

Individual or group. (19 Responses)
Name (9 Responses)
Organization (9 Responses)
Group Name (10 Responses)
Lead Contact (10 Responses)
Question 1 (0 Responses)
Question 1 Comments (19 Responses)
Question 2 (15 Responses)
Question 2 Comments (19 Responses)
Question 3 (14 Responses)
Question 3 Comments (19 Responses)
Question 4 (14 Responses)
Question 4 Comments (19 Responses)
Question 5 (14 Responses)
Question 5 Comments (19 Responses)
Question 6 (0 Responses)
Question 6 Comments (19 Responses)
Question 7 (0 Responses)
Question 7 Comments (19 Responses)
Question 8 (0 Responses)
Question 8 Comments (19 Responses)

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Group
Arizona Public Service Company
Janet Smith, Regulatory Compliance Supervisor
Excellent
Yes
No
Column I (Improves existing reliability standard): should only be given a weight of 50 to be distributed as follows: Significantly 50, Moderately 25, Minimally 0. The proposed rating assigns a value of 25 for minimal improvement in the standards which does not appear reasonable.
Yes
No
AZPS would recommend a range of 0-50.
Column K (Scheduled for its 5 year review): This column should only apply to FERC approved standards and should have a value of zero for non FERC approved standards.
Individual
Joe Petaski
Manitoba Hydro
Manitoba Hydro is in favour of a project prioritization tool, but has the following concerns with the reference document: - There should be a minimum score that a project must meet in order to be considered. Even if a project falls within the 'cutoff' of 10 to 12 active standards, industry resources should not be allocated to a standard that doesn't meet a minimum score. - The implementation of this ranking tool is not adequately addressed in the document. What happens when FERC directs revisions to a standard within a certain time frame and that project ranks lower than top 12? This situation is not addressed in the document and can be seen in the ranking of current projects. - There is no discussion about how NERC will handle the projects that are not planned at the beginning of the year and appear from nowhere during the year. If these new projects rank higher than on-going projects, what happens then? Do they displace an existing project? There is no apparent process to deal with this situation. - NERC must stand firm on the number of projects that the industry and NERC staff can reasonably handle at any given time. On-going projects should be completed prior to the start of a new project to reduce the risk of scope creep. -We agree with the statement that a large number of active standards results in reduced standard quality and a large resource draw from industry. With this

in mind we suggest a maximum of 10 or less active projects at any one time based on the complexity of the active projects. -Scoring is very subjective, particularly in columns H and I ("Fill an identified gap in reliability" and "Improves existing reliability standards"). Additional quantifiers are required to more precisely identify what is meant by 'moderate and widespread' for example. While it is not possible to have a completely objective ranking system, additional time should be spent on developing tangible weightings that stakeholders can 'see'. For example, in Column L what type or number of violations and complaints would constitute a score of 25 versus a score of 50? -Any wording relating to "Project Identification" from the Reference Document and Tool should be removed since it does not deal with any project identification issues. -There should be an opportunity for industry to comment and vote to approve the prioritized list. -On Page 4, Paragraph 2, a Section C is referenced. Should be changed to Section 3. -Error on Page 7 Column E. Should be changed to 'if Column N = 100, then Column E = 0.' This has now been fixed by the Drafting Team.

Yes

No

Column H should be weighted more heavily since the primary goal of the standards is to address system reliability. A rating of 0 - 200 would be more suitable.

Yes

Yes

-Industry need -Response to a new technology -Project is being used as the proof-of-concept -Implement recommendations from event analysis (eg. Blackout) -Project is clarifying or creating a definition which is needed for a high priority standard currently under development.

BES Definition - This project scored a 0 in the 'Improving Existing Reliability Standards' category. The BES Definition has a major impact on all reliability standards and the score in this category should be changed to 100 as a result.

Group

TransAlta Centralia Generation, LLC

Joanna Luong-Tran

TransAlta supports the concept of a prioritization tool and supports a logical and purposeful ranking system

Yes

Yes

Yes

TransAlta would like to see another column added which captures the adverse impacts of the issue. For example, Project 2010-07 Transmission Requirements at the Generator Interface has a very significant adverse impact on the generation entities that are registered as Transmission Owners (TO) and Transmission Operators (TOPs). Additionally this is an issue that impacts all generator owners and operators, meaning it potentially impacts a very large number of registered entities The issues are spelt out in more detail in the Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface. If a column such as this were added, TransAlta would argue for a ranking of 80 to 100 on a scale of 0 to 100.

TransAlta is happy with the ranking of #6 for Project 2010-07 Transmission Requirements at the Generator Interface as currently shown on the spreadsheet.

Individual

David Thorne

Pepco Holdings Inc

Yes

Yes

Yes

Yes
PHI supports this project. Additionally PHI supports the EEI comments on this project. The associated document seems to cover the mechanics of use of the tool and defines the various criteria and weights. It provides a good means to rank the projects in some sort of relative order. It does not cover the process that would overlay the use of the tool. For example: To some degree the application of the parameters and the associated weights are subjective. A process for oversight, guidance or consensus should be developed to ensure consistency of application across the projects. Additionally, the tool is probably not the "final " answer on priority but only one major piece of information used to make an informed judgment to the overall prioritization. That process should be defined. A test period and a reevaluation of the criteria and weights should be defined.
Group
SERC SC Standards Review Group
Pat Huntley
It appears that sections 5 and 6 are project management related rather than project prioritization related. It is confusing why these sections are included in this document.
Yes
These seem to cover the main drivers. However, additional columns are recommended in our comments in response to questions 3 and 8 below.
Yes
Please define "Big Three" in column h. Rename column "i" to "Improves Reliability" and add another column titled "Clarifies Reliability Standards" with a maximum value of 50.
Yes
Consider increasing the relative weight of Coordinate changes with another project.
Yes
The Short Descriptions do not provide enough information to recommend any specific changes in ratings.
Industry input from a survey on the priorities of the projects should be added as an additional column, with a maximum rating of 100. Re-title column "p" to "Explanation of Other Factor Rating." Add a separate "Comment" column. The comments expressed herein represent a consensus of the views of the above-named members of the SERC SC Standards Review Group only and should not be construed as the position of SERC Reliability Corporation, its board, or its officers.
Group
Northeast Power Coordinating Council
Guy Zito
Oftentimes, prioritization of projects relies on experience, engineering and technical judgment. This tool and reference document provide useful and helpful guidance to the Project Prioritization activity, bringing objectivity to what can be a very subjective process. Refer also to question 8 below.
Yes
No
The range in Red Column "g" is 0 to 50. Otherwise agree.
Yes
Yes
The "Explanation" column "p" allows room for explanations of the "Other" column.
In NERC's 2011 Plan, there are 17 Priority Standards identified. This exceeds the resources available, quoting from p. 5 Section 3, "Recent Standards Committee and NERC staff experience generally supports the conclusion that NERC and the industry can manage the development of no more than ten to twelve standards projects under active development at any one time. ... our informed judgment is that attempts to develop more than ten or twelve projects during the same period will result in an actual loss of throughput and/or a reduction in standards quality." There are no explanations supporting the scoring values. Why is one criteria worth 10 while another 25 or 100? Weighted Criteria-

Based Scoring Systems for Project Management, under Resource Constraints, are widely used to select and prioritize projects. Generally, the projected sum-of-the-projects results are indicative of some bottom-line measure, like impact on profits. Here the bottom-line impact on reliability is only indirectly indicated through the very qualitative unsupported values assigned to the various criteria/measures, e.g., 10, 25 or 100. Shouldn't some more quantitative Reliability measure be used for scoring, such as some threshold improvement in LOLP or a minimum benefit/cost ratio, e.g., 1.2:1? Why are certain cells highlighted yellow in the body of the Prioritization Tool?

