

Consideration of Comments on Draft Functional Model (v5) and the Functional Model Technical Document

The Functional Model Working Group thanks all commenters who submitted comments on the draft Functional Model (v5) and the Functional Model Technical Document. These documents were posted for a 30-day public comment period from July 20, 2009 through August 19, 2009. The stakeholders were asked to provide feedback on the documents through a special Electronic Comment Form. There were 28 sets of comments, including comments from more than 75 different people from approximately 60 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

In this "Consideration of Comments" document stakeholder comments have been arranged so that it is easier to see the responses associated with each question. All comments received on the standard can be viewed in their original format at:

<http://www.nerc.com/page.php?cid=2|247|108>

Summary of Comments and Responses:

Interchange function and Interchange Coordinator responsible entity in version 5 of the Functional Model: Many commenters agreed with the revisions and suggested some alternative language as well as the inclusion of defined terms relating to Interchange (Confirmed Interchange, Arranged Interchange, etc). The FMWG agrees and has included the use of these terms in the model. Other commenters suggested that the FMWG coordinate with the Coordinate Interchange Standard Drafting Team (project 2008-12). The FMWG notes that we have been in contact with the drafting team and will continue to work them as they revise the INT set of standards.

Planning Reliability function and the Planning Coordinator entity in version 5 of the Functional Model: The majority of stakeholders agree with the revisions to the Planning sections of the Functional Model. Some commenters suggested minor edits that the FMWG included in the document.

Transmission Planning Reliability function and the Transmission Planner entity in version 5 of the Functional Model: The majority of stakeholders agree with the revisions to the Transmission Planning sections of the Functional Model. Two stakeholders suggested revisions that the FMWG did not agree with and therefore declined to include. We have revised item 5 of the "Function - Transmission Planning" as suggested to: Evaluate, develop, document, and report on expansion plans for the Transmission Planner Area.

Resource Planning function and the Resource Planner entity in version 5 of the Functional Model: The majority of stakeholders agree with the proposed revisions to the Resource Planner sections of the Functional Model. One stakeholder questioned the need for the Resource Planner in the Model because of a paucity of requirements in the standards for the Resource Planner. While it is true that there are currently few Reliability Standards that are uniquely applicable to Resource Planners, the FMWG considers the Resource Planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement.

Terminology revisions in version 5 of the Functional Model: The majority of commenters agreed with the proposed changes. Commenters that disagreed generally proposed that Version 5 should address current NERC issues, including:

- defining the term Directive
- the long-term solution of LSEs in retail choice jurisdictions

The FMWG disagrees, believing that such issues need to be addressed outside of the Model through the Standard Development Process. Commenters identified instances where the Model retains inappropriate references to "responsibility" - the FMWG agreed and has made the recommended changes.

Other Comments on the Functional Model: The majority of responders to this question provided many useful suggestions for edits to the remaining sections of the Functional Model. Most of the suggested revisions were incorporated in the Model.

Interchange function and Interchange Coordinator responsible entity in version 5 of the Functional Model Technical Document: Many commenters agreed with the revisions and suggested some alternative language as well as the inclusion of defined terms relating to Interchange (Confirmed Interchange, Arranged Interchange, etc). The FMWG agrees and has included the use of these terms in the model. Other commenters suggested that the FMWG coordinate with the Coordinate Interchange Standard Drafting Team (project 2008-12). The FMWG notes that we have been in contact with the drafting team and will continue to work them as they revise the INT set of standards.

Planning Reliability function and the Planning Coordinator entity in version 5 of the Functional Model Technical Document: The majority of stakeholders agree with the revisions to the Planning sections of the Technical Document. Some commenters suggested minor edits that the FMWG included in the document. The FMWG also revised the section on "Areas" to clarify stakeholders' concerns that the passage was confusing.

Transmission Planning Reliability function and the Transmission Planner entity in version 5 of the Functional Model Technical Document: The majority of stakeholders agreed with the proposed revisions to the Transmission Planning sections for the Technical Document. A few stakeholders suggested minor clarifying revisions and the FMWG has included these revisions in the document.

Resource Planning function and the Resource Planner entity in version 5 of the Functional Model Technical Document: The majority of stakeholders agree with the proposed revisions to the Resource Planner sections of the Functional Model. One stakeholder questioned the need for the Resource Planner in the Model because of a paucity of requirements in the standards for the Resource Planner. While it is true that there are currently few Reliability Standards that are uniquely applicable to Resource Planners, the FMWG considers the Resource Planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement. A couple of stakeholders suggested clarifying edits which the FMWG has made.

Terminology revisions (i.e. Entity Terminology, Entity Names and Entity Definitions, as identified in the Revision Summary of this document) in version 5 of the Functional Model Technical Document, and the proposal to achieve

consistency in the terms used in the Function Model and other NERC documents:

The majority of commenters agreed with the proposed changes.

Commenters that disagreed generally proposed that Version 5 should address current NERC issues, including:

- defining the term Directive
- the long-term solution of LSEs in retail choice jurisdictions

The FMWG disagrees, believing that such issues need to be addressed outside of the Model through the Standard Development Process. Commenters identified instances where the Model retains inappropriate references to "responsibility" - the FMWG agrees and made the recommended changes. The FMWG will make changes to the table summarizing the terminology changes, in response to a commenter that identified the need for additional clarity.

Other Comments on the Functional Model technical Document:

(1) Several commenters reiterated their comments provided under Question 6. These comments addressed issues in the Functional Model as well as the Technical Document. We thank the commenters for reiterating their inputs, and suggest that they review our responses provided in the Summary Consideration under Question 6.

(2) Several commenters suggested that the discussion in the Technical Document inappropriately focuses on certain topics, Functional Entities and market structures while there is little discussion on some other topics. This is intentional since the Technical Document is intended to provide additional information to help explain certain aspects of the Model which, in our view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. For example, the FMWG observed that the industry appeared to be quite confused with the roles of Load-Serving Entity and Distribution Provider, and the role of the Transmission Owner in providing the facilities and implementing load shedding. For this reason, the Technical Document was expanded to provide a rather comprehensive discussion to provide readers with a broader picture of the various entities' role in these areas. Further, the Model provides an overview of the relationship (interactions) among Functional Entities and between them and other market participants. As such, it is inevitable that the Technical Document also describes some of the interfaces between reliability and market domains.

(3) Several commenters suggested the Functional Model should include only those Functional Entities that exist, i.e. those that are in the NERC registry and must perform reliability tasks that directly impact the BES. While the Functional Model is regarded as a guide for standard development, its original scope and intent are to provide a general description of the tasks that need to be performed to ensure reliability and the interactions among market participants that may have an impact on reliability. Consistent with this intent, the Model includes functions and Functional Entities such as the standard development and reliability assurance functions and their respective Functional Entities (Standard Developer and Reliability Assurer) as their associated tasks are needed to ensure reliability although no standards are currently written to hold these entities responsible for complying. Further, in providing a full picture of the reliability domain which includes its interface with the market domain, the Model needs to include the Market Operator to show its relationship with the Balancing Authority.

As indicated in the Introduction Section, Standards Developers are not required to include tasks envisioned in the model, nor are the Standard Developers precluded from developing Reliability Standards that are not described in the Model. When developed, standards will stipulate which entity is held accountable for meeting requirements, which in turn drives the need for entity registration. The Functional Model does not drive this, and hence it is not necessary that all Functional Entities defined in the Model to be on the NERC registry.

(4) Several commenters observed some inconsistency in the use of the term "Bulk Electric System" used in the Technical Document and the term "Bulk Power System" used in the Functional Model Document. We have reviewed both documents, and changed all "Bulk Power System" terms to Bulk Electric System".

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net.

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Consideration of Comments on Functional Model Technical Document — Version 5

The Industry Segments are:

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

		Commenter	Organization	Industry Segment											
				1	2	3	4	5	6	7	8	9	10		
1.	Group	Guy Zito	Northeast Power Coordinating Council												X
Additional Member		Additional Organization		Region		Segment Selection									
1.	Ralph Rufrano	New York Power Authority		NPCC	5										
2.	Alan Adamson	New York State Reliability Council		NPCC	10										
3.	Gregory Campoli	New York Independent System Operator		NPCC	2										
4.	Roger Champagne	Hydro-Quebec TransEnergie		NPCC	2										
5.	Kurtis Chong	Independent Electricity System Operator		NPCC	2										
6.	Sylvain Clermont	Hydro-Quebec TransEnergie		NPCC	1										
7.	Manuel Couto	National Grid		NPCC	1										
8.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.		NPCC	1										
9.	Brian Evans-Mongeon	Utility Services		NPCC	8										
10.	Mike Garton	Dominion Resources Services, Inc.		NPCC	5										
11.	Brian L. Gooder	Ontario Power Generation Incorporated		NPCC	5										
12.	Kathleen Goodman	ISO - New England		NPCC	2										
13.	David Kiguel	Hydro One Networks Inc.		NPCC	1										

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	Commenter	Organization	Industry Segment																	
			1	2	3	4	5	6	7	8	9	10								
14. Michael R. Lombardi	Northeast Utilities	NPCC	1																	
15. Randy MacDonald	New Brunswick System Operator	NPCC	2																	
16. Greg Mason	Dynegy Generation	NPCC	5																	
17. Bruce Metruck	New York Power Authority	NPCC	6																	
18. Chris Orzel	FPL Energy/NextEra Energy	NPCC	5																	
19. Robert Pellegrini	The United Illuminating Company	NPCC	1																	
20. Michael Schiavone	National Grid	NPCC	1																	
21. Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3																	
22. Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10																	
23. Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10																	
2.	Group	Jalal Babik	Electric Market Policy	X		X		X	X											
Additional Member Additional Organization Region Segment Selection																				
1.	Louis Slade	SERC	5																	
2.	William Bigdely	System Planning	SERC	NA																
3.	Group	Philip R. Kleckley	SERC Planning Standards Subcommittee	X		X														X
Additional Member Additional Organization Region Segment Selection																				
1.	Bob Jones	Southern Company Services	SERC	1																
2.	David Marler	Tennessee Valley Authority	SERC	1																
3.	John Sullivan	Ameren Services Company	SERC	1																
4.	Charles Long	Entergy	SERC	1																
5.	James Manning	North Carolina Electric Membership Corporation	SERC	3																
6.	Pat Huntley	SERC Reliability Corporation	SERC	10																
4.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X											
Additional Member Additional Organization Region Segment Selection																				
1.	Doug Hohlbaugh	FE	RFC																	
2.	Rob Martinko	FE	RFC																	

