BAL-502-RFC-2 Planning Resource Adequacy Analysis, Assessment and Documentation

08/18/2008 through 09/16/2008

1. Based on industry comments and a supplemental SAR approved by the RFC Standards Committee on 08/11/08, the Applicability section and subsequent Requirements have been modified to include the Planning Coordinator and remove the LSE (along with references to the PRSG). Do you agree with the change in Applicability section of this proposed standard? If no, provide specific suggestions that would make the Applicability section acceptable to you.

Name: Ness, Thad K Phone: 614-716-2053 Segment: Answer: Yes	Organization: AEP Department: Regulatory Services		
Name: Chai, Jianmei Phone: 517-788-1310 Segment: Answer: Yes	Organization: Consumers Energy Department: Electric & Gas Supply		
Name: Swanson, Matthew Phone: 651-632-8484 Segment: Answer: Abstain	Organization: MISO Department: Regulatory Standards		
Name: Brown, Patrick A Phone: 610-666-4597 Segment: Answer: Yes	Organization: PJM Department: NERC and Regional Coordin		
Name: Ciccone, Sam J	Organization: Cleveland Electric Illuminating Compa	ny Group	Members
Phone: 330-252-6383 Dep	Department: FERC Compliance	Name	Organization
		Hohlbaugh, Douglas G	Ohio Edison Company
		Martinko, Robert M	American Transmission Systems, Inc.
		Folk, David L	Pennsylvania Power Company

Segment: Answer: Yes

<u>Comment</u>

We agree that the ultimate responsibility for resource adequacy assessment should be charged to the PC. The PC has the proper tools to gather and study the necessary generation and transmission data due to their wide-area coordination.

Response

Thank you for your support

Organization: **American Municipal Power - Ohio, Inc.** Department:

> Organization: Wisconsin Electric Power Department: Electric System Operation

Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: No

Answer: Abstain

Name: Norton, Chris Phone: 614-337-6222

Segment:

Comment

We Energies does not support the revised standard addressing the "Planning Coordinator" (PC) as the applicable entity for this Standard. It is our position that there is a potential for gaps in analyses if performed under the PC, and that the LSE is responsible for the planning and reliability related to their load. Given the need for an Applicability change, the remainder of the standard would need to be revised to coordinate with the Applicable entity. Response

Per the NERC Functional Model, the SDT believes the Planning Coordinator is the correct Applicable entity to carry out assessments and not the LSE. One of the relationships a Planning Coordinator has with a LSE is collecting Demand forecasts, and demand response program data from Load-Serving Entities. As such there should be no gaps in the analysis.

The LSE may still be responsible for the planning and reliability related to their load imposed by other standards or tariff requirements.

2. Do you agree with the Requirements of this proposed standard? If no, provide specific suggestions that would make the requirements acceptable to you.

Name: Ness, Thad K Phone: 614-716-2053 Segment: Answer: Yes	Organization: AEP Department: Regulatory Ser	Organization: AEP Department: Regulatory Services		
Name: Chai, Jianmei Phone: 517-788-1310 Segment: Answer: Yes		Organization: Consumers Energy Department: Electric & Gas Supply		
Name: Swanson, Matthew Phone: 651-632-8484 Segment: Answer: No Comment	Organization: MISO Department: Regulatory Sta	ndards Response		
 R1.6 Documentation of this requ like the drafting team to clarify how that doo standard, or in an FAQ document.		R1.6 has been modified based on your comment.		
 R1.7 Documentation of the load accomplished but the certification that each only one Resource Adequacy analysis see the control of the Planning Coordinator. Tai of ATC and MISO. In this instance some er in two Resource Adequacy Analyses and it customers. Each Planning Coordinator sho that their load is included in an analysis wh coordination of studies within their footprint should be omitted.  R2.1 Removal of the phrase ?in this requirement clearer.	n end use customer was included in ms excessive and could be beyond ke, for example the concurrent efforts nd use customers would be included would not create issues for end use uld only be responsible for ensuring ile Reliability First could handle the . The second half of this requirement	R1.7 has been modified based on your comment.		
		R2.1 has been modified based on your comment.		

Drafting Team R1.1.1 Change ?Demand Side Management? to ?Load Management?. Demand Side Management includes passive programs, such as energy efficiency & conservation. PJM believes that only ?dispatchable? programs such as Direct Load Control & contractually interruptible loads should be referenced here.

