

Supporting Statement
Revisions to the Definition of the Bulk Electric System
RD14-2-000

The Federal Energy Regulatory Commission (Commission or FERC) requests that the Office of Management and Budget (OMB) review and approve the information collection requirements in the order in docket RD14-2-000 (Order Approving Revised Definition):

<http://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13487729>

On December 20, 2012, the Commission issued Order No. 773 (Final Rule) approving NERC's modifications to the definition of "bulk electric system" and the Rules of Procedure (ROP) exception process to be effective July 1, 2013.¹ On April 18, 2013, in Order No. 773-A, the Commission largely affirmed its findings in Order No. 773. In Order Nos. 773 and 773-A, the Commission directed NERC to modify the definition of bulk-electric system in two respects: (1) modify the local network exclusion (exclusion E3) to remove the 100 kV minimum operating voltage to allow systems that include one or more looped configurations connected below 100 kV to be eligible for the local network exclusion; and (2) modify the exclusions to ensure that generator interconnection facilities at or above 100 kV connected to bulk electric system generators identified in inclusion I2 are not excluded from the bulk electric system.

The underlying information collection requirements to implement the definition of bulk electric system are currently approved by OMB under FERC-725J (OMB Control No. 1902-0259).

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

On August 8, 2005, The Electricity Modernization Act of 2005, which is Title XII of the Energy Policy Act of 2005 (EPAAct 2005), was enacted into law.² EPAAct 2005 added a new section 215 to the Federal Power Act (FPA), which requires a Commission-certified Electric Reliability Organization (ERO) to develop mandatory and enforceable Reliability Standards, which are subject to Commission review and approval. Once approved, the Reliability Standards may be enforced by the ERO, subject to Commission oversight.

¹ *Revisions to Electric Reliability Organization Definition of Bulk Electric System and Rules of Procedure*, Order No. 773, 141 FERC ¶ 61,236 (2012); *order on reh'g*, Order No. 773-A, 143 FERC ¶ 61,053 (2013), *order on reh'g and clarification*, 144 FERC ¶ 61,174 (2013), *appeal pending sub nom., People of the State of New York and the Pub. Serv. Comm'n of New York v. FERC*, No. 13-2316 (2d. Cir. filed June 12, 2013). On June 13, 2013, the Commission granted NERC's request for extension of time and extended the effective date for the revised definition of bulk electric system and the Rules of Procedure exception process to July 1, 2014. *Revisions to Electric Reliability Organization Definition of Bulk Electric System and Rules of Procedure*, 143 FERC ¶ 61,231, at P 13 (2013).

² The Energy Policy Act of 2005, Pub. L. No 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005), codified at 16 U.S.C. 824o (2000).

On December 13, 2013, NERC filed proposed revisions to the definition of bulk electric system. NERC states that the proposed revisions address the Commission's directives in Order Nos. 773 and 773-A, and respond to industry concerns raised during the initial development of the revisions to the definition (Phase 1). NERC requests expedited Commission action for the Commission to issue an order on the proposed Phase 2 definition by March 31, 2014. NERC states that the implementation plan for the proposed definition will become effective "on the first day of the second calendar quarter after the date that the definition is approved..." NERC proposes that the revised definition will supersede in its entirety the version approved in Order Nos. 773 and 773-A. NERC explains that Commission action by March 31, 2014 will allow the proposed definition to go into effect on July 1, 2014, and fully replace the Phase 1 definition.

NERC states that the proposed revisions should result in minimal changes to the elements included in the bulk electric system. NERC explains that the proposed revisions add clarity and granularity that will allow for greater transparency and consistency in the identification of elements and facilities that make up the bulk electric system and are responsive to the technical and policy concerns discussed in Order Nos. 773 and 773-A. NERC states that the proposed revisions improve upon the Phase 1 definition approved by the Commission in Order Nos. 773 and 773-A and provide a "technically grounded and legally supportable foundation" for identifying elements and facilities that make up the bulk electric system. According to NERC, the proposed definition is consistent, repeatable, and verifiable and will provide clarity that will assist NERC and affected entities in implementing Reliability Standards.

Order Approving Revised Definition in RD14-2

In this order, the Commission approves NERC's revisions to the definition of bulk electric system. The revised definition will become effective on the first day of the second calendar quarter after issuance of this order, as requested by NERC.

2. HOW, BY WHOM, AND FOR WHAT PURPOSE THE INFORMATION IS TO BE USED AND THE CONSEQUENCES OF NOT COLLECTING THE INFORMATION

Owners of equipment need to review their system configuration to determine which elements are part of the bulk electric system under the revised definition and create a list that is available to other parties on request. For any newly identified bulk electric system elements, owners and other entities will work together to create implementation plans to ensure compliance with reliability standards for the new elements. The lists and implementation plans will be used by the owners of the equipment, entities where the operation of those elements is part of their scope of responsibility, NERC, and FERC. For some entities, part of the implementation includes

compliance responsibility of information collection requirements that are part of existing approved reliability standards.

