

# Facility Connection Requirements

**For NERC Reliability Standard:**

*FAC-001-0\_R1\_R2\_R3*

**June 17, 2010**

**Version 3.1**

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**Approved By:**

**Signature:**



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**Printed Name:**

Dan Klempel

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**Title:**

Manager Transmission Compliance

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**Date:**

June 17, 2010

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# Facility Connection Requirements

(NERC Reliability Standard FAC-001-0)

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# Facility Connection Requirements

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### 1.0 Purpose

The stated purpose of the North American Electric Reliability Corporation (NERC) Reliability Standard FAC-001-0, Facility Connection Requirements, is as follows:

*To avoid adverse impacts on reliability, Transmission Owners must establish facility connection and performance requirements.*

The stated applicability to NERC Reliability Standard FAC-001-0 is as follows:

- Transmission Owners (TO)

Basin Electric Power Cooperative (Basin Electric) has developed and implemented this “Facility Connection Requirements” document as a structured guideline to assist its Transmission Department in processing “Interconnection Requests” from external entities for Generation, Transmission, and End-user facilities interconnecting with Basin Electric’s Bulk Electric System (BES) transmission and/or generation facilities. The connection requirements stated in this “Facility Connection Requirements” document are to be considered minimum connection requirements and there may be additional connection requirements depending on the location and characteristics of the proposed interconnection facility, which will be addressed on a case-by-case basis. This “Facility Connection Requirements” document is to ensure compliance with all applicable Regional, Power Pool, and/or Basin Electric planning criteria and facility connection requirements, as well as to comply with the NERC Reliability Standard FAC-001-0, Facility Connection Requirements, Requirements R1, R2, and R3.

Any entity seeking to interconnect Generation, Transmission, and/or End-user facilities with Basin Electric’s BES transmission and/or generation facilities shall complete and return the “Basin Electric Application for Interconnection” as included as Appendix A. If applicable information is available at the time of request to comply with system performance requirements throughout the planning horizon, the applicant is encouraged to submit a written summary of those plans to expedite the initial evaluation. Upon reviewing the request, Basin Electric may direct the interconnection request to be “Queued” as necessary under Basin Electric’s Open Access Transmission Tariff (OATT) and/or filed with another entity.

### 2.0 Overview

Basin Electric is a consumer-owned rural electric cooperative headquartered in Bismarck, North Dakota. Basin Electric owns and maintains approximately 1,900 line miles of electric transmission facilities that are operated at voltages from 115 kV to 345 kV. Basin Electric operates electric generating power plants with a total capacity of more than 3,500 megawatts providing supplemental wholesale power to 125 rural electric member systems in Colorado, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, South Dakota and Wyoming, as well as to non-member customers. Basin Electric’s

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member systems serve approximately 2.6 million customers in the Eastern Interconnection and the Western Interconnection.

Within the Midwest Reliability Organization (MRO) and the Western Electricity Coordinating Council (WECC) Reliability Regions, Basin Electric and/or its Member Cooperatives own, operate, and maintain generating facilities, own and maintain Bulk Electric System (BES) transmission facilities, and distribute electricity. Basin Electric is registered in both the MRO and WECC Regions as a Distribution Provider (DP), Generator Owner (GO), Generator Operator (GOP), Load-Serving Entity (LSE), Resource Planner (RP), ***Transmission Owner (TO)***, and Transmission Planner (TP); and additionally as a Transmission Service Provider (TSP) in the WECC region.

Although Basin Electric owns, operates, and maintains generating facilities and owns and maintains BES transmission facilities within both the MRO and WECC Regions, all such facilities are operated by other registered Transmission Operators (TOP) and included in their respective Balancing Authority (BA) areas, as described below.

Within the MRO Region, Western Area Power Administration's – Upper Great Plains Region (Western-UGP) is the BA and TOP for all Basin Electric's and/or Member Cooperative's generation and BES transmission facilities located in eastern and northern Montana, North Dakota, South Dakota, western Nebraska (including LRS Unit 1 in southeast Wyoming), western Minnesota, and western Iowa. Western-UGP operates the Western Area Upper Great Plains East (WAUE) BA area, which includes all Basin Electric and Member Cooperative BES facilities.