PJM respectfully submits the following changes for the consideration of the

R1.3.1 Bullet #2 should read ?Load forecast uncertainty (reflects variability in the load forecast due to weather, regional economic forecasts and modeling error).?

R1.3.3.1 PJM requests clarifying language to be added here to confirm that these ?transmission facility additions? are the ones included to confirm generator deliverability.

R1.5 PJM believes that this could be valuable in the future, however, TADS is in its infancy, and not nearly enough data is available to draw credible conclusions.

Definitions: PJM suggests that there are actually two definitions included in the Net Internal Demand definition. The NID definition should read ?Net Internal Demand - Total of all end-use customer demand and electric system losses within specified metered boundaries, less Load Management.? The rest of the text in that paragraph describes Load Management. That should appear as a new definition that reads ?Load Management - The amount of demand curtailment of all end-use customer demand that can contractually be curtailed or is under direct control to be curtailed within the specified metered boundaries by the system operator.?

R1.1.1 has been modified based on your comment. The NERC-defined terms Direct Control Load Management and Interruptible Demand have been utilized and added to the standard. R1.3.1 has been modified base on your comment. The SDT feels that the language in R1.3.3.1 is clear R1.5 bullet 2 has been removed based on your comment. The SDT believes that this is addressed in other areas.

Response

The SDT has included the NERC defined Terms Direct Control Load Management and Interruptible Demand to address your concern.

, •	Organization: Cleveland Electric Illuminating Company	y Group Members	
Phone: 330-252-6383	Department: FERC Compliance	<u>Name</u>	Organization
		Hohlbaugh, Douglas G	Ohio Edison Company
		Martinko, Robert M	American Transmission Systems, Inc.
		Folk, David L	Pennsylvania Power Company

Segment: Answer: **No**

Comment	Response
Although the requirements appear to be complete, they could use some general clean-up and possible enhancements. We have reviewed the requirements and provided comments, observations, and suggestions as follows:	The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience.
Title - As an observation, the MRO standard does not include analysis and documentation in title.	The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience.
Purpose - As an observation, the MRO standard has a much simpler written purpose.	The SDT believes that the requirement is correct as written.
 R1 - The SDT should consider removing the phrase "and document" since it is covered elsewhere and in R2. R1.1 - "Planning" should not be capitalized since it is not a NERC defined term. R1.1.1 - In the phrase "The utilization of Demand Side Management does", "does" should be replaced with "shall". Also, as an observation, this DSM 	 R1.1 has been modified based on your comment. R1.1.1 has been modified based on your comment. The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience. R1.1.2 has been modified base on your comment.
requirement does not seem to be addressed by the MRO standard. R1.1.2 - Suggest adding term "margin" after "reserve". Also, with regard to the phrase "(planning reserve margin)", this phrase does not seem to be required. R1.2.1 - As an observation, the MRO standard seems to require analysis for all years of one through ten.	The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience. The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience.
 R1.3.1, R1.3.2, and R1.3.3 - As an observation, the MRO standard does not specifically require that all the characteristics in R1.3.1, R1.3.2, and R1.3.3 be used, just document why they were/were not used. R1.3.4 - Is "interconnected" referring to the 3 interconnections? If so, this term should be capitalized since it is a NERC defined term. Also, "transmission" should be capitalized since it is a NERC defined term. 	?Interconnected? does not refer to the 3 interconnections. ?Transmission? has been capitalized based on your comment.
R1.4 - "Resource" should not be capitalized since it is not a NERC defined term. Also, as an observation, the MRO standard includes Demand-Side Management, energy limitations of hydroelectric units, and merchant plant availabilities in these characteristics. Lastly, in the 2nd and 4th bullets, the term "Resource" and phrase "Response Programs" should not be capitalized, respectively, since they are not NERC defined terms.	R1.4 has been modified based on your comment.