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	Commenter	Organization	Industry Segment																	
			1	2	3	4	5	6	7	8	9	10								
3.	Dave Folk	FE	RFC																	
5.	Group	Carol Gerou	NERC Standards Review Subcommittee																	X
Additional Member				Additional Organization		Region		Segment Selection												
1.	Joe DePoorter	Madison Gas & Electric	MRO	3, 4, 5, 6																
2.	Neal Balu	WPS Corporation	MRO	3, 4, 5, 6																
3.	Terry Bilke	Midwest ISO Inc.	MRO	2																
4.	Ken Goldsmith	Alliant Energy	MRO	4																
5.	Jim Haigh	Western Area Power Administration	MRO	1, 6																
6.	Terry Harbour	MidAmerican Energy Company	MRO	3, 5, 6, 1																
7.	Joe Knight	Great River Energy	MRO	1, 3, 5, 6																
8.	Alice Murdock	Xcel Energy	MRO	1, 3, 5, 6																
9.	Scott Nickels	Rochester Public Utilities	MRO	4																
10.	David Rudolph	Basin Electric Power Cooperative	MRO	1, 3, 5, 6																
11.	Eric Ruskamp	Lincoln Electric System	MRO	1, 3, 5, 6																
6.	Group	Denise Koehn	Bonneville Power Administration	X		X		X	X											
Additional Member				Additional Organization		Region		Segment Selection												
1.	Gordon Markley	Tx Customer Service Engineering	WECC	1																
2.	Wes Hutchison	Tx Operational Analysis & Support	WECC																	
3.	Steve Larson	Legal	WECC	1																
7.	Group	Ben Li	IRC Standards Review Committee		X															
Additional Member				Additional Organization		Region		Segment Selection												
1.	James Castle	NYISO	NPCC	2																
2.	Lourdes Estrada-Saliner	CAISO	WECC	2																
3.	Charles Yeung	SPP	SPP	2																
4.	Bill Phillips	MISO	MRO	2																
5.	Matt Goldberg	ISO-NE	NPCC	2																

Consideration of Comments on Functional Model Technical Document — Version 5

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			1	2	3	4	5	6	7	8	9	10								
6.	Patrick Brown	PJM	RFC	2																
7.	Steve Myers	ERCOT	ERCOT	2																
8.	Individual	Linda Perez	WECC Reliability Coordination																	X
9.	Individual	Hugh Francis	Southern Company	X		X		X												
10.	Individual	William Gallagher	Transmission Access Policy Study Group	X		X	X	X	X											
11.	Individual	Karl Kohlrus	City Water, Light & Power - Springfield, IL	X		X		X												
12.	Individual	Steve Alexanderson	Central Lincoln			X														
13.	Individual	Patti Metro	National Rural Electric Cooperative Association																	
14.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X											
15.	Individual	Frank Gaffney	Florida Municipal Power Agency (FMPA)	X		X	X	X											X	
16.	Individual	Kathleen Goodman	ISO New England, Inc		X															
17.	Individual	John Brockhan	CenterPoint Energy	X																
18.	Individual	Jason Shaver	American Transmission Company	X																
19.	Individual	Dan Rochester	Independent Electricity System Operator		X															
20.	Individual	Dave Sutherland	LCRA Transmission Services Corporation	X																

Consideration of Comments on Functional Model Technical Document — Version 5

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
21.	Individual	Tom Bradish	RRI Energy					X	X					
22.	Individual	Tom Hawley	Wisconsin Electric Power Company (d/b/a We Energies)			X	X	X						
23.	Individual	Darryl Curtis	Oncor Electric Delivery	X										
24.	Individual	David Kiguel	Hydro One Networks Inc.	X		X								
25.	Individual	Laura Lee	Duke Energy	X		X		X	X					
26.	Individual	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	X										
27.	Individual	Allen Mosher	American Public Power Association	X		X	X	X	X					
28.	Individual	Jason Snodgrass	Georgia Transmission Corporation	X										

1. Do you agree with the proposed revisions to the Interchange function and Interchange Coordinator responsible entity in version 5 of the Functional Model? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: Many commenters agreed with the revisions and suggested some alternative language as well as the inclusion of defined terms relating to Interchange (Confirmed Interchange, Arranged Interchange, etc). The FMWG agrees and has included the use of these terms in the model. Other commenters suggested that the FMWG coordinate with the Coordinate Interchange Standard Drafting Team (project 2008-12). The FMWG notes that we have been in contact with the drafting team and will continue to work them as they revise the INT set of standards.

Organization	Yes or No	Question 1 Comment
Oncor Electric Delivery		No Comment
WECC Reliability Coordination		No Comment from the WECC RC. The WECC IA will comment.
American Transmission Company		This change will result in changes to existing reliability standards that use Interchange Authority and Section 500 of NERC’s Rules of Procedure. The Team should acknowledge this fact in the Functional Model so everyone understands the impact.
<p>Response: The FMWG Thanks you for your comment. FMWG was aware that changes would need to be made to INT Standards. FMWG has spoken to the INT Standards Drafting Team regarding incorporating the changes into their work. If this is not possible, FMWG will institute a SAR for the change. This has been reviewed with the Standards Committee.</p>		
IRC Standards Review Committee	No	<p>1. Balancing Function Bullet 10, we believe the BA should be comparing what they have implemented with the actual interchange; so “Confirmed Interchange” should be replaced with “Implemented Interchange”.</p> <p>Response: Task 10 is to “Provide balancing and energy accounting...” which requires Confirmed, implemented and actual interchange. We have added Implemented Interchange to task 10.</p> <p>2. Balancing Authority entity Bullets 3 and 16 are very similar and based on the following rationale we recommend that bullet 3 be removed. Since the BA “receives” this information from the IC we compared the language in Bullet 3 to the corresponding language under the Interchange Coordinator and while the concepts of interchange being valid and balanced are there, there is no action listed for the IC to provide the data as defined in Bullet 3. The data that is received in Bullet 16 will end up being the Confirmed Interchange which, by the tasks that occur in the Interchange area, must be valid and balanced.</p> <p>Response: We agree. We have combined these two items as one: “Receives final approval or denial of a request for</p>

Organization	Yes or No	Question 1 Comment
		<p>an Arranged Interchange from the Interchange Coordinator”.</p> <p>3. Balancing Authority entity bullet 32: This is an example where the generic term in the previous version is easier to understand and where the standard should be left to provide the additional details. A curtailment can occur on a Confirmed Interchange or an Implemented Interchange. In both cases, the curtailment would be initiated as an Arranged Interchange that is going through the approval process. The BA would actually have to receive and approve the Arranged Interchange associated with the curtailment, so referring to receiving the Confirmed Interchange doesn't tell the whole story. We would recommend leaving the previous language.</p> <p>Response: We have revised it to include Implemented Interchange. The language in the previous version (Interchange Schedule) did not cover the case where curtailment occurs to a Confirmed Interchange (i.e., curtailed before it starts).</p> <p>4. Balancing Authority entity bullet 33: If the generic terminology is not maintained, then the language should be modified to reflect that the BA will verify that their Implemented Interchange matches the Interchange Coordinator's Confirmed Interchange.</p> <p>Response: We have revised it to “Confirms Implemented Interchange with Confirmed Interchange provided by the Interchange Coordinators after the hour for “checkout.”</p> <p>5. Balancing Authority entity bullet 34: If the generic terminology is not maintained, then the language should be modified to reflect that the BAs will be verifying their respective Implemented Interchange, not the Confirmed Interchange.</p> <p>Response: We have revised it to: “Confirms Implemented Interchange and Confirmed Interchange with adjacent Balancing Authorities after the hour for “checkout.”.</p> <p>6. Interchange Function bullet 3, Comment 1: The task to “coordinate” does not need to be a separate item. All the other tasks list all the aspects of coordinating separately. Therefore, this bullet could be removed.</p> <p>Response: The task is still valid however the word “disseminate” will be removed from Bullet 3 since this is covered in other bullets as pointed out.</p> <p>7. Interchange Coordinator bullet 1: Recommend rephrasing to use “Receives Arranged Interchange from Purchasing-Selling and Load Serving Entities”. The word “implement” is used to reflect the BA “implementing” the Confirmed Interchange and seems confusing to use for this timeframe.</p> <p>Response: We have changed language per proposal for Bullet 1.</p> <p>8. Interchange Coordinator bullet 5: Bullet 11 of RC still has the RC “receiving” this information from the Interchange Coordinator. Suggest either leaving Reliability Coordinator here or removing Bullet 11 under RC. If it is the BA that is supposed to provide this information to the RC, then bullet 11 on the RC should be changed to the BA and an items</p>

Organization	Yes or No	Question 1 Comment
		<p>must be added to the BA to provide that information to the RC Ahead of Time.</p> <p>Response: We have changed language per proposal for Bullet 5.</p> <p>9. Interchange Coordinator bullet 6, 7, 8: Curtailments seem to be referred to in different ways for the different entities and it is confusing. We would suggest that the model just use the generation phrasing that was in the previous version of the model and let the different standards address the process flow associated with the various states of “interchange”.</p> <p>Response: We have retained the language that we propose for version 5. The FMWG believes this provides better clarity of the tasks and relationships.</p> <p>10. TSP Entity bullet 5: Suggest including a reference to the Interchange transaction in some manner because the TSP does not provide transmission service approval to the IC, only confirmation that the OASIS information utilized on the Arranged Interchange is valid. For example, “Confirms to Interchange Coordinator that transmission service reservations as utilized on the Arranged Interchange (or Interchange Schedules) are valid.”</p> <p>Response: We have revised the item to: Confirms validity of transmission service requests indicated in the Arranged Interchange with Interchange Coordinators.</p> <p>11. TSP Entity bullet 8: Suggest keeping the original generic language and replacing implementation with confirmation. The IC does not send implementation information. Alternately, suggest using language similar to BA item 32.</p> <p>Response: We have revised it to “Receives Confirmed Interchange revisions (including curtailments) from the Interchange Coordinators.” and made a conforming change to the Interchange Coordinator entity (task 8)</p> <p>12. PSE Function bullet 2, 4: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: A Request for Interchange may not be a complete end-to-end transaction. The idea in these tasks is to focus not on partial transactions but on the completed Arranged Interchange. Once the complete end-to-end transaction is in a shape to submit to an IC it is Arranged. That Arranged Interchange is submitted to the IC for confirmation that all the parts are indeed agreed to by all parties. Thus the Request is not part of the FM, whereas the Arranged Interchange is. Success of submission is not the relevant issue. Indeed an Arranged Interchange may not be submitted to an IC. In such a case the PSE would have curtailed its own work.</p> <p>13. PSE Entity bullet 1: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. “as applicable to develop a Request for Interchange”.</p> <p>Response: Task 1 is an explanation of what a PSE does in advance. Its origin is in explaining one fundamental role</p>