Within the WECC Region, Western's Rocky Mountain Region (Western-RMR) is the TOP for the Missouri Basin Power Project (MBPP) generation and transmission facilities, which include Laramie River Station (LRS) Generating Units 2 & 3 and the associated MBPP transmission facilities, all of which are located in southeastern Wyoming and northeastern Colorado. Western-RMR operates the Western Area Colorado Missouri (WACM) BA area, which includes Basin Electric's MBPP facilities.

Western-UGP is the TOP for the Member Cooperative BES transmission facilities located in northern Montana, west of the Fort Peck Generating Station, also within the WECC Region. Western-UGP operates the Western Area Upper Great Plains West (WAUW) BA area, which includes the Member Cooperative's BES transmission facilities.

In northeast Wyoming, within the WECC Region, Basin Electric's BES transmission facilities are part of an integrated system called the Common Use System (CUS). Black Hills Power (BHP) is the TOP for all CUS BES transmission facilities, all of which are located in northeast Wyoming and western South Dakota. All CUS BES transmission facilities, including those Basin Electric facilities, are included within Western-RMR's WACM Balancing Authority (BA) area.

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### **3.0 Facility Connection Requirements for Generation, Transmission, and End-User Facilities** [R1, R1.1, R1.2, R1.3, R2, and R2.1]

All requests for interconnection of Generation, Transmission and/or End-user facilities with Basin Electric's BES transmission system must be consistent with NERC, Regional (either the Midwest Reliability Organization (MRO) or the Western Electricity Coordinating Council (WECC) Regions), Power Pool, Basin Electric reliability requirements, and standard utility practices. A proposed connection for Generation, Transmission, or End-user facilities must not materially degrade reliability or inhibit the operating flexibility of the existing transmission system. System Impact Studies (SIS) are required to evaluate the impact of the requested facility connection and alternative plans to meet established reliability criteria. The System Impact Study (SIS) must include a written summary of the entities plans to achieve the required NERC, Regional, and Basin Electric system performance throughout the planning horizon. After an acceptable System Impact Study (SIS) has been performed, a Facilities Study will be required to determine the detailed facility interconnection requirements. The Facilities Study will address direct assignment facilities, network upgrades, cost estimates, and construction scheduling estimates.

All arrangements for system studies, engineering design, construction, ownership, operations, maintenance, replacement of equipment, metering, facility controls, and telecommunications must be set forth in written contracts between Basin Electric and the requesting party. If additional equipment or replacement equipment is required to accommodate the facility interconnection, Basin Electric will retain equivalent transmission capacity and operational control as previously existed. The cost associated with equipment modifications is the responsibility of the requesting party. Basin Electric reserves the right to participate in the costs of proposed facility expansion plans that may be accommodated through mutually advantageous alternatives which provide substantial benefits to regional reliability or transmission transfer capability.

The requesting party will generally be responsible for obtaining any necessary Right-of-way (ROW) or easements from landowners. All costs associated with environmental activities for the new facility will be the responsibility of the requesting party. Advance funds or deposits will be required by Basin Electric prior to any work being performed.

A direct interconnection into Basin Electric's transmission facilities does not guarantee availability of transmission capacity.

The following requirements and procedures must be satisfied by any entity seeking to connect Generation, Transmission, and/or End-user facilities to the Basin Electric BES transmission and/or generation system.

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### 3.1 Procedures for Coordinated Joint Studies [R2.1.1]

Entities seeking to connect Generation, Transmission, or End-user facilities shall work cooperatively with Basin Electric in conducting Joint Studies of the new facilities and their impacts on the interconnected transmission system.

All costs to conduct or review System Impact Studies (SIS) are the responsibility of the requesting party.

Studies evaluating the impacts of new or modified Generation, Transmission, or End-user facilities shall be conducting utilizing analytical tools and databases approved or deemed acceptable by the MRO or WECC Regions and Basin Electric.