Name: Rulf, Howard F	Organization: Wisconsin El	ectric Power
Name: Norton, Chris Phone: 614-337-6222 Segment: Answer: Abstain	Organization: American Mu Department:	nicipal Power - Ohio, Inc.
		A definition for ?Peak Period? has been added based on your comment.
Net Internal Demand Definition - The term since it is a NERC defined term. Year One - Regarding the phrase "peak pe want to consider defining this period. As an defines "peak period" in R1.1.2 as "a perio calendar months but less than seven (7) ca period during which the [responsible entity to occur".	eriod" in this definition, the SDT may n observation, the MRO standard d consisting of two (2) or more alendar months, which includes the	the SDT did not intend to use the NERC definition for ?Curtailment? in this standard and thus it is not capitalized.
Resource Adequacy Definition - We sugge "(including losses)" after "energy requirem definition in the current NERC SAR. Also, consideration, the MRO standard ends the degree of reliability".	ents"; this would match the proposed as an observation and for definition with "with a specified	The SDT believes that any data retention past the two prior years is in excess. The intention is to be consistent with the intent of the MRO standard but not specifically identical. The SDT took the MRO standard and enhanced it based on industry experience. The definition has been modified based on your comment.
 R2.3 - As a suggestion, instead of simply r posted, it may be better if the specific entit specifically included in the requirement (i.e authorities, etc) 1.3 - Data Retention - As an observation, t years of data retention. 	ies that needed this information were . TSP, TP, DP, state regulatory	The SDT believes that if this information is publicly posted, it will be available to all entities including but not limited to the TSP, TP, DP, state regulatory authorities, etc.

Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: No Organization: Wisconsin Electric Power Department: Electric System Operation Given the need for an Applicability change, the Requirements would need to be revised. If the PC Applicability is retained then we have the following concerns: R1.6, R1.7 - If there are multiple PC's that have authority over the same geographical area, who is responsible to meet the standard.

R1.3 - Although there is specificity of major inputs here, how to reconcile detailed assumption and methodology disagreements that stakeholders may have with the PC?

All PC in the RFC footprint are required to comply with this standard. It is up to both of the PC?s which may have authority over the same geographical area to document how they meet requirements R1.6 and R1.7. R1.6 and R1.7 have been modified to further clarify.

The SDT believes it is outside the scope of the standard to address a process for PCs to involve Stakeholders.

3. Do you agree with the Measures of this proposed standard? If no, provide specific suggestions that would make the requirements acceptable to you.

Name: Phone: Segment: Answer:	Ness, Thad K 614-716-2053 Yes	Organization: Department:	AEP Regulatory Servi	ces		
	Chai, Jianmei 517-788-1310 Yes		Consumers Ener Electric & Gas Si			
	Swanson, Matthew 651-632-8484 Abstain	Organization: Department:	MISO Regulatory Stand	dards		
	Brown, Patrick A 610-666-4597 Yes	Organization: Department:	PJM NERC and Regio	nal Coordin		
	Ciccone, Sam J			ic Illuminating Compan	y Group	Members
Phone:	330-252-6383	Department:	FERC Complianc	e	<u>Name</u> Hohlbaugh, Douglas G Martinko, Robert M Folk, David L	<u>Organization</u> Ohio Edison Company American Transmission Systems, Inc. Pennsylvania Power Company
Segment: Answer:	No Comment			Ľ	Response	
	aggestion replace "documentation" with required per R2.	"evidence"; do	cumentation	The SDT feels that ?doo		placed in M1 based on R1.
	easure does not include evidence that the savailable to the impacted entities.	he PC made th	e	The SDT believes R2.3	is adequately covered in M	2.

Name: Norton, Chris Phone: 614-337-6222 Organization: American Municipal Power - Ohio, Inc. Department:

Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: No

Comment

Organization: Wisconsin Electric Power Department: Electric System Operation

Given the need for an Applicability change, the Measures would need to be revised.

If the PC Applicability is retatined then we have the following concerns: M1 - It is not clear how/who validates the analysis as a second party check. Does/Should RFC review/validate that the study was appropriately done in some way? It is also not clear what accountability that a PC would have for the results of the study. Response

You are correct; this standard does not include any requirements dealing with the review or vali dation of the analysis. It is in not the job of RFC to judge the quality of an analysis. This standard simply prescribes what items are to be included with in the analysis.

4. Do you agree with the Violation Risk Factors of this proposed standard? If no, provide specific suggestions that would make the requirements acceptable to you.

