

Comments to NAESB Smart Grid PAP 09

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In response to NAESB letter of October 2, 2009, please find below our comments and suggestions for the DR/DER Framework document and DR Use Cases.

We appreciate the opportunity to provide feedback and hope our comments are useful for moving the work along quickly.

Please feel free to contact me if you need further clarification of our comments or suggestions.

1.0 DR/DER Framework document

1.1 Section 1. Executive Summary

We note that the first key subject and finding states: “*DR signals standardization must support all four market conditions, i.e. **regions with or without either wholesale or retail open competition***”¹ [**emphasis added**].

We suggest that the emphasized section above is not clear and could be confusing. We suspect that intention is to reference the four types of markets as listed in Section 4.1.1².

Suggestion:

Therefore, we suggest the markets be specifically identified in the sentence, so that it then reads:

Item 1: “*DR signals standardization must support all four market conditions; i.e. regions with a) no open wholesale and retail competition, b) open wholesale market only, c) open retail market only, d) open wholesale and retail competition.*”

¹ Framework for Integrated Demand Response (DR) and Distributed Energy Resources (DER) Models, Section 1, Page 7

² Ibid., Section 4.1.1, Page 28

1.2 Section 2.1 Purpose

We note that while Energy Efficiency programs are discussed in the Framework document, a very common term in the industry, Demand Side Management (DSM), is missing throughout the Framework document.

In particular, we note that the first mention of Energy Efficiency in the Framework Document is in Section 2.1:

*“Energy efficiency programs and DER programs have similar goals: reducing energy demand by using improved technology or control strategies.”*³

For those in the industry used to DSM programs, it is not clear of the connection to DSM. In addition, it is not clear if the intent was to mention DER or DR programs throughout this paragraph.

In the December 2007 NERC *“Data Collection for Demand-Side Management”* document⁴ there is a convenient introduction to DSM, linking Energy Efficiency and Demand Response:

*“Demand-Side Management (DSM) is important ingredient of an overall portfolio of resources required to meet the increasing demands for electricity in North America. DSM is often understood to include two components: energy efficiency (EE) and demand response (DR).”*⁵

Suggestion:

We suggest the sentence in Section 2.1 starting with “*Energy efficiency . . .*” be replaced with a couple new sentences which reference DSM, and introduce DR programs. It could read something like:

“Demand-Side Management (DSM) is important ingredient of an overall portfolio of resources required to meet the increasing demands for electricity in North America. DSM is often understood to include two components: energy efficiency (EE) and demand response (DR). Energy efficiency programs and demand response programs have similar goals . . . In contrast, DR programs . . . This document and standard are focused only DR programs. ”

³ *Ibid.*, Section 2.1, Page 10

⁴ NERC, *Data Collection for Demand-Side Management, Dec 2007*. <http://www.nerc.com/files/Demand-response.pdf>

⁵ NERC, *Data Collection for Demand-Side Management, Dec 2007, Page 1*. <http://www.nerc.com/files/Demand-response.pdf>

We also suggest that the above paragraph appear before the discussion of DER (in the previous paragraph, that starts with “*Distributed Energy Resources are small . . .*”).

That is, we suggest the following order of introduction: DSM, EE, DR, DER.

It may be helpful to do a scan of the entire Framework document to confirm the proper use of DR and DER.

1.3 Section 3.2.3 What is a Distributed Energy Resource?

We note the following statement:

“This document addresses resources that can be controlled by the customer or the utility, and thus does not address weather dependent variable resources like PV nor wind generation.”⁶

Question:

It would be helpful to understand why DER within this document does not include PV or wind. What are the advantages for such limitations, and is that not contradictory to the goals of Greenhouse Gas reduction targets? Why is weather dependency an issue; the non-availability of a resource would have to be considered in any case – e.g. shutdowns or that power is simply not available?

What about tidal or run-of-river; would resources that are intermittent, yet predictable be considered DER?

Suggestion:

We suggest either expand the scope of DER within the document to include such resources as PV, wind, tidal, or if not, to introduce a new term to be used throughout the document and clearly delineates the subgroup of DER that is being used throughout the document (explain what is in scope, and why). If such a term would be used, it might be, for example, Weather Independent DER (WIDER).

⁶ *Ibid.* 1, Section 3.2.3, Page 25

1.4 Section 6.2 Reference Documents

We note that a web link is provided, yet the list from the web page does not align with the printed Section 6.2 of the Framework document.

Suggestion:

We suggest that the printed Section 6.2 indicate the date to which the printout was captured.

We also suggest that the printed Section 6.2 include the web link URL addresses in printed form, in case the links change, and so that the information can be found from a printed document.

2.0 DR USE CASES (in EAP format)

2.1 Overall Use Cases

We note that in the Section 4.3, DR Use Case Classification⁷, of the DR/DER Framework document, “we have three dimensions to slice-dice the DR use cases”⁸ and include specific “market types”, “programs drivers” and “operational phases”. Yet in the Demand Response Use Cases using the EAP format⁹, we note that some of the same dimensions are used, but not consistently nor clearly.

We also note that the June 17, 2009 NIST report document included nine Use Cases¹⁰.

Suggestions:

We suggest that the Demand Response Use Cases in the EAP format¹¹ specifically and clearly reference the “three dimensions” as noted in section 4.3¹².

We also suggest that the Demand Response Use Cases in the EAP

⁷ *Ibid.* 1, Section 4.3, Page 40

⁸ *Ibid.* 1, Section 4.3, Page 40

⁹ <http://www.naesb.org/pdf4/index.htm>

¹⁰ Report to NIST on the Smart Grid Interoperability Standards Roadmap, June 17, 2009, Section 4.4.2, Page 53

¹¹ <http://www.naesb.org/pdf4/index.htm>

¹² *Ibid.* 1, Section 4.3, Page 40

format¹³ include all of the end cases referenced in the June 17, 2009 NIST report document¹⁴.

2.2 Version Numbers

It seems that we have received EAP files with differences in certain versions of the EAP files, but which were labeled with the same document name.

Suggestion:

We suggest that version numbers be included in the file names of all versions.

2.3 Number of Use Cases

To help determine what the most appropriate Use Cases, it may be useful to get a rough idea of how many use cases are envisioned.

Question:

Roughly how many use cases are envisioned?

Suggestion:

It may be helpful at a cursory level to very briefly describe a larger number of use cases (e.g. blue sky) and then prioritize which ones to spend more time on and expand into actual use cases within EA program. This can be done in both one general and specific Use Cases.

This process should help manage the never-ending and expanding list of Use Cases (e.g. indicating which ones had been identified, but decided not to expand at this time).

¹³ <http://www.naesb.org/pdf4/index.htm>

¹⁴ Report to NIST on the Smart Grid Interoperability Standards Roadmap, June 17, 2009, Section 4.4.2, Page 53

2.4 Activate Demand Response

We note that a previous version of the EAP file contained a “curtailment” instruction command with a “measurement response”, whereas the latest version, does not seem to have those commands.

Suggestion:

We suggest that one of use cases should have the original curtailment/measurement commands, as included in an earlier version of the EAP file.