Group

MRO's NERC Standards Review Subcommittee

Carol Gerou

1. Page 2 of 12 ("Process For Project Identification, Prioritization and Management"), section A ("Identifying the list of Standard Projects"). This section indicates that projects will be initiated through various means such as "Reliability Need" and "Bridging the Gap". Is there any criteria for these initiation methods? For example, in the past the Regional Reliability Working Group (now the Regional Standards Group) has submitted their proposals as to what they believe are high priority projects but nothing came of their proposals. Another example, everyone seems to have their own idea as to what reliability means. Reliability to me means "materially impacting the operation of the Bulk Power System" to some it means "address the FERC Commission directives". 2. Page 3 of 12 ("Process For Project Identification, Prioritization and Management"), section B ("Listing and Prioritizing Baseline Projects"). The first paragraph expresses a priority list and it ranks three topics as having the highest priority (Rank#1 – Addressing Reliability Gaps, Rank#2 – To remove ambiguity from a standard that has a large number of violations, & Rank#3 – Combining 2 or 3 standards to consolidate requirements.) Either this paragraph or the excel spread sheet should be changed since the excel spreadsheet doesn't reflect these topics as having the highest priority. The excel spreadsheet reflects the following topics as all equally having the highest priority: "time constrained directives" (column "F"), "Fill an identified gap in reliability"(column "H"), "Improve existing reliability standards"(column "I"), "project percentage complete" (column "N"), and "Other Factor" (column "O"). 3. Page 5 of 12 ("Process For Project Identification, Prioritization and Management"), section C ("Developing the Project Cut-off Line Based on Resource Constraints") The paragraph starting with the text, "Despite the lack of accuracy, the above assumptions ...". The sentence "Combining the two assumptions, it follows that the number of projects that can be worked on in the coming year is the same as that of the last years." The NSRS doesn't follow this conclusion. If the resources are constrained and the work effort remains unchanged then why couldn't the number of projects that could be worked on in the coming year be reduced? Reducing the active projects would allow more efficient use of existing resources both at the NERC Staff level and the industry participation level. The NSRS has heard of several drafting teams which were told to expedite their work product but then after they submitted their work product several months went by before their product was reviewed or returned back to them asking for changes. Recently, two drafting teams experienced this and tried to respond back in an expedited manner to the comments they received as a result of their work product review and as a result the full drafting teams were not aware of the responses and what was eventually posted as their work product.(i.e., 2007-17 & 2010-15) 4. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Column G ("Address regulatory directives without a time-constraint"). Not sure why an elaborate index is needed plus the factors in the index appear to be counted elsewhere in the excel spreadsheet like column "O" and column "H". a. The 4th response to question 1 ("The directive relates to which of the following...?") is "Items from the Blackout Report". The items in the blackout report have also been included in the column "O" for example project 2009-04 ("Phasor Measurements") has a "25" in column "O" since it was discussed in the blackout report. b. The sum of the first three bullets to question 1 ("The directive relates to which of the following...?") is the same as the criterion in column "H". This criterion in column "H" is "severe risk of "Big Three"". 5. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Column G ("Address regulatory directives without a time-constraint"). The 6th response to question 1 ("The directive relates to which of the following...?") is "Other operational or planning issues – 4 points". Why is this response "4 points"? The NSRS sees it as comparable to the Blackout Report which has 9 points. The NSRS is thinking "other operational or planning issues" should be at least 9 or 10 points since these issues are currently or projected to be issues impacting the Bulk Power System where as the blackout report were identified issues seen in 2003. (The issues may have changed.) 6. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Columns I, J, & K. The point spread for these columns doesn't seem appropriate. a. Looking at the Columns I & H, a significant improvement in existing reliability standards is equal to filling/fixing a severe risk of the "Big Three" identified gap in reliability. b. Looking at the Columns I & F, a significant improvement in existing reliability standards is equal to meeting a time constrained directive. c. Looking at Columns J and K and comparing them to column H, the highest point spread is "50" for both Columns J & K. This spreadsheet appears to equate "standard committee processes" to "moderate risk or scope" of filling an identified reliability gap.

Yes

The current range of questions is an acceptable start, and ATC believes that with implementation of this new tool, improvement recommendations will be identified.

No

A. Each score should be the product of importance and urgency factors and the weighting of each score should be appropriate between these columns. Below are my specific issues: 1. Page 3 of 12 ("Process For Project Identification, Prioritization and Management"). section B ("Listing and Prioritizing Baseline Projects"). The first paragraph expresses

a priority list and it ranks three topics as having the highest priority (Rank#1 – Addressing Reliability Gaps, Rank#2 – To remove ambiguity from a standard that has a large number of violations, & Rank#3 – Combining 2 or 3 standards to consolidate requirements.) Either this paragraph or the excel spread sheet should be changed since the excel spreadsheet doesn't reflect these topics as having the highest priority. The excel spreadsheet reflects the following topics as all equally having the highest priority: "time constrained directives" (column "F"), "Fill an identified gap in reliability" (column "H"), "Improve existing reliability standards" (column "I"), "project percentage complete" (column "N"), and "Other Factor" (column "O").

2. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Column G ("Address regulatory directives without a time-constraint"). The 6th response to question 1 ("The directive relates to which of the following...?") is "Other operational or planning issues – 4 points". Why is this response "4 points"? The NSRS sees it as comparable to the Blackout Report which has 9 points. The NSRS is thinking "other operational or planning issues" should be at least 9 or 10 points since these issues are currently or projected to be issues impacting the Bulk Power System where as the blackout report were identified issues seen in 2003. (The issues may have changed.)

3. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Columns I, J, & K. The point spread for these columns doesn't seem appropriate.

a. Looking at the Columns I & H, a significant improvement in existing reliability standards is equal to filling/fixing a severe risk of the "Big Three" identified gap in reliability.

b. Looking at the Columns I & F, a significant improvement in existing reliability standards is equal to meeting a time constrained directive.

c. Looking at Columns J and K and comparing them to column H, the highest point spread is "50" for both Columns J & K. This spreadsheet appears to equate "standard committee processes" to "moderate risk or scope" of filling an identified reliability gap.

B. I understand the need to finish a project within the time constrain given by a directive but I'm concerned with the approach that columns "F" and "G" taking. The NSRS will remind everyone that the FERC order 693 has several directives that remain unresolved such as fill-in-the-blank standards where the commission only asked for existing regional procedures to be submitted to them so that they could rule on the fill-in-the-blank standards. Up until recently, the commission has asked for very few time constrained directives. The NSRS can't help but wondering if their recent insertion of a time constrain has anything to do with the way the old open directives have not been addressed. Some of these directives while not having a time constrain are still important. (i.e., misoperations of protection systems, special protection systems, etc.) The NSRS just cautions the application of "50" to a non-time constrained directive.

No

Score should be the product of importance and urgency factors and the weighting of each score should be appropriate between these columns. Below are my specific issues:

1. Page 8 of 12 ("Process For Project Identification, Prioritization and Management"), section H ("Project Prioritization Tool Description"), Columns I, J, & K. The point spread for these columns doesn't seem appropriate:

a. Looking at the Columns I & H, a significant improvement in existing reliability standards is equal to filling/fixing a severe risk of the "Big Three" identified gap in reliability.

b. Looking at the Columns I & F, a significant improvement in existing reliability standards is equal to meeting a time constrained directive.

c. Looking at Columns J and K and comparing them to column H, the highest point spread is "50" for both Columns J & K. This spreadsheet appears to equate "standard committee processes" to "moderate risk or scope" of filling an identified reliability gap.

2. Not sure why column "M" is needed, if an SDT is unable to address a topic wouldn't the next logical step be to ask the NERC staff, a requester, or the SDT to submit a SAR? Plus, this column ("M") appears to be in conflict with the BOT's instructions to the NERC Standards Committee in that the BOT indicated the NERC SC should focus its efforts and suspend efforts on developing interpretations. Doesn't a misinterpretation of a requirement create a compliance issue so wouldn't a failed interpretation be considered in that column ("I") only.

No

The NSRS agrees the concept of including an "other" column to be able to address any unforeseen, but significant factors. Because the "other" element is unknown, one can not be fully affirm that the range of (0-100) would always be appropriate. Plus, the tool allows column "O" to double count specific topics when double counting should not be allowed. For example the 2003 blackout report is double counted in column "G" and column "O". Another example of this double counting is project 2007-17. Project 2007-17("Protection System Maintenance & Testing") has "25" assigned to it in the column "O" but the explanation for this "25" is that PRC-005-1 is "... one of the most violated standards and needs modified to clearly identify maintenance and testing requirements and intervals.", this explanation is already accounted for in the column "L".

The Blackout report listed operational and planning issues that existed in 2003. Since current operational or planning issues are not considered as important (Column G, Question 1, an "other operational or planning" issue is assigned 4 points) as past issues (Column G, Question 1, a blackout report issue is assigned 9 points), the NSRS would recommend adding points to the "Other" column for current operational or planning issues. For example, the percentage of misoperations of protection systems has been increasing over the years that have preceded the 2003 blackout report. The 2009 Long Term Reliability Assessment reported in "Figure Trends 2" (page 361) that misoperations were less than 10% in 2006, in 2007 they were less than 40%, in 2008 they were greater than 50%. Over several years, The NERC committees of RAPA and SPCTF and the NERC assessment staff of NERC (they create the LTRA) have all indicated that misoperations is a problem. Thus, current operational or planning issues should be considered in the "other" column.

