

RAS Data Submission Process Improvement

August 16, 2023

Nick Hatton
Staff Engineer

Does RAS modeling in base cases matter?

- Do people see it as necessary and use it?
 - The issues we have with submissions seem to indicate many people aren't using RAS in their studies.
- Poll—Slido
 - Does your entity use RAS data in study work?



Current Process

- Submit RAS with initial dataset or comments
 - WECC staff does not review RAS data until the case is finalized due to the following:
 - o Time constraints in the build process—there is not time to review and request revisions to the RAS/power flow to correct issues
 - Delays in updates—when revisions are need, there are often week-long delays (sometimes 6+ months) between update request and submission
- WECC staff apply the RAS to the approved case
 - Many errors; two categories:
 - Errors in PSLF and Power World
 - Errors in one or the other, but not both
 - Sometimes due to one vendor updating/modifying the RAS format without working with another vendor or waiting for them to implement as well
 - Sometimes we aren't sure why things are being flagged in one platform versus another
 - Corrective actions :
 - Do nothing. Previously identified errors/warnings determined to be nonissues, but they keep getting flagged and they obscure important issues!
 - Request a fix to the data—can lead to delays
 - Request an update in a platform—can also lead to significant delays



Ideal Process

- Ideally, RAS would be treated as a normal part of the base case process, not a post approval add-on
- For that to work, we need relatively clean data and software platforms that report the same issues for the same problems



Action Requested

- We need people to load RAS and fix errors and talk to vendors.
- We need people, especially the managers, to understand that RAS is a piece of the base case build process now. The review and revising of RAS needs to be done.
- When you enter your data, and it throws a warning or error, we won't know whether things are correct or not. That's why we need vendor help to clarify error messages, and why we need the people who know the data to talk to the vendors.
- If you aren't the person who revises the RAS, please tell your manager and theirs that we need them to be ready to review and update the RAS for each operations case.





www.wecc.org

Appendix A: RAS should be modeled and used

- RAS needs to be modeled in power flow studies
 - One of the listed causes of the September 8, 2011 outage was "not studying and coordinating the effect of protection systems, including Remedial Action Schemes (RASs), during plausible contingency scenarios"
 - Repeating something like this is not something any of us want
 - As a result of the settlement regarding the September 8, 2011 outage we now have the capability to implement RAS in power flow studies, and we should have the data necessary to do so
- What prevents the use of RAS in power flow studies?
 - Technical issues with the files? Are they hard to use?
 - A belief that any RAS operation won't affect those doing the studies? How do you quantify this in a reliable way?

