

**COLUMBIAGRID**

**PHYSICAL SECURITY RELIABILITY  
STANDARD (CIP-014) THIRD PARTY  
VERIFICATION  
FUNCTIONAL AGREEMENT**

August 19, 2015

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## **COLUMBIAGRID**

### **PHYSICAL SECURITY RELIABILITY STANDARD THIRD PARTY VERIFICATION FUNCTIONAL AGREEMENT**

THIS PHYSICAL SECURITY RELIABILITY STANDARD (CIP-014) THIRD PARTY VERIFICATION FUNCTIONAL AGREEMENT including Appendix A is entered into as of August 19, 2015, by and among The City of Seattle, a municipal corporation of the State of Washington, acting by and through its City Light Department (the “CIP-014 Transmission Owner”) and ColumbiaGrid, a Washington state nonprofit corporation (together with the CIP-014 Transmission Owner, the “Parties”).

#### **RECITALS**

A. ColumbiaGrid is intended to promote, in the public interest, coordinated and reliable planning, expansion, and operation of the interconnected transmission systems in the Pacific Northwest, taking into consideration environmental concerns, regional interests, and cost-effectiveness.

B. On November 20, 2014, the Federal Energy Regulatory Commission (“FERC”) approved Reliability Standard CIP-014-1 (Physical Security) as mandatory and enforceable. CIP-014-1 will become effective on October 1, 2015.

C. Requirement R2 of CIP-014-1 obligates each Transmission Owner subject to CIP-014-1 to have an unaffiliated third party verify its risk assessment of its transmission stations and substations within the scope of the Reliability Standard to identify those transmission stations and substations that if rendered inoperable or damaged could result in instability, uncontrolled separation, or cascading within an interconnection.

D. ColumbiaGrid is an entity with transmission planning and analysis experience and capability to perform the Third Party Verification required for CIP-014-1 Requirement R2. It is anticipated that ColumbiaGrid’s performance of Third Party Verifications, during the Term of this Agreement, will be a manageable commitment of staff time (e.g. approximately one engineer-month of labor).

E. The CIP-014 Transmission Owner is subject to the requirements of CIP-014-1 and may request, provided that the CIP-014 Transmission Owner is also a party to ColumbiaGrid’s Planning and Expansion Functional Agreement (PEFA), or its successor, that ColumbiaGrid perform the Third Party Verification required for those Transmission Owners to demonstrate compliance with CIP-014-1 Requirement R2.

F. This PHYSICAL SECURITY RELIABILITY STANDARD THIRD PARTY VERIFICATION FUNCTIONAL AGREEMENT provides a mechanism for ColumbiaGrid to perform those Third Party Verifications.

NOW, THEREFORE, in consideration of the foregoing and of the mutual promises and covenants hereinafter expressed, the Parties hereby mutually agree as follows:

## ARTICLE I

### DEFINITIONS

Unless otherwise specified in this Agreement, terms used in this Agreement and defined in the Open Access Transmission Tariff shall have the meanings given such terms in the Open Access Transmission Tariff.

- A. “Agreement Limiting Liability Among Western Interconnected Systems” or “WIS Agreement” means at any time the Agreement Limiting Liability Among Western Interconnected Systems as it may have then been amended.
- B. “Agreement” means this Physical Security Reliability Standard Third Party Verification Functional Agreement.
- C. “Bylaws” means the then current bylaws of ColumbiaGrid.
- D. “CIP-014-1” means Reliability Standard CIP-014-1 (Physical Security) and any successor Reliability Standard approved by the Commission.
- E. “CIP-014 Transmission Owner” means those Parties to the Agreement other than ColumbiaGrid, each of which are subject to the compliance requirements applicable to Transmission Owners under CIP-014-1 and who are also parties to ColumbiaGrid’s PEFA, or its successor.
- F. “Commission” means the Federal Energy Regulatory Commission or any successor entity.
- G. “Confidential Information” shall mean: all information, regardless of the manner in which it is furnished, marked as “Confidential Information” at the time of its furnishing; *provided that* Confidential Information shall not include information: (1) in the public domain or generally available or known to the public; (2) disclosed to a recipient by a Third Person who had a legal right to do so; (3) independently developed by the receiving Party or known to such Party prior to its disclosure under this Agreement; (4) normally disclosed by entities in the Western Interconnection without limitation; (5) disclosed in aggregate form; or (6) required to be disclosed without a protective order or confidentiality agreement by subpoena, law or other directive of a court, administrative agency or arbitration panel.
- H. “Critical Energy Infrastructure Information” or “CEII” means information as defined in 18 C.F.R. § 388.113(c), as may be amended from time to time, about existing and proposed systems or assets, whether physical or virtual, relating to the production, generation, transportation, transmission, or distribution of energy that could be useful to a person in planning an attack on such systems or assets, the incapacity or destruction of which would negatively affect security, economic security, or public health or safety.
- I. “Effective Date” means the date this Agreement becomes effective as set out in Article III § 6 of this Agreement.
- J. “Electric System” has the meaning given for the words “electric system” in the WIS Agreement and means (a) electric distribution facilities or (b) generation facilities or (c) transmission facilities, or any combination of the three, and includes transmission lines, distribution lines, substations, switching stations, generating plants, and all associated

equipment for generating, transmitting, distributing or controlling flow of power. The Electric System of a Person includes the facilities of another entity operated or controlled by such Person. “Electric System” includes any devices or equipment (1) by which information is originated on an electric system or by the Person operating such system, (2) by which such information is transmitted, and (3) by which such information is received either for information or for operation of a system, whether by the originating system or by another system.

- K. “Interested Person” means any Person who has expressed an interest in the business of ColumbiaGrid and has requested notice of its public meetings. Such Interested Persons will be identified on the Interested Persons List compiled by ColumbiaGrid in accordance with Section 4.2 of the ColumbiaGrid Bylaws.
- L. “Other Information” means information that ColumbiaGrid has contractually committed to protect.
- M. “Pacific Northwest” means the (i) sub region within the Western Interconnection comprised of Alberta, British Columbia, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming and (ii) any portions of the area defined in 16 U.S.C. § 839a(14) that are not otherwise included in (i).
- N. “Party” means a signatory to this Agreement.
- O. “Person” means an individual, corporation, cooperative corporation, municipal corporation, quasi-municipal corporation, joint operating entity, limited liability company, mutual association, partnership, limited partnership, limited liability partnership, association, joint stock company, trust, unincorporated organization, government entity or political subdivision thereof (including a federal power marketing administration), or organization recognized as a legal entity by law in the United States or Canada.
- P. “Qualified Person” means (i) any Person that operates, uses, or owns, or proposes to operate, use, or own, an Electric System in the Pacific Northwest, (ii) any Person that is, or proposes to be, a transmission customer in the Pacific Northwest under an OATT, or (iii) any governmental entity having authority under state, provincial, or federal law to regulate any of the foregoing of the Regional Interconnected Systems.
- Q. “Regional Interconnected Systems” or “RIS” means the interconnected transmission systems in the Pacific Northwest.
- R. “Reliability Standard” means a Reliability Standard approved by the Commission under Section 215 of the Federal Power Act, 16 U.S.C. § 824o, as mandatory and enforceable for users, owners, and operators of the bulk power system.
- S. “Third Party Verification” means the verification of a CIP-014 Transmission Owner’s risk assessment performed for purposes of a CIP-014 Transmission Owner’s compliance obligations under CIP-014-1 Requirement R2. It is anticipated that ColumbiaGrid’s performance of Third Party Verifications, during the Term of this Agreement, will be a manageable commitment of staff time (e.g. approximately one engineer-month of labor).
- T. “Third Person” means any Person other than a Party.

- U. “Transmission System” means the transmission facilities in the Pacific Northwest owned or operated by a CIP -014 Transmission Owner. For purposes of this Agreement, an “owner” includes a CIP -014 Transmission Owner that has a leasehold interest in or other beneficial use of the subject facilities, where, for financing purposes, legal title is held by another entity.
- V. “Uncontrollable Force” means any act or event that delays or prevents a Party from timely performing obligations under this Agreement, including an act of God, strike, lock-out, labor dispute, labor disturbance, act of the public enemy, act of terrorism, war, insurrection, riot, fire, storm or flood, earthquake, explosion, accident to or breakage, failure or malfunction of machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities (other than, as to its own performance, by such Party that is a federal power marketing administration, municipal corporation or other federal, tribal or state governmental entity or subdivision thereof), or any other cause beyond such Party’s reasonable control and to the extent without such Party’s fault or negligence. Economic hardship shall not constitute an Uncontrollable Force under this Agreement.

## **ARTICLE II**

### **AGREEMENT**

#### Section 1. ColumbiaGrid Services

ColumbiaGrid shall provide to the CIP-014 Transmission Owner the services specified in Appendix A. This Agreement shall commence on the Effective Date and shall continue until January 31, 2016.