The scope of studies to be conducted shall consider but not be limited to power flow analysis, post-transient analysis, dynamic stability analysis, and short-circuit analysis to ensure compliance with all applicable NERC, MRO, WECC, Power Pool, and Basin Electric standards, and requirements. Such study scope shall be as mutually agreed upon by Basin Electric and the entity seeking to connect Generation, Transmission, or End-user facilities.

Evaluation of alternatives to the proposed facility connection, such as lower voltage construction, alternative interconnection points, reactive support facilities, or upgraded facilities, may be considered.

Power flow analysis will require 10-year load and resource growth projections and the planned facilities needed to satisfy all pre-existing long term transmission service requirements. If the studies indicate that additions or upgrades to the existing transmission system are necessary, Basin Electric will conduct or review facilities studies, at the expense of the requesting entity, to determine the cost of additions or upgrades and the required timeframe for implementing system additions or upgrades.

The transmission planning process for a proposed new facility connection must also accommodate coordinated joint studies with other affected interconnected transmission system owners.

The requestor shall provide the following information commensurate with the scope of each phase of the transmission planning studies:

- Facility one-line diagrams depicting detailed proposed facility connection points, voltage levels, equipment data, breaker/switch configurations, and protective relay zones.

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- Transformer impedance data, winding configurations, voltage levels, thermal ratings, and available tap ranges.
- Generator nameplate data and machine constants, generator voltage rating, step-up, and auxiliary transformer data, impedance data, and ratings.
- Generator rotor, governor, exciter, power system stabilizer (PSS) and any other generator auxiliary data in accordance with the MRO or WECC Regions generator data specifications.
- Generator MW/MVAR levels, reactive capability curves, operational power factors and proposed load factors.
- Transmission line configuration, impedance, and thermal ratings.

The System Impact and Facilities studies shall typically be performed in multiple sequential stages. Phase 1 of the System Impact Study (SIS) or Feasibility study shall address a first level power flow screening analysis of the proposed interconnection facility. Phase 2 of the System Impact Study (SIS) includes more detailed evaluation of power flow, post-transient, dynamic stability, short circuit, flowgate analysis, and any other required study work. Analysis will be performed to the extent necessary to determine design requirements of facilities. Phase 3 (Facilities Study) will detail the final interconnection facilities design, direct assignment facilities, costs and construction schedule estimates. The Facilities Study will merge the results of the System Impact Studies (SIS) into a final Planning/Design Study. The Interconnection Agreement will not be executed until all of these steps have been successfully completed. The entity seeking to connect Generation, Transmission, or End-user facilities will have the option to rescind the interconnection request following the completion of any of the study phases.

Results of coordinated joint studies shall be documented along with any conclusions and recommendations. Such documentation shall be retained by Basin Electric and shall be made available if requested by NERC, the MRO and/or WECC Regions, or any other entities responsible for the reliability of the interconnected transmission system as soon as feasible. Approvals from the Mid-Continent Area Power Pool (MAPP) Design Review Subcommittee (DRS) or appropriate committees within the WECC Region may be required.

### **3.2 Procedures for Notification of New or Modified Facilities [R2.1.2]**

Notification of new or modified facilities shall be disseminated to the appropriate Transmission Operator (TOP) and/or Reliability Coordinator (RC) as soon as feasible and in accordance with notification procedures that such entities have established. If notification procedures are not readily available, Basin Electric

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will utilize whatever methods of communication necessary to ensure the information is delivered to and acknowledged by the appropriate entities.

### **3.3 Voltage Level and MW and MVAR Capacity or Demand at Point of Connection** [R2.1.3]

The requestor for a proposed facility shall specify the requested voltage level and MW/MVAR capacity and/or demand at the point of connection. Anticipated variability should be noted along with any requirements for elevated service reliability which require extraordinary consideration.

