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**STAFF MEMORANDUM**

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**TO:** COMMISSIONERS AND ADVISORS

**FROM:** DARREN KEARNEY & ADAM DE HUECK

**RE:** EL15-040 - IN THE MATTER OF THE REQUEST BY ABERDEEN HOUSING AUTHORITY FOR A VARIANCE TO THE SEPARATE METERING REQUIREMENT IN ARSD 20:10:26:03(4) FOR A 40 UNIT MULTI-FAMILY HOUSING STRUCTURE IN ABERDEEN, SOUTH DAKOTA

EL15-041 – IN THE MATTER OF THE REQUEST BY SIOUX FALLS HOUSING MINISTRY, LLC FOR A VARIANCE TO THE SEPARATE METERING REQUIREMENT IN ARSD 20:10:26:03(4) FOR A 39 UNIT MULTI-FAMILY HOUSING STRUCTURE IN SIOUX FALLS, SOUTH DAKOTA

**DATE:** FEBRUARY 24, 2016

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The Issue

In dockets EL15-040 and EL15-041 the Commission must decide whether to grant or deny Aberdeen Housing Authority and Sioux Falls Housing Ministry, LLC (hereafter Applicants) a variance from the individual metering requirement set-forth ARSD 20:10:26:03(4). This rule reads as follows:

“Individual metering – When required. Individual gas metering or electric metering, or both, shall be required under the following circumstances for all gas and electric utilities under the commission’s jurisdiction:

...(4) For any multiple-occupancy building constructed, owned or operated with funds appropriated through the department of housing and urban development, or any other federal or state government agency, unless a formal regulation of the funding agency requires master metering.”

According to the applications, both Applicants intend to construct multi-family housing structures (one for affordable housing and the other for affordable senior housing) using LIHTC/HOME funds. As such, the Applicants are required to individually meter gas and electric services in accordance with the rule above since they plan to receive federal/state funding.

The Applicants state that under the lease structures for the housing facilities the landlord is going to pay all utilities. Therefore, the Applicants request the Commission approve a variance from ARSD 20:10:26:03(4) in order to avoid additional upfront costs and additional administrative burdens.

## **Staff Analysis**

The following is an analysis of key questions that Staff believes the Commission needs to consider when making its decision to grant or deny the requests for variance from the individual metering requirements.

### ***Does the HOME Investment Partnership Program require master metering?***

Staff contacted the South Dakota Housing Development Authority and confirmed that the HOME program does not require master metering. Therefore, the Applicants' multi-family housing structures are required to be individually metered per ARSD 20:10:26:03(4) unless the Commission approves the variance request.

### ***What is the purpose of the master metering rules found in ARSD 20:10:26?***

As additional color as to why the master metering rules are in place, the rules in ARSD 20:10:26 were spawned from the Public Utilities Regulatory Policy Act of 1978 (PURPA), specifically section 113. PURPA states:

“Master Metering – To the extent determined appropriate under section 2625(d) of this title, master metering of electric service in the case of new buildings shall be prohibited or restricted to the extent necessary to carry out the purposes of this chapter.” [16 U.S.C. §2623(b)(1)]

“Master Metering – Separate metering shall be determined appropriate for any new building for purposes of section 2623(b)(1) of this title if –

- (1) There is more than one unit in such building,
- (2) The occupant of each such unit has control over a portion of the electric energy used in such unit, and
- (3) With respect to such portion of electric energy used in such unit, the long-run benefits to the electric consumers in such building exceed the costs of purchasing and installing separate meters in such building.” [16 U.S.C. §2625(d)]

The purpose of PURPA, as referenced in section 113 of the Act at 16 U.S.C. §2623(b)(1), is to encourage 1) the conservation of energy, 2) the optimization of the efficiency of use of facilities by electric utilities, and 3) equitable rates to consumers. Moreover, PURPA established the master metering standards set forth above and then required state regulatory authorities to hold a hearing in order to determine if the state should adopt the recommended PURPA standards. The Commission held a hearing and entered its decision regarding the adoption of the PURPA master metering standards in docket F-3237.

Through its Decision and Order in docket F-3237, the Commission established its expectations for individual metering. The following are the Commission's Conclusions of Law in that Decision and Order that are applicable to the dockets currently before the Commission:

- I. That individual metering of all gas and electric service to new multiple occupancy buildings, as further provided herein, will significantly encourage conservation of energy supplies by gas and electric utilities, will produce more efficient use of facilities and resources by gas and electric utilities, and will result in more equitable rates for gas and electric consumers, and that therefore master metered gas and electric service to new multiple occupancy buildings should be prohibited.
  
