

Dear Lynnea,

Thanks for the opportunity to provide feedback on the draft report.

We went through the report and make the following comments.

- The report is quite comprehensive that articulates key issues, challenges, opportunities, and potential action items pertaining to future grid, esp. in the context of Illinois.
- The context and scope of the report, and the process followed are clearly laid out.
- The concluding remarks read well, but we suggest improvements. In particular, there are only three recommendations listed. Additional recommendations may be considered to have a broader scope and achieve higher impacts.
- Specific comments on certain items (typos, statements, referencing, recommendation, etc.) are listed below (with suggestions to address them).

Please feel free to reach out to us if any clarification is needed. We would be happy go over or clarify over a phone call.

We would like to express our sincere thanks to University of Illinois, esp. Prof. Gross and Prof. Sauer, for their leadership.

Best regards,

Manimaran, Dominic (WG 3 Co-Chairs) and Wei Chen (WG 3, key contributor)

SPECIFIC COMMENTS:

Page 1: no diagram to introduce 7 WG topical list.

Suggestion: It would be helpful to have figure (diagram) to prominently introduce the 7 WG topics (along the list provided). We had a diagram in the ICC presentation, which could be included.

Page 12: The following is an incomplete sentence.

“As many electricity grid issues are cross-cutting and interconnected, a particular issue was common to the scope of two or more WGs.”

Suggestion: Please fix the sentence. Also, it would be helpful to list some of the cross-cutting issues right here in the same sentence.

Observation: WG 3 provided a bulleted list of cross-cutting issues (as part of WG 3 report), which is not included in Chapter 3 of the Final Report.

Page 12-13: the list of questions presented at the kick-off meeting didn't explicitly mention communication and cybersecurity issues.

Suggestion: It would be helpful to have sentence at the end of the list (without modifying the list) like “In addition, questions pertaining to communication and cybersecurity of the future grid were among the issues considered as part of this study”.

Page 15: We don't agree with the following two sentences.

“While higher levels of RR&S are attainable, the associated high costs and the practicality of such solutions fail to meet any cost effectiveness tests. Indeed, surveys by utilities indicate the lack of willingness to pay by customers for such costly fixes.”

Suggestion: Please delete them [or at least reword them with substantiating it with a suitable reference].

Page 71, Para 3: We don’t agree with the following statement – it sounds like a strong opinion without any evidence.

“Currently, the incentives to abuse consumption data are low. In the future, if price and consumption data are more closely linked, incentives for data abuse will be increased. There is currently an ICC document hearing on Ease-of-Data Access to further examine this issue.”

Suggestion: Please delete them (or at least reword them with a milder statement explaining the current situation and speculation).

Page 81, Challenge 3: Typo. (replace the first resiliency as reliability)

The correct sentence: “... the standards/regulation/compliance for **reliability**, security and resiliency are still evolving.”

Page 94: Figure 16: include citation as part of the caption.

Correct usage is: “Figure 16. State energy resiliency framework [53]”

Page 106: Change “DoE” to “DOE”.

Page 212: Concluding Remarks: The conclusion has many strong statements that are not fully consistent with what we have observed in WG 3 meetings/discussions. Some of them are listed below.

“Virtually, all participants share the goal to make ...”

“Many stakeholders are clamoring for more customer education ...”

“The previous seven chapters make amply clear that there is considerable disagreement on nearly every aspect of grid modernization among the participating stakeholders.”

Suggestion: Please make these statements more balanced and nuanced – e.g., in WG 3, we had more agreements than disagreements.

Page 212, para 2: The following sentence is too lengthy and less readable.

“This high ranking provides a clear recognition ...”

Suggestion: Please break this long sentence into two or three small sentences.

Page 213-214: Only three recommendations are listed and discussed – DERs, Storage, and Consumer Privacy.

Suggestion: It is somewhat unclear how these three recommendations are shortlisted; moreover, adding a few more to the recommendation list (and associated discussion) would strengthen the report as they likely be part of the take-away (and possible action items) from the study.