### **3.4 Breaker Duty and Surge Protection** [R2.1.4]

With respect to the connection of Generation, Transmission, or End-user facilities, Basin Electric shall review breaker duty and surge protection to identify any additions required to maintain an acceptable level of Basin Electric system availability, reliability, equipment insulation margins, and safety.

### **3.5 System Protection and Coordination** [R2.1.5]

Basin Electric's system protection requirements are designed and intended to protect Basin Electric's transmission and generation systems from equipment damage, to ensure the safety of the general public, Basin Electric, and other utility personnel, to minimize adverse operating conditions affecting Basin Electric and its customers, and to comply with any NERC, MRO or WECC Region, Transmission Operator (TOP), affected Balancing Authority (BA), and Basin Electric protection criteria in existence, and to promote reliable system operation. Additional protective relays are required to protect the Generation, Transmission, and End-user facilities of entities requesting connection of such facilities to the Basin Electric system. It is the requestor's responsibility to install and coordinate the proper protective relaying needed to protect the interconnecting facilities. Basin Electric does not assume responsibility for protection of the interconnected facilities. The requestor is solely responsible for System Protection and Coordination of protection systems of interconnected equipment so that faults, imbalances, or other disturbances on the Basin Electric system do not cause damage to the facilities.

To meet the reliability requirements of NERC and the MRO or WECC Regions, under frequency and/or under voltage load shedding schemes may be required. Any load or reactive device connected to the Basin Electric system will be expected to participate in under frequency or under voltage load shedding if Basin Electric determines such action is necessary to maintain system reliability.

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### 3.6 Metering and Telecommunications [R2.1.6]

Current Transformers (CTs) used for revenue metering circuits must meet the accuracy standards, as specified under ANSI C57.13, for an accuracy class of 0.3 percent at all burdens. The thermal current rating of CTs shall exceed the maximum current capacity of the circuit involved by a factor of 1.5 to 2.0. Voltage or Potential transformers (PTs) used for revenue metering circuits must meet the accuracy standards, as specified under ANSI C57.13, of 0.3 percent accuracy with the following burdens:

- (1) “W” through “Y” burden for 25 kV and below.
- (2) “W” through “ZZ” burden for above 25 kV.

Telecommunications facilities shall be sufficient to meet Basin Electric’s telephone, radio, system protection, remote meter reading, and EMS/SCADA requirements. The communication channel and channel hardware will be provided by the requesting entity. Basin Electric will specify the type, speed, and characteristics of the communication channel equipment so that compatibility with existing communications, supervisory control, relaying and telemetering equipment is maintained. The specific type of communication equipment to be furnished by the requesting entity will be reviewed and approved by Basin Electric.

Fiber optic additions to new or existing Basin Electric transmission lines will be considered on a case-by-case basis. Technical analysis of clearances, structural loads, and electrical field effects may limit applications. Outage restrictions and maintenance responsibilities may also impact potential paths. Basin Electric reserves the right to charge a fee for Right-of-Way (ROW), pole attachments, and/or acquire individual optical fibers on the circuit, per agreements between the interconnecting entity and Basin Electric.

### 3.7 Grounding and Safety Issues [R2.1.7]

Modifications to the ground grids of existing substations may be necessary to keep grid voltage rises within safe levels. The ground grid should be designed to ANSI/IEEE Standard 80-1986, IEEE Guide for Safety in AC Substation Grounding.

Equipment must be operated and maintained in accordance with manufacturer’s recommendations, prudent utility practices, and applicable environmental and safety standards. Basin Electric may require additional equipment to ensure a reliable interconnection and to safeguard the proper operating conditions of its power system. Basin Electric may provide required O&M services if funds have been advanced to cover these costs. Costs may include training on maintenance procedures for unfamiliar equipment.

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The interconnection substation must have a ground grid that solidly grounds all metallic structures and other non-energized metallic equipment. This grid shall limit the ground potential gradients to such voltage and current levels that will not endanger the safety of people or damage equipment located in, or immediately adjacent to, the station under normal and fault conditions.