##### (a) Third-Party Verification

The CIP-014 Transmission Owner hereby engages ColumbiaGrid to perform the Third Party Verification necessary for such CIP-014 Transmission Owner to comply with CIP-014-1 Requirement R2 and any equivalent version of that Requirement in subsequent versions of the Physical Security Reliability Standard.

##### (b) Compliance Responsibilities to Remain with CIP-014 Transmission Owner

The CIP-014 Transmission Owner agrees to retain all compliance responsibility under CIP-014-1 and agrees that the authorization for ColumbiaGrid to perform the services specified in Appendix A does not permit or grant ColumbiaGrid the authority or ability to assume any compliance responsibility under CIP-014-1 on behalf of any of the CIP-014 Transmission Owners. The CIP-014 Transmission Owner also agrees that ColumbiaGrid is not becoming a user, owner, or operator of the bulk power system as defined under Section 215 of the Federal Power Act by providing the services in Appendix A and that ColumbiaGrid should not be registered on the North American Electric Reliability Corporation Compliance Registry as a Transmission Operator, Transmission Owner, or any other functional registration on the basis of the tasks performed by ColumbiaGrid under this Agreement.

#### Section 2. Process Requirements

##### (a) Duty to Cooperate

Each CIP -014 Transmission Owner, to the extent necessary, shall cooperate with and support ColumbiaGrid in the implementation of its responsibilities under this Agreement. Each CIP -014 Transmission Owner shall endeavor to actively participate in and support ColumbiaGrid in the performance of the Third Party Verifications. Specifically, each CIP-014 Transmission Owner shall provide the data regarding their systems necessary to assist with the completion of the Third Party Verifications.

(b) Transparency

ColumbiaGrid shall, to the extent practicable, undertake the Third Party Verifications in a coordinated, open, transparent, and participatory manner, subject to ColumbiaGrid's obligation to protect Confidential Information, CEII, or Other Information and to the confidentiality protections that may be requested by individual CIP-014 Transmission Owners. Each Third Party Verification shall not create any third-party rights or obligations.

(c) Process Requirements

In performance of the Third Party Verifications, ColumbiaGrid shall:

(1) in consultation with the CIP-014 Transmission Owner, implement and update, as appropriate, the Third Party Verifications, including deliverables, milestones and timelines;

(2) consult with or inform Interested Persons, to the extent permitted by the CIP-014 Transmission Owner; and

(3) provide technical staff to support the Third Party Verifications, which staff shall, together with the CIP-014 Transmission Owner, perform the technical analyses needed to complete the Third Party Verification of each CIP-014 Transmission Owner's transmission analyses identifying each CIP-014 Transmission Owner's transmission stations and transmission substations that if rendered inoperable or damaged could result in instability, uncontrolled separation, or cascading within an interconnection within the timeline specified by each CIP-014 Transmission Owner.

Section 3. No Agency

Nothing in this Agreement shall authorize ColumbiaGrid to act as agent for, act on behalf of, or make commitments for, any of the CIP-014 Transmission Owner. Each CIP-014 Transmission Owner that owns or operates a Transmission System retains its independent authority to evaluate and respond to ColumbiaGrid's Third Party Verification in accordance with CIP-014-1 Requirement R2. Nothing in this Agreement shall obligate any CIP-014 Transmission Owner that owns or operates a Transmission System to take any action with respect to its Transmission System including, but not limited to, setting any operational limits.

Section 4. Integration

This Agreement, including the appendices hereto, constitutes the complete agreement of the Parties and supersedes all prior or contemporaneous representations, statements, negotiations, understandings, and inducements with respect to the subject matter of this Agreement. The appendices hereto, as they may be revised from time to time by amendment pursuant to Article III § 7(b) of this Agreement, are incorporated by reference as if fully set forth in this Agreement.

## ARTICLE III

### STANDARD PROVISIONS

#### Section 1. Limitation of Liability Among CIP-014 Transmission Owners

Each CIP-014 Transmission Owner at any time that is both eligible to be a party to the WIS Agreement and operates electrical facilities for generation, transmission, or distribution shall become, as soon as reasonably practicable and prior to ColumbiaGrid performing Third Party Verifications for such CIP-014 Transmission Owner, and remain at all such times a party to the WIS Agreement as a condition of participation in this Agreement.

#### Section 2. Indemnification and Limitations of Liability

To promote cooperation among the Parties, to avoid duplication of costs, and to carry out the purposes of this Agreement, the Parties agree to the following provisions for indemnification and limited liability.

##### (a) First Party Claims

ColumbiaGrid shall not be liable to any other CIP -014 Transmission Owner for any loss or damage to the equipment or Electric System of such other CIP -014 Transmission Owner, or any loss or damages for bodily injury (including death) that such other CIP -014 Transmission Owner or its employees may incur arising out of this Agreement or its performance.

##### (b) Third Person Claims

Any CIP-014 Transmission Owner whose electric customer shall have a claim or bring an action against ColumbiaGrid for any death, injury, loss, or damage arising out of delivery of, interruptions to, or curtailment of electric service to such customer caused by performance or nonperformance of ColumbiaGrid's obligations under the Agreement in performing the Third Party Verification of a Planning Party's risk assessment under CIP-014-1 shall indemnify and hold harmless ColumbiaGrid, its directors, officers, and employees from and against any liability for such death, injury, loss, or damage. The term "electric customer" shall mean any electric consumer as well as an electric utility system to which power is being delivered for resale.

##### (c) Limitation of Damages

As between ColumbiaGrid and any CIP-014 Transmission Owner and as between CIP-014 Transmission Owners, each of those Parties waives as against the other of those Parties (including its directors, commissioners, officers, and employees) all claims, and otherwise covenants not to sue or otherwise pursue any claim or remedy, arising out of or in connection with this Agreement or its performance (whether based on contract, tort, or any other legal theory), including any claims arising out of or in connection with any monetary fines or other sanctions for violations of CIP-014-1 under Section 215 of the Federal Power Act; *provided* nothing in this Agreement shall apply to claims for loss or damage between CIP-014 Transmission Owners that are within the scope of the WIS Agreement.

#### Section 3. Uncontrollable Force

A Party shall not be in breach of this Agreement as a result of such Party's failure or delay to perform its obligations under this Agreement when such failure is caused by an Uncontrollable

Force that such Party, despite the exercise of due diligence, is unable to remove with reasonable dispatch; *provided however* that such Party shall have the right to suspend performance of such obligations only to the extent and for the duration that the Uncontrollable Force actually and reasonably prevents the performance of such obligations by such Party. In the event of the occurrence of an Uncontrollable Force that delays or prevents a Party's performance of any of its obligations under this Agreement, such Party shall (i) immediately notify the other Parties of such Uncontrollable Force with such notice to be confirmed in writing as soon as reasonably practicable, (ii) use due diligence to mitigate the effects of such Uncontrollable Force, remedy its inability to perform, and resume full performance of its obligations under this Agreement, (iii) keep the other Parties apprised of such efforts on an ongoing basis, and (iv) provide written notice of the resumption of performance under this Agreement. Notwithstanding any of the foregoing, the settlement of any strike, lockout, or labor dispute constituting an Uncontrollable Force shall be within the sole discretion of the Party to this Agreement involved in such strike, lockout, or labor dispute; and the requirement that a Party must use due diligence to remedy the cause of the Uncontrollable Force or mitigate its effects and resume full performance hereunder shall not apply to strikes, lockouts, or labor disputes.

#### Section 4. Assignments and Conveyances

##### (a) Successors and Assigns

This Agreement is binding on and shall inure to the benefit of the Parties and their respective successors, permitted assigns, and legal representatives.

##### (b) Assignment of ColumbiaGrid's Rights and Obligations

ColumbiaGrid shall not, without the prior written consent of each of the CIP-014 Transmission Owners, assign, pledge or transfer all or any part of, or any right or obligation under, this Agreement, whether voluntarily or by operation of law; *provided* nothing in this Agreement shall prohibit ColumbiaGrid from contracting with Third Persons for the provision of services to assist ColumbiaGrid in performing its obligations under this Agreement.

##### (c) Assignment of a CIP-014 Transmission Owner's Rights and Obligations

Except as otherwise provided in this Agreement, a CIP-014 Transmission Owner shall not, without the prior written consent of ColumbiaGrid, assign, pledge, or transfer all or any part of, or any right or obligation under, this Agreement, whether voluntarily or by operation of law; *provided however* that a CIP-014 Transmission Owner may, without the consent of ColumbiaGrid, assign its rights and obligations under this Agreement to any Person (i) into which the CIP -014 Transmission Owner is merged or consolidated or (ii) to which the CIP -014 Transmission Owner sells, transfers, or assigns all or substantially all of its Electric System, so long as the survivor in any such merger or consolidation, or the purchaser, transferee, or assignee of such Electric System provides to ColumbiaGrid a valid and binding written agreement expressly assuming and agreeing to be bound by all obligations of the CIP -014 Transmission Owner under this Agreement.

##### (d) Assignment of Facilities

Notwithstanding any other provision of this Agreement, a CIP -014 Transmission Owner may pledge or assign all or any portion of its Transmission System without any other Party's consent.