The NSRS disagrees with the values. While there are numbers assigned to each category, there is still subjectivity built into each choice and the NSRS would have made different decisions on a number of these. Assuming others would

have varying opinions also, they will end up with different results depending on who is filling out the spreadsheet. Our specific concerns with each project: 1. Project 2007-17("Protection System Maintenance & Testing") has "25" assigned to it in the column "O" but the explanation for this "25" is that PRC-005-1 is "... one of the most violated standards and needs to be modified to clearly identify maintenance and testing requirements and intervals.", this explanation is already accounted for in the column "L". (50 points were assigned in column "L") 2. Project 2007-11 ("Disturbance Monitoring") is assigned a "50" in the column "H"; it should be a "0" since Digital Fault Recorder's are used for monitoring not protection. Fault recorder data is typically collected after an event not during the event and would not immediately resolve an event since the data needs to be assessed collectively. They are comparable to PMU. (project 2009-04) 3. Project 2007-06 ("System Protection Coordination") has a zero in column "H", not sure why. Coordination is serious. Lack of coordination is a contributing factor in the 2003 blackout report (the blackout report references "relay loadability" which means the relays were not appropriately coordinated). Lack of coordination was also a contributing factor to the eastern interconnection blackout that occurred in the 60's and caused the formation of NERC. Right now, maintenance and testing of protection system is given higher priority than coordination. It seems to me that NERC has misallocated its resources if it believes coordination is less important than maintenance and testing. If a protection system is not designed and coordinated properly, you can maintain and test it all you want it still will not work appropriately. The NSRS would recommend a "100" for column H ("Fill an identified gap in reliability"). 4. Project 2006-04 ("Assess Transmission and Future Needs") has a zero in column "H". For the same reasons the NSRS stated in the comment above, #3, I would recommend a "100" for column H ("Fill an identified gap in reliability"). If you don't plan out your system, then it will not operate as expected. If you are an operator you want the system to operate as planned and expected. System operators need to have real-time tools available to ensure that they have exposure to their system in order for them to maintain situational awareness and provide an adequate level of reliability. 5. Project 2007-03 ("Real-time Transmission Operations") has a zero in column "H". For the reasons stated in the 2003 blackout report, the NSRS would recommend a "100" for column H ("Fill an identified gap in reliability"). 6. Project 2007-12 ("Frequency Response") has a zero in column "J" ("Coordinate changes with another project"). The NSRS recommends a "30" since this project is expected to spawn another project where generators will have to submit data. The current project only addresses creating a standard for BAs and TOPs. The existing standard and the future standard will need to be coordinated. 7. Project 2010-05 ("Protection System") has a "50" in column "H" ("Fill an identified gap in reliability"). The NSRS recommends a "100" for the reasons stated in comments #3 and #4. If your protection system is not designed appropriately than you have a reliability gap. Specifically, NERC has observed a reliability gap to exist in misoperations of protection systems. The percentage of misoperations of protection systems has been increasing over the years that have preceded the 2003 blackout report. The 2009 Long Term Reliability Assessment reported in "Figure Trends 2" (page 361) that misoperations were less than 10% in 2006, in 2007 they were less than 40%, in 2008 they were greater than 50%. Over several years, The NERC committees of RAPA and SPCTF and the NERC assessment staff of NERC (they create the LTRA) have all indicated that misoperations is a reliability gap. 8. Also, Project 2010-05 has a zero in column J ("Coordinate changes with another project"). Technically speaking, this coordination would be with project 2007-06 ("Protection System Coordination"), project 2006-02 ("Assess Transmission and Future Needs"), project 2007-03 ("Real-time Transmission Operations"), and project 2006-04 ("Backup Facilities"), project 2009-03 ("Emergency Operations"), etc. Thus, the NSRS would recommend at least "30" in column J. 9. Project 2006-06 ("Reliability Coordination"). Column H ("Fill an identified gap in reliability") has a zero, if the Reliability Coordinator is performing acts to prevent instability, uncontrolled separation or cascading outages how would this not be filling a reliability gap? The NSRS would recommend a "100" for this column. 10. Project 2007-02 ("Operating Personnel Communications Protocols"). Column H ("Fill an identified gap in reliability") has a zero, if the Reliability Coordinator/Transmission Operators are performing acts to prevent instability, uncontrolled separation or cascading outages shouldn't they use a standard communications protocol, how would this not be filling a reliability gap? The NSRS would recommend a "100" for this column. 11. Project 2010-14 ("Balancing Authority Reliability-based Control"). Column H ("Fill an identified gap in reliability") has a zero. It looks like it should be higher than zero. 12. Project 2009-01 ("Disturbance and Sabotage Reporting"). Column H ("Fill an identified gap in reliability") has a zero. According to the NERC definition of adequate levels of reliability, security is a factor of reliable operation of the BES. Since this project defines what a sabotage is, it seems only appropriate that column H be higher than "0". Since physical security is an imminent threat to hard assets, this number should be at least 75. This project covers reporting and situational awareness for effected entities and others, not to mention informing the RC, NERC and the DOE. The Blackout Report speaks of assuring that communications are enabled at all times and the passing of information is very important to our Electric System's reliability. 13. Project 2012-02 ("Physical Protection") Column H ("Fill an identified gap in reliability") has a zero. According to the NERC definition of adequate levels of reliability, security is a factor of reliable operation of the BES. It seems only appropriate that column H be higher than "0".

a. The NSRS appreciates NERC's efforts to develop a prioritization guide and tool to prioritize Reliability Standards in a more consistent and objective manner. This first version is a reasonable start and we suggest that NERC provide ongoing opportunities for the industry to suggest further improvements and refinement to the guide and tool. b. The NSRS would like to know who will be rating each project and will the industry have an opportunity to weigh in on these decisions? c. Regarding Column N: Percent Complete. The NSRS requests that the SC clarify that when a project nears completion, the priority for its completion should be raised. In this tool, the value in Column N (percent completed), is added directly to the prioritization total. d. It's not clear to me that the Blackout Report is referenced correctly. Project 2009-04 has "25" assigned to it in the column "O" and the explanation is the 2003 Blackout Report but other topics in the blackout report don't have this like assignment. For example, protection system coordination was mentioned in the blackout report but the projects associated with protection system coordination are not assigned "25"

like the project 2009-04. The wanting protection system projects are 2007-06 (2006-02 maybe by inference), 2010-05, 2010-13, 2007-09, 2007-01, 2008-02, & 2009-07, etc.
Individual
Andrew Puztai
American Transmission Company
None at this time.
Yes
The current range of questions is an acceptable start, and ATC believes that with implementation of this new tool, improvement recommendations will be identified.
No
Each score should be the product of importance and urgency factors and the weighting of each score should be appropriate between these columns.
No
Each score should be the product of importance and urgency factors and the weighting of each score should be appropriate between these columns.
No
ATC agrees the concept of including an "other" column to be able to address any unforeseen, but significant factors. Because the "other" element is unknown, one can not be fully affirm that the range of (0-100) would always be appropriate.
None at this time.
In reviewing the numbers for Project 2007-17 (PRC-005-2), ATC disagrees with the values. While there are numbers assigned to each category, there is still subjectivity built into each choice and ATC would have made different decisions on a number of these. Assuming others would have varying opinions also, they will end up with different results depending on who is filling out the spreadsheet.
a. ATC appreciates NERC's efforts to develop a prioritization guide and tool to prioritize Reliability Standards in a more consistent and objective manner. This first version is a reasonable start and we suggest that NERC provide ongoing opportunities for the industry to suggest further improvements and refinement to the guide and tool. b. ATC would like to know who will be rating each project and will the industry have an opportunity to weigh in on these decisions? c. Regarding Column N: Percent Complete. ATC requests that the SC clarify that when a project nears completion, the priority for its completion should be raised. In this tool, the value in Column N (percent completed), is added directly to the prioritization total.
Individual
Laura Lee
Duke Energy
Explanation on why the different columns are assigned a particular weight would be helpful, both in supporting the transparency of the prioritization effort and for future users of the tool (both Standards Committee members and NERC staff) that may not have been involved in the background discussions during the development of the tool. For example, it was not clear to some that a higher number of points would be awarded to a standard scheduled for its five year review within a year or less because completion of that project would fulfill the scheduled review. It also appears there is duplication in column I (improves existing reliability standard) and the points in column G from the directive index (Q2 – what kind of improvement to BPS reliability will the directive provide?) – an explanation in the reference document for this duplication, or how this is not duplication, would be helpful. It also appears there could be duplication in the way columns L (address compliance issues) and I (improves existing reliability standards) are used, so an explanation of the differences and how to avoid duplication there would also be useful. Perhaps an explanation in column P for any of the more subjective columns would enhance understanding.
Yes
No
Commenters at Duke Energy agree with the range for columns F and H (meet a time constrained regulatory directive and fill an identified gap in reliability) but believe columns should be more nuanced. There should be some consideration for the importance of a standard in addition to how much it will be improved. There are some standards that are less crucial to reliability than others, so even if the improvement to that standard is significant, it should not receive 100 points because the overall improvement to reliability would not be significant.
Yes
Yes
Projects with active field trials should receive "other" points. This could also be used to address instances where projects have been combined, such as Projects 2007-18 Reliability-based Control and Project 2007-05 Balancing