The option to request an exception will be available to owners of elements and certain entities responsible for wide areas of the system.³ The ROP exception process requires entities to provide technical data to support an exception request.

FERC will use the information filed for local distribution determinations to decide whether facilities are actually used for local distribution as set forth in the Federal Power Act.

Failure to properly perform system reviews, list creation, exception requests and implementation plans could result in the failure to properly classify elements needed for operating the interconnected transmission network and could jeopardize system reliability.

The Order in RD14-2-000 proposes no changes to the core BES definition, Inclusion I3 or Exclusion E2. Rather, the primary revisions are to inclusion I4 (dispersed power producing resources) and exclusions E1 (radial systems), E3 (local networks) and E4 (reactive power devices). NERC proposes minor clarifying changes to inclusion I1 (transformers), inclusion I2 (generating resources), and inclusion I5 (static or dynamic reactive power devices). This results in a net decrease of 887 burden hours.

In Order Nos. 773 and 773-A, the Commission directed NERC to modify the definition of bulk-electric system in two respects: (1) modify the local network exclusion (exclusion E3) to remove the 100 kV minimum operating voltage to allow systems that include one or more looped configurations connected below 100 kV to be eligible for the local network exclusion; and (2) modify the exclusions to ensure that generator interconnection facilities at or above 100 kV connected to bulk electric system generators identified in inclusion I2 are not excluded from the bulk electric system.

In consideration of the Commission's directives, exclusion E1 has been revised to include Note 2. Note 2 to exclusion E1 states that the "presence of a contiguous loop, operated at a voltage level of 50 kV or less, between configurations being considered as radial systems, does not affect this exclusion." Under the Phase 1 BES Definition, the presence of a loop meant that a configuration would be ineligible for consideration under exclusion E1 and instead would have to be considered under exclusion E3. Note 2 functionally allows for a configuration with a loop of 50 kV or less to qualify for exclusion E1. This equally effective and efficient solution to the Commission's concerns was technically justified through analysis. The technical justification

³ The ROP exception process allows entities to request elements to be included or excluded from the bulk electric system based on technical analysis. The exception process occurs after the bulk electric system is applied.

was included in the NERC Petition. The note 2 to exclusion E1 relieves the burden by allowing entities to apply low voltage loops to exclusion E1 instead of exclusion E3. Exclusion E3 requires keeping more records to show that the configuration meets the exclusion E3 criteria.

NERC states the proposed revisions are an equally effective and efficient solution to addressing the Commission's concerns in Order Nos. 773 and 773-A. It is established that a 50 kV threshold for sub-100 kV loops does not preclude the application of exclusion E1. "This approach should ease the administrative burden on entities in order to prove that they qualify for an exclusion and is an improvement to the BES Definition."

Summary of Proposed Revisions to the BES Definition

No changes are proposed to the core BES Definition, Inclusion I3 (Blackstart Resources) or Exclusion E2 (Behind the Meter Generation). Minor clarifying changes are proposed to:

- Inclusion I1 (Transformers);
- Inclusion I2 (Generating Resources); and
- Inclusion I5 (Static or Dynamic Reactive Power Devices).

Substantive revisions are proposed to Inclusion I4 (Dispersed Power Producing Resources) and Exclusions E1 (Radial Systems), E3 (Local Networks) and E4 (Reactive Power Devices), as described below.

- Inclusion I4 (Dispersed Power Producing Resources):
 - Collector systems, from the point where the generation aggregates to 75 MVA to a common point of connection at a voltage of 100 kV or above, are proposed to be included in the BES.
- Exclusion E1 (Radial Systems):
 - A threshold of 50 kV is proposed as the operating voltage below which loops between radial systems will not preclude the application of exclusion E1;
 - In accordance with Order Nos. 773 and 773-A, exclusion E1 is proposed to be modified so that it does not apply to tie-lines, i.e., generator interconnection facilities, for BES generators.
- Exclusion E3 (Local Networks):
 - In accordance with Order Nos. 773 and 773-A, the 100 kV minimum operating voltage for exclusion E3 is proposed for removal;
 - In accordance with Order Nos. 773 and 773-A, exclusion E3 is proposed to be modified so that it does not apply to tie-lines, i.e., generator interconnection facilities, for BES generators;
 - A revision is proposed to exclusion E3 to include any part of a permanent Flowgate.
- Exclusion E4 (Reactive Power Devices):

- o A revision is proposed to exclusion E4 to remove ownership implications consistent with the component-based nature of the BES Definition.