Organization	Yes or No	Question 1 Comment
		<p>of the PSE. It is neither a definition of a Requested Interchange nor is it a definition of an Arranged Interchange, it is a definition of what a PSE does. We have revised this to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>14. PSE Entity bullet 2: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange . Suggest “Submits Request For Interchange to Interchange Coordinator”.</p> <p>Response: We agree and have made the requested revision.</p> <p>15. PSE Entity bullet 6: We suggest that the generic terminology in the previous version is more appropriate. If the generic terminology is not maintained, should consider including Implemented Interchange curtailments as anything that the BA has implemented is no longer a Confirmed Interchange so curtailments can occur on both Confirmed and Implemented Interchange.</p> <p>Response: We concur and have revised this to: “Notifies Interchange Coordinators of Confirmed Interchange and Implemented Interchange cancellations or terminations.”</p> <p>16. LSE function bullet 6, 8: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: We have revised item 6 to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>We have revised item 8 (now item 7) to: “Submits Requests For Interchange to Interchange Coordinators.”</p>
<p>Response: The FMWG Thanks you for your comment. Please see responses above.</p>		
ISO New England, Inc	No	<p>1. Balancing Function Bullet 10, we believe the BA should be comparing what they have implemented with the actual interchange; so “Confirmed Interchange” should be replaced with “Implemented Interchange”.</p> <p>Response: Task 10 is to “Provide balancing and energy accounting...” which requires Confirmed, implemented and actual interchange. We have added Implemented Interchange to task 10.</p> <p>2. Balancing Authority entity Bullets 3 and 16 are very similar and based on the following rationale we recommend that bullet 3 be removed. Since the BA “receives” this information from the IC we compared the language in Bullet 3 to the corresponding language under the Interchange Coordinator and while the concepts of interchange being valid and balanced are there, there is no action listed for the IC to provide the data as defined in Bullet 3. The data that is received in Bullet 16 will end up being the Confirmed Interchange which, by the tasks that occur in the Interchange area, must be valid and balanced.</p> <p>Response: We agree. We have combined these two items as one: “Receives final approval or denial of a request for</p>

Organization	Yes or No	Question 1 Comment
		<p>an Arranged Interchange from the Interchange Coordinator”.</p> <p>3. Balancing Authority entity bullet 32: This is an example where the generic term in the previous version is easier to understand and where the standard should be left to provide the additional details. A curtailment can occur on a Confirmed Interchange or an Implemented Interchange. In both cases, the curtailment would be initiated as an Arranged Interchange that is going through the approval process. The BA would actually have to receive and approve the Arranged Interchange associated with the curtailment, so referring to receiving the Confirmed Interchange doesn't tell the whole story. We would recommend leaving the previous language.</p> <p>Response: We have revised it to include Implemented Interchange. The language in the previous version (Interchange Schedule) did not cover the case where curtailment occurs to a Confirmed Interchange (i.e., curtailed before it starts).</p> <p>4. Balancing Authority entity bullet 33: If the generic terminology is not maintained, then the language should be modified to reflect that the BA will verify that their Implemented Interchange matches the Interchange Coordinator's Confirmed Interchange.</p> <p>Response: We have revised it to “Confirms Implemented Interchange with Confirmed Interchange provided by the Interchange Coordinators after the hour for “checkout.”</p> <p>5. Balancing Authority entity bullet 34: If the generic terminology is not maintained, then the language should be modified to reflect that the BAs will be verifying their respective Implemented Interchange, not the Confirmed Interchange.</p> <p>Response: We have revised it to: “Confirms Implemented Interchange and Confirmed Interchange with adjacent Balancing Authorities after the hour for “checkout.”.</p> <p>6. Interchange Function bullet 3, Comment 1: The task to “coordinate” does not need to be a separate item. All the other tasks list all the aspects of coordinating separately. Therefore, this bullet could be removed.</p> <p>Response: The task is still valid however the word “disseminate” will be removed from Bullet 3 since this is covered in other bullets as pointed out.</p> <p>7. Interchange Coordinator bullet 1: Recommend rephrasing to use “Receives Arranged Interchange from Purchasing-Selling and Load Serving Entities”. The word “implement” is used to reflect the BA “implementing” the Confirmed Interchange and seems confusing to use for this timeframe.</p> <p>Response: We have changed language per proposal for Bullet 1.</p> <p>8. Interchange Coordinator bullet 5: Bullet 11 of RC still has the RC “receiving” this information from the Interchange Coordinator. Suggest either leaving Reliability Coordinator here or removing Bullet 11 under RC. If it is the BA that is supposed to provide this information to the RC, then bullet 11 on the RC should be changed to the BA and an items</p>

Organization	Yes or No	Question 1 Comment
		<p>must be added to the BA to provide that information to the RC Ahead of Time.</p> <p>Response: We have changed language per proposal for Bullet 5.</p> <p>9. Interchange Coordinator bullet 6, 7, 8: Curtailments seem to be referred to in different ways for the different entities and it is confusing. We would suggest that the model just use the generation phrasing that was in the previous version of the model and let the different standards address the process flow associated with the various states of “interchange”.</p> <p>Response: We have retained the language that we propose for version 5. The FMWG believes this provides better clarity of the tasks and relationships.</p> <p>10. TSP Entity bullet 5: Suggest including a reference to the Interchange transaction in some manner because the TSP does not provide transmission service approval to the IC, only confirmation that the OASIS information utilized on the Arranged Interchange is valid. For example, “Confirms to Interchange Coordinator that transmission service reservations as utilized on the Arranged Interchange (or Interchange Schedules) are valid.”</p> <p>Response: We have revised the item to: Confirms validity of transmission service requests indicated in the Arranged Interchange with Interchange Coordinators.</p> <p>11. TSP Entity bullet 8: Suggest keeping the original generic language and replacing implementation with confirmation. The IC does not send implementation information. Alternately, suggest using language similar to BA item 32.</p> <p>Response: We have revised it to “Receives Confirmed Interchange revisions (including curtailments) from the Interchange Coordinators.” and made a conforming change to the Interchange Coordinator entity (task 8)</p> <p>12. PSE Function bullet 2, 4: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: A Request for Interchange may not be a complete end-to-end transaction. The idea in these tasks is to focus not on partial transactions but on the completed Arranged Interchange. Once the complete end-to-end transaction is in a shape to submit to an IC it is Arranged. That Arranged Interchange is submitted to the IC for confirmation that all the parts are indeed agreed to by all parties. Thus the Request is not part of the FM, whereas the Arranged Interchange is. Success of submission is not the relevant issue. Indeed an Arranged Interchange may not be submitted to an IC. In such a case the PSE would have curtailed its own work.</p> <p>13. PSE Entity bullet 1: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. “as applicable to develop a Request for Interchange”.</p> <p>Response: Task 1 is an explanation of what a PSE does in advance. Its origin is in explaining one fundamental role of the PSE. It is neither a definition of a Requested Interchange nor is it a definition of an Arranged Interchange, it is a</p>

Organization	Yes or No	Question 1 Comment
		<p>definition of what a PSE does. We have revised this to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>14. PSE Entity bullet 2: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange . Suggest “Submits Request For Interchange to Interchange Coordinator”.</p> <p>Response: We agree and have made the requested revision.</p> <p>15. PSE Entity bullet 6: We suggest that the generic terminology in the previous version is more appropriate. If the generic terminology is not maintained, should consider including Implemented Interchange curtailments as anything that the BA has implemented is no longer a Confirmed Interchange so curtailments can occur on both Confirmed and Implemented Interchange.</p> <p>Response: We concur and have revised this to: “Notifies Interchange Coordinators of Confirmed Interchange and Implemented Interchange cancellations or terminations.”</p> <p>16. LSE function bullet 6, 8: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: We have revised item 6 to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>We have revised item 8 to: “Submits Requests For Interchange to Interchange Coordinators.”</p>
<p>Response: The FMWG Thanks you for your comment. Please see responses above.</p>		
Independent Electricity System Operator	No	<p>1. Interchange Function bullet 3, Comment 1: The task to “coordinate” does not need to be a separate item. All the other tasks list all the aspects of coordinating separately. Therefore, this bullet could be removed.</p> <p>Response: The task is still valid however the word “disseminate” will be removed from Bullet 3 since covered in other bullets as pointed out.</p> <p>2. Interchange Coordinator bullet 1: Recommend rephrasing to use “Receives Arranged Interchange from Purchasing-Selling and Load Serving Entities”. The word “implement” is used to reflect the BA “implementing” the Confirmed Interchange and seems confusing to use for this timeframe.</p> <p>Response: We have changed language per proposal for Bullet 1.</p> <p>3. Interchange Coordinator bullet 5: Bullet 11 of RC still has the RC “receiving” this information from the Interchange Coordinator. Suggest either leaving Reliability Coordinator here or removing Bullet 11 under RC. If it is the BA that is supposed to provide this information to the RC, then bullet 11 on the RC should be changed to the BA and an items</p>