##### (e) Effect of Permitted Assignment

In the event of any permitted sale, transfer or assignment under this Agreement, the transferor or assignor shall to the extent of the transferred or assigned obligations, and only to such extent, be relieved of obligations accruing from and after the effective date of such transfer or assignment; *provided however* that under no circumstances shall any sale, transfer, or assignment relieve the transferor or assignor of any liability for any breach of this Agreement occurring prior to the effective date of such transfer or assignment.

(f) Consent Not Unreasonably Denied or Delayed

Consents to assignment, pledge, or transfer requested pursuant to this Agreement shall not be unreasonably denied or delayed.

Section 5. Confidentiality Obligations

(a) Protection of Confidential Information

Parties seeking designation of Confidential Information shall act in good faith when asserting the confidentiality of material. Each Party shall use reasonable efforts to maintain the confidentiality of all Confidential Information provided to it by another Party pursuant to this Agreement. In the event a dispute arises related to the designation of Confidential Information under this Agreement, representatives of the Parties with authority to settle the dispute shall meet and confer in good faith in an effort to resolve the dispute. If the dispute is not so resolved, the dispute may, if the disputing Parties so elect, be resolved by arbitration as follows. Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten days of the referral of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three member arbitration panel. The two arbitrators so chosen shall within 20 days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric industry matters, including electric transmission issues, and, unless otherwise agreed by the Parties to the dispute, shall not have any current or past substantial business or financial relationships with any Party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and shall generally conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association.

(b) Protection of Critical Energy Infrastructure Information

If a CIP-014 Transmission Owner designates information as “Critical Energy Infrastructure Information” as of the time of its furnishing, ColumbiaGrid shall not post such information on the public portion of its Website. If any CIP-014 Transmission Owner, or other Person, seeks information so designated as CEII, ColumbiaGrid shall immediately notify the disclosing CIP-014 Transmission Owner to seek its consent to release such information. If the disclosing CIP-014 Transmission Owner does not consent, ColumbiaGrid shall not release the CEII and shall inform the requesting CIP-014 Transmission Owner of the disclosing CIP-014 Transmission Owner’s decision. Further, if information designated by a CIP-014 Transmission Owner as CEII is made part of a filing submitted by ColumbiaGrid with the Commission, ColumbiaGrid shall take reasonable steps to ensure the protection of such information pursuant to the 18 C.F.R. § 388.112(b).

(c) Protection of Other Information

ColumbiaGrid shall protect Other Information consistent with its contractual commitment, if any, relating to such Other Information.

(d) Disclosure Pursuant to Statute or Administrative or Judicial Order

Each Party shall use reasonable efforts to maintain the confidentiality of all Confidential Information provided to it by another Party pursuant to this Agreement; *provided however* that each Party shall be entitled to disclose such Confidential Information if it is required to make such disclosure by any statute or administrative order or judicial order or if it makes such disclosure pursuant to a protective order of the administrative or judicial body. Each Party shall, promptly upon receipt of a request for such Confidential Information (or receipt of a notice of a request to an administrative or judicial forum for the public disclosure of such Confidential Information), notify the other Party and other affected Parties of any such request. A Party whose Confidential Information is sought to be released may, in its sole discretion and at its sole cost and expense, undertake any challenge to such disclosure.

(e) Disclosure of Information Subject to Standards of Conduct

If a CIP-014 Transmission Owner furnishes information marked as “Standards of Conduct Information” at the time of its furnishing, ColumbiaGrid shall not disclose such information to any CIP-014 Transmission Owner, including the disclosing CIP-014 Transmission Owner, or any Third Person unless such disclosure would be consistent with the Commission’s regulations in 18 C.F.R. Part 358.

(f) Third Person Access to ColumbiaGrid Data and Analysis

ColumbiaGrid shall develop, and revise as necessary, policies regarding the provision of data or analysis to Third Persons subject to the appropriate treatment of Confidential Information, information relating to Standards of Conduct matters, any information to be protected pursuant to any contractual commitment of ColumbiaGrid to protect information and CEII; *provided that* ColumbiaGrid shall make clear on its Website and in other distributions that such data and analysis is being provided as is and that any reliance by the user on such data or analysis is at its own risk and, specifically, shall make clear that any such data or analysis is not warranted by ColumbiaGrid or any CIP -014 Transmission Owner and that neither ColumbiaGrid nor any CIP-014 Transmission Owner is responsible for any such data or analysis, for any errors or omissions in such data or analysis, or for any delay or failure to provide any such data or analysis to such Third Persons. ColumbiaGrid shall require, through electronic means or otherwise, that Third Persons receiving any such data or analysis from ColumbiaGrid signify agreement with the foregoing.

(g) CIP-014-1 Confidentiality Protections

Consistent with CIP-014-1 Requirement R2.4, any CIP-014 Transmission Owner may request that ColumbiaGrid implement additional procedures for protecting that CIP-014 Transmission Owner’s sensitive or confidential information made available to ColumbiaGrid for purposes of the Third Party Verification.

Section 6. Effective Date and Term

This Agreement shall become effective for all Parties on August 26, 2015, and will terminate at 11:59 pm (Pacific Prevailing Time) on January 31, 2016.

(a) Agreement Provisions Surviving Termination

The obligations of the Parties under Section III.2 (Indemnification and Limitations of Liability) and Section III.5 (Confidentiality Obligations) shall survive the termination of the Agreement in any manner or as to any Party or all Parties.

Section 7. Miscellaneous

(a) Notices

(1) Permitted Methods of Notice. Any notice, demand, or request in accordance with this Agreement, unless otherwise provided in this Agreement, shall be in writing and shall be deemed properly served, given, or made to the address of the receiving Party set forth below (i) upon delivery if delivered in person, (ii) upon execution of the return receipt, if sent by registered United States or Canadian mail, postage prepaid, return receipt requested, or (iii) upon delivery if delivered by prepaid commercial courier service.

The address of ColumbiaGrid shall be:

ColumbiaGrid  
8338 NE Alderwood Road  
Suite 140  
Portland, OR 97220

The addresses of the CIP-014 Transmission Owner shall be:

The City of Seattle, a municipal corporation of the State of Washington, acting by and through its City Light Department:

700 Fifth Avenue, Suite 3300  
Seattle, WA 98124  
Attn: Tuan Tran, Director, Energy Delivery Engineering

(2) Change of Notice Address. Any CIP-014 Transmission Owner may at any time, by notice to ColumbiaGrid, change the designation or address of the person specified to receive notice on its behalf. In such case, ColumbiaGrid shall promptly notify all of the other CIP-014 Transmission Owners of such change.

(3) Routine Notices. Any notice of a routine character in connection with this Agreement shall be given in such a manner as the Parties may determine from time to time, unless otherwise provided in this Agreement.

(b) Amendment or Modification

This Agreement may not be amended or modified except by any subsequent mutual written agreement, duly executed by all then current Parties to this Agreement. If any provision of this Agreement, or the application thereof to any person, entity, or circumstance, is held by a court or regulatory authority of competent jurisdiction to be invalid, void, or unenforceable, or if a modification or condition to this Agreement is imposed by a regulatory authority exercising jurisdiction over this Agreement, the Parties shall endeavor in good faith to negotiate such amendment or amendments to this Agreement as will restore the relative benefits and obligations of the signatories under this Agreement immediately prior to such holding, modification, or condition.

(c) Construction of Agreement

Ambiguities or uncertainties in the wording of this Agreement shall not be construed for or against any Party, but shall be construed in a manner that most accurately reflects the purpose of this Agreement and the nature of the rights and obligations of the Parties with respect to the matter being construed.

(d) Existing Agreements Preserved

Nothing in this Agreement shall be interpreted to supersede the requirements of any existing agreement unless otherwise expressly stated herein.

(e) Governing Law

This Agreement shall in all respects be interpreted, construed and enforced in accordance with the laws of the State of Washington, except to the extent that such laws may be preempted by the laws of the United States or of Canada, as applicable; *provided however* that notwithstanding the foregoing, with respect to a dispute involving a CIP-014 Transmission Owner that is a United States government entity (including, but not limited to, a federal power marketing administration), this Agreement shall in all respects be interpreted, construed, and enforced in accordance with the laws of the United States. The Parties acknowledge that with respect to a CIP-014 Transmission Owner that is an agency of the United States federal government, under law in effect as of the Effective Date, such agency has not by this Agreement waived its sovereign immunity.

(f) Equitable Relief

If the CIP-014 Transmission Owner seeks injunctive or other equitable judicial relief for the failure of ColumbiaGrid to comply with its obligations to the CIP-014 Transmission Owner under this Agreement, ColumbiaGrid agrees not to challenge such action on the basis that monetary damages would be a sufficient remedy.

(g) Singular and Plural; Use of “Or”

Any use of the singular in this Agreement also includes the plural and any use of the plural also includes the singular. References to “or” shall be deemed to be disjunctive but not necessarily exclusive. References to “including,” “include,” and “includes” shall be deemed to mean “including but not limited to,” “include but not limited to,” and “includes but not limited to,” respectively.