<p>Authority Control. These resulted in Project 2010-14 Balancing Authority Reliability-based Control, which has a deceptively low rating in column N (project percent complete).</p>
<p>Project 2007-09 Generator Verification should have 25 points in column H (fill an identified gap in reliability). Reactive resources especially are very important to the integrity of the BES, and as such it is highly important that reactive capabilities are validated (i.e., the values being assumed in planning studies and operations have a proven basis in reality). Project 2010-14 Balancing Authority Reliability-based Control and Project 2007-12 Frequency Response should have 50 points in column J (coordinate changes with another project) because these two projects need to be coordinated. "Changing resource mix" and "Integration of new technologies" in the top NERC priorities hit heavily in the area of resource control and Project 2010-14 Balancing Authority Reliability-based Control is needed in addressing those priorities. The draft Balancing Authority ACE Limit ("BAAL") is intended to replace CPS2 under BAL-001. Participating Balancing Authorities under the BAAL Field Trial with highly variable loads have found the BAAL to be a much more practical control performance standard; similar results may be realized by Balancing Authorities integrating variable energy resources. The BAAL is more demanding than CPS2 when it needs to be, and less demanding as system frequency gets closer to 60 Hz. The SAR for Reliability-based Control goes into more detail on the reliability benefits of the proposed standard, however the economic benefits of reducing unnecessary generation control actions are also substantial. Part of the implementation of the Frequency Response Standard will include a gradual decrease in the minimum Frequency Bias Setting closer to the BA's average of the estimated frequency response over the year. With that decrease will come a tightening of the bounds for CPS1, CPS2 and the draft BAAL. Preliminary work has indicated that a reduction in the Frequency Bias Setting of 50% could result in a drop in CPS2 performance by over 20% with the bounds cut in half, requiring a significant increase in control actions and regulation capability in order to achieve at least 90% CPS2 performance. The importance of having the industry under BAAL moves from BAAL being a superior reliability metric, to it being commercially significant with the risk of CPS2 limits getting smaller and smaller. Though the CPS1 and BAAL bounds also get tighter, operation in support of Interconnection frequency is always the right answer under those metrics. With the exception of the CIP and FRR work, we are not aware of other standards that will have as profound of an impact on the industry. In our opinion, it would be a disservice to the industry, not to mention the standard drafting team members and the participating Balancing Authorities who have spent considerable time in support of the development of the draft Standard, to let Project 2010-14 be put on the back burner. We urge the Standards Committee to consider the substantial work that has been done in support of the draft Standards and allow the work to continue toward the scheduled posting this year.</p>
<p>It appears the numbers in column G are incorrect. The description says that it is the Directive Index for the Project times two, but it does not appear that the index value has been multiplied by 2 since there are odd numbers in that column (such as a 5 for Project 2007-12 – had it been multiplied by two one would expect an even number). The multiplication does not appear to have been done in the formula for column F, either. Projects that have changes that need to be coordinated should be specifically identified in a note or comment. Overall, Duke Energy commends the Standards Committee for developing a prioritization tool and we believe that this will be useful. All efforts do need to be made to communicate that this is a tool for the SC use and the priorities will not be cast in stone or be used to supersede SC judgment, so for this reason does not need to be perfectly comprehensive.</p>
<p>Group</p>
<p>IRC Standards Review Committee</p>
<p>Albert DiCaprio</p>
<p>The IRC Standards Review Committee (SRC) would comment on one of the proposed weighting categories as being unnecessary and as being potential causes for violating the system that the process itself creates, i.e. Column f (Meet a time-constrained regulatory directive) The SRC recognizes the pragmatic rationale for including the weighting factor (NERC must comply with FERC directives). However the SRC would note that the inclusion of the factor only serves to partially adjust the subject Projects without solving the problem (to comply with a mandated FERC directive). This weighting factor in column f fails on two counts: 1. It does not ensure the mandated directive will be given a high priority (e.g. the sample listing shows 5 FERC time-constrained directives as priorities 5, 8, 10, 14, 15. This means that the tool's priorities even with the bias will have to be ignored in order to by-pass as few as 4 and as many as 11 other Projects.) 2. It precludes the tool from being used to rate the time-constrained Projects on the same basis as the other Projects. Indeed, the inclusion of the column f weighting factor further distorts the priority order of this subset (i.e. the subset of projects composed of just the time constrained projects) relative to the other projects, because the net priority computed for those projects are not computed on the same basis as the priorities given to those other (non-constrained) projects. The SRC would suggest deleting weighting factor in column f, and replacing that factor by a simple procedure 1. Compute the respective Project's priority as if the Project were not mandated. and show that value (this approach gives FERC input as to the relative weighting the process would have given to the Project were the project not mandated, allowing FERC to make their decisions with information based on consensus concerns). 2. Formatting the standards can then be done in a traditional high priority to low priority; or when needed the formatting can group time-constrained projects together (showing the original priority) apart from the other projects. This suggested approach allows the tool to be used directly by FERC and NERC as the tool was meant to be used - as an unbiased prioritization without any need for "manual" adjustments; yet still see the ranking of the Projects. It would inform FERC of how its directives would be prioritized if the directives were on a common footing with other projects.</p>
<p> </p>
<p> </p>

The SRC supports the concept and methodology proposed in the NERC Standards Committee's Process for Standards Project Identification, Prioritization and Monitoring. The SRC fully supports the creation of a management process that would be applied to all NERC Projects, as a valuable and necessary initiative. The SRC also believes that an accepted priority assignment process will provide a more transparent and objective justification for reducing and eliminating the expenditure of resources on low priority projects.

Group

Industry members of the Generation Verification Standard Drafting Team

Lee Taylor

The Reliability Standard Project Prioritization Process and Tool are seriously flawed in at least one critical aspect: continuity of existing efforts. While the tool does consider "Project Percent Complete" in column N this consideration is inadequate. With more projects than resources it is inherent that some projects will always be near the cutoff, either above or below. With changing priorities and new requirements it is also inevitable that the ordering of project ratings will constantly change. This will inevitably result in projects regularly moving on and off the approved list. Since most standards projects require three to five years to complete all but the very highest and very lowest priority projects will be exposed to the risk of being turned on and off, possibly multiple times. This is very disruptive to any project management and a great waste of limited and valuable industry resources. This flaw in the Reliability Standard Project Prioritization process is compounded by the fact that the majority of the project resources cannot be re-tasked to address a different project. NERC staff may be able to switch from one project to another but the industry experts that devote their time to drafting one standard can not be redirected to drafting another. Different expertise is required for each different project and a different standard drafting team is organized for each different project. "Suspending" a project is not a meaningful option. The standards development backlog is such that any suspension will be for years. Members and their companies can not commit to waiting indefinitely for the project restart. Shorter delays are already handled within the normal flow of project work. NERC rightly asks standards development team members and their employers to make a serious and significant commitment to a project when they agree to participate. NERC should make a similar commitment to see the project through so that the individuals' work and their companies support are not wasted.

Red column (g) has a range of 0-50.

Priorities of FERC staff should be considered – not just formal FERC directives. Also, efforts that will aid in removing barriers to the reliable interconnection of variable resources (wind, solar, etc) as identified in NERC's special report "Accommodating High Levels of Variable Generation" should be considered.