NERC states that the proposed revisions should result in minimal changes to the elements included in the bulk electric system. NERC explains that the proposed revisions add clarity and granularity that will allow for greater transparency and consistency in the identification of elements and facilities that make up the bulk electric system and are responsive to the technical and policy concerns discussed in Order Nos. 773 and 773-A. NERC states that the proposed revisions improve upon the Phase 1 definition approved by the Commission in Order Nos. 773 and 773-A and provide a “technically grounded and legally supportable foundation” for identifying elements and facilities that make up the bulk electric system. According to NERC, the proposed definition is consistent, repeatable, and verifiable and will provide clarity that will assist NERC and affected entities in implementing Reliability Standards.

3. DESCRIBE ANY CONSIDERATION OF THE USE OF IMPROVED INFORMATION TECHNOLOGY TO REDUCE THE BURDEN AND TECHNICAL OR LEGAL OBSTACLES TO REDUCING BURDEN

Each of the eight regional entities has a well-established compliance portal for registered entities to electronically submit compliance information and reports. The compliance portals allow documents developed by the registered entities to be attached and uploaded to the regional entity’s portal. Compliance data can also be submitted via data forms on the portals. These portals are accessible through an internet browser password protected user interface.

In preparation for the implementation of the bulk electric system definition and ROP exception process, NERC and the eight regional entities worked together to develop a new data collection system called the BESNet. This new system will contain all of the information required for the definition and exception process into one database. All owners of bulk electric system elements will follow the same procedures for submitting electronic data. The BESNet software will be accessible through an internet browser password protected user interface.

4. DESCRIBE EFFORTS TO IDENTIFY DUPLICATION AND SHOW SPECIFICALLY WHY ANY SIMILAR INFORMATION ALREADY AVAILABLE CANNOT BE USED OR MODIFIED FOR USE FOR THE PURPOSE(S) DESCRIBED IN INSTRUCTION NO. 2

Entities filing requests for local distribution determinations may use the Commission’s eFiling system.

For information collected by NERC and the regional entities, the BESNet software will prevent the need for duplication of submittals. This data has not been collected in the past and is part of the implementation of the revised bulk electric system definition and ROP exception process effective July 1, 2014.

5. METHODS USED TO MINIMIZE THE BURDEN IN COLLECTION OF INFORMATION INVOLVING SMALL ENTITIES

Generally, small entities may not have large systems, may not have a significant impact on the bulk electric system, or tend to operate at lower voltages. For those small entities that do have critical elements that are included in the bulk electric system, their obligation is to meet all the applicable standards with no exceptions. A small entity could pursue an exception request to have an element removed and it will be evaluated by the regional entities and NERC.

NERC contends that the proposed revisions to exclusion E1 to add a 50 kV threshold for excluding certain radial loops are an equally effective and efficient solution to addressing the Commission's concerns in Order Nos. 773 and 773-A. NERC also states that this approach should ease the administrative burden on entities to prove that they qualify for an exclusion.

6. CONSEQUENCE TO FEDERAL PROGRAM IF COLLECTION WERE CONDUCTED LESS FREQUENTLY

Failure to properly perform system reviews, list creation, exception requests and implementation plans could result in the failure to properly classify elements needed for operating the interconnected transmission network and could jeopardize system reliability.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION

Individual reliability standards to which some entities will have to comply may have records retention schedules that exceed OMB guidelines in 5 CFR 1320.5(d)(2)(iv) of not retaining records for longer than three years. The Commission has not prescribed a set data retention period to apply to all reliability standards. The Commission is unconvinced that a one-size fits all approach to data retention is appropriate. This is due to different reliability standards requiring data retention for shorter or longer periods. The Commission also denies that it should set a data retention requirement for any reliability standard for which one is currently lacking. [It should be noted that the industry had developed, vetted, voted on, and proposed the various reliability standards including reporting and recordkeeping requirements for review and approval by FERC. Upon approval by FERC, the reliability standards become mandatory.]

8. DESCRIBE EFFORTS TO CONSULT OUTSIDE THE AGENCY: SUMMARIZE PUBLIC COMMENTS AND THE AGENCY'S RESPONSE

In accordance with OMB requirements, the Commission published a 60-day notice and a 30-day notice to the public regarding this information collection on 1/30/2014⁴ and 4/24/2014⁵ respectively. Within the public notices, the Commission noted that it approved the NERC's modifications to the definition of the BES and highlighted the associated burden reduction. The Commission invited comments regarding 1) the necessity of the collection for proper performance of the agency's functions, 2) the accuracy of the agency's burden estimate (along with the validity of the methodology), 3) any ways in which the Commission might enhance the quality/utility/clarity of the information collection, and 4) ways in which the Commission might minimize the burden of the information collection upon respondents.