Organization	Yes or No	Question 1 Comment
		<p>must be added to the BA to provide that information to the RC Ahead of Time.</p> <p>Response: We have changed language per proposal for Bullet 5.</p> <p>4. Interchange Coordinator bullet 6, 7, 8: Curtailments seem to be referred to in different ways for the different entities and it is confusing. We would suggest that the model just use the generation phrasing that was in the previous version of the model and let the different standards address the process flow associated with the various states of “interchange”.</p> <p>Response: We have retained the language that we propose for version 5. The FMWG believes this provides better clarity of the tasks and relationships.</p> <p>5. The comments being provided with respect to the “interchange” items are to clarify/correct items based on the current model language. However, we believe it may be easier to utilize the generic Interchange Schedule term in places and leave it to the standards to clarify which “type” of interchange applies in each condition. For example, the model uses several different ways to describe when/how curtailments occur to transactions. Some places are referred to as Arranged interchanges, some places it is referred to as changes to Confirmed interface. If a more general description is used that standards can be more specific about which interchange state occurs at which points in the processes. .Another concern with using the specific interchange types is that unless all variations are discussed, the specific interchange mentioned could incorrect. For example, most actions that occur in Real time can occur on Confirmed Interchange or Implemented Interchange which would result in a new Arranged Interchange that must proceed through the reliability review process. The current language only talks a This level of detail of how the different types of interchange can be impacted over time should be left to be described in the standards. Attempting to use the specific terms in the general concepts of the model can be misleading, implying that other variations are not valid.</p> <p>Response: The terms Arranged Interchange, Confirmed Interchange, Implemented Interchange and Interchange Schedule are used to appropriately reflect the various stages of an interchange transaction from being arranged to being curtailed. The suggestion to use the generic term “Interchange Schedule” does not appropriately reflect the status of an interchange transaction that is being arranged or approved/denied. Further, Interchange Schedule is an agreed upon schedule between the source and sink Balancing Authorities, whereas Arranged Interchange and Confirmed Interchange are the intended and approved interchange transactions that have not yet become schedules. The status of the Interchange is important to define the relationships between the functional entities within the model. The Functional Model defines relationships and provides listing of tasks that justify those relationships. Only standards define mandated requirements.</p> <p>6. There are four states for Interchange and only two are mentioned in the model. We have provided comments where we believe the Request for Interchange and Implemented Interchange should be included if the detailed states of interchange are to be used in the model.</p>

Organization	Yes or No	Question 1 Comment
		<p>Response: Thank you for the inputs</p> <p>7. The statement “Receives final approval or denial of Confirmed Interchange from Interchange Coordinator” is used in RC, TSP, PSE and LSE. The comparable statement under the BA says “Receives final approval or denial of Arranged Interchange from Interchange Coordinator”. The statement used for the BA seems correct since a “Confirmed Interchange” is by definition approved and the statement in the RC, TSP, PSE and LSE should be modified from Confirmed to Arranged. Alternatively, the language could use the more generic phrase Interchange Schedule.</p> <p>Response: We have made the change to “Arranged Interchange” in the RC, TSP, PSE and LSE statements</p> <p>8. Pertaining to Interchange Function bullet 3, Comment 2: The statement “Approvals may be explicit or by exception” should be removed. The latest INT standards do not allow for approvals to be by exception, they must be explicit. If no explicit approval is given, the entity is assumed to have denied the request not approved it.</p> <p>Response: The Functional Model does not stipulate reliability requirements; the standards do. We have removed the sentence that you reference</p> <p>9. Pertaining to Interchange Function bullet 6: The term “Reliability Assessment Systems” is no longer a defined term. Suggest using the terminology added to bullet 5 of the Interchange Coordinator “NERC identified reliability analysis services.</p> <p>Response: We have revised this term to “the appropriate reliability assessment tools”.</p> <p>10. Section I.7 states “All bilateral Interchange Transactions that cross a Balancing Authority Area boundary are coordinated through the Interchange Coordinator.” Does Version 5 contemplate something akin to an Eastern Interchange Coordinator” Currently, there is no single entity above the ISO/RTO level arranging such interchange. So, who would have approval and curtailment authority over a transaction originating in Canada under IMO, crossing the border into PJM, then crossing NY under the NYISO for an LSE located in New England under ISO-NE?</p> <p>Response: The Functional Model Interchange Coordinator has always been contemplated to handle the Interchange between the true source and sink balancing areas. Thus the model is flexible enough to cover the situation of an interconnection wide IC.</p>
<p>Response: The FMWG Thanks you for your comment. Please see responses above.</p>		
Northeast Power Coordinating Council	No	<p>1. Balancing Function Bullet 10, we believe the BA should be comparing what they have implemented with the actual interchange; so “Confirmed Interchange” should be replaced with “Implemented Interchange”.</p> <p>Response: Task 10 is to “Provide balancing and energy accounting...” which requires Confirmed, implemented and actual interchange. We have added Implemented Interchange to task 10.</p>

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		<p>2. Balancing Authority entity Bullets 3 and 16 are very similar and based on the following rationale we recommend that bullet 3 be removed. Since the BA “receives” this information from the IC we compared the language in Bullet 3 to the corresponding language under the Interchange Coordinator and while the concepts of interchange being valid and balanced are there, there is no action listed for the IC to provide the data as defined in Bullet 3. The data that is received in Bullet 16 will end up being the Confirmed Interchange which, by the tasks that occur in the Interchange area, must be valid and balanced.</p> <p>Response: We agree. We have combined these two items as one: “Receives final approval or denial of a request for an Arranged Interchange from the Interchange Coordinator”.</p> <p>3. Balancing Authority entity bullet 32: This is an example where the generic term in the previous version is easier to understand and where the standard should be left to provide the additional details. A curtailment can occur on a Confirmed Interchange or an Implemented Interchange. In both cases, the curtailment would be initiated as an Arranged Interchange that is going through the approval process. The BA would actually have to receive and approve the Arranged Interchange associated with the curtailment, so referring to receiving the Confirmed Interchange doesn’t tell the whole story. We would recommend leaving the previous language.</p> <p>Response: We have revised it to include Implemented Interchange. The language in the previous version (Interchange Schedule) did not cover the case where curtailment occurs to a Confirmed Interchange (i.e., curtailed before it starts).</p> <p>4. Balancing Authority entity bullet 33: If the generic terminology is not maintained, then the language should be modified to reflect that the BA will verify that their Implemented Interchange matches the Interchange Coordinator’s Confirmed Interchange.</p> <p>Response: We have revised it to: Confirms Implemented Interchange with Confirmed Interchange provided by the Interchange Coordinators after the hour for “checkout.”</p> <p>5. Balancing Authority entity bullet 34: If the generic terminology is not maintained, then the language should be modified to reflect that the BAs will be verifying their respective Implemented Interchange, not the Confirmed Interchange.</p> <p>Response: We have revised it to: Confirms Implemented Interchange and Confirmed Interchange with adjacent Balancing Authorities after the hour for “checkout.”</p> <p>6. Interchange Function bullet 3, Comment 1: The task to “coordinate” does not need to be a separate item. All the other tasks list all the aspects of coordinating separately. Therefore, this bullet could be removed.</p> <p>Response: The task is still valid however the word “disseminate” will be removed from Bullet 3 since covered in other bullets as pointed out.</p> <p>7. Interchange Coordinator bullet 1: Recommend rephrasing to use “Receives Arranged Interchange from</p>

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		<p>Purchasing-Selling and Load Serving Entities”. The word “implement” is used to reflect the BA “implementing” the Confirmed Interchange and seems confusing to use for this timeframe.</p> <p>Response: We have changed language per proposal for Bullet 1.</p> <p>8. Interchange Coordinator bullet 5: Bullet 11 of RC still has the RC “receiving” this information from the Interchange Coordinator. Suggest either leaving Reliability Coordinator here or removing Bullet 11 under RC. If it is the BA that is supposed to provide this information to the RC, then bullet 11 on the RC should be changed to the BA and an items must be added to the BA to provide that information to the RC Ahead of Time.</p> <p>Response: We have changed language per proposal for Bullet 5.</p> <p>9. Interchange Coordinator bullet 6, 7, 8: Curtailments seem to be referred to in different ways for the different entities and it is confusing. We would suggest that the model just use the generation phrasing that was in the previous version of the model and let the different standards address the process flow associated with the various states of “interchange”.</p> <p>Response: We have retained the language that we propose for version 5. The FMWG believes this provides better clarity of the tasks and relationships.</p> <p>10. TSP Entity bullet 5: Suggest including a reference to the Interchange transaction in some manner because the TSP does not provide transmission service approval to the IC, only confirmation that the OASIS information utilized on the Arranged Interchange is valid. For example, “Confirms to Interchange Coordinator that transmission service reservations as utilized on the Arranged Interchange (or Interchange Schedules) are valid.”</p> <p>Response: We have revised the item to: Confirms validity of transmission service requests indicated in the Arranged Interchange with Interchange Coordinators.</p> <p>11. TSP Entity bullet 8: Suggest keeping the original generic language and replacing implementation with confirmation. The IC does not send implementation information. Alternately, suggest using language similar to BA item 32.</p> <p>Response: We have revised it to “Receives Confirmed Interchange curtailments from the Interchange Coordinators.” and made a conforming change to the Interchange Coordinator entity (task 8)</p> <p>12. PSE Function bullet 2, 4: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: A Request for Interchange may not be a complete end-to-end transaction. The idea in these tasks is to focus not on partial transactions but on the completed Arranged Interchange. Once the complete end-to-end transaction is in a shape to submit to an IC it is Arranged. That Arranged Interchange is submitted to the IC for confirmation that all the parts are indeed agreed to by all parties. Thus the Request is not part of the FM, whereas the</p>