The GV SDT believes that the following columns are understated for Project 2007-09: Column H: Fill an identified gap in reliability Project 2007-09 includes 6 standards: • MOD-027: Verification of Models and Data for Turbine/Governor and Load Control of Active Power/Frequency Control Functions • MOD-026: Verification of Models and Data for Generator Excitation Control System Functions • PRC-019: Coordination of Generator Voltage Regulator Controls with Unit Capabilities and Protection • PRC-024: Generator Performance During Frequency and Voltage Excursions • MOD-024: Verification of Generator Gross and Net Real Power Capability • MOD-025: Verification of Generator Gross and Net Reactive Power Capability Note that two of these standards, MOD-027 and PRC-024, deal directly with generator frequency response capability: a critical reliability need identified through FERC technical conferences and orders as discussed below. A third standard, MOD-024 (which is being combined with MOD-025), also deals with generator real power capability and verifying that expected reserves will actually be available. The other three standards provide the complementary reactive power capability verification and protection and control coordination. The GV SDT believes that the Project 2007-09 has been incorrectly rated in the SC_Prioritization Worksheet. The GV suite of standards addresses multiple identified gaps in reliability. Even though all of these standards do include requirements that are applicable to Generator Owners, they are a diverse set of standards addressing multiple reliability issues. The combination of all the reliability gaps in all of these standards should be reflected in the assignment of a value of 100 in this column, as opposed to the current assigned value of 0. Following are some specific examples of reliability gaps that the GV suite of standards address: The development of MOD-024 and MOD-025 address the verification of generator steady state MW and Mvar capability. Currently, there is no continent wide standard requiring the verification of these capabilities. The existing standards are "fill in the blank " standards which have not been approved by FERC. Model verification is critical in helping ensure that security assessments appropriately bound transmissions system security limits. Specifically, inaccurate generator steady state models contribute to inaccuracies between power system models and actual power system operation, including inaccurate long term voltage level or stability limits. In the "Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations", recommendation #24 states "Improve quality of system modeling data and data exchange practices." The report goes on to state that "Viable ...generator testing programs are necessary to improve agreement between power flows and

dynamic simulations and the actual system performance.” Additionally, there are numerous FERC Order 693 directives regarding these standards (paragraphs 1308, 1310, 1311, 1312, 1320, 1321, and 1322). Until a continent wide generator steady state model verification standard is developed and implemented, a reliability gap will exist. The development of MOD-026 and MOD-027 address the verification of excitation control system models and speed / load control system models. Currently, there is no continent wide standard requiring the verification of these generator dynamic models. Model verification of this generation equipment results in models that more accurately predict the response of the actual in service equipment. Subsequently, dynamic simulations studies would be expected to result in more accurate transmission system security limits. Specifically, if inaccurate models contribute to overly optimistic security limits, the transmission system could unknowingly be operated in an insecure state. In the “Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations”, recommendation #24 states “Improve quality of system modeling data and data exchange practices.” The report goes on to state that “Viable ...generator testing programs are necessary to improve agreement between power flows and dynamic simulations and the actual system performance.” Additionally, the NERC Board of Trustees approved February 2004 recommendations from the NERC Steering Group (reference Recommendation 14) which calls for the validation of data used in dynamic simulations by bench marking the model data with actual system performance – which is exactly what is being required in the current draft versions of MOD-026 and MOD-027. Until a continent wide dynamic model verification standard is developed and implemented, a reliability gap will exist. Representatives of the GV SDT met with FERC staff at their offices in Washington DC on May 28, 2009. During that meeting, FERC staff pointed out that Order 693 contained an implicit requirement that generators must be able to “ride through” defined voltage or frequency excursions. FERC staff emphasized that if a unit is expected to trip as a result of a voltage or frequency excursion, then in order to satisfy TPL requirements of a “valid simulation” which matches reality, the unit must be modeled as tripping to reflect that reality. Furthermore, FERC staff stated that Order 661a (addressing wind generation) was based on what existing conventional generators could do today. The logic was that existing units could already meet the performance specified in Order 661a, and as such, placed all generation technologies on a level playing field. Specifically, in Paragraph 1787 Order 693 states (portions underlined for emphasis) “ In the NOPR, the Commission identified an implicit assumption in the TPL Reliability Standards that all generators are required to ride through the same types of voltage disturbances and remain in service after the fault is cleared. This implicit assumption should be made explicit.Accordingly, the Commission directs the ERO to modify the Reliability Standard to explicitly require either that all generators are capable of riding through the same set of Category B and C contingencies, as required by wind generators in Order No. 661, or that those generators that cannot ride through be simulated as tripping. If a generator trips due to low voltage from a single contingency, the initial trip of the faulted element and the resulting trip of the generator would be governed by Category B contingencies and performance criteria.” PRC-024 addresses the implicit performance requirements for units stated in Order 693. Thus, the development of PRC-024 will close a current reliability gap – which is to mitigate overly optimistic TPL assessments that do not take into account the potential inability of units to ride through defined voltage and/or frequency excursions. The development of PRC-024 and MOD-027 will result in helping to close the reliability gap regarding the exposure of transmission reliability to un-recoverable frequency excursions. As discussed above, PRC-024 will require that generators be able to stay on line for off nominal under and over frequency withstand curves – or make their inability to withstand these frequency excursions known to the appropriate Transmission Planner. The PRC-024 sub team is coordinating with the PRC-006-1 UFLS SDT. Suspension of the PRC-024 effort would result in underfrequency load shedding studies having over optimistic assumptions regarding the ability of generators to stay on line during frequency excursions. Also, MOD-027 calls for verification of Turbine/Governor and Load Control or Active Power/Frequency Control models. The lack of accurate dynamic models would result in the reliability gap of underfrequency load shedding studies having either over optimistic or too pessimistic assumptions regarding the ability of generators to participate in mitigating frequency excursions. Also, frequency response is declining. This topic has become very visible with recent activities such as the FERC Frequency Technical Conference (Fall 2010) and the Frequency Response SDT efforts to determine the reasons behind the decline in frequency response. The verification of these dynamic models will provide confidence in the assessment of generator’s expected participation in frequency response. The development of PRC-019 will result in requiring a periodic generation coordination study which will ensure that a generator’s exciter protection and control settings are properly coordinated. The upcoming draft standard will also propose a requirement that will ensure that these coordinated settings are actually implemented. Without such a study, the generator could be subjected either to an insecure or un-reliable trip, which can expand a contingency and result in cascading. The proper coordinated control and protection settings of generators will address the reliability gap of possible mis-coordination that is not addressed in PRC-001. Column I: Improves existing reliability standards The development of MOD-024 and MOD-025 address the verification of generator steady state MW and Mvar capability. Currently, there is no continent wide standard requiring the verification of these capabilities. The existing standards are “fill in the blank “ standards which have been NERC B.O.T. approved but they have not been approved by FERC. Therefore, there is a current “compliance mismatch” since they have not received regulatory approval in the US, but these standards are in effect in jurisdictions where regulatory approval is not required (i.e., some Canadian provinces). Model verification helps ensure that security assessments appropriately bound transmission system security limits. Specifically, inaccurate generator steady state models contribute to inaccuracies between power system models and actual power system operation, including inaccurate long term voltage level or stability limits. The drafting of these standards will also address the following FERC directives which emphasize the need for accurate generator steady state models: • In Order 693, paragraph 1310 states “we direct the ERO to develop appropriate requirements to document test conditions and the relationships between test conditions and generator output so that the amount of power that can be expected to be delivered from a generator at