However, notice of the NERC petition was published in the *Federal Register*, 78 Fed. Reg. 79,429 (2014), with comments, protests and motions to intervene due on or before January 17, 2014. The following entities filed motions to intervene: City of Alameda, California, City of Redding, California, Edison Electric Institute, EDP Renewables North America LLC, Modesto Irrigation District, National Rural Electric Cooperative Association, PSEG Companies, and Wisconsin Electric Power Company. The following entities filed motions to intervene and comments: American Public Power Association and Public Utility District No. 1 of Snohomish County Washington (APPA and Snohomish), American Wind Energy Association (AWEA), Electricity Consumers Resource Council together with American Forest & Paper Association, Council of Industrial Boiler Owners and American Fuel & Petrochemical Manufacturers (ELCON), Exelon Corporation (Exelon), First Wind Holdings, LLC (First Wind), and Transmission Access Policy Study Group (TAPS). Xcel Energy Services Inc. (Xcel Energy) and Southern California Edison Company each filed motions to intervene out-of-time.

Exelon, TAPS, APPA and Snohomish support NERC's filing. APPA and Snohomish state that the revised bulk electric system definition substantially improves reliability by focusing on core facilities that present the greatest risks of reliability failure. TAPS states that the revisions satisfy the Commission's directives and improve the clarity of the definition. We also received reply comments from NERC, Exelon and Xcel Energy:

In reply comments, NERC states that ELCON mischaracterizes the purpose of the 50 kV threshold. NERC states that the 50 kV threshold was adopted as an associated component of exclusion E1 based on the scenarios and configurations used in its technical analysis and represents the vast majority of configurations that will be encountered in the industry. NERC also argues that its technical analysis resulted from extensive simulations which demonstrated

4 79 FR 4894
5 79 FR 22814

that power flow reversal into the bulk electric system is unlikely when circuit loop operating voltages are below 50 kV.

NERC explains that the technical analysis notes that there may be actual cases that deviate from modeled scenarios, and that such deviations are expected to be rare and can be processed through the companion exception process. NERC states that the 50 kV threshold recognizes that there may be cases in which power flows to the bulk electric system through facilities operated below 50 kV, or that power does not flow through facilities operated above 50 kV. NERC states that in the former, the exception process is available to include facilities if this power flow affects reliability. Similarly, in the latter case, NERC states that if the facilities are included by application of the core definition and do not qualify for application of exclusion E3, the exception process is available to exclude such facilities. Contrary to ELCON's assertion, NERC states that the threshold results in proper use of the exception process by achieving a balance to minimize the need for entities to use the process, while permitting its use to either include or exclude facilities.

Further, NERC disagrees with First Wind's argument that an individual wind turbine generator does not impact reliability. Rather, NERC states that a 2009 NERC Special Report provides support that individual variable generators can impact system operations. NERC adds that it is currently developing Project 2014-01, Standards Applicability for Dispersed Generation Resources, to review the applicability of Reliability Standards with requirements that apply to generator owners and generator operators, in which NERC will develop any necessary revisions to Reliability Standards relative to non-traditional generation sources. NERC states that First Wind and AWEA can participate in the process by attending standard drafting team meetings and through the submission of written comments.

In addition, NERC argues that First Wind's and AWEA's requests for the Commission to reconsider inclusion of individual dispersed power producing resources is an impermissible collateral attack because this issue was decided on the merits in Order Nos. 773 and 773-A. NERC states that Commission policy precludes relitigation of issues previously decided.

Exelon also filed reply comments. Exelon requests that the Commission deny ELCON's request to remand note 2 of exclusion E1. Exelon states that a remand will require more time than can be completed prior to July 1, 2014. However, if the Commission grants ELCON's request to remand, Exelon requests that the Commission approve note 2 as filed but direct NERC to consider changing the threshold in note 2. AWEA and First Wind each filed motions for leave to answer and answers to the NERC reply comments. AWEA states NERC has failed to offer any evidence that individual wind turbines can affect the reliability of the bulk electric system and that the 2009 report that NERC cites to deals with a different set of generators and reliability issues. AWEA also states that Project 2014-01 will take too long to avoid the costs and confusion that the proposed definition will create. In its reply, First Wind states that NERC's

reply comments took First Wind's statement, that an individual wind generator does not impact bulk electric system reliability, out of context. First Wind states that individual wind generators behind the point at which its output is aggregated with other wind generators up to 75 MVA, does not individually affect reliability because a wind generation facility is designed with a single point of interconnection to the grid and with a protection system that will disconnect the entire facility from the grid in the event of a disturbance significant to affect grid reliability. On March 10, 2014, Xcel Energy filed comments in support of AWEA and First Wind regarding the applicability of the definition to dispersed generation resources.

