Risk-Based Registration
Phase 1 - Enhanced Design Framework and Implementation Plan

October 2014
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Background and Introduction

North American Electric Reliability Corporation’s (NERC) Risk-Based Registration (RBR) initiative seeks to ensure that the right entities are subject to the right set of applicable Reliability Standards, using a consistent approach to risk assessment and registration across the electric reliability organization (ERO) Enterprise. This document presents a design framework with proposed enhancements to the NERC Registration program, which is set forth in the NERC Rules of Procedure (ROP) Section 500, as well as Appendix 5A and Appendix 5B. Implementation of the Registry Criteria over the last eight years has yielded a wealth of experience and information that have informed these efforts and will drive the Registration program to a mature end-state. The NERC Registry Criteria provides for bulk power system (BPS) users, owners and operators that perform a function listed in the functional types identified in Section II of the Registry Criteria, meet the threshold criteria in the Registry Criteria or the materiality test, and have a material impact on BPS reliability, to register as one or more of fifteen functions. The NERC Compliance Registry (NCR) identifies the functional categories and entities that are subject to compliance with mandatory NERC Reliability Standards.

The Energy Policy Act of 2005, Section 215 of the Federal Power Act and implementing rules, regulations and orders of the Federal Energy Regulatory Commission (FERC, or the Commission) have long recognized the plenary authority of NERC to develop and enforce mandatory Reliability Standards that are applicable to all users, owners and operators of the BPS. NERC has exercised this authority to identify specific requirements that must be followed and who must follow them. From the outset, NERC exercised its authority to narrow the potential pool

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1 NERC is already removing references to Regional Reliability Organization in the NERC Reliability Standards. As a result, the RBR redesign will not include this term.
2 All references to the Federal Energy Regulatory Commission (FERC or Commission) apply to United States registration only. Applicable Governmental Authorities in Canadian jurisdictions may have adopted their own Rules of Procedure and Compliance Registry requirements.
6 NERC Statement of Compliance Registry Criteria (Registry Criteria) at 2 (“Organizations will be responsible to register and to comply with approved Reliability Standards to the extent that they are owners, operators, and users of the Bulk Power System, perform a function listed in the functional types identified in Section II of this document, and are material to the Reliable Operation of the interconnected Bulk Power System as defined by the criteria and notes set forth in this document.”). See Registry Criteria at http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/Appx_5B_RegistrationCriteria_20140701_updated_20140602%20(updated).pdf.
7 18 C.F.R. Part 39.
9 The potential costs and effort of registering every organization potentially within the scope of “owner, operator, and user of the BPS,” while ignoring their impact upon reliability, would be disproportionate to the improvement in reliability that would reasonably be anticipated from doing so. See, e.g., Mandatory Reliability Standards for the Bulk-Power System, 118 FERC ¶ 61,218, FERC Stats. & Regs. ¶ 31,242 (Order No. 693), order on reh’g, Mandatory Reliability Standards for the Bulk-Power System, 120 FERC ¶ 61,053 (Order No. 693-A) (2007).
of eligible candidates for registration to only those who met certain threshold criteria. Acting within its broad authority and based on experience to date, NERC has determined it is appropriate to further refine the categories of, and criteria for, entities that are subject to mandatory and enforceable compliance with Reliability Standards. As under the current rules, NERC and the Regional Entities will continue to exercise discretion not to pursue registration of an entity that meets the Registry Criteria Sections I-IV, or to determine to register an entity that does not meet the Registry Criteria Sections I-IV, taking into account the Bulk Electric System (BES) reliability considerations.

The design framework reflects input from the Risk-Based Registration Advisory Group (RBRAG)\textsuperscript{10} and the RBRAG technical Task Force (RBRAG Task Force),\textsuperscript{11} both of which were established by NERC for this initiative. It also reflects input from industry survey responses, public comments during the meetings of the NERC Board of Trustees (Board) and its committees, as well as the Member Representatives Committee (MRC) policy input comments. It also reflects input from over fifty sets of comments on the design and implementation plan that were submitted in June and nearly forty sets of comments in October 2014. NERC appreciates the contributions of the Regional Entities and notes their involvement in both the RBRAG and RBRAG Task Force, as well as the contributions of the Registration and Certification Function Group that has worked with NERC staff to refine the proposals. In addition, NERC acknowledges and appreciates the review and endorsement for RBR by the Compliance and Certification Committee’s Organization Registration and Certification Subcommittee.

The framework includes: (i) refined thresholds, where warranted, based on sound technical analysis, risk considerations and support; (ii) reduced Reliability Standard applicability, where warranted, based on sound technical analysis, risk considerations and support; and (iii) clearly defined terms, criteria and procedures that are risk-based and ensure reliability of the BPS, as anchored in the new BES Definition. The proposed enhancements reduce unnecessary burdens by all involved, while preserving BPS reliability, and avoid causing or exacerbating instability, uncontrolled separation, or cascading failures.

Specifically, the design framework proposes to:

1. Clarify key Registry Criteria terms (BPS versus BES, material impact, materiality test, risk methods, etc.)
2. Centralize the review process for issues as to application of the Registry Criteria, materiality determinations not to register entities that meet the Registry Criteria thresholds, or to register entities that do not meet the Registry Criteria Sections I-IV thresholds (“above-the-line” and “below-the-line” registration determinations, respectively), as well as determinations as to targeted application of Reliability Standards
3. Deactivate registration of entities for three functional categories that are proposed for removal from the NCR that are commercial in nature, Purchasing-Selling Entity (PSE), Interchange Authority (IA) and Load-Serving Entity (LSE), recognizing that other entities are responsible for managing the aggregate reliability impacts of commercial transactions (e.g., Balancing Authority (BA), Distribution Provider (DP))
4. Refine the thresholds for one other functional category, DP, and tie it to the BES Definition
5. Develop Reliability Standard applicability sub-lists for certain limited situations, such as DPs that only own Underfrequency load shedding (UFLS) and do not meet other DP Registry Criteria (“UFLS-Only DPs”). The RBR is not changing Reliability Standard applicability sections for DPs and is not creating a new separate

\textsuperscript{10}The RBRAG is comprised of NERC staff, the Regional Entities, FERC, and U.S. and Canadian industry representatives and was formed to provide input and advice regarding the initiative’s design and implementation. The RBRAG provided the draft white paper to the Member Representatives Committee in April. See Appendix B here to for the RBRAG roster.

\textsuperscript{11}The RBRAG Task Force is an advisory group task force comprised of subject matter experts from NERC, the Regional Entities, and industry. See Appendix B here to for the RBRAG Task Force roster.
functional category. As separate efforts in Phase 2 of RBR, NERC will consider future development of applicability sub-lists for low risk Transmission Owners (TOs)/ Transmission Operators (TOPs) and Generator Owners (GOs)/Generator Operators (GOPs)

6. Synchronize the thresholds and criteria to the new BES Definition for the GO/GOPs and TOs/TOPs functions

7. Develop Compliance Monitoring and Enforcement Program (CMEP) procedures to permit registered entities to make a one-time attestation of “Not Applicable” to a given Reliability Standard requirement with respect to self-certifications and other compliance monitoring activities

8. Implement a common ERO registration form that includes common data elements for registered entity registration. This form will be considered for future ERO Enterprise common information technology (IT) platform applications

9. Identify any other new or modified processes and procedures

10. Describe oversight and respective roles of Regional Entities and NERC

11. Identify what is not changing

At this time, there are no proposed recommendations with respect to the following seven functional categories: BAs; Planning Authorities (PAs)/Planning Coordinators ; Reliability Coordinators (RCs); Transmission Planners (TPs); Resource Planners (RPs); Reserve Sharing Groups (RSGs); and Transmission Service Provider (TSPs).

