, the production meter is used to track for accounting purposes. Because it is behind the meter, the generation isn't all exported into the system, so the generation is added back into the billing system so there is no offset in billing, despite there potentially being physical offset.
- The export compensation is based on CREF rates. The subscription part would include100% of generation tracked by production meter and will be allocated to CREF subscribers, regardless of if there is export. DOEE clarifies that it is an accounting measure, similar to a Solar PPA whose facility is located in another state.
- The building owner pays for their total consumption, after the accounting process parses out the generation. The building does not have to be a subscriber to the CREF. Doing it another way, where the building offsets their load with solar generation, would be a combination of a NEM and a CREF. In that scenario, subscribers would be paying for 100% of the generation but only receive a fraction of that.
- New Columbia Solar (NCS) asks if the meter would be at or around the inverter, and the generation and consumption are measured discretely. Pepco confirms that they are able to bill based on the consumption after parsing the generation out from the host meter.
- NCS asks to clarify that the utility needs access to the production meter that is installed by the developer, since that would be a change from today where it isn't a behind the meter system. The meter would be the same, but the programming would have to be different.
- DOEE states that the reason for this change would streamline the interconnection process for CREFs by avoiding the additional cost and procedural timeline associated with front-of-the-meter connections. David Roodman comments on his process of wanting to become a CREF, and the construction required for that under current rules for what would otherwise be nearly identical solar installations.
- Pepco comments that Virtual CREF may not work in every instance. NCS asks if the technical reason was load related? Pepco states it could be very complicated.
- Staff asks for clarification of whether the rules state the host site would not be a subscriber? Right now, they can be a subscriber. In that case, the bill and generation tracking would be allocated as if they are any other subscriber.
- Staff asks whether the tracking are going to be done now, or after the pilot? Pepco states Gallaudet is a primary meter customer, which requires a separate application. The billing software for primary customers is different software than for residential billing. Staff asks how cost recovery will be tracked in this pilot. Pepco can track the incremental costs for coding. The changes made would apply for all primary customers, not an ongoing coding change for each application.

- Staff asks which other states do Virtual CREFs. NCS states MD and MA have that on a pilot basis, and that there is aggregate net metering. Pepco states that MD does not have Virtual CREFs but, instead, has aggregate net metering. Staff asks if there is any downside to any parties for Virtual CREF and does not receive any comments about downsides.
- Staff asks DOEE if they have a proposed timeframe for the technical justification for not being able to use Virtual NEM. DOEE provided a strawman to incorporate virtual CREF and is seeking parties' comments.
- There would now be CREFs at Level 1 under DOEE's proposal. Pepco asks if it's a Level 1 CREF, that they would have 5 business days to determine if it can be Virtual NEM in addition to doing the technical review and issuing the ATI. DOEE states that's the current rules, but that an application could jump up a Level in certain situations.
- Pepco states the issue is Virtual CREF will be a case-by-case basis, and that leads to questions about timeframes for completion.
- NCS and other developers are wondering what specifically is difficult about monitoring and tracking of Virtual CREF, and whether a facility is eligible. Pepco states the implementation is challenging to reach in 5 business days based on technical screens, volume of applications, additional steps required for a Virtual CREF that are not part of NEM, including the added layer of complexity with determining eligibility for Virtual CREF.
- NCS feels it is easier for Pepco if Virtual CREF is implemented. Pepco feels otherwise, as compared to traditional NEM, since there is a billing aspect and a separate process for new metering equipment.
- OPC states that timelines are the biggest things to work out to give developers clarity and realistic expectations. OPC asked Pepco how many days are actually needed. Pepco stated 25 business days for projects that fall within the cost matrix, and other projects will get full cost letter within 60 business days. The 5 business days proposal is for the additional piece of evaluating whether a project can be a Virtual CREF and if not, providing the technical letter for why it cannot with explanation. DOEE emphasized the timeframe questions were impacting their goals of reaching the solar carve out requirements.
- DOEE brought up the Maryland interconnection process, where CREFs are treated identically to NEM projects for interconnection rules and timelines. Pepco states that the difference between MD and DC is they are in a pilot program in MD. The volume of projects and applications differs. DC has had over 200 projects this year and the applications can come in at any time. In MD, the pilot program, applications are submitted during a small set period at the beginning of the year, leaving the remainder of the year for implementation. There are only [10] CREFs in the MD pilot program. DC is performing above all other PHI territories in terms of application numbers.
- Pepco believes there are a few pieces of the process that aren't working efficiently, and that with some tweaks it would be better for developers. NCS is still worried about

the timeframe process, and not meeting their investors' expectations on getting projects running.