The Commission responded to the above commenters as follows:

“Pursuant to section 215(d)(2) of the FPA, we approve the revisions to the definition of bulk electric system as just, reasonable, not unduly discriminatory or preferential, and in the public interest. As discussed below, we find that the proposed revisions to the definition of bulk electric system either adequately address the Commission's Order Nos. 773 and 773-A directives or provide an equally effective and efficient approach. We agree with NERC, APPA, Snohomish and TAPS that the revised definition improves reliability by focusing on core facilities that present the greatest risks of reliability failure. In addition, commenters raised no objections or concerns with NERC's clarifying revisions to inclusions I1, I2, I5 or the substantive revisions to exclusion E4. We find that these changes add clarity to the definition and, therefore, approve them.”⁶

“We also approve NERC's clarification to inclusion I4 that all forms of generation resources, including variable generation resources, are included in the bulk electric system. We recognized that individual resources were part of this inclusion in Order No. 773, and NERC's proposed changes to inclusion I4 clarify this inclusion.⁷ We agree with NERC that, given the increasing presence of wind, solar, and other non-traditional forms of generation, continuing the inclusion of individual variable generation units within the scope of the definition is appropriate to ensure that, where necessary to support reliability, these units may be subject to Reliability Standards. Moreover, inclusion I4 is limited to individual resources that aggregate to a total capacity greater than 75 MVA, the same threshold applicable to other types of generating resources.”⁸

“We are not persuaded by AWEA's and First Wind's requests with regard to clarifying or modifying inclusion I4 to exclude individual power producing resources. The purpose of inclusion I4 is to include all forms of variable generation resources. As we noted in Order No. 773, there are geographical areas that depend on these types of generation resources for the reliable operation of the interconnected transmission network.⁹ In any event, as First Wind

⁶ *Order Approving Revised Definition*, 146 FERC ¶ 61,199 at P 41 (2014).

⁷ *See Order No. 773*, 141 FERC ¶ 61,236 at P 115.

⁸ *Order Approving Revised Definition*, 146 FERC ¶ 61,199 at P 47 (2014).

⁹ *Id.*

acknowledges, the Commission addressed the question of whether individual resources should be included in the bulk electric system definition in Order Nos. 773 and 773-A, and concluded that individual wind turbine generators should be included. Nothing in the AWEA and First Wind pleadings have convinced us that our determinations in Order No. 773 need to be revisited. As NERC noted in a 2009 report on variable generation, “[d]istributed variable generators, individually or in aggregate (e.g. small scale photovoltaic), can impact the bulk power system and need to be treated, where appropriate, in a similar manner to transmission connected variable generation. The issues of note are forecasting, restoration, voltage ride-through, safety, reactive power, observability and controllability.”¹⁰ For example, a wind farm larger than 75 MVA can affect reliability if all of its wind turbines trip offline simultaneously after just a slight fluctuation in voltage or frequency. Therefore, because variable generation can impact the interconnected transmission network, we anticipate that wind plant owners whose facilities meet the inclusion I4 criteria who seek to exclude individual wind turbines from the bulk electric system through the exception process will be infrequent.”¹¹

“Both AWEA and First Wind raise concerns regarding the potential costs of dispersed generation facilities having to comply with a full array of NERC Reliability Standards that apply to generator owners and operators, arguing that many such standards were drafted with conventional generation in mind. First Wind specifically requests, as alternative relief, that the Commission direct NERC to expedite consideration of a NERC project to revise the applicability of certain Reliability Standards that apply to generator owners and operators. In reply comments, NERC states that it is currently reviewing the applicability of Reliability Standards with requirements that apply to generator owners and generator operators of dispersed generation resources and invites interested persons, including AWEA and First Wind, to participate in the project.¹² We believe that it is appropriate for NERC and its stakeholders to address AWEA’s and First Wind’s concerns in this manner. For example, while individual wind turbines are part of the bulk electric system if their gross nameplate capacity aggregates to greater than 75 MVA, it may be appropriate that owners of these wind turbines be responsible for only a subset of the requirements applicable to other generator owners.¹³ As noted above, NERC has initiated Project 2014-01 to consider applicability of standards for dispersed generation resources and, accordingly, we will not direct NERC to expedite consideration as requested by First Wind but would encourage First Wind’s and AWEA’s participation in NERC’s standard development process.”¹⁴

10 NERC Reply Comments at 8, quoting 2009 NERC Special Report: *Accommodating High Levels of Variable Generation*, at 52.

11 *Order Approving Revised Definition*, 146 FERC ¶ 61,199 at P 48 (2014).