Phone: Segment:	Ness, Thad K 614-716-2053 Abstain	Organization: Department:	AEP Regulatory Se	rvices		
	Chai, Jianmei 517-788-1310 Yes		Consumers E Electric & Gas			
Phone: Segment:	Swanson, Matthew 651-632-8484 Abstain	Organization: Department:	MISO Regulatory Sta	andards		
	Brown, Patrick A 610-666-4597 Yes	Organization: Department:		gional Coordin		
	Ciccone, Sam J	Organization: Cleveland Electric Illuminating Compar			y Group Members	
Phone:	330-252-6383	Department:	FERC Complia	ance	<u>Name</u>	Organization
					Hohlbaugh, Douglas G	Ohio Edison Company
					Martinko, Robert M	American Transmission Systems, Inc.
					Folk, David L	Pennsylvania Power Company
Segment:						
Answer:	No Comment				Response	
We believe t	that since Req. R2 requires documenta	ation, per the qui	idelines for	The VRF for R2 has bee	en changed to " lower" ba	sed on your comment.
VRF in the N	NERC standard development procedur e "Lower". This would also be consiste	e we believe tha	t the VRF for			

Name: Norton, Chris Phone: 614-337-6222 Segment: Organization: **American Municipal Power - Ohio, Inc.** Department:

Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: Abstain Organization: Wisconsin Electric Power Department: Electric System Operation

5. Do you agree with the Violation Severity Levels of this proposed standard? If no, provide specific suggestions that would make the requirements acceptable to you.

Phone: Segment:	Ness, Thad K 614-716-2053 Abstain	Organization: AEP Department: Regulatory Serv	ices		
		Organization: Consumers Ene Department: Electric & Gas S			
	Νο	Organization: MISO Department: Regulatory Stan	dards	_	
	Comment			Response	
Under the S Moderate C its projected constrained	ropriate as requirement R1.6 itself sho severity Levels for R2 the wording asso olumn should read. ?The Planning Coo I load and resource capability, for each sub-area identified in the Resource Ac ears per R2.1.	ciated with R2.1 in the ordinator failed to document area of transmission	R2.1 and the associated	d VSL have been modified t	o further clarify.
		Organization: PJM Department: NERC and Regic	nal Coordin		
Name:	Ciccone, Sam J	Organization: Cleveland Electr		y Group	Members
Phone:	330-252-6383	Department: FERC Compliant	e	Name	Organization
				Hohlbaugh, Douglas G Martinko, Robert M Folk, David L	Ohio Edison Company American Transmission Systems, Inc. Pennsylvania Power Company
Segment: Answer:	Abstain		I		

Name: Norton, Chris Phone: 614-337-6222 Segment: Answer: No	Organization: American Mu Department:	nicipal Power - Ohio, Inc.	
<u>Comment</u>		Response	
"The Planning Coordinator Resource Adequacy analysis failed to document that all load in the Planning Coordinator area is included in a Resource Adequacy analysis and each end-use customer is included in one and only one Resource Adequacy analysis per R1.7." It is important that all load is included in the analysis. If a load is included twice it should not be considered a Moderate violation. Including load more than once would tend to create a more conservative estimate of the system's future condition. It would be akin to a high forecast. The one and only one reference should be eliminated or moved to lower.			
Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: No	Organization: Wisconsin El Department: Electric Syste		
Comment		Response	
Given the need for an Applicability chang If the PC Applicability is retatined then we It is not clear whether this standard consi obtain needed data from internal or extern	have the following concern: ders that the PC may not be able to	Based on the NERC Functional Model, the PC should already have access to the data needed to perform the analysis.	

6. Do you agree with the Implementation Plan of this proposed standard? If no, provide specific suggestions that would make the requirements acceptable to you.

Name: Ness, Thad K Phone: 614-716-2053 Segment: Answer: No <u>Comment</u> To ultimately be a NERC/FERC enforceab approve? it, otherwise it would only be an		ervices You are correct.	<u>Response</u>	
Name: Chai, Jianmei Phone: 517-788-1310 Segment: Answer: Yes	Organization: Consumers I Department: Electric & Ga			
Name: Swanson, Matthew Phone: 651-632-8484 Segment: Answer: Abstain <u>Comment</u>  MRO Coordination If this standard development is to continue compatible standards will be necessary as compliance issues for the Midwest ISO.			Response ely in coordination regardir	ng these standards.
Name: Brown, Patrick A Phone: 610-666-4597 Segment: Answer: Yes	Organization: PJM Department: NERC and Re	egional Coordin		
Name: Ciccone, Sam J Phone: 330-252-6383	Organization: Cleveland Ele Department: FERC Compl		/ Group <u>Name</u> Hohlbaugh, Douglas G Martinko, Robert M Folk, David L	Members Organization Ohio Edison Company American Transmission Systems, Inc. Pennsylvania Power Company
Segment: Answer: Abstain				