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		<p>Arranged Interchange is. Success of submission is not the relevant issue. Indeed an Arranged Interchange may not be submitted to an IC. In such a case the PSE would have curtailed its own work.</p> <p>13. PSE Entity bullet 1: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. “as applicable to develop a Request for Interchange”.</p> <p>Response: Task 1 is an explanation of what a PSE does in advance. Its origin is in explaining one fundamental role of the PSE. It is neither a definition of a Requested Interchange nor is it a definition of an Arranged Interchange it is a definition of what a PSE does. We have revised this to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>14. PSE Entity bullet 2: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange . Suggest “Submits Request For Interchange to Interchange Coordinator”.</p> <p>Response: We agree and have made the requested revision.</p> <p>15. PSE Entity bullet 6: We suggest that the generic terminology in the previous version is more appropriate. If the generic terminology is not maintained, should consider including Implemented Interchange curtailments as anything that the BA has implemented is no longer a Confirmed Interchange so curtailments can occur on both Confirmed and Implemented Interchange.</p> <p>Response: We concur and have revised this to: Notifies Interchange Coordinators of Confirmed Interchange and Implemented Interchange cancellations or terminations.</p> <p>16. LSE function bullet 6, 8: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: We have revised item 6 to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>We have revised item 8 to: “Submits Requests For Interchange to Interchange Coordinators.”</p>
<p>Response: The FMWG Thanks you for your comment. Please see responses above.</p>		
Southern Company	No	<p>Interchange transactions are a marketing function. The reliability function for interchange is between Balancing Authorities. The working group should consider removing the Interchange Authority or Interchange Coordinator from the Functional Model and move the Interchange compliance responsibilities to the Balancing Authority. The functional model allows Balancing Authorities to delegate the Interchange Coordinator Responsibilities to a 3rd party if desired. If the Interchange function is not removed from the model all of the associated documents such as the registry documentation also needs to be revised at the same time. The Functional Model needs to reflect the Rules of</p>

Organization	Yes or No	Question 1 Comment
		Procedure.
<p>Response: The FMWG Thanks you for your comment. In its original work the FMWG identified many reliability related tasks and grouped these into functions; one of them being Interchange. Knowledge of interchange transactions is key to any system analysis done by BAs and RCs. Thus FMWG believes Interchange is still a viable function today. The model contemplates that the function can be done by an independent functional entity. Regarding the BA, the Functional Model was developed into logical reliability functions. Balancing was one such function in which resource plans are integrated ahead of time and load-interchange-transaction balance is maintained. Handling processing of Interchange Transactions is not part of the Balancing function.</p>		
Duke Energy	No	The Functional Model Working Group should coordinate its efforts with the Coordinate Interchange Standard Drafting Team (CISDT) to determine if this function should be removed. The responsibilities of the function can be applied to other functions in the model and therefore this entity is not needed. The current work by the CISDT does not reference the entity.
<p>Response: The FMWG Thanks you for your comment. The FMWG contends that this is a reliability task that should be included in the model. We are coordinating with the standard drafting team that is working on the Interchange Standards.</p>		
FirstEnergy	No	The Functional Model Working Group should coordinate its efforts with the Coordinate Interchange Standard Drafting Team (CISDT) to determine if this function should be removed. The responsibilities of the function can be applied to other functions in the model and therefore this entity is not needed. The current work by the CISDT does not reference the entity.
<p>Response: The FMWG Thanks you for your comment. The FMWG contends that this is a reliability task that should be included in the model. We are coordinating with the standard drafting team that is working on the Interchange Standards.</p>		
Bonneville Power Administration	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	

Organization	Yes or No	Question 1 Comment
Electric Market Policy	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
NERC Standards Review Subcommittee	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	
Wisconsin Electric Power Company (d/b/a We Energies)	Yes	
American Public Power Association	Yes	APPA supports the comments submitted by the Transmission Access Policy study Group on August 19, 2009. See additional comments below.
<p>Response: The FMWG Thanks you for your comment. See the response to the comments from the Transmission Access Policy Study Group below.</p>		

2. Do you agree with the proposed revisions to clarify the Planning Reliability function and the Planning Coordinator entity in version 5 of the Functional Model? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agree with the revisions to the Planning sections. Some commenters suggested minor edits that the FMWG included in the document.

Organization	Yes or No	Question 2 Comment
WECC Reliability Coordination		No comment from WECC RC for Planning Coordinator function.
NERC Standards Review Subcommittee	No	<p>A. For the “Function - Planning Reliability”, replace the title of “Planning Reliability” with “Planning Coordination” to be more consistent with the associated functional entity name, Planning Coordinator.</p> <p>B. For the “Functional Entity - Planning Coordinator”:</p> <ol style="list-style-type: none"> 1. Remove “protection systems” from the definition. Protection systems are not mentioned anywhere in the main document or technical document with respect to the Planning Coordinator functional entity or function. The coordination of protection systems are already covered by the Transmission Planner functional entity. 2. Add “Resource Planners” to Item 9 (provide plans to affected parties).
<p>Response: The FMWG Thanks you for your comment.</p> <p>A. Although the Function appears somewhat inconsistent with the Entity nomenclature, it is important to note that the Planning Coordinator performs more than simple passive coordinator tasks. As stated in task #3 of the Function, the Function includes evaluation, development and reporting on expansion plans including suggesting or facilitating the process for developing alternative plans to mitigate identified deficiencies. The Function allows for an active overview of various transmission and resources plans.</p> <p>B.1. The FMWG agrees that reference to protection systems was more fully detailed under the Transmission Planner. Reference to protection systems has been removed from the definition to avoid any confusion with the Transmission Planner’s role. In addition it is assumed that any unique or special protection system would be submitted and concerned with the transmission facility and service plans being coordinated, facilitated, integrated and evaluated.</p> <p>B.2. The FMWG reviewed the reliability need for item 9 and believes that this task is an inherent part of the planning process and does not need to be an explicit task in the model. We have removed item 9 from the Planning Coordinator tasks.</p>		
Florida Municipal Power Agency (FMPA)	Yes	FMPA supports changes to the Functional Model and the Functional Model technical document to make clear that PCs perform assessments but are not responsible for building facilities (which efforts are within the domain of other functions). In many areas, PCs do not have authority to ensure construction of facilities. The standards ought to be

Organization	Yes or No	Question 2 Comment
		changed to reflect this, e.g., the TPL standards still have requirements that can be interpreted as making Planning Coordinators responsible for building upgrades.
Response: The FMWG Thanks you for your comment.		
City Water, Light & Power - Springfield, IL	Yes	It was nice to see the Planning Coordinator back in the Functional Model
Response: The FMWG Thanks you for your comment.		
Transmission Access Policy Study Group	Yes	TAPS supports changes to the Functional Model and the Functional Model technical document to make clear that PCs perform assessments but are not responsible for building facilities (which efforts are within the domain of other functions). In many areas, PCs do not have authority to ensure construction of facilities.
Response: The FMWG Thanks you for your comment.		
American Public Power Association	Yes	Yes. See TAPS comments.
Response: The FMWG Thanks you for your comment. : Thank you for your support.		
Independent Electricity System Operator	Yes	We believe the information being referred to should be “existing and proposed (or committed)” to reflect the fact that the planning activity may necessarily have to include information for facilities that are not yet in existence but that are committed or perhaps proposed. So for example we propose “Existing and proposed transmission facility”?
Response: The FMWG Thanks you for your comment. References are made a number of times in the planning function/entity sections stating the studies/plans/facilities/etc, are for the “long-term (generally one year and beyond)”. The FMWG does not believe additional detailing is necessary.		
American Transmission Company	Yes	
Bonneville Power Administration	Yes	
Central Lincoln	Yes	

Organization	Yes or No	Question 2 Comment
Duke Energy	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
Hydro One Networks Inc.	Yes	
ISO New England, Inc	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Northeast Power Coordinating Council	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	
Southern Company	Yes	
Wisconsin Electric Power Company (d/b/a We Energies)	Yes	

3. Do you agree with the proposed revisions to clarify the Transmission Planning Reliability function and the Transmission Planner entity in version 5 of the Functional Model? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agree with the revisions to the Transmission Planning sections of the Functional Model. Two stakeholders suggested revisions that the FMWG did not agree with and therefore declined to include. We have revised the first sentence of item 5 of the “Function - Transmission Planning” as suggested to: “Evaluate, develop, document, and report on expansion plans for the Transmission Planner Area.”

Organization	Yes or No	Question 3 Comment
WECC Reliability Coordination		No comment by the WECC RC.
NERC Standards Review Subcommittee	No	<p>For the “Function - Transmission Planning”:</p> <p>A. Add a new item “12: Provides its expansion transmission plans to affected Reliability Assurers, Transmission Planners, Planning Coordinators, Transmission Owners, Transmission Operators, Resource Planners, and Transmission Service Providers.”</p> <p>B. Remove the references to developing, documenting, reporting, and monitoring resource plans. These are Resource Planning functions.</p> <p>For the “Functional Entity “ Transmission Planner:</p> <p>A. Add a new item ?8: Provides its expansion transmission plans to affected Reliability Assurers, Transmission Planners, Planning Coordinators, Transmission Owners, Transmission Operators, Resource Planners, and Transmission Service Providers.”</p> <p>B. Remove the references to developing, documenting, reporting, and monitoring resource plans. These are Resource Planner relationships with other functional entities.</p>
<p>Response: The FMWG thanks you for your comment.</p> <p>Functional Model A: This task is an inherent part of the planning process and does not need to be an explicit task in the model. We have removed a similar task for the Planning Coordinator and will not add this item.</p> <p>B: We have revised the first sentence of item 5 to delete the reference to resource plans: Evaluate, develop, document, and report on expansion plans for the Transmission Planner Area.</p>		

Organization	Yes or No	Question 3 Comment
<p>Functional Entity A: This task is an inherent part of the planning process and does not need to be an explicit task in the model. We have removed a similar task for the Planning Coordinator and will not add this item.</p> <p>B: There are no references in the Functional Entity.</p>		
FirstEnergy	No	<p>Regarding Item 5 Pg. 28 under the Transmission Planner, we feel the use of the terms "network" and "configurations" is unnecessary since the "Bulk Power System" should adequately define the subset transmission system under the function of the Transmission Planner. Therefore, we suggest replacing the second sentence with the following: "Verify that the integrated plan meets Reliability Standards, and, if not, report on potential Bulk Power System conditions that do not meet reliability performance requirements and provide potential alternative solutions to meet performance requirements."</p>
<p>Response: The FMWG thanks you for your comment. There is currently much fluidity in what jurisdiction the FERC will have over the Bulk Electric System as the regions define it and as exists in the EAct 2005 legislation. Previously the FERC jurisdiction, as outlined in Order 888 relied on the "seven factor" distribution test to determine if parts of the network were distribution or transmission. This was only for the purposes of ratemaking. Now that FERC has entered into reliability and standards approving activities its previous jurisdiction boundaries have become somewhat vague. In order to keep the Functional Model aligned strictly with the performance of functions and tasks the FM was developed specifically to avoid this issue hence the use of the terms network and configurations as opposed to use of a largely vague term that is subject to varying interpretations of BPS. The FMWG believes that the existing language allows this flexibility and that there is no need to change it at this time nor would any additional value be gained from performing this change.</p>		
Independent Electricity System Operator	Yes	See comment to Q2.
<p>Response: The FMWG thanks you for your comment. Please see our response to Q2.</p>		
American Transmission Company	Yes	
Bonneville Power Administration	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	

Organization	Yes or No	Question 3 Comment
Duke Energy	Yes	
Electric Market Policy	Yes	
Florida Municipal Power Agency (FMPA)	Yes	
Hydro One Networks Inc.	Yes	
ISO New England, Inc	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Northeast Power Coordinating Council	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	
Southern Company	Yes	
Wisconsin Electric Power Company (d/b/a We Energies)	Yes	

4. Do you agree with the proposed revisions to clarify the Resource Planning function and the Resource Planner entity in version 5 of the Functional Model? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agree with the proposed revisions to the Resource Planner sections of the Functional Model. One stakeholder questioned the need for the Resource Planner in the Model because of a paucity of requirements in the standards for the Resource Planner. While it is true that there are currently few Reliability Standards that are uniquely applicable to Resource Planners, the FMWG considers the Resource Planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement.

