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BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

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In the Matter of the Commission's Promulgation of Amendments to Rules for Electric Service and Safety Standards Pursuant to Chapter 4928, Revised Code.)
) Case No. 99-1613-EL-ORD

In the Matter of the Application of Columbus Southern Power Company Approval of Minimum Requirements for Distribution System Interconnection.)
) Case No. 00-1248-EL-ATA

In the Matter of the Application of Ohio Power Company for Approval of Minimum Requirements for Distribution System Interconnection.)
) Case No. 00-1247-EL-ATA

RESPONSE OF COLUMBUS SOUTHERN POWER COMPANY AND OHIO POWER COMPANY TO COMMENTS FILED BY THE OHIO CONSUMERS' COUNSEL, AND THE STOCKPORT MILL COUNTRY INN, INC. AND TO THE JOINT COMMENTS OF OHIO PARTNERS FOR AFFORDABLE ENERGY AND OHIO ENVIRONMENTAL COUNCIL

The tariff filings made in these dockets by Columbus Southern Power Company and Ohio Power Company (the Companies) were in response to the Commission's November 20, 2001, Finding and Order which directed that interconnection tariffs substantially equivalent to a Commission-approved pro forma tariff be filed. Pursuant to the Commission's February 15, 2002 Entry in these and other related dockets, the following persons filed comments on or before March 1, 2002:

1. The Ohio Consumers' Counsel (OCC) – filed March 1, 2002.

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2. Ohio Partners for Affordable Energy and Ohio Environmental Council (OPAE/OEC) – filed March 1, 2002.
3. The Stockport Mill Country Inn, Inc. (Stockport Mill) – filed February 14, 2002.

As permitted by the February 15, 2002 Entry, the Companies submit the following responses to those comments.

OCC's Comment

"No other fees are described in the pro forma tariff. The tariff has a heading for 'additional fees,' but none are described. Given the language that the utilities may not charge any fees other than those authorized by the pro forma tariff and given that no additional fees are described, there should be no additional fees. The utilities should not be allowed to include additional fees in their tariffs that are not included in the pro forma tariff." (OCC, p.3).

Companies' Response

Does the OCC really believe that an "Additional Fees" header was included in the pro forma tariff and intended to be left blank? As part of the Stipulation and Recommendation in this case, each of the utilities agreed "to implement individual Company fee schedules to the Company Interconnection Tariffs." The additional fees section was added to accommodate other utility fees in addition to the application and system impact study fee schedules such as the AEP Companies' inspection fees.

Additionally, the "no other fees" language in the pro forma tariff to which OCC refers reads, "The Company shall not charge any fees for interconnection other than those authorized by this tariff." The "tariff" referred to in this sentence is the individual Company Interconnection Tariff and not the pro forma tariff, because as stated above the utilities agreed to implement individual fee schedules.

OCC's Comment

"[W]ith regard to the smaller facilities that pass through the screening process and thereby qualify for simplified interconnection, the utility and the customer will execute a simplified interconnection agreement. In the case of such interconnections, construction or upgrades are not necessary. The application fee is the only fee that this customer should

pay. If a deposit were requested, no additional costs would be incurred, and the entirety of the deposit should be refunded." (OCC, p.3).

Companies' Response

According to the Companies' filed schedules, a deposit is required "where a system impact study is required to determine the feasibility and cost of safely connecting the customer's generation facilities to the Company's distribution system." A system impact study may be required "for those facilities that do not qualify for simplified interconnection pursuant to the screening process included in the Technical Requirements." In other words, any customer facility that qualifies for simplified interconnection is not subject to system impact study deposit requirements.

OCC's Comment

"OPC and CSP have 'additional fees', including a fee for an inspection of the inverter settings of a static inverter-connected generator with a capacity in excess of 10 kW, for which the customer will pay a \$115 charge for each inspection and another \$115 charge for an inspection of the protective equipment settings of a non-static inverter-connected generator...These fees are not included in the pro forma tariff and should not be approved by the Commission." (OCC, p.6).