12 NERC Project 2014-01, Standards Applicability for Dispersed Generation Resources. See the NERC project web page at: <http://www.nerc.com/pa/Stand/Pages/Project-2014-01-Standards-Applicability-for-Dispersed-Generation-Resources.aspx>.

13 *Cf.*, *Generator Requirements at the Transmission Interface*, Order No. 785, 144 FERC ¶ 61,221 (2013) (approving NERC proposal addressing applicability of Reliability Standards to interconnection facilities).

14 *Order Approving Revised Definition*, 146 FERC ¶ 61,199 at P 49 (2014).

Exelon, TAPS, APPA and Snohomish support NERC's filing. APPA and Snohomish state that the revised bulk electric system definition substantially improves reliability by focusing on core facilities that present the greatest risks of reliability failure. TAPS states that the revisions satisfy the Commission's directives and improve the clarity of the definition.

ELCON requests that the Commission remand to NERC the issue of note 2 for Exclusion E1 (Radial Systems) and direct NERC to "consider replacing its proposed 50 kV threshold with a 70 kV threshold for loops that are inside the fence of industrial or manufacturing facilities."¹⁵ ELCON states that the 50 kV threshold, regarding Exclusion E1 (Radial Systems) would needlessly sweep many more industrial facilities than would be appropriate into the exception process. ELCON also states that a 70 kV threshold would substantially ease the administrative burden on a number of entities seeking to qualify for an exclusion request.

The Commission was not persuaded by ELCON's argument to remand the selection of the 50 kV threshold and stated that NERC's technical analysis demonstrates that 50 kV is an appropriate level for determining whether a portion of the system is considered radial and is therefore a candidate for exclusion from the bulk electric system by application of exclusion E1 or is considered a networked system and therefore a candidate for exclusion by application of exclusion E3. The Commission found that the technical justification resulted from NERC's extensive simulations which demonstrate that power flow reversal into the bulk electric system is unlikely when circuit loop operating voltages are below 50 kV.¹⁶ The Commission also concluded that using power flow reversal as the criterion to establish this threshold is reasonable and consistent with exclusion E3, which precludes exclusion of facilities when power flows into the bulk electric system.¹⁷ Also, the Commission expressed that while ELCON focuses its arguments on "inside-the-fence" loops, ELCON has not explained adequately how such configurations differ for reliability purposes from similar loops through small communities, military bases or other locations.¹⁸

AWEA and First Wind expressed concern with inclusion I4 (Dispersed Power Producing Resources) and the Commission's decision to include individual generation resources within the definition. The Commission was not persuaded by AWEA's and First Wind's requests with

¹⁵ ELCON Protest at 2.

¹⁶ See *id.* at 16-17. In addition, NERC states that "[t]he scenarios and configurations utilized in this analysis represent the majority of cases that will be encountered in the industry. The models used in this analysis establish reasonable bounds and use conservative parameters in the scenarios. However, there may be actual cases that deviate from these modeled scenarios, and therefore, results could be somewhat different than the ranges of results from this analysis. Such deviations are expected to be rare and can be processed through the companion BES Exception Process." *Id.* at 17.

¹⁷ NERC concluded that "[s]imulations of power flows for the cases modeled in this study show there is no power flow reversal into the BES when circuit loop operating voltages are below 50 kV. This study also finds, for loop voltages above 50 kV, certain cases result in power flow toward the BES. Therefore, the study concludes that low voltage circuit loops operated below 50 kV should not affect the application of Exclusion E1." NERC Petition, Exh. D at 17.

¹⁸ *Order Approving Revised Definition*, 146 FERC ¶ 61,199 at P 43 (2014).

regard to clarifying or modifying inclusion I4 to exclude individual power producing resources. The Commission also stated the purpose of inclusion I4 is to include all forms of variable generation resources.¹⁹

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

There are no payments or gifts to the respondents.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

No specific assurance of confidentiality has been mentioned to respondents. The asset lists should be considered Critical Energy Infrastructure Information (CEII)²⁰ as they may identify critical elements needed for bulk electric system reliability.

11. PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE

The Commission considers the questions within the approved reliability standard neither sensitive in nature nor private.

12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION

The information collection requirements related to RD14-2 to implement the definition of bulk electric system are currently approved by OMB under FERC-725J.

The **existing information collection burden** is estimated as follows:

Requirement	Number and Type of Entity²¹ (1)	Number of Responses Per Entity (2)	Average Number of Hours per Response (3)	Total Burden Hours (1)*(2)*(3)
System Review and List	333 Transmission	1 response	85 (engineer hours)	28,305 Yr 1

¹⁹ Order Approving Revised Definition, 146 FERC ¶ 61,199 at PP 48-49 (2014).

²⁰ See <http://www.ferc.gov/legal/ceii-foia/ceii.asp> for more information regarding CEII.