Organization	Yes or No	Question 4 Comment
WECC Reliability Coordination		No comment by the WECC RC.
Response: The FMWG thanks you for your comment.		
FirstEnergy	No	The changes do not appear to clarify the Resource Planning function and feel that it should be reviewed further for its continued need. There appear to be few, if any, NERC reliability requirements that are uniquely applicable to RPs. Alternatively, the FMWG should consider SARs to establish reliability requirements uniquely applicable to RPs.
Response: The FMWG thanks you for your comment. While true that there are currently few Reliability Standards that are uniquely applicable to RPs, the FMWG considers the resource planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement.		
Independent Electricity System Operator	Yes	Bullet #1 Append for meeting resource adequacy requirements. Bullet #3 Insert “Develop and” before “Maintain” Bullet #4 Include d. transmission (interface) limits” since this will impact the amount of assistance that could be provided from outside the Resource Planner’s area (and even within its area). We recommend that there should be a task to develop and maintain a methodology for performing resource adequacy assessments. Also see comment to Q2.

Organization	Yes or No	Question 4 Comment
<p>Response: The Functional Model Working Group thanks you for your comments.</p> <p>#1 – revised item 1 to add “for assessing resource adequacy”. Using the word “meeting” is too prescriptive and implies a requirement.</p> <p>#3 – revised as suggested</p> <p>#4 - revised as suggested</p> <p>The FMWG does not feel we should include a task to develop and maintain a methodology as you suggested. This should be handled through standards or NERC Rules of Procedure.</p> <p>Please see response to question #2</p>		
Bonneville Power Administration	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Duke Energy	Yes	
Electric Market Policy	Yes	
Florida Municipal Power Agency (FMPA)	Yes	
Hydro One Networks Inc.	Yes	
ISO New England, Inc	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	

Organization	Yes or No	Question 4 Comment
National Rural Electric Cooperative Association	Yes	
NERC Standards Review Subcommittee	Yes	
Northeast Power Coordinating Council	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	
Southern Company	Yes	

5. Do you agree with the proposed terminology revisions in version 5 of the Functional Model (i.e. Entity Terminology, Entity Names and Entity Definitions, as identified in the Revision Summary of this document)? If no, please provide comments in support of your answer in the comment area.

Summary Consideration:

The majority of commenters agreed with the proposed changes.

Commenters that disagreed generally proposed that Version 5 should address current NERC issues, including:

- defining the term Directive
- the long-term solution of LSEs in retail choice jurisdictions

The FMWG disagrees, believing that such issues need to be addressed outside of the Model through the Standard Development Process.

Commenters identified instances where the Model retains inappropriate references to "responsibility" - the FMWG agrees and will make the recommended changes.

Organization	Yes or No	Question 5 Comment
American Transmission Company	No	ATC believes that the use of the term "directive" should be reviewed and if necessary changed. (See Rick Sergel's Letter included in the Standards Committee (SC) agenda for its August 13 conference call.) The term "directive" has traditionally been used in reference to an emergency situation not every-day "normal" communication. See the Reliability Coordinator (RC), Balancing Authority (BA), Transmission Operator (TOP) and Distribution Provide (DP) functions.
<p>Response: The FMWG thanks you for your comment. The FMWG recognizes the issue concerning the use of the term "directive", but views the resolution of this issue being a matter to be resolved within NERC's standards development and interpretation processes, not within the Functional Model. Following such resolution, the need for conforming changes to the Model will be considered.</p>		
CenterPoint Energy	No	CenterPoint Energy respectfully disagrees with the continued use of the term "Load-Serving Entity". The North American Electric Reliability Corporation ("NERC") should begin the process of adopting a long-term solution to the issues related to registration of Load Serving Entities ("LSEs"). The revision of the Functional Model is an opportunity for all interested entities to address the outstanding issues related to the LSE function. As the Federal Energy Regulatory Commission ("FERC") and NERC recognize, an effort is needed to determine through the standard review process if the LSE is the appropriate applicable entity for certain standards and requirements. CenterPoint Energy

Organization	Yes or No	Question 5 Comment
		<p>acknowledges that there are some standard requirements that are currently included in the LSE category that should be assigned to the Distribution Provider (“DP”) category. However, it is also true that some standard requirements that are assigned to the LSE category are not functions of DPs, and thus should be assigned to other registered entities. The Tasks identified for the Load Serving (“LS”) function and the Relationships with Other Functional Entities identified for the LSE must be reviewed further and a determination be made whether each should even be specified and whether each is correctly assigned. Each of the Tasks and Relationships should be appropriately assigned to the appropriate function and functional entity. By adding tasks and relationship responsibilities, the Functional Model Working Group (“FMWG”) has only exacerbated the existing problem.</p>
<p>Response: The FMWG thanks you for your comment. As indicated in the Technical Document (Section 10), NERC has agreed to undertake the development of a long-term solution to the registration and compliance aspects of the LSE and DP in retail choice jurisdictions. As noted in Section 10 (page 48 of clean version 5) of the Functional Model Technical Document, the FMWG, in declining to incorporate change to the LSE and DP in Version 5 states:</p> <ul style="list-style-type: none"> • the problem and its solution relate to registration, not the Tasks performed, and as such do not directly affect the Model; this is in keeping with the approach used for the Joint Registration Organization, which is defined for compliance purposes and not in the Model • the present solution is a short-term one, with the longer-term solution yet to be defined. 		
FirstEnergy	No	<p>On page 21 we suggest changing the function name from Planning Reliability to Reliability Planning Coordination to be consistent with the functional entity Planning Coordinator and the pattern used for the other functions (e.g. Reliability Assurance and Reliability Assurer, Reliability Operations and Reliability Coordinator) and adjust the graphic on page 9 to coincide with this change.</p>
<p>Response: The FMWG thanks you for your comment. Although the Function appears somewhat inconsistent with the Function nomenclature, it is important to note that the Planning Coordinator performs more than simple passive coordinator tasks. As stated in task #3 of the Function, the Function includes evaluation, development and reporting on expansion plans including suggesting or facilitating the process for developing alternative plans to mitigate identified deficiencies. The Function allows for an active overview of various transmission and resources plans.</p>		
NERC Standards Review Subcommittee	No	<p>The MRO NSRS doesn't believe that the terminology revisions will deliver the clarity that the FMWG intends. In the previous version of the Functional Model, when the term Responsible Entity was used, it was clear that if a company, any company, registered as a certain entity, they were accountable for all standards where this function was assigned but weren't necessary responsible for every assigned requirement.</p>
<p>Response: The FMWG thanks you for your comment. : The FMWG disagrees. The commenter's concerns with the use of the term responsible entity relate to registration and compliance matters. By removing the term responsible entity from the Model, it should be clear that resolution of the commenter's concerns are to occur outside of the Model.</p>		

Organization	Yes or No	Question 5 Comment
Transmission Access Policy Study Group	Yes	<p>Comments: TAPS supports the proposed use of Functional Entity, in lieu of Responsible Entity, in the Functional Model and associated Technical Document. To make the shift effective and complete, however, NERC needs to refrain from slipping back into the responsible entity terminology in describing what a functional entity is. For example, the Functional Model, page 8, properly defines Functional Entity as “The term used in the Functional Model which applies to a class of organization that carries out the Tasks within a Function” and page 30 of the Technical Document correctly states: “The Model assigns each Function to a functional entity, that is, the entity that performs the Function's Tasks.” See also page 62 of the Technical Document (asterisks added for emphasis) (The usage of “responsible” in Version 4 is derived from an earlier version of the Model. Version 4 clarified that the Model is limited to describing the *performance* of tasks, but not compliance aspects such as *responsibility* for such performance. Version 5 takes this clarification one step further by replacing the term “responsible” in the Model.). However, elsewhere, the Functional Model and Technical Document slip back into “responsible for” terminology. See, e.g., Functional Model, page 7 (asterisks added for emphasis) (The Model assigns each Function to a functional entity, that is, the entity *responsible* for ensuring the Function is performed.); Technical Document page 5 (asterisks in place of italics in original, underlining added) (On this basis, Version 5 goes one step further and eliminates reference to <u>_responsibility_</u> within the Model, replacing the term *responsible entity* with the term *functional entity*. In Version 5 of the Model, an entity is defined by the functions it is <u>_responsible_</u> for performing.). To avoid confusion, all “responsibility” references should be removed from the descriptions of the term Functional Entity, which should consistently be described as the entity that performs or carries out particular tasks.</p>
<p>Response: The FMWG thanks you for your comment. The FMWG agrees with the need to change the above two references. In the Model, p. 7, the cited text will be changed as follows " The Model assigns each Function to a functional entity, that is, the entity <u>that performs the Function</u> *responsible* for ensuring that ensures the Function is performed"</p> <p>The text in the Technical Document, p. 5 will be changed as follows: "In Version 5 of the Model, an entity is defined by the functions it <u>performs</u> is _responsible_ for performing.</p>		
Duke Energy	Yes	<p>Duke supports the change from responsible entity to functional entity, as this seems to help clarify that the Functional Model is describing the performance of tasks but not the compliance responsibility for the performance of the tasks. Duke also supports the change from Interchange Authority to Interchange Coordinator on the understanding that an errata change will be made to the Applicability section of the relevant standards and registered entities will not need to take actions to change their registration.</p>
<p>Response: The FMWG Thanks you for your comment.</p>		
Florida Municipal Power Agency (FMPA)	Yes	<p>FMPA supports the proposed use of Functional Entity, in lieu of Responsible Entity, in the Functional Model and associated Technical Document. To make the shift effective and complete, however, NERC needs to refrain from slipping back into the responsible entity terminology in describing what a functional entity is. For example, the</p>