(h) Headings for Convenience Only

The section headings in this Agreement are intended for convenience and reference only and are not intended to define, limit, or describe the scope or intent of any provisions of this Agreement.

(i) Relationship of the Parties

(1) No Partnership, Etc. Nothing contained in this Agreement shall be construed to create an agency, association, joint venture, trust, or partnership or to impose a trust or partnership covenant, obligation, or liability on or with regard to any of the Parties. Each Party shall be individually responsible for its own covenants, obligations, and liabilities under this Agreement.

(2) Rights Several. All rights of the Parties are several, not joint. Except as may be expressly provided in this Agreement, no Party shall have a right or power to bind any other Party without such other Party's express written consent.

(j) No Third Person Beneficiaries

This Agreement shall not be construed to create rights in, or to grant remedies to, any Third Person as a beneficiary of this Agreement or of any duty, obligation, or undertaking established in this Agreement. Nothing in this Agreement is intended to restrict the right of any Party or Interested Party to seek an order from the Commission under the Federal Power Act.

(k) No Dedication of Facilities

No undertaking by any CIP-014 Transmission Owner under or pursuant to any provision of this Agreement shall constitute or be deemed to constitute a dedication of all or any portion of such CIP-014 Transmission Owner's Transmission System, to any other Party or to the public.

(l) Nonwaiver

Any waiver at any time by any Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any other default or other matter arising in connection with this Agreement. Any waiver must be delivered in writing, executed by an authorized representative of the Party granting such waiver. Any delay short of the statutory period of limitations in asserting or enforcing any right shall not constitute or be deemed a waiver.

(m) Further Actions and Documents

Each Party agrees to do all things, including, but not limited to, the preparation, execution, delivery, filing, and recording of any instruments or agreements, reasonably requested by any other Party necessary to carry out the provisions of this Agreement.

(n) Counterparts

This Agreement may be executed in counterparts, which may be executed at different times. Each counterpart shall constitute an original but all counterparts together shall constitute one and the same instrument. ColumbiaGrid shall maintain the original signature pages, and shall prepare and distribute a conformed copy of this Agreement to the CIP-014 Transmission Owner.

(o) No Expansion of Commission Authority

Nothing in this Agreement, or any undertaking by or with ColumbiaGrid, is intended to (a) create or grant the Commission authority over entities or matters which it would not otherwise have or (b) imply or establish that any Party agrees, or is precluded from contesting, as to whether or the extent to which the Commission has jurisdiction over a Party or matter or has the authority to order particular relief.

(p) Representation of Qualified Person Status

Each CIP-014 Transmission Owner, upon its execution and delivery of this Agreement, represents that such CIP-014 Transmission Owner is a Qualified Person.

(q) Representation of Authority

Each Party, upon its execution and delivery of this Agreement, represents that it has authority to enter into and perform this Agreement. Each Party represents that the individual signing this Agreement on its behalf is authorized to sign this Agreement on behalf of the Party for which such individual signs.

(r) CIP -014 Transmission Owner Records and Information Sharing

Each CIP-014 Transmission Owner shall maintain and make available for ColumbiaGrid's inspection at such CIP-014 Transmission Owner's facilities, during normal business hours and upon request, data, records and drawings describing the physical and electrical properties of such CIP-014 Transmission Owner's Electric System, subject to any applicable provisions for protection of Confidential Information, CEII, and Other Information.

(s) Other Reports

ColumbiaGrid may, upon reasonable notice to a CIP-014 Transmission Owner, request that such CIP-014 Transmission Owner provide ColumbiaGrid with such other information or reports as ColumbiaGrid may reasonably deem necessary for its performance of this Agreement. The CIP-014 Transmission Owner shall, except to the extent prohibited by law, make all such information or reports available to ColumbiaGrid within a reasonable period of time and in a form specified by ColumbiaGrid, subject to any applicable provisions for protection of Confidential Information, CEII, and Other Information.

Section 8. Standards of ColumbiaGrid Performance

ColumbiaGrid shall carry out its obligations under this Agreement in an efficient, expeditious, professional, and skillful manner. In providing services to the CIP-014 Transmission Owner under this Agreement, ColumbiaGrid shall comply with all applicable laws, ordinances, rules, regulations, orders, licenses, permits, and other governmental requirements (including, but not limited to, any such requirements imposed upon the CIP-014 Transmission Owner with respect to ColumbiaGrid's provision of services under this Agreement); *provided that* regulatory requirements imposed on any single CIP-014 Transmission Owner shall not be deemed applicable to other CIP-014 Transmission Owners as a result of this Agreement.

ColumbiaGrid is an equal opportunity employer. All employment decisions will be made without regard to race, color, religion, national origin, age, gender, marital status, sexual orientation, veteran status, the presence of a disability, or any other basis protected by applicable federal, state and/or local law.

ColumbiaGrid's equal employment opportunity policy applies to all terms, conditions and privileges of employment including, but not limited to, decisions regarding recruitment, hiring, training, performance evaluation, promotion, demotion, discipline, transfer, compensation and benefits, reduction in force, recall and termination.

Section 9. Authorization for ColumbiaGrid to Perform Obligations Under this Agreement

The CIP-014 Transmission Owner agrees that, unless specifically otherwise provided in this Agreement, ColumbiaGrid is authorized, pursuant to Bylaws Section 6.1, to engage on its own behalf, and not as agent for the CIP-014 Transmission Owner, in any activity reasonably necessary to perform its obligations under this Agreement, including the hiring of contractors or consultants.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names.

**ColumbiaGrid**

By:   
Name: Patrick J. Damiano  
Title: President / CEO  
Date: September 3, 2015

**The City of Seattle, a municipal corporation  
of the State of Washington, acting by and  
through its City Light Department**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed in their respective names.

**ColumbiaGrid**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**The City of Seattle, a municipal corporation  
of the State of Washington, acting by and  
through its City Light Department**

By: Juan Tran \_\_\_\_\_  
Name: Tuan Tran \_\_\_\_\_  
Title: EDE Director \_\_\_\_\_  
Date: August 28, 2015 \_\_\_\_\_

## **APPENDIX A - THIRD PARTY VERIFICATION PROCESS**

### **1. THIRD PARTY VERIFICATION SERVICES**

Under CIP-014-1, each CIP-014 Transmission Owner is required to perform an initial risk assessment prior to the effective date of CIP-014-1. Each risk assessment consists of transmission analyses designed to identify the transmission stations and transmission substations that if rendered inoperable or damaged could result in instability, uncontrolled separation, or cascading within an interconnection. Subsequent to the initial risk assessment, each CIP-014 Transmission Owner is required to perform another risk assessment every 30 months if that CIP-014 Transmission Owner identified one or more transmission stations and transmission substations that if rendered inoperable or damaged could result in instability, uncontrolled separation, or cascading within an interconnection. Alternatively, if a CIP-014 Transmission Owner did not identify one or more transmission stations and transmission substations that if rendered inoperable or damaged could result in instability, uncontrolled separation, or cascading within an interconnection, that CIP-014 Transmission Owner must perform subsequent risk assessments at least every 60 months following the initial risk assessment.

For compliance purposes under CIP-014-1 Requirement R2, each risk assessment performed by a CIP-014 Transmission Owner requires verification from an unaffiliated third party. Under this Agreement, ColumbiaGrid will perform for any CIP-014 Transmission Owner those Third Party Verifications.

The Parties agree that ColumbiaGrid is qualified to perform those Third Party Verifications because ColumbiaGrid is not affiliated with any of the CIP-014 Transmission Owners and because ColumbiaGrid is an entity with transmission planning or analysis experience. The Parties agree that ColumbiaGrid's experience in transmission planning and analysis is reflected in ColumbiaGrid's experience in power system studies and planning, ColumbiaGrid's understanding of the Modeling, Data, and Analysis ("MOD") Reliability Standards, Transmission Planning ("TPL") Reliability Standards, and facility ratings as used in transmission planning studies, and ColumbiaGrid's familiarity with the Western Interconnection, in which all CIP-014 Transmission Owners are located.

If a CIP-014 Transmission Owner requests that ColumbiaGrid perform a Third Party Verification, that CIP-014 Transmission Owner and ColumbiaGrid shall proceed as specified in this Appendix A.

### **2. CIP-014-1 TRANSMISSION OWNER NOTIFICATION OF COLUMBIAGRID**

If a CIP-014 Transmission Owner requests that ColumbiaGrid perform a Third Party Verification under CIP-014-1 Requirement R2, that CIP-014 Transmission Owner shall submit a written request to ColumbiaGrid requesting such verification services and shall provide to ColumbiaGrid that Transmission Owner's own risk assessment developed by that Transmission Owner pursuant to CIP-014-1 Requirement R1 along with any additional information that CIP-014 Transmission Owner concludes may be helpful to ColumbiaGrid in performing the Third Party Verification.