²¹ The “entities” listed in this table are describing a role a company is registered for in the NERC registry. For example, a single company may be registered as a transmission owner and generator owner. The total number of companies applicable to this rule is 1,522, based on the NERC registry. The total number of estimated roles is 1,730.

Creation ²²	Owners			
	843 Generator Owners	1 response	16 (engineer hours)	13,488 Yr 1
	554 Distribution Providers	1 response	27 (engineer hours)	14,958 Yr 1
Exception Requests ²³	1,730 total Transmission Owners, Generator Owners and Distribution Providers	0.16474 responses in Yrs 1 and 2	94 (60 engineer hrs, 32 record keeping hrs, 2 legal hrs)	26,790 hrs in Yrs 1 and 2
		0.01156 responses in Yr 3 and ongoing	94 (60 engineer hrs, 32 record keeping hrs, 2 legal hrs)	1,880 hrs in Yr 3 and ongoing
Local Distribution Determinations	8 entities	1 response	92 (60 engineer hrs, 8 record keeping hrs, 24 legal hrs)	736 hrs (all years)
Regional and ERO Handling of Exception Requests ²⁴	NERC and 8 Regional Entities	1 response	1,386.67 hrs	12,480 hrs in Yrs 1 and 2
Implementation Plans and Compliance ²⁵	111 NPCC Region Registered	1 response	700 hrs in Yrs 1 and 2*	77,700 hrs in Yrs 1 and 2
		1 response	350 hrs in Yr	38,850 hrs in

22 This requirement corresponds to Step 1 of NERC’s proposed transition plan, which requires each U.S. asset owner to apply the revised bulk electric system definition to all elements to determine if those elements are included in the bulk electric system pursuant to the revised definition. See NERC BES Petition at 38.

23 From the total 1,730 estimated roles, we estimate an average of 285 requests per year in the first two years (an average of 0.16474 responses per respondent, as indicated). See Order No. 773 at n. 225. Therefore, the estimated total number of hours per year for years 1 and 2, using an average of 285 requests per year, is 26,790 hours. We estimate 20 requests per year in year 3 and ongoing (an average of 0.01156 responses per respondent, as indicated).

24 Based on the assumption of two full-time equivalent employees added to NERC staff and 0.5 full-time equivalent employees added to each region’s staff, each full-time equivalent at \$120,000/year (salary + benefits). The Commission assumes that any ongoing burden to process exception requests will be minimal.

25 The Commission does not expect a significant number of registered entities outside of the NPCC region to identify new elements under the revised bulk electric system definition. NERC also states that the other Regional Entities do not expect an extensive amount of newly-included facilities. See NERC BES Petition at 38.

“Compliance” refers to entities with new elements under the new bulk electric system definition required to comply with the data collection and retention requirements in certain Reliability Standards that they did not previously have to comply with. This collection captures the burden imposed on entities that have to comply with certain Reliability Standards for the first time. When changes are made to individual Reliability Standards the Commission uses its

	Entities ²⁶		3 and ongoing*	Yr 3 and ongoing
	75 Registered Entities from 7 other Regions	1 response	700 hrs in Yrs 1 and 2	52,500 hrs in Yrs 1 and 2
		1 response	350 hrs in Yr 3 and ongoing*	26,250 hrs in Yr 3 and ongoing
TOTALS				226,957 hrs in Yr 1
				170,206 hrs in Yr 2
				67,716 hrs in Yr 3 and ongoing

The average total hourly burden is 154,960 hours ($226,957 + 170,206 + 67,716 = 464,879 \div 3 = 154,960$ hours).

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

There is no start-up or other non-labor hour cost associated with this order.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

	Number of Employees (FTEs) or Number of Hours	Estimated Annual Federal Cost
Analysis and Processing of filings	0	\$0
Paperwork Reduction Act Administrative Cost ²⁷		\$5,092
FERC Total		\$5,092

collections for those particular standards. These are FERC-725A (1902-0244), FERC-725B (1902-0248), FERC-725D (1902-0247), FERC-725E (1902-0246), FERC-725F (1902-0249), FERC-725G (1902-0252), FERC-725H (1902-0256), and FERC-725I (1902-0258).

26 The estimated range of affected NPCC Region Registered Entities is from 66 to 155 entities.

27 The PRA Administrative Cost is a Federal Cost associated with preparing, issuing, and submitting materials necessary to comply with the Paperwork Reduction Act (PRA) for rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. This average annual cost includes requests for extensions, all associated rulemakings (not just the Order in Docket No. RD14-2), and other changes to the collection.