different conditions, such as peak summer conditions, can be determined.” • In order 693, paragraph 1321 states “we adjust the proposal in the NOPR and direct the ERO to modify MOD-025-1 to require verification of reactive power capability at multiple points over a unit’s operating range.” Until a continent-wide generator steady state model verification standard is developed and implemented, a reliability gap will exist. Therefore, the GV SDT believes that these standards would at least be “moderately improved” and thus should be assigned a value of 75 instead of 50. Column K: Scheduled for its 5 year review in: For the column “Scheduled for its 5 year review...”, the BOT approval date for MOD-024 is effective date is January 1, 2007. The BOT adoption date is earlier. Thus, this standard is scheduled for its 5 year review in less than one year. (January 1, 2012). As discussed above, there are outstanding governmental directives. Thus, per the current version of the Standards Process Manual, if the GV SDT effort was not already in progress, a 5 year review to consider modifying the standard would be expected. As such, the GV cell for this column should contain a value of 50 instead of the current value of 25. Column N: Percent Complete The GV SDT believes the 38% completion percentage value is too low. The GV SDT is currently developing 5 standards (MOD-024 and 025 will be combined). 3 postings have occurred to date. One of the outcomes of a recent full team meeting (Feb. 2011) is that the team will be proceeding with formal postings for all 5 of its standards. As such, subsequent formal postings and successive balloting should begin late this year. Also, two of the standards which address prominent reliability gaps have already completed a formal posting (MOD-026 and PRC-024). Since the effort began in late 2007, the GV SDT contends that the entire effort is approximately 60% complete. Additionally, GV SDT believes that MOD-026 and PRC-024 are closer to 75% complete. At an absolute minimum, the SC should allow work on MOD-026 and PRC-024 to continue since these two standards are arguably the ones in the GV suite of standards closest to completion and they fill significant reliability gaps previously discussed above. Column P: Other Factor This Generation Verification 2007-09 project was identified by FERC reliability staff as being one of their high priority projects. One of the big reasons is that this project addresses a reliability gap that will become larger with the increasing penetration of variable resources. Specifically, as quoted in NERC’s special report “Accommodating High Levels of Variable Generation”, one of the conclusions is that “Standard, non-confidential and non-proprietary power flow and stability models are needed to support improved planning efforts and appropriately account for new variable resources.” All of the GV SDT’s draft proposed standards are technology neutral, and as such, require the development and implementation of these non-confidential and non-proprietary models. As such, it is recommended that this project be assigned a value of at least “50” in the “Other Factor” column.

The GV-SDT respectfully points out that the current team is sufficiently staffed to continue to move their suite of standards forward. All 5 standards (assuming industry agrees with the combination of MOD-024 and MOD-025) are currently undergoing the second round of NERC staff review in preparation for formal postings. Formal postings and successive balloting could occur as early as later this year. Suspending the effort for a year would almost certainly be disruptive to the makeup of the team (retirements, changes in responsibilities or companies, etc) – arguably more so than other efforts that have a smaller, less diverse set of standards to develop. The impact of team dynamics and current staffing of drafting team efforts should somehow be factored into the spreadsheet.

Individual

Michael Goggin

American Wind Energy Association

I would echo the concerns expressed in drafts circulated by the GVSdT that the draft tool does not adequately account for the importance of maintaining the continuity of standards drafting efforts that are currently underway. As the GVSdT explained, the tool as currently drafted could lead to abrupt fluctuations in the prioritization of different standards development processes that could lead to stops-and-starts in those efforts, which would seriously undermine their efficiency.

I would echo the concerns expressed in GVSdT drafts that Project 2007-09 contains a number of standards development processes that are addressing issues for which continent-wide standards are critically needed, and thus the prioritization of Project 2007-09 should be increased accordingly. These important components of Project 2007-09 include: • MOD-027: Verification of Models and Data for Turbine/Governor and Load Control of Active Power/Frequency Control Functions • MOD-026: Verification of Models and Data for Generator Excitation Control System Functions • PRC-019: Coordination of Generator Voltage Regulator Controls with Unit Capabilities and Protection • PRC-024: Generator Performance During Frequency and Voltage Excursions • MOD-024: Verification of Generator Gross and Net Real Power Capability • MOD-025: Verification of Generator Gross and Net Reactive Power Capability

Individual

Patrick Farrell

Southern California Edison Company

Yes
Yes
Yes
Yes
Individual
Dan Rochester
Independent Electricity System Operator
Page 7, paragraph 7 refers to "A" and "F" in the flow diagram. These should be changed to "1" and "6" respectively. The description of how the IDI is calculated under "Column G" should include a statement on rounding to the nearest integer. In the formula for IDI, "MIN(...)" is inconsistent with the text in the preceding paragraph. The formula for calculating PDI is missing "2 x" before "SUM(...)". On the Data Values tab in the spreadsheet, the list of values under "timedirective" (Column C) should include zero, since it is currently not possible to reset any entry made in column F to zero once a selection has been made.
Yes
We understand the motivation to assess the relative importance of each Directive associated with a standards project as an input to determining the project's ranking but we are not convinced that the detailed approach proposed is appropriate. This assessment by its very nature is subjective, so we do not see the need to first award points based on a review of the criteria listed in Q1 and Q2 and then input these scores into a formula. We suggest that points be awarded directly based on the assessment without the calculation step. Further, we propose combining the two columns and using the following simplified list of criteria. We also suggest a scoring system, with the point difference between the top two criteria being large enough "to make a difference" in the rankings (e.g. greater than or equal to the interval used in the first orange column): e.g. 40 – Regulatory directive with time constraint ≤ 18 months 20 – Regulatory directive with time constraint > 18 months 10 – Regulatory directive with no time constraint 00 – No regulatory directive We believe a project's "reliability merit" rather than the existence of regulatory directives should be the factor that most significantly influences its ranking, hence our suggestion to diminish the weighting of this consideration. In reality, the issuance of a directive by regulators ought to be based on their perception of the significance of the reliability issues the directive is intended to address. To the extent that this is the case, the reliability merit of the project, if properly evaluated by the tool, would indeed carry the day and establish the appropriate ranking of the projects. In fact, the bulleted items under Q1 should be considered in assessing the reliability merit of the project in Column H. Further, we would like the Standards Committee to consider eliminating the column "Improves Existing Reliability Standards" since the significance of the improvements is in essence, a duplication of the criteria (column) "Fill an Identified Gap in Reliability". We believe there is a clear correlation between the "size" of a reliability gap and the risk it presents, and the impact/improvement of actions taken to close the gap. There is therefore no need for duplication. If increased granularity is required, the SC could consider adding another one or two tiers under "Fill an Identified Gap in Reliability" with adjustments to the intervals between tiers. Additionally, the weighting of Column H relative to the other columns should be increases to place greater emphasis on the reliability considerations in the ranking. The top tier could probably be say 150 points. While we agree with the other column headings we do not agree with the weightings (maximum scores); this could be addressed by simply adjusting the maximum score in Column H and/or as suggested below.
No
See our comments above.
No
As indicated above, the weight (max. score) of the yellow columns is too high relative to the maximum score of the orange columns, which we believe to be the most significant. Also, we believe the "Address Compliance Issues" column should be combined with the "Address Failed Interpretation..." column since they both address the issue of unclear requirements that may lead to compliance uncertainty. At the very least though, the "Address Compliance Issue" column should permit only discrete values, either 0 or 10 points. While we agree that recognition should be given to projects that are already "in flight" the maximum score in the "Percent Project Complete" column places too great an emphasis on such projects, equivalent to a project that has the greatest reliability impact. The significance of this item should be reduced and we propose the following scoring system: 20 points - Projects ≥ 70% complete 15 points – Projects ≥ 50% and < 70% complete 10 points – Projects ≥ 30% and < 50% complete 5 points – Projects ≥ 10% and < 30% complete 0 points – Projects < 10% complete