The design framework, implementation plan and NERC ROP revisions will be presented to the NERC Board and MRC in November 2014. The implementation plan has been developed to have an appropriate pace for completion by the end of 2015 to ensure a smooth transition to the new Registration program.

Key highlights of activities in 2014 and 2015 are set forth in Appendix A hereto.

The technical review findings are being posted with the materials for the November Board meeting.
Design Framework Overview

NERC’s mission is to ensure reliability of the BPS. NERC achieves this, in part, by development and enforcement of mandatory Reliability Standards. Only those entities that are registered and included on the NCR are responsible and held accountable for compliance with mandatory Reliability Standards. Users, owners and operators of the BES are users, owners and operators of the BPS. Since 2006, NERC has registered entities for one or more functional categories depending on whether it is a user, owner or operator of the BPS.

The overall objective of the RBR Initiative is to ensure that the right entities are subject to the right set of applicable Reliability Standards. This effort falls squarely within NERC’s plenary authority. This requires the use of a consistent approach to risk assessment and registration across the ERO Enterprise. The goal is to develop enhanced Registry Criteria, including the use of thresholds and specific Reliability Standards applicability, where appropriate, to better align compliance obligations with material risk to reliability.

Ties to the BES Definition
Going forward, entities will continue to be registered by the function(s) they perform as a user, owner or operator of the BES rather than on a facility-by-facility basis. Registration decisions will be made in accordance with proposed revised thresholds in the Registry Criteria Sections I-IV, which are aligned, as applicable with the BES Definition and the materiality test (described later in this document). The proposed framework recognizes differences in treatment of owners and operators of the BES as compared to users of the BES. For owners and operators of the BES, the framework proposes to rely primarily on the BES Definition to determine eligibility for registration of such functions as TO, TOP, GO and GOP. A proposed tenet of registration is that those who own or operate BES Elements are eligible for registration as owners or operators. That is, for owners and operators, Registry Criteria are based on the BES Definition.

This leaves the users of the BES and the question of what type of and how much “use” is material to the reliability of the BES. Even for use of the BES, the BES definition provides some guidance as to how much “use” has been deemed material when considering dispersed resources or power plants of greater than 75 MW. The framework proposes to: (i) use this 75 MW of use by energy produced by dispersed resources/power plants as a threshold for use deemed material by any type of use (including by load); and (ii) test that 75 MW threshold through risk assessment.

Use of materiality test and NERC-led panel review
Under both the current Registration program and the proposed revisions, if an entity meets the Registry Criteria thresholds (Sections I-IV), there is a rebuttable presumption that it has a material impact on the reliability of the BPS, and it is in a pool of eligible candidates that NERC and the Regional Entities may identify for registration. NERC and the Regional Entities may exercise discretion not to pursue registration of an entity that meets the Registry Criteria thresholds if not warranted by BES reliability considerations. Where registration is pursued, an entity that meets the Registry Criteria may nevertheless be able to demonstrate through a materiality test that it is not material to reliability and should not be registered. In addition, the materiality test may be used to establish that an entity that does not meet the Registry Criteria thresholds should be registered because it does have a material impact on reliability. Such a process parallels the BES definition and exception process, where after application of the bright-line criteria, exceptions can be justified (both above-the-line and below-the-line). That is, bright-line criteria determine eligibility for registration just as bright-lines determine eligibility for equipment to be part of the BES in the BES definition. After application of the bright-lines, there is a materiality process where

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12 An entity’s obligations regarding self-registration are not changed by this initiative, nor is FERC’s ruling that entities are subject to compliance and enforcement for requirements applicable to a functional category only once they have been registered for that function.
an entity can provide evidence of immateriality and therefore not need to register even if bright-lines are met, or conversely a Regional Entity can provide evidence of materiality and cause registration to occur even if the bright-lines are not met.

Although the burden is on NERC and its Regional Entities to demonstrate that an entity meets the Registry Criteria Sections I-IV for registration, the burden in the materiality process is on the entity making the request to be excluded from the NCR (despite satisfying the Registry Criteria) and on the Regional Entity to include an entity in the NCR (that does not satisfy the Registry Criteria Sections I-IV), similar to the BES exception process. In the event of a dispute over whether an entity meets the Registration Criteria, the question goes to the NERC-led review panel for review, as set forth in Figure 1 below. To be clear, there is no conflict between the BES exception process, which identifies if a given Element is BES, and RBR, which determines if an entity should be registered as a given function. Information provided as part of the BES exception process may be submitted to the NERC-led review panel.

To make these determinations, a NERC-led review panel, comprised of NERC and Regional Entity staff, is proposed to be established to address questions or issues that arise with respect to threshold application, materiality, or Reliability Standard requirement applicability. A non-exclusive set of factors ("materiality test") for Registration considerations and determinations of an entity's material impact on the reliability of the BES is set forth in the proposed revisions to the NERC ROP at Appendix 5B.

**Revisions to Registry Criteria**

The proposed risk-based reforms to the Registry Criteria reflect and complement the new BES Definition. Namely, work over the last several years has culminated in a newly approved BES Definition that sets forth bright-line criteria as well as an exception process for transmission and generation assets that will go into effect in the United States on July 1, 2014, clarifying which assets may subject an entity to registration for the functions that involve owning and operating assets. For example, specific language in Section III for TOs, TOPs, GOs and GOPs has been removed, due to existing language for TOs and TOPs and modifications to the language for GOs and GOPs in Section II that tie directly into the BES Definition. As a result, the BES Definition (including the core definition, inclusions, exclusions, and the results of the exceptions process) provides the thresholds for TOs, TOPs, GOs and GOPs.

The framework proposes revisions to the Registry Criteria in Section III for the DP functional registration category to: (i) increase the peak load threshold from 25 MW to 75 MW to reflect the relative risk load poses to reliability as compared to energy from dispersed resources/power plants; (ii) retain existing language, consistent with NERC’s clarification that it is the entity’s system that is directly connected to the BES; and (iii) add new registration criteria if an entity has responsibility for operating a cranking path or provides services to a nuclear plant, while retaining criteria related to owning or operating protection systems important for reliability (such as Special Protection Systems (SPS), Remedial Action Schemes (RAS), undervoltage load shedding (UVLS) and transmission Protection Systems (TPS)). In addition, a sub-set of applicable Reliability Standards is identified for UFLS-Only DPs at or below 75 MW that do not meet the new thresholds, but who are part of a required UFLS program.

If an entity meets the Registry Criteria Sections I-IV, it is rebuttably presumed to have a material impact on the reliability of the BES, and it is in a pool of eligible candidates that NERC and the Regional Entities may identify for

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13 The BES Definition went into effect on July 1, 2014 in certain Canadian jurisdictions.
14 The proposed reference to BES was formerly a reference to BPS.
registration.\textsuperscript{15} NERC and the Regional Entities may exercise discretion not to pursue registration of an entity that meets the Registry Criteria if not warranted by BES reliability considerations.

**Removal of three functional categories from NCR**

Of the 1\textsuperscript{6} functional registration categories, three functional “users” of the BES – PSE, IA and LSE – are proposed for removal from the NCR because: (i) these functions are commercial in nature; (ii) the reliability impacts of commercial transactions are addressed in the aggregate within the standards (e.g., requirements to BAs, RPs and DPs within the BAL and other standard(s)); and (iii) the requirements contained in the NERC Reliability Standards for these functions are already adequately covered without an adverse impact on reliability.

**Sub-sets of applicable Reliability Standards**

For the remaining functional categories, RBR allows sub-sets of applicable Reliability Standards based on individual review of a specific entity as well as common characteristics of a class of entities, as applicable. This does not result in a change in the applicability section of a particular Reliability Standard; rather, it is the exercise of discretion, as part of the registration process, to determine whether a particular Reliability Standard or requirement shall apply to an entity.