15. REASONS FOR CHANGES IN BURDEN INCLUDING THE NEED FOR ANY INCREASE

This order allows transmission owners and distribution providers to apply loops to radial systems operating at 50kV or below. Note 2 in exclusion E1 allows these loops to be applied to exclusion E1 in the BES definition rather than exclusion E3. Exclusion E3 would require more burdensome recordkeeping in order to show E3's specifications were met. This burden relief (the 1 hour reduction) results from the less burdensome recordkeeping in exclusion E1.

Transmission owners and distribution providers typically own transmission elements that operate at varying voltage levels, including 50 kV and below. For these asset owners of transmission elements, the note 2 to exclusion E1 will allow these asset owners to apply loops operating at 50 kV or below to this radial system exclusion which will provide some relief to their burden of applying the BES Definition which we estimate to average to about 1 hour per asset owner (transmission owners and distribution providers). The relief in burden was explained above in our response to questions in #2 and repeated here: In consideration of the Commission's directives, exclusion E1 has been revised to include Note 2. Note 2 to exclusion E1 states that the "presence of a contiguous loop, operated at a voltage level of 50 kV or less, between configurations being considered as radial systems, does not affect this exclusion." Under the Phase 1 BES Definition, the presence of a loop meant that a configuration would be ineligible for consideration under exclusion E1 and instead would have to be considered under exclusion E3. Note 2 functionally allows for a configuration with a loop of 50 kV or less to qualify for exclusion E1. This equally effective and efficient solution to the Commission's concerns was technically justified through analysis. The technical justification was included in the NERC Petition. The note 2 to exclusion E1 relieves the burden by allowing entities to apply low voltage loops to exclusion E1 instead of exclusion E3. Exclusion E3 requires keeping more records to show that the configuration meets the exclusion E3 criteria.

NERC states the proposed revisions are an equally effective and efficient solution to addressing the Commission's concerns in Order Nos. 773 and 773-A. It's established that a 50 kV threshold for sub-100 kV loops does not preclude the application of exclusion E1. "This approach should ease the administrative burden on entities in order to prove that they qualify for an exclusion and is an improvement to the BES Definition."

Burden Reduction due to Order

The burden will be reduced as a result of the Order approving the revised BES definition in RD14-2-000 as shown in this table (NOTE: the burden estimate is stated as a negative number because it is a reduction):

RD14-2-000: Revision to the Definition of Bulk Electric System					
	No. of Respondents²⁸ (A)	No. of Responses Per Respondent (B)	Total Number of Responses (A)x(B)=(C)	Average Burden Hours Per Response (D)	Estimated Total Year 1 Burden Reduction (C)x(D)
Transmission Owners (System Review and List Creation)	333	1	333	-1	-333
Distribution Providers (System Review and List Creation)	554	1	554	-1	-554
Total					-887

The total estimated decrease in cost burden to respondents (year 1 only) is \$53,220; [-887 hours * \$60 = -\$53,220].

The total hourly burden for this information collection will be 154,073 hours [154,960 (existing burden) – 887 = 154,073]

The Commission estimates a modest decrease (887 burden hours) in information collection and reporting that would result from implementing the proposed revisions to the definition of bulk electric system. Specifically, the Commission estimates a decrease in information collection and reporting that would result from implementing NERC’s proposed revisions to the definition of bulk electric system. The estimate is derived in NERC’s alternative proposal in addressing the Commission’s concern regarding low voltage looped configurations. This administrative burden falls into the category of “System Review and List Creation” as described in Order Nos. 773 and 773-A.²⁹

²⁸ The number of respondents for transmission owners and distribution providers is based on the NERC Compliance Registry referenced in Order No. 773.

²⁹ System Review and List Creation corresponds to step 1 of NERC’s proposed transition plan, which requires each U.S. asset owner to apply the revised bulk electric system definition to all elements to determine if those elements are included in the bulk electric system pursuant to the revised definition. See Order No. 773, 141 FERC ¶ 61,236 at P 330.

FERC-725J	Total Request	Previously Approved	Change due to Adjustment in Estimate	Change Due to Agency Discretion
Annual Number of Responses	2,193	2,193	0	0
Annual Time Burden (Hr)	154,073	154,960	0	-887
Annual Cost Burden (\$)	0	0	0	0

16. TIME SCHEDULE FOR PUBLICATION OF DATA

There are no tabulating, statistical or tabulating analysis or publication plans for the collection of information.

17. DISPLAY OF EXPIRATION DATE

It is not appropriate to display the expiration date for OMB approval on the information collection. The information is not collected upon a standard form which would facilitate the display of the expiration date for OMB approval.

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

The Commission does not use the data collected for this reporting requirement for statistical purposes. Therefore, the Commission does not use as stated in item (i) of the certification to OMB "effective and efficient statistical survey methodology." The information collected is case specific to each information collection.