Alternatively, a CIP-014 Transmission Owner may request in writing that ColumbiaGrid perform a Third Party Verification under CIP-014-1 Requirement R2 concurrent with the CIP-014 Transmission Owner's own risk assessment.

Any such request from a CIP-014 Transmission Owner shall specify the date on which that CIP-014 Transmission Owner completed its risk assessment, if applicable.

### **3. COLUMBIAGRID VERIFICATION**

ColumbiaGrid shall then perform the Third Party Verification either subsequent to the CIP-014 Transmission Owner's own risk assessment or concurrent with the CIP-014 Transmission Owner's own risk assessment as specified by the CIP-014 Transmission Owner. ColumbiaGrid shall perform this Third Party Verification based on its own objective analysis, technical expertise, and experienced judgment.

The Third Party Verification performed by ColumbiaGrid shall confirm that the CIP-014 Transmission Owner's risk assessment was performed in accordance with the requirements in CIP-014-1 Requirement R1. The Third Party Verification may include recommendations for the addition or deletion of transmission stations or transmission substations identified by the CIP-014 Transmission Owner's risk assessment.

The CIP-014 Transmission Owners, who are parties to this Agreement, will attempt to agree on a single common methodology for ColumbiaGrid to confirm that the CIP-014 Transmission Owner's risk assessment was performed in accordance with the requirements in CIP-014-1 Requirement R1. If the CIP-014 Transmission Owners, who are parties to this Agreement, are unable to reach agreement, prior to the effective date of this Agreement, on a single common methodology, for ColumbiaGrid to confirm that the CIP-014 Transmission Owner's risk assessment was performed in accordance with the requirements in CIP-014-1 Requirement R1, ColumbiaGrid shall use the guidelines developed by Peak Reliability as a reference, subject to mutually agreeable modifications acceptable to all Parties, to confirm that CIP-014 transmission owners' risk assessments were performed in accordance with the requirements in CIP-014-1 Requirement R1. For informational purposes, Peak Reliability's verification guidelines are attached as Exhibit A and modifications to the guidelines, as discussed among the Parties, are attached as Exhibit B. The single common methodology may be modified from time to time by mutual agreement of the Parties. Neither the development nor the modification of that single common methodology shall constitute an amendment or modification of this Agreement under Section III.7.b.

ColumbiaGrid shall complete the Third Party Verification within 90 days following the date on which the applicable CIP-014 Transmission Owner completed, and delivered to ColumbiaGrid, that CIP-014 Transmission Owner's risk assessment performed in accordance with the requirements in CIP-014-1 Requirement R1.

ColumbiaGrid shall provide, upon request by a CIP-014 Transmission Owner and with reasonable advance notice, any reasonable documentation regarding this Third Party Verification necessary for such CIP-014 Transmission Owner to demonstrate compliance with CIP-014-1 Requirement R2.

### **4. CIP-014-1 TRANSMISSION OWNER RESPONSE TO VERIFICATION**

Nothing in this Agreement limits any CIP-014 Transmission Owner's discretion in responding to ColumbiaGrid's Third Party Verification under this Appendix A, including any of the decisions a CIP-014 Transmission Owner may make under CIP-014-1 Requirement R2.3.

**EXHIBIT A**

**EXAMPLE OF PEAK RELIABILITY'S CIP-014 THIRD-PARTY  
VERIFICATION GUIDELINES**



Document name	Peak CIP-014-1 Guideline
Category	<input type="checkbox"/> Regional Reliability Standard <input type="checkbox"/> Regional Criteria <input type="checkbox"/> Policy <input checked="" type="checkbox"/> Guideline <input type="checkbox"/> Report or other <input type="checkbox"/> Charter
Document date	March 31, 2015
Adopted/approved by	Peak Reliability
Date adopted/approved	March 31, 2015
Custodian (entity responsible for maintenance and upkeep)	Peak Reliability
Stored/filed	Physical location: Web URL: <a href="https://www.peakrc.com/Pages/Library.aspx">https://www.peakrc.com/Pages/Library.aspx</a>
Previous name/number	(if any)
Status	<input checked="" type="checkbox"/> in effect <input type="checkbox"/> usable, minor formatting/editing required <input type="checkbox"/> modification needed <input type="checkbox"/> superseded by _____ ( ) other _____ ( obsolete/archived

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4850 HAHNS PEAK DRIVE • SUITE 120  
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Power-flow

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## PURPOSE

This guideline provides Transmission Owners (TO) with a common risk assessment methodology and evaluation criteria, and sets forth documentation requirements for studies that will be performed on applicable substations or switching stations in order to meet NERC CIP-014-1 R1 requirements.

## INTRODUCTION

The CIP-014-1 standard requires TOs to examine the immediate impacts of an attack on, and complete loss of, transmission stations and transmission substations (Station). Use of a common methodology promotes consistency across the region and provides understanding among the TOs responsible for performing the risk assessment, the third party evaluator(s) that must verify the results of the assessment (CIP-014-1 R2), and WECC staff responsible for compliance monitoring and enforcement.

Peak Reliability (Peak) has prepared this guideline as a Reliability Coordinator and as a potential third-party reviewer of risk assessments. This guideline does not constitute a new standard or an imposed obligation on TOs; rather, it is intended to support the need for high-quality studies performed in a consistent manner throughout the Western Interconnection. However, if a TO wishes to use Peak as the third-party reviewer for CIP-014-1 R1, then the TO will be expected to follow the procedures as documented in this CIP-014-1 guideline.

Peak gratefully acknowledges the contribution of the WECC Technical Studies Subcommittee, the WECC Critical Infrastructure Protection (CIP) Compliance staff, and the U.S. Department of Energy Office of Electricity Delivery & Energy Reliability for their contribution to the development of this guideline.

## 1. BACKGROUND

On March 7, 2014, the Federal Energy Regulatory Commission (FERC) issued an Order (*Reliability Standards for Physical Security Measures*, 146 FERC ¶ 61,166) directing the North American Electric Reliability Corporation (NERC) to develop one or

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more physical security reliability standards to identify and protect Stations that, if rendered inoperable or damaged, could result in instability, uncontrolled separation or Cascading within an Interconnection. TOs will be required to perform a risk assessment on those Stations defined as applicable under the definition contained in CIP-014-1, section 4. Once a risk assessment has been completed and Stations have been identified (CIP-014-1 R1) and verified by a third party (CIP-014-1 R2), owners and operators of those identified Stations or primary control centers will be required to develop and implement security plans for those Stations as described and required in CIP-014-1, R4-R6.

## 2. STATEMENT OF PURPOSE

As stated in CIP-014-1, the purpose of the standard is to identify and protect Stations, and their associated primary control centers which, if rendered inoperable, or damaged as a result of a physical attack, could result in instability, uncontrolled separation, or Cascading within an Interconnection.

This guideline is intended to provide TOs with technical guidance to perform the required risk assessment analysis described in R1 of the CIP-014-1 standard. By following this guideline, TOs will have a common risk assessment methodology to utilize when assessing whether a physical attack on their Station(s) will result in instability, uncontrolled separation, or Cascading failures.

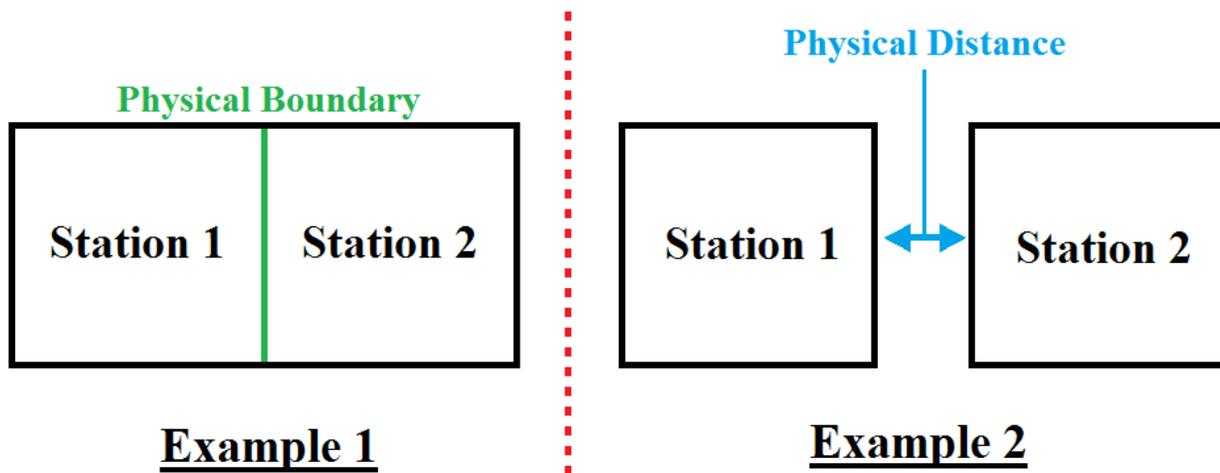
This guideline provides a consistent and objective risk assessment analysis methodology for the entire region and is comprehensive enough to allow an unaffiliated third party to verify and validate results.