From Order No. 693 to date, FERC has long recognized that NERC and the Regional Entities have the ability to apply sub-sets of Standards to registered functions. Tailoring Reliability Standard obligations has been successfully implemented in both the registration appeal context and Project 2010-07: Generator Requirements at the Transmission Interface (the GO/TO project). The redesigned framework builds on that use and experience to date and proposes a sub-set for one sub-category of the DP functional category as follows:

UFLS-Only DP criteria apply to entities that do not meet the proposed DP registration criteria, but participate in a UFLS program needed for reliability. Such UFLS-Only DPs would only be responsible for complying with PRC-006-1, PRC-006-2, and any regional Reliability Standard whose purpose is to develop or establish a UFLS Program (PRC-006-NPCC-1 and PRC-006-SERC-01). Reliability Standards PRC-005-2, PRC-005-3, and PRC-008-0 would not be applicable to UFLS-Only DPs. Reliability Standards that apply to DPs would not apply to UFLS-Only DPs, unless explicitly stated in the applicability section.

As a result, maintenance and testing of these distribution Protection Systems would be on a voluntary basis instead of mandatory compliance obligation (in PRC-005-2 once per 6 to 12 years). Therefore, there is a small risk of potential failure to operate.

NERC is moving consideration of a sub-set list of Reliability Standards for TOs/TOPs and GOs/GOPs to separate efforts in Phase 2 of RBR.

**Other key features**

Other key features of the design framework include the use of one-time attestations and a common registration form. RBR also is exploring the use of a single, web-based design and other business tools and processes to support

\textsuperscript{15} An entity’s obligations regarding self-registration are not changed by this initiative, nor is FERC’s ruling that entities are subject to compliance and enforcement for requirements applicable to a functional category only once they have been registered for that function.

\textsuperscript{16} The fifteen registration functional categories include: Reliability Coordinator (RC); Transmission Operator (TOP); Balancing Authority (BA); Planning Authority (PA); Transmission Planner (TP); Transmission Service Provider (TSP); Transmission Owner (TO); Resource Planner (RP); Distribution Provider (DP); Generator Owner (GO); Generator Operator (GOP); Load-Serving Entity (LSE); Purchasing-Selling Entity (PSE); Interchange Authority (IA); and Reserve Sharing Group (RSG).
RBR. The RBR redesign reflects NERC’s responsibility and oversight to ensure that a Regional Entity implements the Registration program in a consistent manner. Each of these is described in more detail below.

The technical review findings are being posted with the materials for the November Board meeting.

Notably, Registration decisions are separate and apart from application of the BES Definition, including the BES exception process. The new BES Definition and exception process may resolve, to some extent, the treatment of Elements that are not necessary for the reliable operation of the BES. However, the revised BES Definition does not affect NERC’s ability to decide, on a case-by-case basis, that registration is not warranted in particular cases, or to restrict the applicability of standards to particular entities. Rather, the BES Definition solely relates to whether a particular Element is BES or not.

Once the BES Definition is applied, the owners and operators of the BES assets are eligible for registration. For users of the BES, the proposed registration criteria are specific to that function. The RBR process, including application of the Registry Criteria and materiality “exception” process, is then used as a way to identify those organizations that should be registered based on the functions they perform (e.g., do they “own and maintain” BES Facilities) and their risk or contribution to reliability.
Figure 1. RBR Flow Chart Overview
Design Framework

New BES Definition as model and anchor for risk-based registration

The new BES Definition went into effect on July 1, 2014 and includes processes for notifications of self-determined exclusions and inclusions, as well as exception requests to add elements to, or remove elements from, the BES on a case-by-case basis. Importantly, the BES Definition includes thresholds for TOs/TOPs and GOs/GOPs, but not users of the BES.

The BES Definition is important to the RBR for two reasons. First, the structure of the FERC-approved BES Definition is a useful model for the RBR. It begins with a bright-line threshold that identifies most facilities that are part of the BES, and then layers on clear exclusions and inclusions that address the most common configurations not adequately captured by the bright-line threshold. Combined, the BES Definition bright-line, exclusions and inclusions address the vast majority of elements that should be part of the BES, but elements can be included or excluded from the BES through a case-by-case exception process. The reformed registration process is similarly structured. The RBR redesign includes revised thresholds, with a case-by-case process to adjust registration (by inclusion or exclusion) where warranted based on a materiality determination that takes into account circumstances not captured by the revised thresholds.

Second, the new BES Definition serves as a foundational anchor for Registry Criteria. While the statutory term BPS sets the outer limit of NERC authority, it has not been definitively defined by FERC. However, FERC has stated that users, owners and operators of the BES are users, owners and operators of the BPS. In addition, the existing Registry Criteria refers to the BPS as greater than 100 kV. Now that the BES is clearly defined, the term can be used to determine on a consistent basis the entities that warrant registration and address material impact on reliability. For this reason, certain of the proposals in the design framework for revising the Registry Criteria incorporate the BES Definition.

Importantly, the new BES Definition and exception process relates to whether a particular Element is BES, and defines the Elements that are not necessary for the reliable BES operation. However, the revised BES Definition does not affect NERC’s ability to decide, on a case-by-case basis, that registration is not warranted in particular cases, or to restrict the applicability of standards to particular entities. It remains within NERC and Regional Entity discretion to determine whether registration of an owner or operator of a particular BES Element is warranted based on all facts and circumstances.17 For example, to date, load-only manufacturing facilities have not been registered as TOs/TOPs. While some may have configurations that result in BES classification and make them candidates for registration, NERC and the Regional Entities will examine whether registration is warranted.18

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17 In accordance with Appendix 5C of the NERC ROP, an entity that becomes a candidate for registration as a result of newly-identified Element(s) as a result of application of the BES Definition will not be registered during the pendency of an exception request with respect to such Element(s). With respect to an entity that already is registered for a function due to ownership or operation of an Element that is subject to a notification of self-determined exclusion, there is no automatic change in registration status as a result of validation of the notification by NERC and the Regional Entity. With respect to an entity that already is registered for a function due to ownership or operation of an Element and such entity submits an Exclusion exception request for that Element, there is no automatic change in registration status as a result of a decision that an Element is, or is not, a BES asset. Changes in registration status are governed by the provisions in Section 500, Appendix 5A and Appendix 5B of the NERC ROP.

18 For such load-only manufacturing facilities (i.e., with no BES generation), factors to be considered would include whether the utility maintains the Element; whether the Element is embedded in a retail customer facility and serves a local distribution function; third-party usage; whether wide area view is relevant; and whether there is participation in SPS (RAS), UVLS or UFLS program for the protection of the BPS.
Synchronize threshold revisions with BES Definition and align with risk
Over time, entities have contended that the current thresholds are too low and include a large number of entities that pose little or no risk to reliability. Taking into account the new BES Definition and experience to date, the design framework includes proposals to revise the Registry Criteria for DPs, TOs, TOPs, GOs and GOPs to more clearly anchor them in the new BES Definition and align them with risk. The revised thresholds will be subject to a case-by-case process (modeled after the BES exceptions process) to allow for registration of entities that do not meet the Registry Criteria Sections I-IV or deactivation of a function for entities that satisfy the Registry Criteria, based on a determination of materiality.

Specific threshold criteria in Section III for TOs, TOPs, GOs and GOPs have been removed, due to existing language for TOs and TOPs and modifications to language for GOs and GOPs in Section II that tie directly into the BES Definition. As a result the BES Definition thresholds are the thresholds for TOs, TOPs, GOs and GOPs.