- XIII. That the provisions of this Order shall not apply to any multiple occupancy building constructed, owned, or operated with funds appropriated through the Department of Housing and Urban Development, or any other federal or state government agency, if such building is subject to regulations promulgated by said department or agency which are inconsistent with the terms of this order.
  
- XIV. That the Commission's Decision and Order herein constitute an adoption of the standard established in Section 113(b)(1) of the Public Utilities Regulatory Policy Act of 1978 (PURPA) but that said Decision and Order is not limited in any way by or to the terms of said sections of PURPA.

After reviewing the Commission's decision and order, Staff finds that the Commission determined master metering of new multiple occupancy buildings should be prohibited. Staff further finds that the Commission did not bind itself to the PURPA master metering standards, allowing the Commission to grant variances from the standards at the Commission's discretion.

***What should be considered when determining if a variance request should be granted?***

According to ARSD 20:10:26:05(3), the company is required to provide "the reasons for granting a variance, including cost-effectiveness, energy efficiency, and energy conservation effects." Therefore, staff believes that these criteria should be considered by the Commission.

***What are the costs of individually metering the Applicants' multi-unit housing structures?***

In response to Staff's data requests filed on February 2, 2016, the Applicants provided the estimated costs of individually metering each unit. The following are the cost impacts:

- 1) Aberdeen Housing Authority (docket EL15-040): states that individually metering each unit will cost an additional \$63,760 and this would create a \$100,000 financing gap and make it difficult for the project to go forward. In addition, individually metering will cost an additional \$4,446 per year as a result of basic service charges applied to each meter every month.
- 2) Sioux Falls Housing Ministry, LLC (docket EL15-041): identifies that individually metering each unit will cost \$65,600 in construction costs and an additional \$4,560 per year in basic service charges that would be applied to each meter every month.

- 3) Both Applicants are concerned that if they exceed cost limits they could lose tax credit dollars.

Staff does not question the cost information provided above if the Applicants do in fact need to place water heaters within each individual unit in order to individually meter each unit. However, Staff does provide a possible alternative for Commission consideration. That alternative is to individually meter each unit for electric service (since each unit has its own electric air heater and air conditioner) and continue with its plans to have a central water heating system.

If this alternative is able to be executed by the Applicants, Staff believes the costs would be substantially less. Upfront construction costs for this alternative would be ~\$9,750 to add meter sockets and possibly an additional ~\$13,500 to increase feeder size for the building (if needed). Therefore, the total upfront cost would be approximately \$23,250. Additional recurring annual costs would be about \$4,500 for basic service charges. Finally, there would be additional administrative burden on the Applicants for individually metering each unit; however, the cost of this burden was not quantified.

***What are the benefits of individually metering the Applicants' multi-unit housing structures?***

The benefits of individually metering each unit are that occupants can experience long-term cost savings through energy conservation. The dollar value of savings associated with energy conservation is not quantified in these dockets. However, in the Commission's Decision and Order in docket F-3237, the Commission concluded that individually metering will significantly encourage the conservation of energy supplies and will result in more equitable rates and electric consumers.

Staff notes that there may be additional benefits, not initially contemplated by the Commission in docket F-3237, as a result of individually metering new multi-occupancy units. The use of smart appliances and smart thermostats are taking hold in the market place. These technologies allow consumers to be interactive with, and better control, their energy consumption. The payback for consumers for adopting this smart technology is through avoided energy cost savings. Master metering new multi-occupancy units will essentially remove the incentive for occupants to adopt this new technology since any avoided energy cost savings will be spread across all occupants of the multi-unit housing structure.

Moreover, the Applicants' multi-occupancy structures will have individual electric heating and cooling systems for each unit. The ability to control these systems remains with the occupants of each unit. Staff believes that the occupants could experience significant energy cost savings over the long-term if the units are individually metered and the energy savings associated with conservation efforts are passed back to the occupant.

Finally, Staff is unable to quantify for the Commission the savings occupants could experience through energy conservation and use of smart technologies. However, ARSD 20:10:26:03(3) clearly identifies that the Commission should consider energy efficiency and energy conservation effects when making its decision. Since each unit of the proposed multi-occupancy housing structures is heated and cooled individually, there is the potential for occupants to experience monetary savings as a result of energy efficiency and conservation.

**Purpose of this Memo**

The purpose of this memo is to provide the history of the master metering rules and the information the Commission should consider when determining if a variance should be granted from the individual metering requirements set forth in ARSD 20:10:26:03(4). Based on the Commission's Decision and Order in docket F-3237, it is clear the Commission wanted the flexibility to grant variances from the individual metering requirements established in PURPA.

Ultimately, the Commission needs to determine if the cost of individually metering the multi-occupancy facilities outweighs the potential long-term benefits to the electric consumer. As such, Staff believes this is a determination that can only be made by the Commission and takes no position on the dockets.