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### 3. DEFINITIONS

Cascading	<p>From the NERC Glossary of Terms - <i>The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in electric service interruption that cannot be restrained from sequentially spreading beyond an area predetermined by studies.</i></p> <p>Cascading (or “widespread”) is considered to be non-localized service interruption where load loss is greater than 1000 MW and containment cannot be positively demonstrated. (this includes UFLS/UVLS)</p>
Station or Transmission Station	<p>The terms “Transmission Stations” and “Stations” are used interchangeably throughout this document, and will refer to the same thing.</p> <p>These terms refer to locations where groups of Transmission Facilities exist within a physical border (i.e. fence, wall, etc.).</p> <p>Geographical diversity would be the only distinguishing characteristic between two separate Stations. A physical barrier between two areas would still constitute the same Station. See Figure 1 and its associated description for further clarification.</p>
Facility or Transmission Facility	<p>Any piece of equipment used in the delivery of electric power. This includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Transmission lines</li> <li>• Transformers</li> <li>• Series or shunt reactive devices (with constant or variable susceptance or impedance)</li> <li>• Circuit breakers, disconnects or other power-flow interrupting devices</li> <li>• Relays or other protective devices</li> <li>• Any communication equipment or paths as necessary for the proper operation of any device</li> </ul>

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*Figure 1: Geographical Diversity between Stations*

It is recommended that each TO consider the above figure for the determination of geographical diversity between Stations:

- Example 1 shows two Stations that are physically adjacent but are separated by some sort of physical boundary. In this case, Stations 1 and 2 would be considered as the same Station for study purposes due to their being located within the same physical boundary.
- Example 2 shows two Stations that are not physically adjacent and are separated by a physical distance. In this case, Stations 1 and 2 are considered to be two separate Stations for study purposes because they are in separate physical boundaries.
  - Physical distance is considered having a value of at least 100 feet. A physical distance of less than 100 feet between Stations does not constitute geographical diversity, and as such, these Stations will be regarded as one and the same.
  - If a TO has a specific instance in which the 100 foot requirement may not provide an adequate assessment of what constitutes geographical

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diversity, discussion and evaluation with the respective third party reviewer prior to performing studies is recommended.

#### 4. APPLICABILITY

Requirement 1 of NERC CIP-014-1 requires TOs to perform an initial risk assessment on the impact of the loss of any 500 kV (and above) Station. If a 500 kV (and above) line terminates at a Station, it will be considered as a 500 kV Station. For example, a 230 kV Station with a 500/230 kV transformer is fed by a terminated 500 kV line and is therefore deemed to be a 500 kV Station.

CIP-014-1 also requires TOs to consider, analyze, and evaluate any applicable transmission stations operated between 200 kV and 499 kV that have an aggregate weighted value exceeding 3000 based on the “weighted value per line” combined with the total number of connected transmission lines to the Station (see Table 1).

To consider what is and is not to be counted as a weighted value, refer to Figure 2 taken from NERC CIP-014-1 standard (altered for clarification) along with the associated description.

*Any “voltage” in this document will refer to the nominal voltage of a Facility, and all voltages are considered phase-to-phase.*

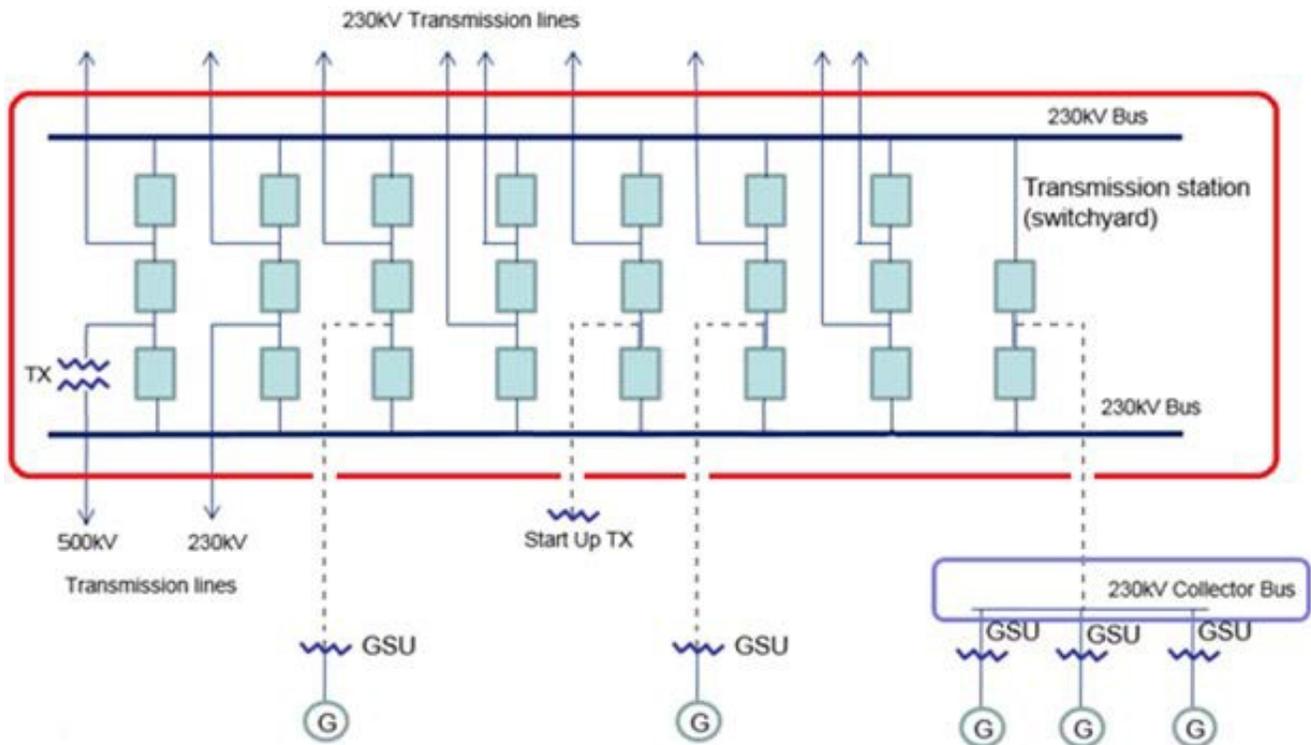


Figure 2: Altered Diagram from NERC CIP-014-1 for Determining Weighted Values

From Figure 2, any line that physically enters and terminates at the Station will be considered. In this case, the voltage value of the line as it crosses the “red” boundary of the Station will be counted as the voltage value of the line, and will be considered in the weighting of the Station.

This includes any Facility within the Station in which the line terminates. For example: in the case of a transformer, the line-side voltage would be considered in the weighting. The example in Figure 2 would make the Station considered to be a 500kV station, due to the transformer being fed by a 500kV line.

- Rradially-fed generation *directly* connected to a Station from lead-lines of a generator or generator collector bus will hereby be referred to as “Rradially-fed Generation” and will be excluded from the weighting of the Station.

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Voltage Value of a Line	Weight Value per Line
less than 200 kV (not applicable)	(not applicable)
200 kV to 299 kV	700
300 kV to 499 kV	1300
500 kV and above	(automatically included)

*Table 1. Modified Table from CIP-014-1 Physical Security (for clarity purposes)*

In addition to Stations meeting the weighted aggregate value from the CIP-014-1 table, such transmission Stations associated with Facilities--which have been identified by the Reliability Coordinator, Planning Coordinator, or Transmission Planner as critical to the derivation of an Interconnection Reliability Operating Limit (IROL) - also will be included.

No Facilities under the scope of a security plan approved by the Nuclear Regulatory Commission or Canadian Nuclear Safety Commission are subject to this standard, including any Facilities identified as essential to meeting Nuclear Plant Interface Requirements. Those Facilities are already covered under the appropriate nuclear facility physical security requirements.

## **5. CIP-014-1 GUIDANCE FOR R1**

TOs following this document when performing the required risk assessments will develop their own dated and deliverable document for third-party review. The documentation should be sufficiently detailed for a third-party reviewer to validate the methodology and endorse the results.

The analysis will identify the impact to the BES of the total loss of “applicable” Stations identified by:

- Station voltage 500 kV and above.
- Stations whose voltage is less than 500kV and the weighted aggregation value per the CIP-014 table exceeds 3000.
  - This shall include any line that enters and terminates at any Facility within the Station.

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- These are only applicable to Stations that are connected to three or more other Stations.
- Station(s) identified by Peak (as the Reliability Coordinator), the Planning Coordinator, or the Transmission Planner as a critical facility to the derivation of an IROL.
  - In the event that an IROL has been defined as an “import” or like quantity, at a minimum the critical facilities will be defined as the point of interconnection at each Station of a Facility that defines the “import” or like quantities’ value for lines that exceed 200kV.
- Station(s) that have been added by an applicable governmental authority, federal jurisdiction, or appropriate overseeing entities.

The documentation will clearly describe, from the list above, how the Station was identified as “applicable” and what caused it to be placed on the CIP-014-1 analysis list.