With respect to the DP function, there are several proposed revisions to the threshold criteria. First, the existing language is retained, consistent with NERC’s clarification, that it is the entity’s system that is “directly connected” to the BES. In addition, the threshold is increased to 75 MW while retaining or adding other criteria for registration such as owning or operating Protection Systems important for reliability (SPS, RAS, UVLS and TPS), responsibility for operating a cranking path, or responsibilities for providing services to a nuclear plant. UFLS-Only DPs would only be responsible for complying with PRC-006-1, PRC-006-2 and any regional Reliability Standard whose purpose is to develop or establish a UFLS Program (PRC-006-NPCC-1 and PRC-006-SERC-01). Reliability Standards PRC-005-2, PRC-005-3, and PRC-008-0 will not be applicable to UFLS-Only DPs. Reliability Standards that apply to DPs will not apply to UFLS-Only DPs, unless explicitly stated in the applicability section. The proposed changes include revising references from BPS to BES in specific provisions in the Registry Criteria; however, such changes would not apply when discussing NERC and FERC jurisdiction over the BPS.

The greater than 75 MW threshold for the DP function tracks the 75 MW dispersed generation threshold in the BES Definition.

Functional registration category removal if not material to reliability
NERC reviewed information from various sources to determine if any of the functional categories could be removed from the NCR as part of the RBRAG redesign. Three have been identified as commercial functions: (i) PSEs, (ii) IAs; and (iii) LSEs. RBRAG has determined that these functions can be removed as part of the registration process. The RBRAG recommends that, for future consistency, conforming changes be made to Reliability Standards through the Standards Development Process. The technical review findings are being posted with the materials for the November Board meeting.

Special Considerations for Load-Only Manufacturing Plants
The Electricity Consumers Resource Council (ELCON) provided RBRAG with an estimated order of magnitude of the number of United States manufacturing plants in the lower 48 states that might be interconnected with the BES at voltages in excess of 100 kV. There are over 600,000 manufacturing plants in the continental United States. An unknown but not insignificant number of these plants are at risk of becoming BES classified and subsequently registered entities based on a literal application of the BES bright-lines. After a review of only 16 manufacturing sectors (out of a total of 36), ELCON has conservatively estimated that 1,100 plants are potentially interconnected at 100 kV or higher. This number should be considered the lower end of a broad range. The high end could easily be two or three times that number. It is not known if 1%, 5% or 10% of these facilities would fail to meet the criteria for exclusion in BES Exclusions E2 and E3. The best-guess, order of magnitude estimate of the number of plants that are at risk of registration is between 11 and 330.
Because most large manufacturing plants are served by multiple feeds, this configuration may result in BES classification and therefore a candidate for registration based on the bright-line application of the new BES Definition. To date, load-only manufacturing plants have not been registered as TOs/TOPs. Rather, in the case of these retail loads, BES reliability has been assured by the real-time actions of the RC/BA/TOP service providers.

**Entity Risk Assessment Applicable to Load-Only Manufacturing Plants**

Based on a case-by-case review, NERC and the Regional Entities will continue to exercise discretion not to register load manufacturing plants that continue to meet the non-exclusive factors below:

1. No BES generation at the site
2. Utility maintains the element (e.g., the interconnecting substation and/or protection equipment under the terms and conditions of the applicable interconnection agreement or tariff)
3. Not an “integrated transmission Element” necessary to provide for the reliable operation of the interconnected transmission grid. Element is embedded in a retail customer’s electrical configuration and serves a local distribution function
4. No third-party usage of element under terms and conditions of a FERC-jurisdictional Open Access Transmission Tariff (OATT)
5. The plant is a retail load
6. The following additional factors may be used in support of the above criteria, which include that the organization is not required to participate in SPS, RAS, UVLS or UFLS programs

The application of the above criteria would not preclude the ability of the retail customer’s Regional Entity, in consultation with the entity’s RC/BA/TOP service providers, to register the entity if the Regional Entity can establish that the plant is material to the reliability of the BES. Such demonstration of materiality shall include a fact-specific analysis reflecting technical judgment.

In the event that such load-only manufacturing plants are determined to be subject to registration as TO/TOP under this analysis, review of the TO/TOP Reliability Standards should be undertaken, as part of Phase 2, to determine if a sub-list of applicable requirements is appropriate from a risk-based perspective.

**Special Considerations for Industrial and Commercial Cogeneration**

ELCON provided comments to RBRAG stating that it considers any customer-owned cogeneration plant with a nameplate rating in excess of 150 MW to have the potential to control its power sales to the grid to avoid crossing the 75-MVA BES threshold. The aggregate nameplate rating of these plants in both the continental United States and Canada is 48,101 MW. The average nameplate rating of these plants is 362 MW.

The following criteria could be applied to cogeneration units that serve the thermal requirements of retail industrial or commercial loads and where discretionary sales to the BES may exceed the “net” 75 MVA threshold applicable to cogeneration under Exclusion E2. These criteria are contingent on the development of a higher risk-based threshold “[X] MVA” as determined through further study by the applicable BA, TOP and/or RC:

1. Sales in excess of 75 MW are energy only but not to exceed [X] MW, as determined by the BA
2. Capacity sales in excess of 75 MVA as requested and directed by the BA, TOP or RC
3. Additional factors in support of the above criteria, include that the entity is not a registered TO or TOP (or not otherwise a TO/TOP by virtue of generator tie lines) and does not otherwise affect System Operating Limits (SOLs) or Interconnection Reliability Operating Limits (IROLs)
The working assumption is that all BES generating resource owners and operators with more than 75 MVA (or other threshold as determined through further study) are providing material amounts of capacity and energy to the BES and that misoperation of such BES resources could have an adverse reliability impact, and should accordingly remain subject to the full set of applicable Reliability Standards. Owners and operators of Blackstart Resources would also remain subject to full compliance responsibilities.

The core standard requirements that need to apply across the board to small GO/GOP generators include those focused on voltage and reactive control (VAR), protection systems (PRC) and modeling (MOD). Further analysis is required with respect to other Reliability Standards that should remain applicable, including, but not limited to, EOP-004-2, FAC-008-3, IRO-010, and TOP-006-2, as part of Phase 2.

**Risk-based application of Reliability Standards**

The redesigned framework includes the ability to apply sub-sets of standards to entities based on risk, such that a registered entity is required to comply only with a sub-set of otherwise applicable Reliability Standard requirements. In such a case, notwithstanding applicability provisions of Reliability Standards (other than those included in the sub-set list) that by their terms would include a registered entity based on the entity’s functional registration and attributes, the registered entity is responsible only for compliance with the NERC-approved sub-set list of Reliability Standard requirements. One approach is to establish that certain requirements do not apply to classes or groups of registered entities, based on uniform characteristics. Corresponding language changes are set forth in Appendix 5B to the NERC ROP. In the case of a UFLS-Only DP, the proposed design contemplates limited Reliability Standard applicability. RBR calls for sub-sets of applicable Reliability Standards based on individual review of a specific entity, as well as common characteristics of a class of entities, as applicable. From Order No. 693 to date, FERC has long-recognized that NERC and the Regional Entities have the ability to limit a registered entity’s compliance obligations to a sub-set of otherwise applicable Reliability Standards. Excerpts from some of the orders are provided below for ease of reference:

**Order No. 693**

98. As stated in the NOPR, NERC has indicated that in the future it may add to a Reliability Standard limitations on applicability based on electric facility characteristics such as generator nameplate ratings.[1] While the NOPR explored this approach as a means of addressing concerns over applicability to smaller entities, the Commission believes that, until the ERO submits a Reliability Standard with such a limitation to the Commission, the NERC compliance registry process is the preferred method of determining the applicability of Reliability Standards on an entity-by-entity basis.\(^{19}\)