Consideration of Comments on Functional Model Technical Document — Version 5

Organization	Yes or No	Question 5 Comment
		<p>Functional Model, page 8, properly defines Functional Entity as “The term used in the Functional Model which applies to a class of organization that carries out the Tasks within a Function” and page 30 of the Technical Document correctly states: “The Model assigns each Function to a functional entity, that is, the entity that performs the Function's Tasks.” See also page 62 of the Technical Document The usage of “responsible” in Version 4 is derived from an earlier version of the Model. Version 4 clarified that the Model is limited to describing the performance of tasks, but not compliance aspects such as responsibility for such performance. Version 5 takes this clarification one step further by replacing the term “responsible” in the Model.? However, elsewhere, the Functional Model and Technical Document slip back into “responsible for” terminology. See, e.g., Functional Model, page 7 “The Model assigns each Function to a functional entity, that is, the entity responsible for ensuring the Function is performed.”; Technical Document page 5 “On this basis, Version 5 goes one step further and eliminates reference to responsibility within the Model, replacing the term responsible entity with the term functional entity. In Version 5 of the Model, an entity is defined by the functions it is responsible for performing.” To avoid confusion, all “responsibility” references should be removed from the descriptions of the term Functional Entity, which should consistently be described as the entity that performs or carries out particular tasks.</p>
<p>Response: The FMWG thanks you for your comment. The FMWG agrees with the need to change the above two references. In the Model, p. 7, the cited text will be changed as follows " The Model assigns each Function to a functional entity, that is, the entity <u>that performs the Function</u> *responsible* for ensuring that ensures the Function is performed"</p> <p>The text in the Technical Document, p. 5 will be changed as follows: "In Version 5 of the Model, an entity is defined by the functions it <u>performs</u> is responsible for performing."</p>		
American Public Power Association	Yes	The distinction between functional entity and responsible/registered entity appears to be workable. Glossary Definitions should be examined and vetted in specific standards projects, rather than be changes as a direct result of Functional Model changes, without further review. See the TAPS Comments.
<p>Response: The FMWG thanks you for your comment. The FMWG agrees that changes to the Glossary definitions need to be put through the appropriate approval process. See the response to TAPS comments.</p>		
WECC Reliability Coordination	Yes	The WECC RC agrees with no changes to the reference of Reliability Coordinator.
<p>Response: The FMWG thanks you for your comment.</p>		
Bonneville Power Administration	Yes	

Organization	Yes or No	Question 5 Comment
Brazos Electric Power Cooperative, Inc.	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Electric Market Policy	Yes	
Hydro One Networks Inc.	Yes	
Independent Electricity System Operator	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Northeast Power Coordinating Council	Yes	
Oncor Electric Delivery	Yes	
SERC Planning Standards Subcommittee	Yes	
Southern Company	Yes	
Wisconsin Electric Power Company (d/b/a We	Yes	

Organization	Yes or No	Question 5 Comment
Energies)		

6. Do you have any other comments regarding the proposed revisions to the Functional Model? If yes, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of responders to this question provided many useful suggestions for edits to the remaining sections of the Functional Model. Most of the suggested revisions were incorporated in the Model.

Organization	Yes or No	Question 6 Comment
Oncor Electric Delivery		No comment
Brazos Electric Power Cooperative, Inc.	No	
Manitoba Hydro	No	
SERC Planning Standards Subcommittee	No	
Central Lincoln	No	<p>"Receives facility and operational data from Generator Operators, Load-Serving Entities, Transmission Owners, Generator Owners, and Transmission Operators." This does not work in the west where the RC has determined they will deal with certain entities only. See http://www.bpa.gov/corporate/business/reliability/Docs/2007/PNSC_RE_Data_Letter_2_070723.pdf This has not changed with WECC taking on the RC role.</p>
<p>Response: The FMWG thanks you for your comment. The Functional Model provides a general description of the tasks of Functional Entities and their relationship with others, it is not meant to be prescriptive nor a stipulation for standard requirements. That the RC in the west has the capability to determine which entities to deal with does not in itself contradict the Functional Model.</p>		
Southern Company	No	<p>1. Provide a framework for Reliability Standards developed through the NERC standards development process that will apply to certain Tasks defined in the Functional Model. 2. Describe in general terms each Function and the relationships between the entities that are responsible for performing the Tasks within the Functions. The model should provide general guidance as is stated in the second sentence. Why is the Functional Model used as a framework for Reliability Standards?</p>
<p>Response: The FMWG thanks you for your comment. A framework is required for any good process. Without a framework there is no commonality for communicating. As (2) indicates, the Functional Model defines the reliability tasks required to ensure reliability and describes in general terms the interactions among</p>		

Organization	Yes or No	Question 6 Comment
<p>Functional Entities when these tasks are performed. It is on this basis that the NERC Standards Committee regards the Functional Model as the framework for reliability standards development and asked that standards be developed within this framework.</p>		
<p>IRC Standards Review Committee</p>	<p>Yes</p>	<p>1. The comments being provided are with respect to the “interchange” items are to clarify/correct items based on the current model language. However, we believe it may be easier to utilize the generic Interchange Schedule term in places and leave it to the standards to clarify which “type” of interchange applies in each condition. For example, the model uses several different ways to describe when/how curtailments occur to transactions. Some places are referred to as Arranged interchanges, some places it is referred to as changes to Confirmed interface. If a more general description is used that standards can be more specific about which interchange state occurs at which points in the processes. Another concern with using the specific interchange types is that unless all variations are discussed, the specific interchange mentioned could incorrect. For example, most actions that occur in Real time can occur on Confirmed Interchange or Implemented Interchange, which would result in a new Arranged Interchange that must proceed through the reliability review process. The current language only talks at this level of detail of how the different types of interchange can be impacted over time should be left to be described in the standards. Attempting to use the specific terms in the general concepts of the model can be misleading, implying that other variations are not valid.</p> <p>Response: The terms Arranged Interchange, Confirmed Interchange, Implemented Interchange and Interchange Schedule are used to appropriately reflect the various stages of an interchange transaction from being arranged to being curtailed. The suggestion to use the generic term “Interchange Schedule” does not appropriately reflect the status of an interchange transaction that is being arranged or approved/denied. Further, Interchange Schedule is an agreed upon schedule between the source and sink Balancing Authorities, whereas Arranged Interchange and Confirmed Interchange are the intended and approved interchange transactions that have not yet become schedules. The status of the Interchange is important to define the relationships between the functional entities within the model. The Functional Model defines relationships and provides listing of tasks that justify those relationships. Only standards define mandated requirements.</p> <p>2. There are four states for Interchange and only two are mentioned in the model. We have provided comments where we believe the Request for Interchange and Implemented Interchange should be included if the detailed states of interchange are to be used in the model.</p> <p>Response: Thank you for the inputs.</p> <p>3. The statement “Receives final approval or denial of Confirmed Interchange from Interchange Coordinator” is used in RC, TSP, PSE and LSE. The comparable statement under the BA says “Receives final approval or denial of Arranged Interchange from Interchange Coordinator”. The statement used for the BA seems correct since a “Confirmed Interchange” is by definition approved and the statement in the RC, TSP, PSE and LSE should be modified from Confirmed to Arranged. Alternatively, the language could use the more generic phrase Interchange Schedule.</p> <p>Response: We have made the change to “Arranged Interchange” in the RC, TSP, PSE and LSE statements.</p>

Organization	Yes or No	Question 6 Comment
		<p>4. Interchange Function bullet 3, Comment 2: The statement “Approvals may be explicit or by exception” should be removed. The latest INT standards do not allow for approvals to be by exception, they must be explicit. If no explicit approval is given, the entity is assumed to have denied the request not approved it. Response: The Functional Model does not stipulate reliability requirements; the standards do. We have removed the sentence that you reference.</p> <p>5. Interchange Function bullet 6: The term “Reliability Assessment Systems” is no longer a defined term. Suggest using the terminology added to bullet 5 of the Interchange Coordinator “NERC identified reliability analysis services.” Response: We have revised this term to “the appropriate reliability assessment tools”.</p> <p>6. PSE Entity bullet 7: We suggest moving this item to the Ahead of Time and/or After the Hour. We do not understand why the PSE would receive this information in Real Time from the LSE. In addition, the LSE does not have an action to provide this information in real-time. Response: We agree. We will move this item to Ahead of Time.</p> <p>7. LSE entity bullet 8: Why is the LSE notifying the Load-Serving Entities, should this be Purchasing-Selling Entities. Response: We have removed the LSE from that bullet.</p> <p>8. LSE Entity bullet 13: We suggest this item be removed. PSE does not have an action to provide this information to the LSE, nor does the item seem relevant in real-time since there is no reference to curtailment. Also, in bullet 15 they appear to have received any real-time curtailment information directly from the Interchange Coordinator. Response: We have moved this item to Ahead of Time, and revised it to: “Receives notification from the Purchasing-Selling Entity if Arranged Interchange requests are approved or denied.”</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
ISO New England, Inc	Yes	<p>1. The comments being provided are with respect to the “interchange” items are to clarify/correct items based on the current model language. However, we believe it may be easier to utilize the generic Interchange Schedule term in places and leave it to the standards to clarify which “type” of interchange applies in each condition. For example, the model uses several different ways to describe when/how curtailments occur to transactions. Some places are referred to as Arranged interchanges, some places it is referred to as changes to Confirmed interface. If a more general description is used that standards can be more specific about which interchange state occurs at which points in the processes. Another concern with using the specific interchange types is that unless all variations are discussed, the specific interchange mentioned could incorrect. For example, most actions that occur in Real time can occur on Confirmed Interchange or Implemented Interchange, which would result in a new Arranged Interchange that must proceed through the reliability review process. The current language only talks at this level of detail of how the different</p>