### **5.1. BASE CASES TO STUDY (STEP 1)**

The base cases used for the CIP-014 analysis will be WECC Operational Base Cases relevant to the year that the CIP-014 analysis is performed. No other cases will be accepted for this purpose. The risk assessment will include Stations that are in service and are planned to be in service within 24 months of the study. The Operational Base Cases will be modified to accurately reflect studied system topology.

TOs will perform the initial risk assessment on at least one case. No further analytical work is needed if it can be shown that (using a single Operational Base Case) the Station loss results in unacceptable performance. In this case, the Station is subject to the enhanced Physical Security requirements of CIP-014-1.

In order to properly demonstrate satisfactory system performance, each of the following WECC Operational Base Cases (most recently approved cases) will be used:

- Heavy Summer
- Heavy Winter
- Light Summer
- Light Winter

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If the Station loss still performs satisfactorily following the analysis on the standard WECC Operating Cases, Peak requires that these same studies be performed using stressed Operating Cases. To stress the four Operating Cases, TOs are strongly encouraged to draw on their own knowledge of the system and to stress the cases based on analytical judgment. They also should examine MW and MVAR through-flows of the Station. TOs will provide documentation justifying their choice of system stressing on the appropriate base case(s) used for this risk assessment.

Each Station stressing will be included in a case, but based upon the TO’s analytical judgment, the same stress cases may be applicable to more than one Station. See Figure 3 for further clarification of the decision tree process.

TOs are free to choose their initial Operational Base Case (stressed or not) to “test” the performance in that situation, to determine if their Station has the possibility of being removed from the list. TOs also may choose which test to conduct first (i.e. transient, power-flow).

It should be noted that “stressing” the case for an individual Station may result in a “de-stressed” system. It is for this reason that a study on both the standard WECC Operating Case and the stressed case are required. All the prescribed operating cases are required to study a full year’s impact to the BES for the Station loss.

A complete risk assessment needs to be performed even if the TO expects that the studied Station loss *will* result in satisfactory system performance.

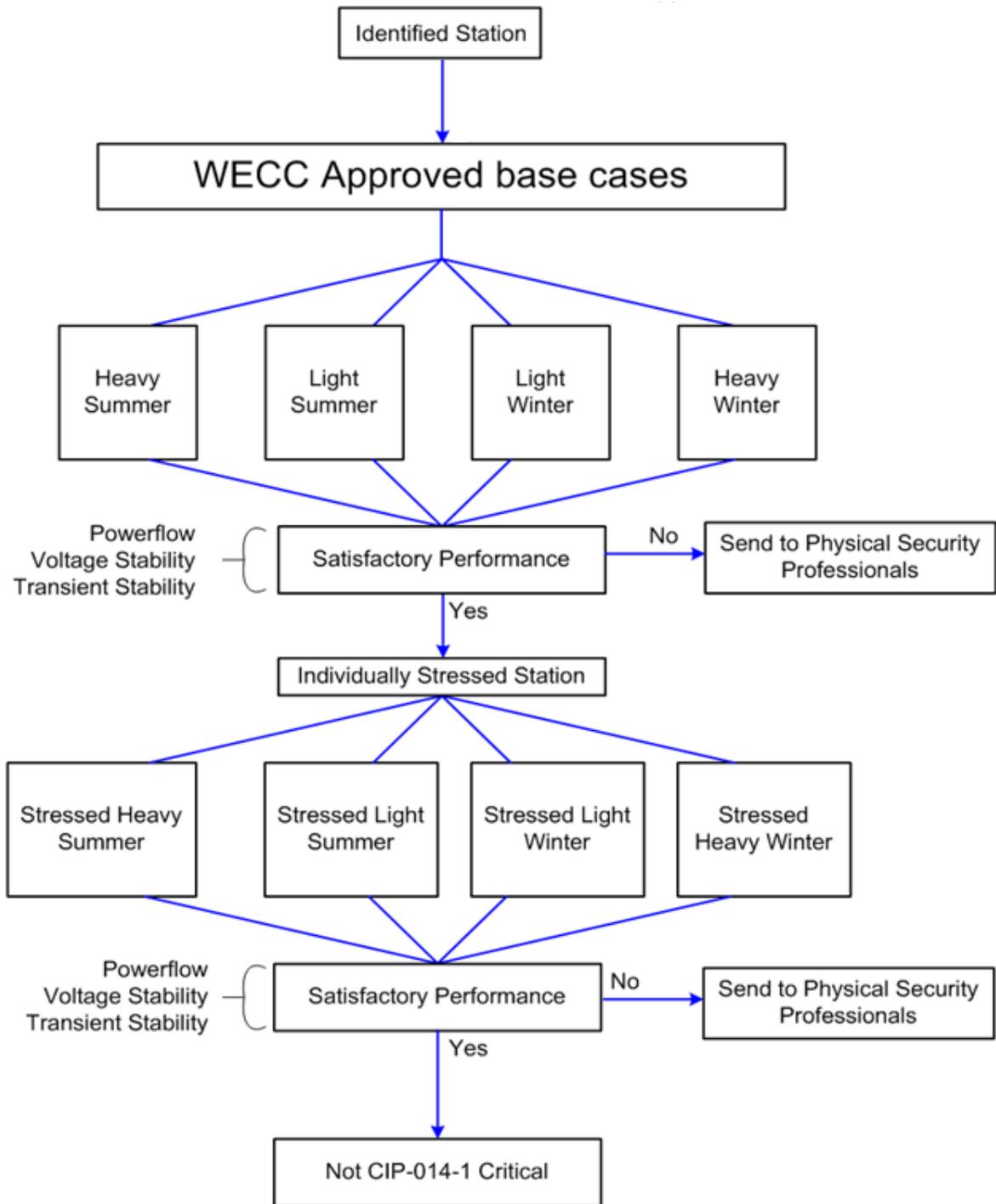


Figure 3: Base Case and Study Process Decision Tree

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## 6. STUDY REQUIREMENTS

### 6.1. STEADY STATE POWER-FLOW (STEP 2)

Once the necessary cases have been identified, steady state power-flow analysis must be performed on those cases. If the results of any of the steady state power-flow analysis screening identify Stations within an Interconnection whose loss could result in instability, uncontrolled separation or Cascading, TOs should then strongly consider ending any further study efforts for that Station and should conclude that the Station fits within the CIP-014-1 Physical Security requirements.

The following assumptions will be made:

- All steady state studies will be performed using a constant MVA load model throughout the voltage band.
- Any automatic controlled devices that provide VAR injection within 10 seconds will be considered in the study as post-contingency voltage support. Non-automatic switching devices will be excluded.

When simulating the instantaneous loss of an entire Station, an adequate risk assessment will include all of the following applicable outages at that Station:

- Loss of all Facilities at the Station.
- Failure of a fully redundant Special Protection Scheme (SPS) or Remedial Action Scheme (RAS) located in its entirety at the critical facility.
- The actual operation of a fully redundant SPS or RAS as would be expected considering the impacts of an attack on the Station being examined. Any SPS or RAS that would operate must be included and a description of those SPS or RAS operations must be provided.

Solution Divergence: Cases with diverged solutions need to be investigated in more detail to identify why the outage did not yield a solution (i.e., checked for numerical issues). Consider the following when reviewing for divergence issues:

- A true divergent power-flow solution is not indicative of a numerical divergence.
  - An identified and verified numerical issue needs to be investigated as to the cause and corrective action necessary. (This is rare and is usually based upon the chosen program's performance.)

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- A Q-V analysis needs to be performed to show positive reactive margin at all buses electrically adjacent to the studied Station loss. If positive margin is not demonstrated, the TO may consider the system to be in voltage collapse.

## 6.2. TRANSIENT ANALYSIS (STEP 3)

The analysis of the instantaneous loss of Station will include loss of all applicable equipment at the Station under study. These will include at least those listed below as a minimum:

- 3-phase bolted fault on each line connected to a Station on the critical facilities list, with delayed remote clearing (the time delay shall be stated for each line).
  - Any Radially-fed Generation directly connected to the Station will not be faulted, but simply tripped at the time of the fault in order to isolate the simulation problems of the localized generation fault (which are removed from the system by virtue of the Station loss) from the actual system response.
    - This is only applicable to Radially-fed Generation to the Station whose loss is being studied.
- All remaining Facilities at the Station.
- Communication or Control House loss from the Station.
- Any SPS or RAS located completely at the Station fails to function.
- The actual operation of a fully redundant SPS (or RAS) as would be expected from the Station and subsequent Transmission Facility must be considered. A description of any SPS or RAS operations must be provided.

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To be exempt from the CIP-014-1 enhanced physical security list, outage results should plot and demonstrate the following:

- Acceptable stability with positive damping. This will include:
  - Inter-area modes
  - Local control modes
    - A sustained oscillation is usually indicative of poor dynamic data settings for the applicable generator.
- Voltage deviations will settle within the acceptable recovery limits as defined in Figure 4.