**Order No. 773**

168. The Commission also rejects NERC’s argument that subjecting the elements associated with this type of radial system to all the Reliability Standards has a limited benefit to the reliability of the interconnected transmission network. In cases of radial tie-lines for bulk electric system generators where the generator owner also owns the tie-line, NERC has exercised discretion, on a case-by-case basis, in determining which entities require registration as transmission owners/operators and identified sub-sets of applicable reliability standard requirements for these entities.\(^{191}\) In other situations, such generator tie-lines may appropriately be considered an

\(^{19}\) Order No. 693 at P 98 (emphasis added).
extension of the generation facility, which would not subject significant additional compliance obligations on the generator owner and/or operator.\textsuperscript{20}

\textit{151} \textit{E.g., New Harquahala Generating Company, LLC, 123 FERC ¶ 61,173, order on clarification, 123 FERC ¶ 61,311 (2008).}

\textbf{Order No. 773-A}\textsuperscript{21}

52. We disagree with APPA that the directive to include 100 kV and above generator interconnection facilities connected to bulk electric system generators will result in making the owners of these qualifying 100 kV and above generator interconnection facilities subject to the full range of transmission planner, transmission owner and transmission operator Reliability Standards and requirements. As we state above, in cases of generator interconnection facilities for bulk electric system generators where the generator owner also owns the generator interconnection facility, NERC has determined on a case-by-case basis which entities require registration as transmission owners/operators and identified sub-sets of applicable Reliability Standard requirements for these entities rather than automatically subjecting such generators to the full scope of standards applicable to transmission owners and operators.\textsuperscript{78}

\textsuperscript{78} In addition, in Docket No. RM12-16-000, NERC has submitted proposed revisions to certain Reliability Standards to assure that generator interconnection facilities are adequately covered rather than subjecting them to all of the requirements applicable to transmission owners and operators.

\textbf{Generator Interface Final Rule}\textsuperscript{22}

52. We also reject TDU Systems’ and other commenters’ request to “clarify” that generator owners and operators will no longer be asked to register as transmission owners or operators under any circumstances. Quite the contrary, as we stated in the NOPR, our proposed approval of the revised Reliability Standards was “based on the understanding that additional Reliability Standards or individual requirements may need to be applied to the generator interconnection facilities . . . based on ‘individual assessments.’” \textsuperscript{80} We leave open the possibility that in some cases, the interconnection facilities may be so extensive that the entity should not only be registered as a transmission owner or operator, but should be subject to all of the Reliability Standards and requirements applicable to such an entity. In other cases, it may be appropriate to waive a significant portion of the standards or requirements generally applicable to transmission owners and operators, even if the entity is technically registered as a transmission owner or operator.

53. However, consistent with our prior decisions in Harquahala and Cedar Creek, we clarify that for the anticipated small number of generator owners and operators owning facilities deemed to be “complex” and therefore potentially subject to additional Reliability Standards, NERC should evaluate, in consultation with the Regional Entity, which Reliability Standards should apply to the particular entity based on the specific facts and circumstances. We further clarify that the generator owner or operator should only be obligated to comply with those Reliability Standards and requirements necessary to close the identified reliability gap.\textsuperscript{81} To the extent that disputes


\textsuperscript{21} Order No. 773-A at P 52 (emphasis added).

\textsuperscript{22} \textit{Generator Requirements at the Transmission Interface}, 144 FERC ¶ 61,221 (2013) (Order No. 785).
remain about the appropriate application of Reliability Standards and requirements, we note that generator owners and operators continue to have the right to bring any such dispute to the Commission.

Tailoring Reliability Standard obligations has been successfully implemented in both the registration appeal context and the GO/TO project. In addition, historically, some Regional Entities have addressed the challenges of Reliability Standard applicability to entities through their compliance monitoring activities, such as adjusting the scope of audits. These experiences have helped inform RBR efforts.

Consistent with this precedent, the design framework proposes to restrict the requirements applicable to entities that fall below the revised DP thresholds, but that are necessary participants in a UFLS program. Separate efforts in Phase 2 of RBR will address whether a sub-set list of Reliability Standards for TOs/TOPs and GOs/GOPs should be granted.

**Clarify terms and improve current procedures**

**Materiality**

NERC’s existing Registry Criteria allows NERC and the Regional Entities to register an entity that does not meet the criteria or to decline to register an entity that meets the criteria, as warranted, based on whether the entity “is material to the reliability of the bulk power system.” (Registry Criteria at note 1). As part of the RBR, a new “materiality” test is being established that would apply solely in evaluating whether to register an entity that does not meet the criteria or to determine not to register an entity that meets the criteria. In addition, materiality assessments also will be useful in connection with assigning registered entities sub-sets of applicable Reliability Standards. Although the burden is on NERC and its Regional Entities to demonstrate that an entity meets the threshold criteria for registration, the burden in the materiality process is on the entity making the request, i.e., the entity asking to be excluded from the NCR (despite satisfying the threshold criteria) and the Regional Entity seeking to include an entity in the NCR (that does not satisfy the threshold criteria).

To ensure consistency, NERC is establishing a centralized, NERC-led review process, described in more detail below, to address questions or issues that arise with respect to threshold application, materiality, or Reliability Standard requirement applicability. This process will include requests for deactivation of, decisions not to register, or reactivations of, an entity that meets Registry Criteria Sections I-IV or requests to add an entity that falls below the Registry Criteria, as well as requests for a sub-set list of applicable Reliability Standards. The materiality test may also include a review of individual and aggregate system-wide risks and considerations to reliability of the BPS, as anchored in the new BES Definition.

The RBR design framework sets forth a consistent approach to assessing materiality by identifying factors that must be evaluated. A common set of factors for consideration is identified below; however, only a sub-set of these factors may be applicable to particular functional registration categories. As these factors are considered in more detail through the RBR development process, function-specific factors may be developed. This approach to materiality parallels the factors for consideration developed as Exhibit C, “Detailed Information to Support an Exception Request” to the BES Definition.

**Factors for evaluating materiality**

Factors that have been identified by the RBRAG as relevant to assessing an entity’s materiality to BES reliability and making an informed engineering judgment include the following, and may include additional factors as relevant to a particular case:

1. Is the entity specifically identified in the emergency operation plans and/or restoration plans of an associated RC, BA, GOP or TOP?
2. Will intentional or inadvertent removal of an Element owned or operated by the entity, or a common mode failure of two Elements as identified in the Reliability Standards (for example, loss of two Elements as a result of a breaker failure), lead to a Reliability Standards issue on another system (such as a neighboring entity’s Element exceeding an applicable rating, or loss of non-consequential load due to a single contingency). Conversely, will such contingencies on a neighboring entity’s system result in Reliability Standards issues on the system of the entity in question?

3. Can the normal operation, misoperation or malicious use of the entity’s cyber assets cause a detrimental impact (e.g., by limiting the operational alternatives) on the operational reliability of an associated BA, GOP or TOP?

4. Can the normal operation, Misoperation or malicious use of the entity’s Protection Systems (including UFLS, UVLS, SPS, RAS and other Protection Systems protecting BES Facilities) cause a detrimental adverse impact on the operational reliability of any associated BA, GOP or TOP, or the automatic load shedding programs of a PC or TP (UFLS, UVLS)?

**Establish a centralized review process**

To provide a basis for NERC and regional consistency, the RBR framework calls for a NERC-led, centralized review panel, comprised of a NERC lead with Regional Entity participants, to vet deactivation of, decisions not to register, or reactivations of an entity that meets Registry Criteria Sections I-IV or requests to add an entity that falls below the Registry Criteria, as well as requests for a sub-set list of applicable Reliability Standards and disputes regarding application of the Registry Criteria.