Basin Electric personnel will conduct an inspection of the new substation interconnection facilities prior to the energization of these facilities. The inspection requirements will be consistent with the inspection requirements of existing substation facilities. Only after a satisfactory inspection is completed will the new substation interconnection facilities be authorized for energization and synchronization.

### **3.8 Insulation and Insulation Coordination [R2.1.8]**

System Impact and/or Facilities Studies shall include the evaluation of the impact of the new or modified facility on equipment insulation and insulation coordination.

A transmission line switching study may be required to evaluate transient overvoltages caused by switching operations involving a proposed new transmission facility. This study may be required for voltage class transmission facilities exceeding 200 kV to address insulation coordination requirements due to potential switching surges. Also, proposed lower voltage transmission lines which are electrically close to higher voltage facilities may require a switching surge study, at Basin Electric's discretion, in order to determine the Basic Insulation Level (BIL) requirements and/or breaker closing resistor requirements for the proposed new facilities.

### **3.9 Voltage, Reactive Power, and Power Factor Control [R2.1.9]**

The power factor for both Generation and End-user facilities shall be measured at the interconnection point.

Synchronous generators shall produce or absorb reactive power between 0.95 leading and 0.95 lagging power factors for steady-state conditions to meet voltage schedules. Interconnected generators shall have the capability to produce or absorb reactive power up to the thermal capability of the generator during transmission system disturbances. The voltage regulator shall be capable of maintaining the voltage at the generator terminal bus without hunting and within 0.5 percent of any set-point. The operating range of the regulator shall be at least plus or minus 5 percent of the rated voltage of the generator. The excitation system of synchronous generators shall be of a fast-response or High Initial Response type (the voltage response time is 0.5 seconds or less).

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Wind turbines or other induction type generators without VAR control capability will absorb VARs from the transmission system and therefore require reactive power support from Basin Electric's transmission and/or generation system. For proposed wind induction type generator interconnections, Basin Electric will require power factor correction at a minimum. Power factor correction capacitors must be installed either by the owner of the generation or by Basin Electric at the owner's expense. Switched capacitor banks supplied by the generation owner shall be coordinated with other influenced voltage controlled equipment in the near vicinity. Owners of interconnected induction generators shall provide, at a minimum, sufficient reactive power capability to deliver the generator output at unity power factor at the point of interconnection. Dynamic reactive compensation through turbine based or substation based systems are also acceptable methods to provide voltage control at the point of interconnection. Dynamic reactive power compensation may also be required in addition to static power factor compensation at some locations. The System Impact Study (SIS) will determine the reactive compensation required for the wind turbine generator interconnection. Induction generators are usually not required to participate in voltage regulation; however, they must not adversely affect voltage schedules. Integration studies may be necessary to determine the reactive power capability necessary to ensure that these schedules are maintained.

During voltage and frequency excursions, generators of all types shall remain connected to the grid, to the extent possible, without incurring generator damage. Regional plans should be consulted for conformity with NERC, MRO, and WECC standards.

Any interconnecting generating unit with a speed governor shall have a droop characteristic which contributes to frequency restoration. A 5% droop characteristic is recommended in the absence of any other requirements or study recommendations.

Basin Electric typically designs transmission facilities which can be operated at voltage levels between 0.95 – 1.05 Per Unit during normal conditions and between 0.90 – 1.10 Per Unit during emergency conditions. Owners of End-user facilities are strongly urged to install their own voltage regulation equipment and coordinate any voltage set points or time delays with the normal transmission voltage bandwidths.

All End-user facilities connected directly to the Basin Electric transmission system shall maintain a power factor between 0.95 lag and 0.95 lead as measured at the point where the End-user load interconnects with Basin Electric owned facilities. End-user load may be considered in aggregate where a common remedy is effective.

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### 3.10 **Power Quality Impacts** [R2.1.10]

Interconnection requests shall note any probable conditions which may appreciably contribute to voltage or current phase imbalance, harmonic distortion, flicker, impulses, or any other form of irregularity which may singularly or accumulatively result in unacceptable performance of the power system. Unacceptable performance obviously includes such items as equipment damage or malfunction, but may also include issues of consumer dissatisfaction resulting from persistent voltage flicker.