Further, OCC erroneously implies that an interconnection customer will be subject to multiple inspection fees for a single generator ("and another \$115 charge"). (OCC, p.6).

Finally, OCC again claims that fees, this time system impact study fees, "are not contemplated by the pro forma tariff. Therefore, such fees should not be approved." (OCC, p.6).

Companies' Response

These inspection fees are included in the Companies' current Commission-approved Net Energy Metering Service Schedules. The Commission's Entry of December 7, 2000 approving the Companies' compliance tariffs filed in their transition cases (Case Nos. 99-1729-EL-ETP and 99-1730-EL-ETP) stated that the above inspection fees were within the scope of the Interconnection Tariff Workshop and should be removed from the net metering schedules upon Commission approval of an interconnection tariff. The Companies have complied with that request in this Interconnection Tariff filing by including the inspection charges here and filing revised net metering schedules, which delete the inspection charges.

Regarding the other \$115 charge, a customer's generation unit cannot be both a "static inverter-connected generator" and a "non-static inverter-connected generator." There is no duplication of fees under the Companies' filing.

Finally, as explained above, each of the utilities agreed to implement company-specific fee schedules as part of their interconnection filings. The system impact study fee is appropriate.

OPAE/OEC Comment

OPAE/OEC states that a number of the utilities, including the AEP Companies, "differ from the terms of the pro forma tariffs because they (sic) applicability of their tariff to distribution system voltages up to 35 kV. This limitation has the potential to create gaps in the availability of interconnection service for some customers, though the impact is unclear at this point." (OPAE/OEC, p.3).

Companies' Response

OPAE/OEC apparently doesn't understand that 35 kV (35 thousand volts) is the maximum voltage level available on the Companies' distribution system and not a constraint on the output of a customer's generation equipment (which may be measured in kW or kVA). Any voltage greater than 35,000 is part of the Companies' transmission system. This entire proceeding is concerning interconnection to the utilities' distribution systems and hence, the 35 kV limitation. The Technical Requirements document (labeled as Joint Exhibit 2 to the pro forma tariff) adopted by all the utilities is applicable to "Company Distribution systems of 35 kV or less." There is no gap and, therefore, there is no impact for OPAE/OEC to understand.

OPAE/OEC Comment

OPAE/OEC states that the AEP companies, "arbitrarily set different non-refundable application fees for different size generators" and "also charge deposits based on the size of the generator, making assumptions about the amount of time associated with reviewing applications based on facility size." (OPAE/OEC, p.5).

Companies' Response

The Companies' interconnection fees are not set arbitrarily as can be seen in the Supporting Cost Documentation included in the Companies' filings. OPAE/OEC is correct that costs and review times increase with the size and complexity of generation units. The pro forma tariff calls for fee

deposits to be based on "an amount equal to \$__ per kW of generation referenced in the Application." This means that a 20 kW facility would require four times the deposit amount of a 5 kW facility. The Companies have simply chosen to group similar size facilities in a table format. As for the application fees, the Companies have chosen to limit the fee for smaller residential-type installations to \$100, rather than charge all customers an average fee closer to \$500.

Stockport Mill

The request by Stockport Mill to interconnect distributed generation with Ohio Power Company's distribution system followed the proposed Ohio Pro Forma DG Interconnection Tariff process. In all respects the Company followed its predefined process including the screening process that is incorporated into the technical requirements documentation.

The request by Stockport Mill did not qualify for simplified interconnection based upon the screening process. The technical requirements document entitled "Technical Requirements for Interconnection and Parallel Operation of Distributed Generation Single Phase less than or equal to 25 kW Three Phase DG less than or equal to 300 kW" (Technical Requirements) was provided to Stockport Mill. The screening process document entitled "Interconnection Request Screening Process" is referenced in Section 1.2 of the Technical Requirements provided to Stockport Mill. The Company would have provided a copy of the screening process to Stockport upon request.