- Staff ultimately wants to get something produced to improve the process, to get a NOPR out for comments. This is an ongoing iterative process, and that things will be revisited as time goes on.
- Alban CAT states the uncertainty of funding and timelines are concerning. Alban CAT believes that Pepco is short staffed and isn't meeting the deadlines.
- Roodman states that the specifics and rationale for engineering required from one facility going from NEM to Virtual CREFs is not clear to him. He asks whether most of it relates to installing production-grade meters "behind the meter," and whether this isn't letting the perfect be the enemy of the good, since there are many reasonable technologies for measuring production, and arrangements for measuring and buying power in CREFs are quasi-private anyway. Pepco states there needs to be a site visit, meter placement, and capturing the production and consumption for billing purposes. Alban CAT states the developer would be handling most of the technical decisions, and Pepco is basically only providing the meter switch-out. NCS states this has been the case for a decade for the SREC market, and the current technology has the capability to handle Virtual CREF. Pepco states that the issue is that Virtual CREFs have not been installed in DC before. Gallaudet is the first project. The stakeholders will not know all of the impacts until more experience is gained.

- **Allocation of System Upgrade Costs**
  - The initial issue was the uncertainty of costs for CREF interconnections, and if those costs could be shared amongst ratepayers. Pepco provided the backbone system costs and with a rate impact of socializing cost sharing levels of 25%, 50%, and 75% to ratepayers. Pepco points out the 2018 and 2019 figures were separated. The marginal change of the Class Cost of Service Study shows the impacts. The average annual impact per customer is calculated on the far right of the tables.
  - OPC asks for clarification if the CREF related cost is one project or all projects for those years. Pepco stated that the table was a representation of historical or, in the case of 2019, projected (based on cost letters) amounts for all projects. OPC stated that the amount will rise based on the number of applications that will be submitted especially with the incentive that ratepayers will now potentially pay for backbone costs. Pepco clarified that most of the applications won't require backbone work and won't have more costs allocated. 2019 data presented in the table captured about half of the projects. OPC agreed to disagree as OPC indicated that Pepco could not make such a guarantee. Pepco offered to update the analysis to more current data to help understand the bill impact for 2019.
  - Solar For All has 94 projects coming in, plus other developers, but the dollar amount is unknown at this time. DOEE asks for clarification of the number of projects covered under the estimate provided. DOEE asks for clarification that around 40 of the 94 projects only need overhead line drops, no transformer upgrades. Pepco confirms, and states several other projects would only need conduit work. Very few would need transformer upgrades, which is the most expensive backbone work. Pepco will provide

an example cost for a project that only requires conduit work, and how many projects comprised the 2018 costs.

- Staff asks for clarification that the line of the analysis that shows CREF socialization costs is allocated to approved CREF facilities and not CREFs that are not yet in service. Pepco says that's right, it's not allocated for future CREF facilities. Average cost for overhead projects was $2500, for underground projects that amount was higher.
- RAD customers would not be subject to any socialization of costs. OPC asks why the costs would be socialized? Pepco responded that (1) Synapse, who performed OPC's study of solar adoption, stated in its webinar that solar adoption would increase if the cost of installation was socialized, and (2) looking at the vision of the District's grid as a platform that allows peer-to-peer transactions and where DER are integrated into grid operations, these costs are appropriately socialized.. OPC's webinar presented by its consultant, Synapse is in peer review stage and is not finalized. Thus, OPC does not adopt any statement made at this juncture. OPC also noted that this rulemaking was established to deal with timelines not socializing costs.
- NCS adds that locations of projects are largely in Wards 5, 7 and 8, where infrastructure upgrades are lagging. So they are benefitting from the projects, but it is limited by current infrastructure.
- Roodman comments that time is a factor; that is, costs that are not socialized must be financed up front by investors whereas socialized costs are automatically spread forward in time, with Pepco effectively providing that capital. Socialization makes the projects more feasible and getting online faster.
- Staff asks if looking at CREF projects by Ward has different costs for infrastructure. Pepco split the data by Ward, but the main takeaway is that overhead projects are cheaper than underground. NCS states overhead projects generally would not trigger distribution system upgrades.
- OPC says Solar For All is focusing on Wards 5, 7 and 8, and does not want customers to be double paying for system upgrade costs. NCS believes Solar For All gives customers a double benefit, that the system upgrades provide benefit as well. Solar development in Wards 7 and 8, and then socializing costs provides extra benefit.
- OPC worries about getting the socialization amount correct if it is adopted as it would be more difficult to correct after it is implemented.
- DOEE poses that there are two questions to answer: first, how are the costs decided on, and how transparent is that process? In order to ensure transparency, DOEE recommends in the redline that distribution system upgrades require a technical justification and detailed cost estimate. Secondly, when the upgrades are needed, how are the costs socialized?
- Staff asks about Solar For All, that all subscribers are low income? DOEE confirms, and that there is no cost to the subscribers.