The interconnecting entity shall provide reasonable evidence that power quality issues are not a concern in the interconnection, or provide remedies which mitigate the effects thereof to acceptable levels. Where standards are available, they shall be referenced with the remedy, e.g. the Electrical and Electronics Engineers (IEEE) Standard 519 applies to harmonic distortion.

### 3.11 **Equipment Ratings** [R2.1.11]

Interconnected facilities shall have ratings which are not violated for the conditions of the interconnection request and relevant study procedures to which they apply. Furthermore, the requesting entity shall provide remedy for Basin Electric equipment ratings which cannot be maintained within criteria as a result of the interconnection.

### 3.12 **Synchronizing of Facilities** [R2.1.12]

An entity requesting interconnection shall ensure that adequate protection is provided whereby appropriate equipment is verifiably de-energized prior to making the interconnection, or that the voltage magnitude, angle, and slip speed are within tolerance to consummate interconnection without undue stress on equipment.

Following the execution of an Interconnection and Operating agreement and the successful completion of all construction, inspection and facility checkout procedures, the interconnected facility will be released for energization. The initial synchronization may be supervised and coordinated with Basin Electric personnel. Subsequent synchronization will be authorized by the Transmission Operator (TOP) designated in the Interconnection and Operating agreement.

### 3.13 **Maintenance Coordination** [R2.1.13]

The owner of installed equipment shall be responsible for its proper operation and maintenance. Equipment must be operated and maintained in accordance with manufacturer's recommendations, prudent utility practices, and applicable environmental and safety standards. The facility owner shall coordinate maintenance with Basin Electric. Basin Electric may require additional

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equipment to ensure a reliable interconnection and to safeguard the proper operating conditions of its power system.

Maintenance will be performed and expensed as stipulated in the interconnection agreement. Basin Electric shall be notified and have the right to witness settings and testing of relays, meters, and controls that could affect the integrity and security of Basin Electric's transmission system. Basin Electric shall also have the right to enter interconnected facilities for emergency operation and maintenance of equipment or structures Basin Electric deems necessary to maintain a reliable power system.

### **3.14 Operational Issues (abnormal frequency and voltages) [R2.1.14]**

To the practical extent, facility connection evaluation and studies shall identify operational issues (including abnormal frequency and voltages) and provide suggested remedies to mitigate material degradation of reliability or inhibited operation. Remedies shall comply with applicable NERC, MRO, and WECC standards and conform to accepted procedures by the authorized Transmission Operator (TOP) and Reliability Coordinator (RC).

### **3.15 Inspection Requirements for Existing or New Facilities [R2.1.15]**

Protective relays and control systems must be inspected and tested by functional trip checking prior to putting any interconnected facility in service. Only after a satisfactory inspection is completed will the new substation interconnection facilities be authorized for energization and synchronization. Future maintenance and testing shall be stipulated in the interconnection and operating agreement.

### **3.16 Communications and Procedures During Normal and Emergency Operating Conditions [R2.1.16]**

All communications and operating procedures during normal and emergency operating conditions will be coordinated with Basin Electric's designated Transmission Operator (TOP) in accordance with NERC, MRO, and WECC standards. Standard Operating Procedures shall be coordinated with Basin Electric and provided to the TOP. Special operating considerations shall be submitted in advance to Basin Electric and the TOP for review. Other conditions may be stipulated in the interconnection and operating agreement.

## **4.0 Maintaining, Updating & Publishing of Facility Connection Requirements [R3]**

Basin Electric shall maintain and update its "*Facility Connection Requirements*" document as necessary. Basin Electric's Transmission Department, including the Transmission Compliance and Transmission Services divisions, shall be responsible for

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maintaining and updating these Facility Connection Requirements and making its “Facility Connection Requirements” document, including all facility connection requirements, available to requesting entities within five business days. Basin Electric has made its Facility Connection Requirements available to the users of the Bulk Electric System (BES) transmission system, the MRO and WECC Regions, and to NERC by publishing its “*Facility Connection Requirements*” document on Basin Electric’s website as listed below:

- [Basin Electric Power Cooperative](http://www.basinelectric.com/)  
(<http://www.basinelectric.com/>)

### 5.0 Subject Matter Experts (SME)

The following table lists Basin Electric’s Subject Matter Experts (SME) pertaining to NERC Reliability Standard FAC-001-0, Facility Connection Requirements, Requirements R1, R2, and R3.