Name: Norton, Chris Phone: 614-337-6222 Segment:	Organization: American Mu Department:	Organization: American Municipal Power - Ohio, Inc. Department:		
Answer: No <u>Comment</u>		Response		
The effective date should be upon FERC	approval for non-RFC members.	The Implementation Plan has been modified to further clarify.		
Name: Rulf, Howard F Phone: 262-574-6046 Segment: Answer: No	Organization: Wisconsin E Department: Electric Syst e			
Comment		Response		
It is not clear whether the implementation transition period so that Compliance requ		The proposed Implementation plan is only applicable to the PC within the RFC footprint.		

7. Do you agree that this standard is ready for Ballot? If no, provide specific suggestions that would make it acceptable to you.

Name: Ness, Thad K Phone: 614-716-2053 Segment: Answer: Yes <u>Comment</u> Yes providing the effective date (Implement needed.	Organization: AEP Department: Regulatory Se tation Plan) is fleshed out more, as	Prvices Response Please see responses to your previous comments.
Name: Chai, Jianmei Phone: 517-788-1310 Segment: Answer: Yes	Organization: Consumers E Department: Electric & Gas	
Name: Swanson, Matthew Phone: 651-632-8484 Segment: Answer: No <u>Comment</u>  Necessity of Standard With the approval of Module E of the Midw become superfluous as the Midwest ISO is approved FERC tariff to perform a LOLE st  Tariff Comparison To quote from Module E: ?The PRM analy but not limited to: the Generator Forced Ou Generator Planned Outages, expected per Resources, the LSE?s forecasted Demand reserve requirements, transmission conges available transmission import capability.? T	already required by conditionally sudy. sis shall consider factors including, itage rates of Capacity Resources, formance of Load Modifying uncertainty, system operating stion, external firm capacity sales and hus, many of the requirements of the	andards <u>Response</u> It is outside of the scope of this SDT to determine th e necessity of this standard. S ince there are several PC within the RFC region, the SDT believes that one consistent regional standard is needed for reliability.
Name: Brown, Patrick A Phone: 610-666-4597 Segment: Answer: No <u>Comment</u>	Organization: PJM Department: NERC and Re	gional Coordin <u>Response</u>
If the SDT gives due consideration to the rebelieves that the standard will ready for Ba		Thank you for your support and see responses to your comments above.

Name: Ciccone, Sam J	Organization: Cleveland Ele		y Group Members	
Phone: 330-252-6383	Department: FERC Compli	ance	<u>Name</u>	Organization Ohio Edison Company
			Hohlbaugh, Douglas G Martinko, Robert M	American Transmission Systems, Inc.
			Folk, David L	Pennsylvania Power Company
Segment: Answer: No				
Comment			<u>Response</u>	
We commend the SDT for making significant relatively short time. Although we agree that ready for ballot, we would like the SDT to con- comments from above. Please be aware that our "NO" answers about additional considerations to enhance this st we are not supportive of the standard. We to necessary due to the lack of consistent reso the RFC footprint. Although MISO (through coordinators for a large portion of the RFC for own resource adequacy requirements for the FERC approved tariffs, there needs to be a rules, and state or jurisdictional resource ace that the only way to properly begin this proof development of consistent reliability assess the development of this standard achieves the	t the standard is close to being onsider and respond to our ove only refer to the need for andard and in no way implies that believe that the standard is ource adequacy requirements across Module E) and PJM, as planning footprint, have been developing their heir member companies through tie between reliability, the tariff dequacy enforcement. We believe cess of enforcement is the ment requirements and believe that	Thank you for your supp	oort. Please see responses	s to your previous comments.
Name: Norton, Chris Phone: 614-337-6222 Segment: Answer: Abstain	Organization: American Mu Department:	nicipal Power - Ohio, Inc.		
Name: Rulf, Howard F Phone: 262-574-6046 Segment:	Organization: Wisconsin Electric Power Department: Electric System Operation			
Answer: No <u>Comment</u>		Response		
We believe there is more work needed to the Applicability Section before this is ready for Ballot.		Please see responses t	Please see responses to your previous comments.	