The entity with the burden of proof in a panel review situation shall submit to NERC in writing the details of the issues and identification of any Regional Entity, RC and TOP that has (or will have upon registration of the entity) the entity within its Scope of Responsibility\(^ \text{23} \) in the Region, NERC will send a notification to the Regional Entity, the entity whose registration status is at issue, the referenced RC and TOP acknowledging receipt of the request for panel review.\(^ \text{24} \) The panel review process will parallel the timelines in the Appeals process, which are set forth in Appendix 5A (Section V and Figure 3). A parallel process will govern requests for Panel resolution of disputes regarding the application of Registry Criteria thresholds.

Once a decision is made, the decision (including the basis) will be shared throughout the ERO Enterprise and posted publicly on the NERC website, with confidential information redacted in accordance with Section 1500 of the NERC Rules of Procedure. The RBRAG expects this to result in consistency across the ERO Enterprise with respect to threshold, materiality, or applicable Reliability Standard class determinations. In addition, improved

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\(^ {23} \) The term Scope of Responsibility is defined in Appendix 5C of the NERC Rules of Procedure.

\(^ {24} \) Input from RC, TOP, and TP can be used to understand the aggregate impacts of changes in registration activities for Reliability Standards. The standard drafting team (SDT) on the Generator Interface Project noted the following in its Technical Justification Document Petition of the North American Electric Reliability Corporation for Approval of Proposed Reliability Standards FAC-001-1, FAC-003-3, PRC-004-2.1a and PRC-005-1.1b in Docket No. RM12-16-000, Exhibit C - Technical Justification Resource Document at 16 (July 30, 2012), which was included in the petition for approval to FERC:

The SDT does, however, acknowledge that some Facilities used solely to connect generators to the transmission system are more complex and therefore require individual assessment. The SDT has concluded that reliability gaps associated with such Facilities should not be addressed simply through application of all standards applicable to Transmission Owners and Transmission Operators, but instead has concluded that an individualized assessment of the impact of such a Facility on neighboring transmission Facilities is warranted. The SDT concluded that this assessment should, at a minimum, be based upon the output of transmission planning and operating studies used by the Reliability Coordinator, Transmission Operator, and Transmission Planner in complying with applicable Reliability Standards (Specifically, IRO, TOP and TPL).
procedures, with defined timelines, would be established for registration and deactivation, as well as Reliability Standard applicability class determinations and associated appeals. This provides a foundation for consistent decision-making and application of the criteria and thresholds.

This process is included in Appendix 5A to the NERC ROP.

The NERC Board of Trustees Compliance Committee will resolve appeals of registration disputes in accordance with NERC ROP Section 500 and Appendix 5A Section V, which are revised as appropriate to accommodate these new procedures.

**BES references**

The proposed changes include revising references from BPS to BES in specific provisions in the Registry Criteria; however, such changes would not apply when discussing NERC and FERC jurisdiction over the BPS.

The NERC Glossary of Terms Used in NERC Reliability Standards (NERC Glossary) includes the definition of BPS that was set forth in the Energy Policy Act of 2005, as well as the newly approved definition of BES. No changes to those definitions are proposed as part of the RBR design framework.

**Deactivation and Reactivation**

NERC maintains the NCR, which identifies each registered entity and the applicable functional categories for which it is registered. The term deactivation refers to removal of an entity from the NCR for a specific functional category. As a result of deactivation, the entity is no longer subject to any compliance obligations with respect to Reliability Standards applicable to that functional category. The term deactivation is used rather than deregistration, to avoid confusion over an entity’s status because often an entity is registered for more than one functional category. However, deactivation is deregistration for a specific functional category and such functional category will be removed from the NCR. Therefore, if all functional categories have been deactivated for a given entity, such entity would be deregistered and removed from the NCR. However, the entity’s compliance history will be retained. The letter from NERC notifying the registered entity that it has been deactivated for the particular function will establish the period for which the registered entity must retain its records, in accordance with the NERC Rules of Procedure. For clarity, NERC has added a new defined term “Deactivation” in Appendix 2.

As part of the transition to the redesigned framework, Regional Entities and registered entities will not need to submit a registration appeal pursuant to the NERC ROP Section 500 or Appendix 5A to deactivate entities that do not meet the new threshold criteria. For functional categories that are removed from the NCR, such as the PSEs, NERC, in concert with the Regional Entities will remove all PSE registrations and send a letter to the former PSEs, without the need for action by the registered entities.

The registered entity is obligated to update its information in accordance with Section 501.1.5.3 of the NERC ROP. Registered entities that believe that they are eligible to deactivate for functional categories are encouraged to discuss this in advance with the Regional Entity. The Regional Entity will in turn notify NERC of changes in registration status. NERC will issue a letter to the registered entity identifying changes in registration status. NERC and the Regional Entity may request additional information, as needed, to process a change in registration status. A quality control step will be added to the registration process to notify relevant entities, including but not limited to, the PA and TOP, to ensure deactivation will not cause reliability gaps or issues. NERC and Regional Entities shall act promptly to process registration status changes. Updates to the NCR are reflected on a monthly basis. Timelines governing deactivation requests and reviews are set forth in Appendix 5A. Entities that are deactivated are not required to comply with Reliability Standards applicable to the function that was deactivated as of the date the particular deactivation becomes effective.
NERC also has added a Reactivation provision in Appendix 5A and a new defined term “Reactivation” in Appendix 2. Reactivation refers to re-registration of an entity for a specific functional category or the revocation of, or additions to, a sub-set list of applicable Reliability Standards. This ensures that entities continue to be registered for the right set of Reliability Standards, where conditions underlying the sub-set list are no longer applicable or where a new and emerging risk to reliability is identified that changes the basis upon which an entity was deactivated, deregistered or upon which a sub-set list was made applicable.

**NERC oversight and guidance on registration practices**

NERC retains responsibility and oversight to ensure that a Regional Entity implements the Registration program in a consistent manner. Towards this end, the RBR redesign ensures that NERC is periodically performing programmatic reviews of the Regional Entities’ registration activities to ensure uniformity in due process and consistency in application. This will include development of controls to ensure consistency.

Improvements to the program include, but are not limited to:

- sampling and auditing of Regional Entity application of RBR classes and individual entity application;
- using surveys to reach out to registered entities as a means of identifying that a given entity is registered for the proper functions;
- using ongoing outreach to registered entities on registration issues; and
- mapping entities within each Regional Entity footprint to ensure awareness of entities that may have a material impact on reliability.

**One-time attestations**

With respect to self-certifications and other compliance monitoring activities, registered entities will be permitted to record a one-time attestation of “Not Applicable” to a given Reliability Standard requirement. These attestations are necessary where an existing physical or technical limitation makes a requirement inapplicable, or where the requirement is not applicable for another reason. For example, if the registered entity does not own or operate UFLS or UVLS assets, it should simply use the “Not Applicable” designation.

The Regional Entity will then carry forward this declaration from year-to-year, without requiring the registered entity to repeat the attestation each year, unless circumstances materially change requiring the need for the registered entity to notify the appropriate Regional Entity. NERC or the Regional Entity would have the ability to audit to verify the recordation is correct, on an as needed basis, but this should be infrequent. In addition, NERC and the Regional Entities should allow multi-Regional registered entities to use a single, one-time attestation, updated as needed. In such a case, NERC and the Regional Entities would have the opportunity to audit to verify the single attestation is true and correct.

Attestations received in 2015 will inform the separate efforts in Phase 2 regarding consideration of sub-set lists of applicable Reliability Standards for TOs/TOPs and GOs/GOPs.