- OPC asks if the costs would be assessed as a regulatory asset? Pepco is unsure, as it would be a part of normal business. Regular system upgrades do not go into a regulatory asset. OPC is worried about how this would be captured, and if there is a prudency review for those upgrades. Staff notes that it will be a cost item in the next rate case.
- The working group could come to a consensus recommendation that socialization is a good plan, without reaching consensus on the amount. The working group would provide the possible amounts (25%, 50%, 75%, or others) in the recommendation.
- Pepco will update the 2019 cost breakdown in a few weeks, along with a recommendation on how costs would be recovered. Staff noted that if OPC or others are worried about amount of socialization is too high, a cost cap (e.g., $100k) could be specified for annual total.
- Pepco has scope meetings to align the developers' desired point of interconnection with the most practical and cost-effective option to the system.
- Upgrade costs are not all paid for in the Solar For All program. Staff asks how that would be accounted for by DOEE and Pepco, given that some costs are paid for through grants. DOEE states that previously, costs beyond the grants are passed to developers. DOEE will follow up to confirm the current process. Roodman seeks clarification on whether costs beyond grants would be passed along to low income subscribers. DOEE states that's not the case.

- **Generation Threshold**
  - The group previously reached consensus that we would move beyond the 120% limit and have an iterative process to increase that amount to incrementally raise to 200%. The working group would meet 6 months after implementation to review the effects of the increases. The annual increase would be 20%.
  - Staff raises the compensation issue, are we going to follow the MD model for compensation above 100% export. The group agreed the compensation would be generation only for amounts above 100%.

Meeting Action Items

- By Friday October 25th DOEE to circulate revised redline of CREF rules
- By Monday November 4th all stakeholders to submit their comments on CREF rules
- By Wednesday November 6th Pepco to circulate updated cost estimate sheets with explanation of how the costs should be recovered.
- By Wednesday November 13th all stakeholders to circulate their 1 paragraph position statement on system upgrade cost allocation.
- November 14th 9:30am-11:30am – 7th RM9 WG meeting to be held.

Next Steps

- Draft Circulated to Participants: Tuesday, October 29, 2019
- Comments from Participants to PSC Staff: Thursday, October 31, 2019

RM9-2015-01: Sixth Working Group Meeting
1325 G Street, N.W., Suite 800
Washington, D.C. 20005

- Minutes Filed with Commission: Monday, November 4, 2019
- Next Meeting: Thursday, November 14, 2019

Attachment A

PUBLIC SERVICE COMMISSION

Your Energy. Your Voice.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

RM 9 WORKING GROUP – NEM/CREF WORKING GROUP MEETING

Registration List
Date: October 23, 2019

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PUBLIC SERVICE COMMISSION

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PUBLIC SERVICE COMMISSION

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NAME	ORGANIZATION	TELEPHONE NO.	EMAIL	Signature
Lance Schafer	Pepco			
Alex Fisher	DOEE			

RM9 Net Energy Metering Working Group
1325 G Street, N.W., 8th Floor
Washington, D.C. 20005

October 23, 2019

10:00 A.M. – 1:00 P.M.

Dial-in Number: (712) 775-7031
Meeting ID: 828-265-056

AGENDA

I. Sign In/Welcome — **PSC (Shelley, Hu)**
- **A. RM9 NEM Meeting 5 Recap**
- **B. Briefing on Meetings held with OPC, DOEE, and PEPCO**
- **C. Status Update on Outstanding Matters**

II. Group Discussion: — **ALL**
- **A. CREF Rule Revisions – Redline Draft**
- **B. Allocation of System Upgrade Costs**
- **C. Generation Threshold Incremental Increase (120%)**

III. Action Items — **ALL**
- **A. NOPR Issuance Timeframe**
- **B. Proposal: Issue NOPR for Interim Rules**

Next Steps

I. Working Group Minutes — **PSC**
- **A. Drafts Circulated to Participants:** — **Monday, October 28, 2019**
- **B. Comments from Participants to PSC Staff:** — **Thursday, October 31, 2019**
- **C. Minutes filed with Commission:** — **Monday, November 4, 2019**

II. Next Meeting — **Date (TBD)**

Adjournment