Subject	Division	Name	Title	Work Phone
Transmission & Generation Interconnect Requests	Transmission Services	Matthew Stoltz	Manager Transmission Services	701-557-5647
Approval	Transmission Compliance	Dan Klempel	Manager Transmission Compliance	701 557-5644
Document Control		Dave Rudolph	Senior Engineer	701 557-5722

### 6.0 Version History:

Version	Date	Editor	Action
3.1	06/17/2010	David Rudolph	Reviewed and updated “Facility Connection Requirements” document prior to 2010 MRO Compliance Audit.
3.0	09/18/2009	David Rudolph	Updated “Facility Connection Requirements” document per USE recommendations on 08/07/2009.
2.0	03/16/2009	David Rudolph	Created Formal “ <i>Facility Connection Requirements</i> ” document using Utility System Efficiencies (USE) template.
1.0	2001	NA	Created original “ <i>Facility Connection Requirements</i> ” document.

**Appendix A**  
**Basin Electric Power Cooperative (Basin Electric) - Application for Interconnection**

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Thank you for your interest in interconnecting to Basin Electric Power Cooperative (Basin Electric) transmission facilities. Please complete this application and return it to Basin Electric to ensure the most expedient and thorough response. Completing this application for interconnection does not qualify the requesting entity to obtain, or otherwise pertain to obtaining, transmission capacity. Transmission service requires a separate application under on or more Open Access Transmission Service Tariffs.

1. Date of Application: \_\_\_\_\_ 2. Proposed / Estimated Date of Interconnection: \_\_\_\_\_

3. Name of Contact: \_\_\_\_\_ 4. Title of Contact: \_\_\_\_\_

5. Company / Organization Name: \_\_\_\_\_

6. Street Address (Include State & ZIP): \_\_\_\_\_

7. Telephone and Fax Numbers: \_\_\_\_\_ 8. E-mail: \_\_\_\_\_

9. Name, Title, Company / Organization, Address, Phone, Fax, and E-mail address of Authorized Interconnecting Contractor / Representative, if applicable: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Type of Interconnection (mark all that apply):  
 Transmission Line Tap(s).  
 Substation Breaker Bay additions.  
 Additional Delivery Point(s) to existing customer(s).  
 Generation Tie-Line(s).  
 Other (please specify): \_\_\_\_\_

11. Description of Requested Interconnection (include as much of the following information as possible on attached sheets, mark all that apply):  
 Single-Line Diagram(s) showing the proposed interconnection.  
 Drawing(s) indicating physical arrangements of existing and proposed facilities.  
 Geographic Location of proposed interconnection and structure numbers, if available.  
 Description and Ratings of proposed transformers, circuit breakers, switches, metering, associated communications, and relaying and other equipment.  
 Description of Generating Resources or Loads.  
 Proposed Transmission Path(s) and Service Arrangements between resources and associated loads, where applicable.  
 Appropriate Revenue and Telemetry Equipment Specifications.  
 Copies of relevant Planning or Operational Studies.  
 Proposed Construction Schedule.  
 Copies of relevant Environmental Impact Assessments, reports, projections, or description of Anticipated Scope of Environmental Review.

12. Name and Title of Applicant: \_\_\_\_\_

13. Signature of Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Please send the completed application for interconnection to the appropriate Basin Electric office. A Basin Electric representative will contact you when the application is received. Please allow up to 30 days for processing of the application once it is received by Basin Electric. For further contact information, see Basin Electric's Website at [www.bepc.com](http://www.bepc.com); or contact the appropriate Basin Electric office.