**Entity risk assessment in a common registration form**

The NERC Registration Functional Group is currently collaborating with the Regional Entities to develop a common registration form to ensure consistency during the registration process. The common registration form is pending consideration as part of the ERO Enterprise applications. The RBR provides an opportunity to finalize and implement the common registration form for use by NERC, Regional Entities, and registered entities. The use of a common form will facilitate uniformity in the information being collected from registration candidates regardless of where they are located in North America. The common form and future IT interface is intended, among other things, to capture, without undue complexity, key factors relevant to an assessment of an entity’s inherent risk. Inherent risk is a function of an entity’s various registrations and other relevant factors like its system design,
configuration, size, etc. The RBR redesign must necessarily address potential impacts on business processes and tools needed to support RBR both within the ERO Enterprise and in industry. RBR recommends exploring use of a single, web-based design. In the interim, changes to the portals and various electronic forms used by NERC and the Regional Entities will need to be adapted to take into account Reliability Standard applicability classes. This will affect compliance monitoring and enforcement activities and will need to be addressed as part of the implementation plan.\textsuperscript{25}

In addition, entity risk assessments should take into account information from “neighbor” surveys that Regional Entities issue to RCs as part of certification and other activities to ensure coordination with adjacent entities. This survey approach also may increase awareness and tracking by NERC, Regional Entities and RCs of entities within each RC’s footprint and help identify needed revisions to an entity’s registration.

**Status quo for other functional registration categories**

As discussed above, recommendations for changes apply to eight of the 15 functional categories, including PSEs, IAs, DPs, LSEs, GOs, GOPs, TOs and TOPs. At this time, there are no proposed recommendations with respect to the following seven functional categories: BAs, PAs/Planning Coordinators, RCs, TPs, RPs, RSGs and TSPs. NERC will re-evaluate these functional categories in Phase 2.

In addition, NERC is not proposing changes to Coordinated Functional Registration (CFR) or Joint Registration Organization (JRO) agreement NERC ROP provisions. These are voluntary agreements between two or more entities that allow them to allocate compliance responsibility that is then used in compliance monitoring and enforcement activities. Entities are encouraged to discuss interest in a CFR or JRO with their respective Regional Entities. NERC recognizes that some CFRs and JROs may be affected as a result of the proposals in the RBR effort. To the extent that CFRs or JROs are affected by elimination of certain functional categories or revised Registry Criteria, entities are encouraged to work with their respective Regional Entity.

**Distinction between RBR and Reliability Assurance Initiative**

As discussed above, RBR identifies who needs to be registered and subject to compliance with Reliability Standards based on risk and what the applicable Reliability Standards are (e.g., a set or a sub-set list (which may specify the particular requirements/sub-requirements)). The Reliability Assurance Initiative (RAI) does not drive registration decisions. Rather, RAI is the compliance assurance program and applies after an entity is registered. RAI allows compliance assurance activities to be scoped with respect to applicable mandatory and enforceable Reliability Standards.

As part of the compliance assurance activities, RAI monitors, tests and evaluates an entity’s compliance with applicable Reliability Standard requirements. In doing that, it takes into account the internal controls of an entity to detect, correct, and prevent future noncompliance. Compliance assurance activities may be tailored (i.e., a scope review can be increased or decreased) for a given entity as a result of risk assessments and control evaluations, but only with respect to the applicable Reliability Standards as determined in the registration program. Notably, RAI recognizes the importance of, and need for, allowing certain noncompliance issues posing a lesser risk to the BPS to be resolved without an enforcement action. RBR and RAI will operate as an integrated set of programs. This allows NERC, Regional Entities and registered entities to devote time, attention and resources to the issues posing the greatest risk to reliability of the BPS, without losing sight of lower risk issues.

\textsuperscript{25} See Appendix A hereto.
Appendix A – Implementation Plan

Purpose
This Appendix A reflects future activities pending the NERC Board approval of the design and implementation plan. The RBR implementation plan is an activity-based approach focused on completion of key RBR activities. NERC, with the assistance of the RBRAG, established integrated activity timelines to provide industry with the anticipated implementation dates and milestones in order to prepare internal programs for the new process. This implementation plan follows the structure, objectives and purpose of the RBR end-state vision.

The major goals of the NERC RBR Initiative are to:

- Develop and deploy a sustainable Registration Program design that incorporates evaluation of the risks and benefits provided by a given entity to ensure reliability of the BES and identifies a corresponding properly tailored set of NERC Reliability Standard requirements.
- Create an implementation plan that supports a 2016 or sooner launch, along with business practice and IT requirements, with the possibility of early adoption options that can result in high reduction of industry burden, while preserving an adequate level of reliability.

In addition, coordination of this effort will enhance the ability to:

- Develop a common approach to identify and evaluate risks to reliability for use across the ERO Enterprise
- Identify changes to the registration criteria, if any, needed to align RBR with NERC’s RAI; and
- Incorporate recent implications to Registration resulting from changes to the BES Definition.

Benefits of deploying the RBR program include:

- Aligning entity registration and compliance burden to its risks and contributions to BPS reliability;
- Reducing the industry burden associated with registration, while sustaining continued BPS reliability;
- Improving use of NERC, Regional Entity and registered entity resources;
- Providing feedback to Reliability Standards development to enhance the applicability of currently enforceable and future Reliability Standards; and
- Increasing consistency in registration across the eight Regional Entities by developing a common and repeatable approach, along with improving registration and de-registration procedures.

In addition, coordination of this effort will enhance the ERO’s ability to:

- Evaluate risks to reliability for use across the ERO Enterprise; and
- Align changes to the Registry Criteria with other NERC activities and the BES Definition.

NERC and the Regional Entities will develop and deliver business practices, consolidated IT platforms and a training program for Regional Entity Staff along with necessary registered entity communication touch points such as workshops and informational webinars to support the transition to RBR.

The technical review findings are being posted with the materials for the November Board meeting.

Project Method and Incremental Rollout
The RBR project method follows four individual phases of incremental activity. The implementation plan reflects activities in phases 2 – 4. The purpose of this systematic approach is: (i) set program and implementation project
Appendix A – Implementation Plan

expectations, (ii) identify the expected targets and milestones required to complete the objectives identified for the RBR initiative, (iii) ensure alignment with sponsors and, (iv) establish a culture of communication and address assumptions and team and industry stakeholder concerns. A brief summary of the phases are outlined below:

1. **Plan/Analyze**: Define the scope of work and requirements *(completed Q1-Q2 2014)*
2. **Design**: Design and develop revised approach
3. **Feedback**: Incorporate feedback into design
4. **Train/Deploy**: Feedback from testing; train regions inform industry and implement

### RBR Project Timeline Completion Targets by Phase

<table>
<thead>
<tr>
<th>Phase</th>
<th>Q1-Q2 2014</th>
<th>Q3-Q4 2014</th>
<th>Q1 2015</th>
<th>Q2 2015</th>
<th>Q3 2015</th>
<th>Q4 2015</th>
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<tbody>
<tr>
<td>1. Plan/Analysis</td>
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<tr>
<td>2. Design</td>
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<tr>
<td>3. Feedback</td>
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<tr>
<td>4. Train/Deploy</td>
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### Risk-Based Registration Long-Term Timeline

![Risk-Based Registration Long-Term Timeline](image-url)
## Key Targets to Implement the Strategy

