

## Interconnection Process

### Overview

AEP Ohio is committed to providing safe reliable service to our customers at the lowest practical cost. This means that AEP Ohio 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.

Improper connection and operation of any source of electrical power, such as a Distributed Resource (e.g. generators and energy storage technologies), in parallel with the AEP Ohio transmission and distribution systems could jeopardize the safety of AEP Ohio employees and the public and could degrade the reliability and quality of the electric service provided to our customers. Therefore, no source of electrical power shall be operated in parallel with the AEP Ohio transmission and distribution systems without the express written approval of AEP Ohio.

Customers may obtain AEP Ohio approval to operate a Distributed Resource in parallel with its system by applying for interconnection and following the appropriate interconnection process. The specific application form and interconnection process to be followed is dictated by Chapter 4901:1-22 Interconnection Services of the Ohio Administrative Code (OAC). AEP Ohio desires to minimize the time and expense involved with the interconnection process consistent with maintenance of system safety and reliability, in addition to compliance with the applicable regulatory requirements and customer satisfaction.

An overview of the general interconnection process is outlined below.

#### **Step 1: The customer contacts AEP Ohio.**

The customer contacts AEP Ohio by telephone, e-mail or U.S. mail. Based upon the customer's request and preliminary plans, AEP Ohio advises the customer on the appropriate interconnection application form and provides information on the required interconnection process. The correct application form to use depends upon the location, type, size and proposed use of the planned Distributed Resource.

Customers who plan to sell electricity produced by their planned electrical generating facility at wholesale in interstate commerce may need to use an application form approved for use as part of a Federal Energy Regulatory Commission (FERC) approved Open Access Transmission Tariff. Customers whose planned Distributed Resource does not fall under FERC jurisdiction must use the application form provided, based upon the location, type, size and proposed use of the Distributed Resource.

#### **Step 2: Customer submits a completed application.**

Any customer who proposes to operate any type of Distributed Resource in parallel with the AEP Ohio transmission and distribution systems must first submit a completed application to request review and approval of the proposed Distributed Resource interconnection. For the application to be considered complete, the request must be submitted on the proper application form and must include all information requested and payment of monies due at the time of application.

## Interconnection Process

### **Step 3: AEP Ohio reviews the application form for completeness.**

In order for AEP Ohio to process a customer request for Distributed Resource interconnection, the submitted application form must be complete. Upon receipt of an application form, AEP Ohio will review the application for completeness. If AEP Ohio determines the application form is incorrect and/or is incomplete, AEP Ohio will notify the customer within ten (10) business days and provide the correct form and/or a description of the information needed to complete the application form. The interconnection request will be placed in Queue based upon the date and time of receipt of the completed application form.

### **Step 4: AEP Ohio performs a limited study to determine compliance with the Technical Requirements and the potential system impact of the Distributed Resource.**

Based upon an interconnection request's position in the Queue and the applicable time limits established by the OAC, AEP Ohio will perform a limited engineering study to determine compliance with the Technical Requirements and to evaluate the System Impact of the proposed Distributed Resource. In order to properly assess the System Impact, additional information may be requested during the limited engineering study.

The study time limits and study scope vary depending upon the rules established by the OAC and may vary by the type, size and proposed use of the Distributed Resource. Specific screening criteria are utilized to minimize the time and expense involved to evaluate pre-certified Distributed Resources. Additional time is generally required to evaluate Distributed Resources that are not pre-certified to determine if they meet the Technical Requirements.

### **Step 5: AEP Ohio informs the customer of the results of the limited study.**

The results of the limited study are provided to the customer within the applicable time limits established by the OAC.

AEP Ohio will first determine if the proposed Distributed Resource meets the Technical Requirements. If it is determined that the proposed Distributed Resource does not meet the Technical Requirements, AEP Ohio will notify the customer and provide a list of specific changes necessary for the proposed Distributed Resource to meet the Technical Requirements. If the customer decides to make the necessary changes to comply with the Technical Requirements, AEP Ohio will complete the limited study.

If the limited study shows that the proposed Distributed Resource meets the Technical Requirements and that interconnection of the proposed Distributed Resource will not cause System Impact, AEP Ohio will notify the customer of the study results and provide the customer with a proposed interconnection agreement.

If the limited study shows that the proposed Distributed Resource meets the Technical Requirements but that interconnection of the proposed Distributed Resource will cause System Impact and it is determined that changes in the customer's proposed generating facilities or minor AEP Ohio system modifications can be made to accommodate the proposed Distributed

## Interconnection Process

Resource, AEP Ohio will notify the customer of these study results. If the customer then elects to make the necessary changes and/or pay for minor AEP Ohio system modifications, AEP Ohio will provide the customer with a proposed interconnection agreement and a construction agreement when there are AEP Ohio system modifications.

If the limited study shows that the proposed Distributed Resource meets the Technical Requirements and additional study is required to determine if interconnection of the proposed Distributed Resource will cause System Impact, AEP Ohio will provide the customer with the results of the limited study and provide an estimate of the cost of the additional study required to determine the System Impact of the proposed Distributed Resource. If the customer then elects to pay for the additional study and subsequently agrees to pay for any necessary changes, minor system modifications and/or system upgrades determined necessary by the additional study, AEP Ohio will provide the customer with a proposed interconnection agreement and construction agreement when applicable. AEP Ohio will also provide a meter change request and Schedule NEMS or COGEN/SPP Application, when applicable. All copies of these documents must be signed and returned to AEP Ohio within thirty business days.

**Step 6: The customer signs and returns the proposed interconnection agreement and any necessary study and facility changes are completed.**

The customer signs and returns the proposed interconnection agreement. Upon receipt of the customer's payment and completion of any necessary study, minor system modifications and system upgrades by AEP Ohio and the completion of customer facility changes necessary to accommodate the customer's Distributed Resource, the customer can proceed to complete their Distributed Resource installation in preparation for final checkout and commissioning tests.

**Step 7: The customer notifies AEP Ohio of final checkout schedule, performs the final checkout, successfully completes all commissioning tests and sets up periodic interconnection test procedures.**

The customer completes their Distributed Resource installation and notifies AEP Ohio of their schedule for final checkout and the plan for commissioning tests. AEP Ohio may inspect the customer's Distributed Resource installation and observe the customer performing the required commissioning tests. Upon successful completion of the commissioning tests, the customer will give or send AEP Ohio a copy of their final inspection checkout and the results of the commissioning tests and the written periodic interconnection test procedures proposed by the customer.

**Step 8: AEP Ohio authorizes operation of the proposed Distributed Resource in parallel with the AEP Ohio transmission and distribution systems.**

Based upon its review of the customer's proposed Distributed Resource facility, the final inspection checkout and the results of the commissioning tests, AEP Ohio notifies the customer in writing of its authorization for the customer to operate the generating facility in parallel with the AEP Ohio transmission and distribution systems under the terms of its interconnection agreement.

## **Interconnection Process**

If AEP Ohio identifies problems with the inspection, if the commissioning test results are unsatisfactory, or if AEP Ohio does not agree with the customer's periodic test procedures, AEP Ohio will notify the customer in writing with the deficiencies clearly identified. AEP Ohio may withhold authorization for parallel operation until such deficiencies have been properly corrected.