The voltage dip ( $\Delta V$ ) shall meet a transient stability performance of at least a 20 percent dip recovery from their initial voltage after a period of 30 seconds at any bus within the BES upon the fault clearing (See Figure 4).

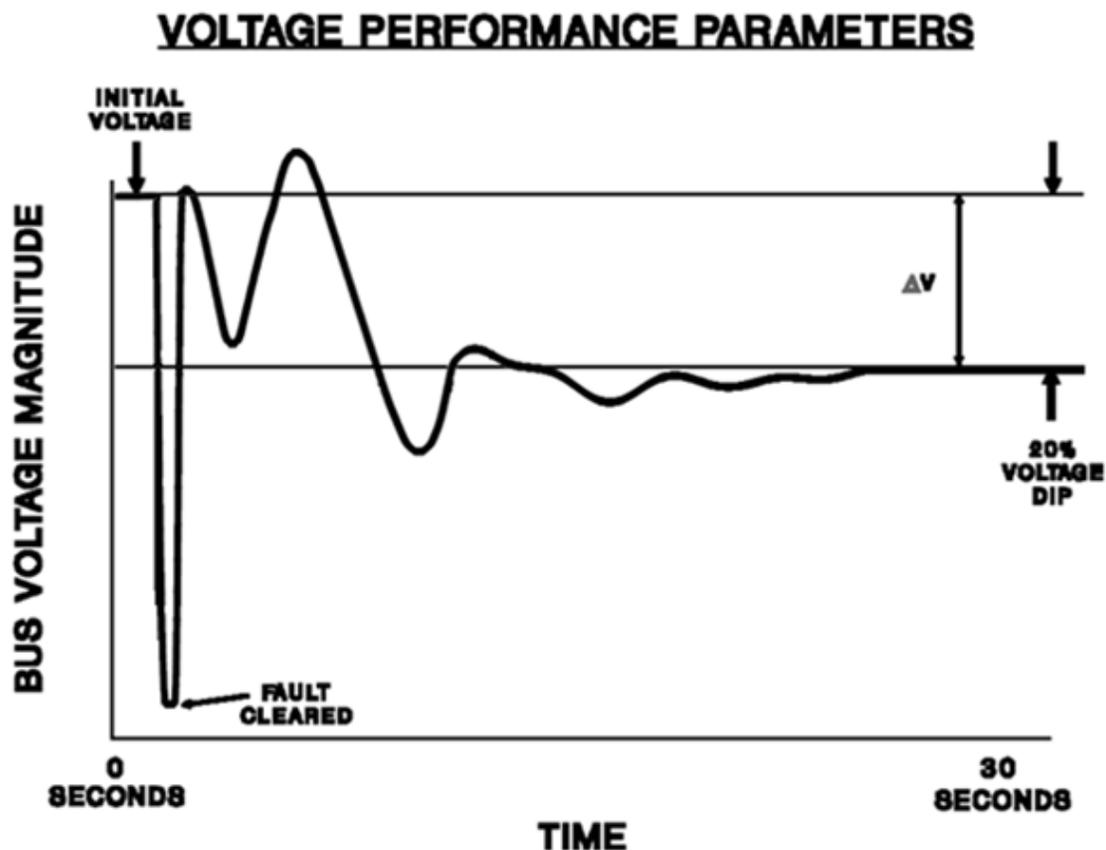


Figure 4: Transient Stability Voltage Performance Illustration

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All Station losses shall be initiated after a 2-second initialization and run out to a period totaling at least 30 seconds.

All transient stability runs shall first include a flat-start (no disturbance) and a double Palo Verde (2PV) loss as a test of case and dynamic data adequacy. This will be apart from any other simulations, and is only to demonstrate proper transient stability analysis response.

- All current approved WECC Operating cases have been verified to withstand a 2PV loss simulation.

*It is understood that dynamic data may need to be altered during case manipulation, and Peak is relying on the TO's best engineering judgment to handle this.*

### **6.3. DOCUMENTING STUDY RESULTS (STEP 4)**

Once the TO has completed the appropriate studies, a study report shall be created that can be provided to the third-party reviewer of the assessment. The study report must contain the following important information and documentation:

- Which WECC Operating Cases were selected for the studies performed.
- The actual cases used for the study, in the format used, along with the dynamic data files and contingency and RAS definitions.
  - Per the WECC System Review Work Group (SRWG) data preparation manual, RAS and contingency definitions will be supplied in the WECC RAS/Contingency common format.
- A list of all Stations that were chosen for study and the reason the Station was selected (aggregate weighted value of Station is greater than threshold, Station is critical to derivation of an IROL, etc.).
- A one-line diagram and layout of each Station.
- The study assumptions and case stressing methods.
- The steady state power-flow results, divergent solutions including supporting analysis, and transient stability analysis results for each Station loss studied, including any RAS/SPS actions that were modeled in the study.
- Any radially-fed generation tripped due to the Station loss.
- The amount of load loss and its composition (i.e. residential, commercial , industrial)

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- Indication of which Station losses resulted in unsatisfactory performance as specified.
  - For these Stations, at least one example of unsatisfactory performance must be demonstrated.
    - TOs are free to choose which example of unsatisfactory performance they wish to show.

For a TO to remove Stations from the R1 list who have shown that their loss did not result in instability, uncontrolled separation, or Cascading within the Interconnection, the following must be included and documented:

- Identification of these Stations and their purpose of existence in the BES.
- Identification of all generation loss. This will include generation which *automatically* tripped or are lost. (manual tripping is not allowed)  
Examples of this include:
  - First swing instability.
  - Under frequency/voltage tripping.
  - Any other occurrence of protective relay action.
- An overview of the alterations in the dynamic data along with a brief explanation of why the changes were made.
- Demonstration where load loss greater than 1000 MW shows positive and absolute containment. (this includes UFLS/UVLS) If any loss of load is caused by the initiation of UVLS/UFLS, it will be documented with the following considerations:
  - Significance of load loss (localized or wide-area).
  - Amount of load loss.
    - Wide-area (or non-contained) load loss cannot exceed 1000 MW.
  - Composition of load loss. (i.e. residential, commercial, or industrial)
- Any exceedance of a Facility continuous operating rating will be documented:
  - Which rating was exceeded, and the time limit associated with each rating.
  - State which system adjustments need to occur to ensure that the Facility can be returned below the continuous operating Facility rating within the time allotted for the applicable Facility rating.

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### Version History

Version	Date	Action	By	Change Tracking
1.0	02/10/2015	Issued for implementation	Brett Wangen	Initial Release
2.0	03/05/2015	Issued for implementation with changes	Brett Wangen	Updated Version
3.0	03/31/2015	Issued for implementation with updates based upon industry feedback	James O'Brien	Updated Version

**EXHIBIT B**

**EXAMPLE OF CIP-014-1 THIRD-PARTY VERIFICATION GUIDELINES:**

**ADDITIONAL INFORMATION**

## CIP-014-1 Third-Party Verification Guidelines: Additional Information

In addition to an agreement to use Peak Reliability guidelines as the starting point for third party evaluation, ColumbiaGrid and the members also identified two issues in the guidelines that require more clarifications on how they can be implemented. These issues are the criterion that will be used to define physical separation and the selection of base cases and study scenarios. In order to provide more clarifications, summary of the discussions and the agreements among ColumbiaGrid members regarding these issues are described below.

- Physical separation: Peak RC guidelines propose 100 feet to be used as the criterion to determine if several substations will be regarded as one substation when performing R1 studies. However, several members have raised some concerns regarding the utilization of this number and engaged in the discussion. After the discussion, the group agreed that, by default, ColumbiaGrid (CG) will assume that adjacent stations or stations that are within 100 feet of another station should be evaluated as if they were a single station. However, a Transmission Owner (TO) may take exception to this criterion in their R1 assessment if they feel that the 100-foot requirement may not provide an adequate assessment of what constitutes geographical diversity. In such cases, a TO shall provide sufficient justifications or evidence to validate their position prior to the TO performing its R1 assessments for those facilities and shall provide those justifications or evidence to validate their position to ColumbiaGrid prior to ColumbiaGrid conducting its R2 studies.
- Base cases selection: The guidelines require that 1) WECC Operation Base Cases should be used as the starting point for R1 studies and 2) Heavy Summer, Heavy Winter, Light Summer, Light Winter seasons need to be studied to support excluding a substation from CIP-014 physical security reinforcement. There were some discussion regarding the sources of starting base cases and the number of study scenarios that may be different depending upon the objective of the study.

As a result of the discussion, it was agreed that TOs should utilize WECC operating cases and conduct the studies that cover different system conditions as described in Peak's guidelines. However, a single test on one base case showing unsatisfactory system performance should be sufficient to demonstrate potential instability, uncontrolled separation, or Cascading within an Interconnection due the damaged or inoperable of a substation. In addition, TOs may consider using the ColumbiaGrid near term (2 year) system assessment base cases as a starting point or as initial stressed cases instead of WECC operating cases. These cases should cover system conditions that might result in reliability issues.