### Implementation Targets for Q3-Q4 2014

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Actions to be performed</th>
<th>Deliverable</th>
</tr>
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<tbody>
<tr>
<td>By the end of</td>
<td>1. NERC and the RBRAG will finalize a draft RBR design and framework document that includes an implementation plan and roll out strategy to recommend elimination of select functional categories based on risk to reliability, revised thresholds for consideration during the evaluation of entity registration and define classes and properly scoped applicable standards based on risk to reliability.</td>
<td>Design documents posted for MRC Policy input and Industry Comment</td>
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<tr>
<td>Q3 Design</td>
<td>2. NERC and the RBRAG will present data and information to provide technical justification for the recommended future design and framework. The analysis and input will come from three independent sources: • NERC RBRAG and RBR Task Force • Regional Entities • Industry stakeholders, including Reliability Coordinators, Planning Coordinators and Distribution Providers 3. RBRAG/task force will coordinate with the Standards Department to update the Reliability Standards Development Plan to include any necessary future RBR-related projects. Determine if regional standards/variances need to be incorporated into standards 4. RBRAG/task force will coordinate with CCC to ensure Appendix 5A can be updated simultaneously with Appendix 5B of the Rules of Procedure</td>
<td>NERC staff, with input from RBRAG/task force and the ERO EMG Registration and Certification Function Working Group, coordinated with the Compliance and Certification Committee (CCC) on revisions to Appendix 5A to the NERC Rules of Procedure</td>
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<tr>
<td>Q4 Design</td>
<td>1. NERC Legal will draft initial ROP revisions (section 500) to support the new design and framework, this includes revisions to Appendices 5A and 5B, as needed and prepare for FERC filing. Pre-filing meetings with FERC will be conducted as necessary</td>
<td>Necessary ROP changes, RBR framework, and implementation plan are being presented to the NERC Board for approval at its November 13, 2014 meeting</td>
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</table>
## Implementation Targets for 2015

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Actions to be performed</th>
<th>Deliverable</th>
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<tbody>
<tr>
<td>By the end of Q1</td>
<td>NERC and regional entities will update ERO processes and procedures</td>
<td>Revised CRATs, ERO processes and procedures</td>
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<tr>
<td>Train/Deploy</td>
<td>Scope necessary revisions to Compliance Reporting and Tracking System (CRATS) for sub-tiers</td>
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<td>By the end of Q2</td>
<td>NERC, the Regional Entities and the RBRAG will identify all PSE, IA, and LSE functions for deactivation:</td>
<td>Centralized NERC-led ERO Enterprise Panel selected and trained to implement the RBR design</td>
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<tr>
<td>Feedback/Deploy</td>
<td>- Establish an implementation plan for identification of sub-sets of Reliability Standards for eligible entities</td>
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<td>- Notify entities of pending rule changes and possible impacts on them</td>
<td>Non-IT business processes and tools (i.e., internal policies and procedures) identified</td>
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<td>- Establish time frame for affected entities to modify CFRs</td>
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<td>- Establish a process for selecting individual to participate on the centralized review panel</td>
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<td>Non-IT business processes and tools (i.e., internal policies and procedures) identified by the end of Q2 2015</td>
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<td>By the end of Q3</td>
<td>NERC will conduct a comprehensive communications and industry outreach program (see Communications Plan) to address assumptions and industry stakeholder concerns. Key delivery venues include:</td>
<td>Consolidated outreach calendar</td>
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<tr>
<td>Train/Deploy</td>
<td>- Regional Transmission Organization/Independent System Operator council</td>
<td>Webinars/workshops</td>
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<td></td>
<td>- Regional Workshops</td>
<td>FAQ documents</td>
</tr>
<tr>
<td></td>
<td>- Standing Committee Meeting (Operating Committee, PC, CCC, Standards, Critical Infrastructure Planning Committee)</td>
<td>Non/ROP changes implemented</td>
</tr>
<tr>
<td></td>
<td>- Compliance Workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Industry Trades</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NERC-led review panel to begin review of materiality appeals</td>
<td></td>
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<tr>
<td></td>
<td>Phase 1 non-ROP design changes (common registration form and one-time attestations) fully implemented by the end of Q3 2015</td>
<td></td>
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</table>
Appendix A – Implementation Plan

Implementation Targets for 2015

<table>
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<tr>
<th>Timeframe</th>
<th>Actions to be performed</th>
<th>Deliverable</th>
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<tr>
<td>By the end of Q4</td>
<td>Assign projects for other departments. If needed, NERC and the Regional Entities will identify necessary business practices and ERO IT platform requirements that includes a common registration interface</td>
<td>Common ERO IT Platform</td>
</tr>
<tr>
<td>Deploy</td>
<td>Non-IT business processes and tools (i.e., internal policies and procedures) fully implemented by the end of 2015</td>
<td>Common ERO Business Practices</td>
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<tr>
<td></td>
<td></td>
<td>Non-IT business processes and tools (i.e., internal policies and procedures) identified</td>
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<tr>
<td>By the end of Q4</td>
<td>Full deployment, subject to FERC order approving the Phase 1 design and RBR framework</td>
<td>RBR program fully deployed, subject to the outcome of a FERC order</td>
</tr>
<tr>
<td>Deploy</td>
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**Communication Approach**

The following Communication plan matrix establishes the mechanism, type, audience and frequency of desired communications. This plan is supplemented by a comprehensive calendar of events on the NERC web page and can be found at the following link.

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Type</th>
<th>Audience</th>
<th>Method / Source</th>
<th>Frequency</th>
<th>Responsible</th>
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<tr>
<td>RBRAG Team and Advisory Panel</td>
<td>Meeting</td>
<td>Executive Sponsor, Project Sponsor, RBRAG</td>
<td>Face-to-Face &amp; Conference Bridge</td>
<td>2014 Monthly (As-Needed)</td>
<td>Project Sponsor PM</td>
</tr>
<tr>
<td>MRC Policy Input</td>
<td>Feedback</td>
<td>MRC</td>
<td>Policy input letter</td>
<td>2014 Quarterly</td>
<td>Executive Sponsor</td>
</tr>
<tr>
<td>Industry Webinars</td>
<td>Informational</td>
<td>Industry Stakeholders</td>
<td>Webinar</td>
<td>2014-2015 Quarterly</td>
<td>PM</td>
</tr>
<tr>
<td>Regional Workshops</td>
<td>Informational</td>
<td>Industry Stakeholders</td>
<td>Workshop</td>
<td>Scheduled</td>
<td>PM</td>
</tr>
<tr>
<td>NERC Newsletters Bulletins</td>
<td>Informational</td>
<td>Industry Stakeholders</td>
<td>Email</td>
<td>Scheduled</td>
<td>PM</td>
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<tr>
<td>State of Standards</td>
<td>Informational</td>
<td>Industry Stakeholders</td>
<td>Webinar</td>
<td>Semi-Annual</td>
<td>PM</td>
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</table>
**Phase 2**

Phase 2 of the Risk-Based Registration (Phase 2) project will focus on whether TO/TOPs and GO/GOPs are eligible for sub-set lists of applicable Reliability Standards and if so, identification of such lists. The Phase 2 project will consider technical and risk considerations regarding the reliability impacts prior to finalization of any such sub-set lists. Phase 2 also will consider information developed through implementation of the Compliance Monitoring and Enforcement Program that goes into effect January 2015. In addition, information gained and lessons learned through the implementation of Phase 1 of the Risk-Based Registration project will inform Phase 2 activities and efforts.

Workshops were held on October 2, 2014 and October 15, 2014, regarding consideration of sub-set lists of Reliability Standards for the TO/TOP functional registration categories. With respect to the GO/GOP functions, the Dispersed Generation Project will provide a starting point for discussion and will help inform consideration of sub-set lists of Reliability Standards for these functional registration categories.

No decisions have been made at this time as to whether sub-set lists will result from these efforts.
## Appendix B – RBRAG and Task Force Rosters

### Risk-Based Registration Advisory Group

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</tbody>
</table>
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<th>Participant</th>
<th>Entity</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
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<tr>
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