No
<p>The maximum is too high relative to the orange columns which we view as most significant (see above). As discussed in our response to Q6, each individual factor considered under "Other" should be given no more than 10 points and we believe the total should be capped at say 30 – 40 points to allow the orange columns to dominate the evaluation. Also, there should be discrete values or a pick list in the blue column. As things stand currently, the award of points in the blue column could be quite arbitrary and could therefore skew the ranking.</p>
<p>We suggest considering the following under the "Other" category: The length of time a particular project has been in the queue. A project may have been listed for some time but due to priority considerations it has either not commenced or has been halted so that no substantial progress has been made. This consideration should garner say 10 - 15 points after 'n' years (n=2 or 3), not too many, but a sufficient number to push it up a few places in the priority ranking if its reliability merit is strong. Another item for consideration under "Other" is the breadth of impact of the project on registered entities e.g. the change to the BES definition would impact all registered entities. A small number of points should be awarded for this consideration say 10 points.</p>
<p>We would have expected Project 2010-17 – Definition of the Bulk Electric System, to finish higher in the ranking given the broad impact this work may have on all reliability standards and Regions. Looking closer at the points assigned and comparing with the four projects ranked above it, we observe that (1) the duplication in the orange columns and (2) the excessive weighting given to the "Project Percent Complete" column, both commented on above, significantly influenced the outcome. Project 2007-01 - Underfrequency Load Shedding and Project 2007-07 – Transmission Vegetation Management also appear to be ranked somewhat low at 16th and 18th respectively. In the case of the first the issue is moot since the project is almost complete but it's ranking would have been much lower has it not been for its "Project Percent Complete" score. This outcome may be because the reliability significance of this work has not been well represented because the weights need to be redistributed as discussed above.</p>
<p>Please see our response to Q2. IESO fully supports the Standards Committee's efforts to develop the prioritization tool that would promote objectivity when defining industry priorities in relation to standards development. We hope you find our comments helpful.</p>
Group
Edison Electric Institute
David Dworzak
Yes
<p>On behalf of its member companies, Edison Electric Institute (EEI) is pleased to provide the following brief comments on the proposed tool under development to assist the NERC Standards Committee (SC) in its efforts to set priorities for standards development projects. First, EEI applauds the initiative of the NERC SC in seeking to develop this prioritization tool. It is becoming clearer with experience that the practical limits of the standards development process is approximately 10-15 projects at any one time, depending on the size and complexity of the projects. 'Throwing resources' at standards development projects does not overcome the need to deliberately set technical requirements, and the need to exercise careful due diligence to ensure that issues of interrelatedness are considered within and among the various technical requirements in the standards. Second, EEI believes that the proposed tool design is adequate for separating 'high,' 'medium,' and 'low' priorities. Having strong confidence in a tool that can make these gradations is far more important than the specific project ranking. EEI also encourages the SC to consider defining a general category for projects not needing to be developed. We draw from our observations of the February 8 FERC technical conference the clear conclusion that NERC should explicitly acknowledge that some projects do not merit development. Third, EEI agrees with the recognition of two variables as having significant influence in the rankings --- the existence of time-based regulatory directives, and the existence of clearly defined reliability gaps. Both of these variables merit the weight recommended in the spreadsheet in determining project priorities. Fourth, EEI recommends that the SC remain flexible in its use of the tool. SC should allow itself a trial period. In addition, while the tool can help inform priorities, the SC should allow for the possibility that the tool may place an unrealistic premium or discount on a particular project. It will be important to recognize the tool as informative but not necessarily a final authority on setting priorities. In other words, it will always be important to ask 'does this make sense' as a final check on the rankings. Fifth, and as a transition matter, EEI also strongly recommends that the introduction of the prioritization tool not interrupt progress on standards development projects that may be 'near the finish line.' We have not performed a careful review, but expect that there are likely projects near completion that the spreadsheet would indicate as having a low priority. These projects deserve continued support to completion. Beyond the prioritization tool itself, EEI continues to encourage NERC to continue development of an enterprise-wide initiative to develop corporate strategic priorities informed by bulk power system reliability goals and risks, and the potential cost effectiveness of addressing such risks.</p>

Over time, EEI believes that such an initiative would inform business decisions for both NERC core programs, standards development and compliance enforcement. EEI also uses these comments to continue encouraging NERC and stakeholders to develop a regular practice, where standards development, and compliance and enforcement, can share experiences for the purpose of informing standards development projects. A regular discipline for this form of a feedback loop would be helpful for informing both identifying areas in the standards that need attention, and the priority needing to be assigned to those areas.

Individual

Jason Marshall

Midwest ISO

None of the existing columns should be duplicated or double-counted in this column. For example, Project 2007-17 has 25 in this column because it is one of the most violated standards but column I already accounts for compliance issues.

Overall, we do not have major issues with the priorities and tool as they are designed and we believe it represents a reasonable attempt to prioritize standards work. The Standards Committee should periodically revisit the tool and consider adjustments as we learn more as well. Furthermore, we encourage the Standards Committee to document and make transparent when changes are made and the work that started out the year as highest priority is no longer the highest priority. Industry needs to be able to see and understand the drivers for the changes in priorities. One could argue that filling a reliability gap is the single most important column because reliability is purpose of the standards. Thus, some considerations should be given to raising this factor significantly.

Individual

Rex A Roehl

Indeck Energy Services

The scales of the various columns are somewhat appropriately differentiated. However, columns H and I should be combined. If there's a significant gap, then the improvement will be significant. Hand I are double counting when there is a gap. Everyone likes to think their project will make a significant impact on reliability. However, there don't appear to be any significant gaps that cause the system to fail, so the likelihood that any project can make a significant impact is minimal. Only new standards filling gaps should be able to qualify over 25 points and not all of them should get much more than 25. Projects to improve, combine, clarify or update standards should average 10-15 points with a few generating 25. Column K presumes that all standards can be reviewed on a 5 year basis. With most of them approved in 2007, next year will be a crunch. Perhaps a standard review needs to be a different process than a new or revised standard.

No

Columns H&I need to be combined as stated in Question 1. Column K may be less important if a separate review process not involving an SDT is established. One missing factor is regional conflict. Project 2010-07 is an example. Only WECC is registering GO/GOP as TO/TOP. This should be a 100 point category because it distorts the standards system and isn't easily dealt with by individual Registered Entities.

No

F is OK for 100. G is OK for 50 as on the worksheet. H and I need to be combined and then only 100 for the combination with only gaps being suitable for more than 25 points.

No

J assumes the priority of the other project. Should be rescaled to 20 points. K can be eliminated if a separate review process is established. L and M should be mutually exclusive, but then 50 points is OK. N should only be 50 (divide percentage complete by 2).

Yes

Project 2007-12's description is bad. The RE's need to figure out what frequency response they need and how to measure when they are getting it and from whom. NERC issued an Alert to get the data. BES Definition scores 100 for a regulatory deadline and 100 for an identified gap. These are one and the same, although the significance of the gap is small risk at best. There are few if any NPCC entities which haven't registered, except in Canada which isn't subject to the FERC directive and has consistently rejected the concept of a bright line definition in favor of the NPCC approach to assess reliability significance. How can the gap be severe risk of Big Three? Only small entities are not already registered. Someone is fantasizing that the Standards program is missing large numbers of large entities, which is patently false. Giving it 25 points for 5 year review is a stretch because it isn't a standard and it is doubtful that

all definitions will be reviewed by an SDT every 5 years. It is unclear what compliance issues could be addressed when everyone is in compliance with the existing definition and only a few will be added with a new definition. It should probably get 50 points for Percent Complete. Final Priority Rating should be 175. Therefore, it should be completed because of the regulatory deadline. Project 2010-07 points out that there is a missing factor. In this case, one Region, WECC, is registering GO/GOP's as TO/TOP's. No other Region has done so. This conflict between Regions is another factor. It may not occur often, but in this case is worth 25 or 50 points for this project. This is similar to the Failed Interpretation and possibly could be lumped into that category with revised language. Project 2007-06 received 100 points for Improves Reliability Standards Significantly. Protection Systems have been around for a long time. Some relay engineers might like more or different ones, but the ones we have work. Therefore, any improvement in the standards will be Minimal at best. Project 2007-03 received 75 points for Moderately Improving Standards. These standards are being minimally or incrementally improved. Receiving 50 points for coordinating with other projects seems out of balance with the other categories. This may be worth 10 or 20 point maximum, but isn't as important as a Gap with Moderate Risk.

There are no projects on the list that should receive more than 50 points for Gap (H) and Improves Reliability (I) combined. Even cyber security is not a significant impact on reliability. If distorted values are used, then the tool only persists in validating pre-conceived ideas of what should be done first. Objectivity will be very difficult.

Group

Bonneville Power Administration

Denise Koehn

It is essential that there be a way to include a framework to distinguish the tradeoffs between risk to reliability and cost. This tool does not address the cost factor at all and is incomplete in its ability to set priorities. The reference document provided both a background for the prioritization tool as well as instruction for using the tool. The background information was useful, the instructional part needs improvement. Without clear examples for each value, much ambiguity could exist when determining the values for the columns in the spreadsheet. Consistency will be the key to this tool being effectively utilized. On page 4 "Section C" was referred to, we could not find "Section C". Column H ratings in the reference document did not match what was displayed in the tool's column heading. We are uncertain how the values for column I address compliance issues. Once again, we think better explanation and examples would help in understanding and determining ratings for column I. We believe that the diagram could use some further explanation. Perhaps including swim lanes or a timing sequence would help.

Yes

The range of questions seem appropriate, though better explanation and examples in the instructions would help determine consistent ratings.

Yes

Do we agree that the rating range should be (0-100), or do we agree that the rating range is appropriately assigned. We agree that a range of (0-100) is appropriate. It is difficult to answer the question given the different ways it could be interpreted.