Electric distribution feeders like the one serving Stockport Mill are designed to serve load radially from a single source. Radial feeders are not designed for two-way power flow. Therefore, a power flow issue as well as a capacity issue must be considered.

Stockport Mill was asked to pay \$3,000 as an advance deposit and was asked to execute an interconnection agreement. Stockport Mill paid the deposit which was applied toward the studies that were required to determine if the request would have an adverse impact on the distribution system. The deposit would also be used to cover the \$115 fee for on-site inspection of the protective settings of the generator prior to interconnection. The actual charge for performing the studies was \$2312.32. The Company will refund the difference between the deposit and the total of the actual cost of the studies added to the \$115 inspection fee, i.e. \$572.68 upon receipt of the executed interconnection agreement.

The Company strongly disagrees with the assertion that it has calculated an inflated application fee in an effort to keep the fee as high as possible.

The Company has submitted documentation supporting the reasonable fee schedule filed.

The Company also strongly disagrees with the assertion that "a utility will find ways to spend as much money as they are given for a given task, whether the work is needed or not". The lower fees Stockport Mill proposes are inappropriate and would create a subsidy for customers installing distributed generation at the expense of customers who do not install distributed generation.

The Company is committed to providing safe, reliable service to our customers at the lowest practical cost. This means that the Company will perform as efficiently as practical the work necessary and appropriate to assure the continued safety of its employees and the public and continued reliable electric service to our customers. Stockport Mill, as well as many others unfamiliar with the utility system who promote distributed generation, may not be fully aware of the impact a distributed generation facility can have on public and utility worker safety and on the reliability and power quality of the service provided to utility customers.

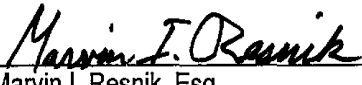
The section of the Technical Requirements cited by Stockport Mill as an issue, requires the generation equipment to trip off line during abnormal system conditions. This section is straight forward. It spells out the trip times for overvoltage and undervoltage conditions and for overfrequency and underfrequency conditions essential for proper protection and the prevention of unintentional islanding conditions. The trip times and other requirements in this section of the Technical Requirements are very close to the requirements being proposed in the Institute of Electrical and Electronics Engineer's (IEEE) P 1547 Draft Standard for Interconnecting Distributed Resources with Electric Power Systems. When adopted, this proposed standard will cover all distributed generation and storage devices regardless of how small the units are in terms of electrical capacity. Multiple trip points have been required for photovoltaic systems for a number of years under IEEE Standard 929. These multiple trip point requirements cannot be overly complex if they are proposed to apply to even the smallest distributed generators and currently apply to even the smallest photovoltaic systems, i.e. a 100 watt photovoltaic system.

The Technical Requirements section at issue does not contain requirements for multiple delay settings as Stockport Mill's comments would seem to imply. There are requirements for undervoltage/ overvoltage and underfrequency/overfrequency tripping of the generation to take place within specified times depending upon the magnitude of the abnormal condition. Stockport Mill requested the Company to allow operation with a 1 second trip time for overvoltage/undervoltage and overfrequency/underfrequency conditions. The Company replied in a

letter dated December 18, 2001 denying Stockport Mill's request and provided information to explain why tripping times in the Technical Requirements were appropriate. Increasing the delay to 1 second under all conditions would greatly increase the probability of damage from either generation islanding created ferroresonance or self excited induction generation.

The Company is agreeable to explain to customers that distributed generators can use single trip relays that will trip within the time windows defined for overvoltage/undervoltage conditions and underfrequency/overfrequency conditions as suggested by Stockport. Technical Requirements should not include prescriptive methods of complying with requirements. There may be multiple ways to meet the technical requirements and customers should be given optionality. In this case, Stockport Mill seems to have recognized the added value of going with equipment that provides multiple delay settings.

Respectfully submitted,

 b, WRF

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing has been served by U.S. Mail, postage prepaid, upon the individuals listed on the Commission's service list for each case on the 15th day of March, 2002.

Marvin I Resnik by WRF
Marvin I. Resnik