Yes

Do we agree that the rating range should be (0-50), or do we agree that the rating range is appropriately assigned. We agree that a range of (0-50) is appropriate. It is difficult to answer the question given the different ways it could be interpreted.

Yes

Do we agree that the rating range should be (0-100), or do we agree that the rating range is appropriately assigned?. We agree that a range of (0-100) is appropriate, however this column really needs examples – it is too much of a wild card and could lead to ambiguity.

The "Other" column is a wild card and could cover a wide range of factors. It might help if examples were provided.

BPA has the following suggested changes: Definition of BES has 100 in column h for reliability gap. This is a definition – an administrative item – not a reliability gap. The system is already reliable with or without this Definition. This will do nothing to close an actual reliability gap. Column i properly identifies BES definition as having zero impact on improving current Reliability Standards column h. should reflect that as well. Project 2007-17 Protection System Maintenance & Testing: PRC-005-1 BPA believes that the OTHER FACTOR column o rating should be 0, not 25. BPA does not agree with the explanation in column p stating that PRC-005 needs modified to "clearly identify maintenance and testing requirements and intervals". Registered entities individually define their own maintenance and testing requirements and intervals and provide a basis for their maintenance and testing requirements and intervals. Project 2007-07 Vegetation Management: FAC-003-1 BPA believes that the reliability gap column h rating should be 75, not 0. FAC-003-1 is among the most violated standards. If a rewritten standard is deemed to "improve the existing reliability standard" (rated as 50 in column i), BPA believes that the rewritten standard also "fills an identified gap in reliability", as demonstrated by the "proof-of-concept for the results-based reliability standards initiative" comment in column p.

BPA believes that this tool appears to be a thorough, rigorous process to clearly establish much needed priorities. We support the effort, especially in light of the recognized "limited resources". We are also limited in the number of staff available to review, participate (drafting teams) and comment on all the efforts afoot at times, so seeing an established process to prioritize is a welcome step.

Group
Kansas City Power & Light
Michael Gammon
The Standards Committee is to be commended regarding this effort to focus attention on the appropriate reliability areas for standards considerations. The process has been thought through well and well written. Although well done, the following recommendations are submitted for the Standards Committee consideration. 1. Recommend the process consider balloting results as a factor in the process. Standards proposals that achieve low ballot results are an indication that a standard is in need of serious additional work. 2. Recommend elimination of the project completion as a factor in the process. Projects that are completed should be removed from the list and, all else being equal, as a project nears completion, the project priority will gravitate to the bottom of the priority bucket. It would be better to replace this with a factor considering whether a project is on schedule or not. The farther off schedule, the priority should rise for consideration of additional resources. 3. Projects that are "tied together" need to be rise to the level of the highest priority of the group. Recommend the SC consider how to indicate projects that are tied together and remove this as a factor in prioritizing projects. Projects should be ranked according to their need and importance. If a high priority project is dependent on a lower priority project, then the lower priority project needs to rise to the same priority level as the high priority project to ensure the dependency does not block progress. There is a word missing in the sentence at the top of page 7. Missing word is capitalized here for emphasis and identification for the SC consideration. The sentence may need to read: From time to time, the Standards Committee may request the Chair or a representative of an SDT to report on the progress of a project even IF there is no indication of a potential slippage.
Yes
Yes
No
Recommend elimination of the project completion as a factor in the process. Projects that are completed should be removed from the list and, all else being equal, as a project nears completion, the project priority will gravitate to the bottom of the priority bucket. It would be better to replace this with a factor considering whether a project is on schedule or not. The farther off schedule, the priority should rise for consideration of additional resources.
Yes
No other comments.
No other comments. Project ranking results look in line.
No other comments.

Additional Comments Received:

Comments received from NERC Transmission Issues Subcommittee (TIS)
– Submitted by Bob Cummings

Proposed Ratings for Projects Included in the Reliability Standard Development Plan:

1. Please review the ratings assigned to each of the individual projects. If you feel that any of the draft ratings are inaccurate, please identify the project number and the specific rating that you believe is inaccurate. Please be specific in identifying what you believe is the correct rating, and provide a justification for that proposed rating.

Comments:

Generally, a number of projects that support 2003 Blackout recommendations are not noted in "Other." Similarly, a number of the projects are subject to regulatory directives that are not covered in the ratings. The TIS did not try to correct all of those issues, but are commenting on those projects that come under the area of TIS responsibility.

The numbers in the TIS recommendations below are potentially conservative in the implications to the reliability of the BES. The TIS did not intend to deliberately move their projects into the top ten, but did try to give a more complete picture of the importance of those projects to reliability.

Project 2010-03 Modeling Data

The NERC Transmission Issues Subcommittee (TIS) believes that modeling is very under-rated in the Standard Committee prioritization. In fact, without proper modeling, the planning and operational studies called for in a number of the Standards projects such as Project 2006-02 Assess Transmission and Future Needs and Project 2010-10 FAC Order 729, may yield incomplete or incorrect results.

The scoring for this project is also incorrect. The regulatory direction in Order 693, in paragraphs 1215 and 1222, charges the ERO with improving modeling. This was also prescribed in the recommendations of NERC and the US-Canada Task Force related to the 2003 Blackout, Recommendations 14 and 24, respectively.

From Order 693

Paragraph 1215 – "...We direct the ERO to: (1) modify the Reliability Standard through the Reliability Standards development process to require actual system events be simulated and model output validated against actual system responses and (2) develop a Work Plan and submit a compliance filing that will enable validation of the steady-state models while MOD-014-0 is being modified."

Paragraph 1222 – "...We therefore direct the ERO to use its authority pursuant to § 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the validated dynamics system models while MOD-015-0 is being modified. We require the ERO to develop a Work Plan that will enable continual validation of dynamics system models and submit a compliance filing with the Commission."

Specifically, TIS recommends:

1. "Address regulatory directives without a time-constraint" score should be 50.
2. "Improves existing reliability standards" score should be 75.
3. "Coordinate changes with another project" score should be 40.
4. "Other Factors" should be at least 50. The need for improved generator data was highlighted in the recent FERC report "Use of Frequency Response Metrics to Assess the Planning and Operating Requirements for Reliable Integration of Variable Renewable Generation"

Project 2008-01 Voltage and Reactive Planning and Control

This project was initiated to meet recommendations from the 2003 blackout report by the US-Canada Task Force. Further, this project is subject to directives to the ERO under FERC Order 693, paragraphs 1854 through 1879, and summarized in paragraph 1880:

Summary Determination:

Paragraph 1880 – "...the Commission directs the ERO to develop a modification to VAR-001-1 through the Reliability Standards development process that:

- (1) expands the applicability to include reliability coordinators and LSEs;
- (2) includes detailed and definitive requirements on "established limits" and "sufficient reactive resources" as discussed above, and identifies acceptable margins above the voltage instability points;
- (3) includes Requirements to perform voltage stability analysis periodically, using online techniques where commercially available and offline techniques where online techniques are not available, to assist real-time operations, for areas susceptible to voltage instability;
- (4) includes controllable load among the reactive resources to satisfy reactive requirements and
- (5) addresses the power factor range at the interface between LSEs and the transmission grid."

Therefore, its "Address regulatory directives without a time-constraint" score should be 100.

As such, TIS recommends:

1. "Address regulatory directives without a time-constraint" score should be 50.
2. "Fill an identified gap in reliability" score should be 75.
3. "Improves existing reliability standards" score should be 75. Expands the applicability as directed by FERC.
4. "Coordinate changes with another project" score should be 50. Coordinates with planning related projects such as Project 2006-02 Assess Transmission Future Needs (TPL-001-2).
5. "Other Factors" should be at least 50. The issue of Voltage and Reactive planning was subject of NERC and the US-Canada Task Force reports on the 2003 Blackout, recommendations 7 and 23, respectively.

Project 2007-09 Generator Verification

The success of this project has significant benefit and immediate impact on the quality of modeling information on generators.

As such, TIS recommends:

1. "Fill an identified gap in reliability" score should be 75.
2. "Improves existing reliability standards" score should be 100 (we currently don't have verified data).
3. "Coordinate changes with another project" score should be 50 (coordinates with all modeling-related projects).

4. "Other Factors" should be at least 50. The need for improved generator data was highlighted in the recent FERC report "Use of Frequency Response Metrics to Assess the Planning and Operating Requirements for Reliable Integration of Variable Renewable Generation."

END OF REPORT