Organization	Yes or No	Question 6 Comment
		<p>types of interchange can be impacted over time should be left to be described in the standards. Attempting to use the specific terms in the general concepts of the model can be misleading, implying that other variations are not valid.</p> <p>Response: The terms Arranged Interchange, Confirmed Interchange, Implemented Interchange and Interchange Schedule are used to appropriately reflect the various stages of an interchange transaction from being arranged to being curtailed. The suggestion to use the generic term “Interchange Schedule” does not appropriately reflect the status of an interchange transaction that is being arranged or approved/denied. Further, Interchange Schedule is an agreed upon schedule between the source and sink Balancing Authorities, whereas Arranged Interchange and Confirmed Interchange are the intended and approved interchange transactions that have not yet become schedules. The status of the Interchange is important to define the relationships between the functional entities within the model. The Functional Model defines relationships and provides listing of tasks that justify those relationships. Only standards define mandated requirements.</p> <p>2. There are four states for Interchange and only two are mentioned in the model. We have provided comments where we believe the Request for Interchange and Implemented Interchange should be included if the detailed states of interchange are to be used in the model.</p> <p>Response: Thank you for the inputs.</p> <p>3. The statement “Receives final approval or denial of Confirmed Interchange from Interchange Coordinator” is used in RC, TSP, PSE and LSE. The comparable statement under the BA says “Receives final approval or denial of Arranged Interchange from Interchange Coordinator”. The statement used for the BA seems correct since a “Confirmed Interchange” is by definition approved and the statement in the RC, TSP, PSE and LSE should be modified from Confirmed to Arranged. Alternatively, the language could use the more generic phrase Interchange Schedule.</p> <p>Response: We have made the change to “Arranged Interchange” in the RC, TSP, PSE and LSE statements.</p> <p>4. Interchange Function bullet 3, Comment 2: The statement “Approvals may be explicit or by exception” should be removed. The latest INT standards do not allow for approvals to be by exception, they must be explicit. If no explicit approval is given, the entity is assumed to have denied the request not approved it.</p> <p>Response: The Functional Model does not stipulate reliability requirements; the standards do. We have removed the sentence that you reference</p> <p>5. Interchange Function bullet 6: The term “Reliability Assessment Systems” is no longer a defined term. Suggest using the terminology added to bullet 5 of the Interchange Coordinator “NERC identified reliability analysis services.</p> <p>Response: We have revised this term to “the appropriate reliability assessment tools”.</p> <p>6. PSE Entity bullet 7: We suggest moving this item to the Ahead of Time and/or After the Hour. We do not understand why the PSE would receive this information in Real Time from the LSE. In addition, the LSE does not have an action to</p>

Organization	Yes or No	Question 6 Comment
		<p>provide this information in real-time.</p> <p>Response: We agree. We will move this item to Ahead of Time.</p> <p>7. LSE entity bullet 8: Why is the LSE notifying the Load-Serving Entities, should this be Purchasing-Selling Entities.</p> <p>Response: We have removed the LSE from that bullet.</p> <p>8. LSE Entity bullet 13: We suggest this item be removed. PSE does not have an action to provide this information to the LSE, nor does the item seem relevant in real-time since there is no reference to curtailment. Also, in bullet 15 they appear to have received any real-time curtailment information directly from the Interchange Coordinator.</p> <p>Response: We have moved this item to Ahead of Time, and revised it to: "Receives notification from the Purchasing-Selling Entity if Arranged Interchange requests are approved or denied."</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>Independent Electricity System Operator</p>	<p>Yes</p>	<p>1. Pertaining to Function - Standards Development: Bullet #1 Change to "Develop, implement and maintain a standards development process that included procedures for appeals." Bullet #2 Change to "Develop and maintain Reliability Standards in accordance with the standards development process"? We also believe there should be a task to "manage the Standards development process". Bullet #4 Delete since this is part of the process and has been included in #1.</p> <p>Response:</p> <ul style="list-style-type: none"> - Bullet #1: We do not believe this change is necessary since this bullet already has that general provision - Bullet #2: We do not believe this change is necessary since the Functional Model describes tasks and relationships in general terms and at a high level. Conditions such as "in accordance with the standards development process" are at the next level of detail that is more appropriate for inclusion in the terms of reference of some authorized entity such as the NERC Standards Committee. The same applies to your suggestion to add "manage the standards development process". - Bullet #4: We agree with the suggestion to remove this bullet. <p>2. Pertaining to Functional Entity - Standards Developer. We suggest that there be a relationship with the Compliance Enforcement Authority as follows: "Solicit input as required from the Compliance Enforcement Authority regarding development of compliance measures for reliability standards requirements." We suggest that this relationship be reciprocal.</p> <p>Response: We have removed the task relating to compliance measures and do not believe this addition is necessary.</p> <p>3. Pertaining to Function - Reliability Assurance. Bullet #5 Reference to a readiness assessment was removed from the Technical Document. Should this also be removed? A consistency check should be made to ensure the word "area" in</p>

Organization	Yes or No	Question 6 Comment
		<p>not capitalized when used to describe the area of purview of a functional entity e.g. “Reliability Coordinator Area”.</p> <p>Response: The Technical Document provides additional information to help explain certain aspects of the model which, in the FMWG’s view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. We did not think readiness assessment warranted such an elaboration and hence discussion in the Technical Document was removed. However, the task is deemed necessary in the Reliability Assurance function and it retained. Regarding “Area”, the general rule is to capitalize it when the word is used to describe a specific boundary, such as Planning Coordinator Area, Reliability Coordinator Area.</p> <p>4. Pertaining to Functional Entity - Balancing Authority. We recommend editing the definition as follows: The functional entity that integrates resources ahead of time, and maintains load-interchange-generation-balance within a Balancing Authority Area, and Interconnection frequency in real time.</p> <p>Response: We have revised it to including generation in the balancing.</p> <p>5. Pertaining to the Balancing Function Bullet 10, we believe the BA should be comparing what they have implemented with the actual interchange; so “Confirmed Interchange” should be replaced with “Implemented Interchange”.</p> <p>Response: Task 10 is to “Provide balancing and energy accounting...” which requires Confirmed, implemented and actual interchange. We have added Implemented Interchange to task 10.</p> <p>6. Pertaining to the Balancing Authority entity Bullets 3 and 16 are very similar and based on the following rationale we recommend that bullet 3 be removed. Since the BA “receives” this information from the IC we compared the language in Bullet 3 to the corresponding language under the Interchange Coordinator and while the concepts of interchange being valid and balanced are there, there is no action listed for the IC to provide the data as defined in Bullet 3. The data that is received in Bullet 16 will end up being the Confirmed Interchange which, by the tasks that occur in the Interchange area, must be valid and balanced.</p> <p>Response: We agree. We have combined these two items as one: “Receives final approval or denial of a request for an Arranged Interchange from the Interchange Coordinator”.</p> <p>7. Pertaining to the Balancing Authority entity bullet 32: This is an example where the generic term in the previous version is easier to understand and where the standard should be left to provide the additional details. A curtailment can occur on a Confirmed Interchange or an Implemented Interchange. In both cases, the curtailment would be initiated as an Arranged Interchange that is going through the approval process. The BA would actually have to receive and approve the Arranged Interchange associated with the curtailment, so referring to receiving the Confirmed Interchange doesn’t tell the whole story. We would recommend leaving the previous language.</p> <p>Response: We have revised it to include Implemented Interchange. The language in the previous version (Interchange Schedule) did not cover the case where curtailment occurs to a Confirmed Interchange (i.e., curtailed before it starts).</p> <p>8. Pertaining to the Balancing Authority entity bullet 33: If the generic terminology is not maintained, then the language</p>

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		<p>should be modified to reflect that the BA will verify that their Implemented Interchange matches the Interchange Coordinator’s Confirmed Interchange.</p> <p>Response: We have revised it (now bullet 32) to “Confirms Implemented Interchange with Confirmed Interchange provided by the Interchange Coordinators after the hour for “checkout.”</p> <p>9. Pertaining to the Balancing Authority entity bullet 34: If the generic terminology is not maintained, then the language should be modified to reflect that the BAs will be verifying their respective Implemented Interchange, not the Confirmed Interchange.</p> <p>Response: We have revised it (now bullet 33) to: “Confirms Implemented Interchange and Confirmed Interchange with adjacent Balancing Authorities after the hour for “checkout.”.</p> <p>10. Pertaining to Function Transmission Service. Bullet #5 Is this a reliability-related task as referred to in the introduction to the Functional Model? If not it should be deleted.</p> <p>Response: This was included as recognition that losses can be handled either physically or financially. It was to help address the concept.</p> <p>11. Pertaining to the TSP Entity bullet 5: Suggest including a reference to the Interchange transaction in some manner because the TSP does not provide transmission service approval to the IC, only confirmation that the OASIS information utilized on the Arranged Interchange is valid. For example, “Confirms to Interchange Coordinator that transmission service requests as utilized on the Arranged Interchange (or Interchange Schedules) are valid.”</p> <p>Response: We have revised it to: “Confirms validity of transmission service requests indicated in the Arranged Interchange with Interchange Coordinators”.</p> <p>12. Pertaining to the TSP Entity bullet 8: Suggest keeping the original generic language and replacing implementation with confirmation or approvals. The IC does not send implementation information. Alternately, suggest using language similar to BA item 32.</p> <p>Response: We have revised it to “Receives Confirmed Interchange revisions (including curtailments) from the Interchange Coordinators.” and made a conforming change to the Interchange Coordinator entity (task 8)</p> <p>13. Pertaining to Function Transmission Ownership: Is it appropriate to include as a separate task “Perform connection assessments in response to requests for supply from new customers.”, or is this covered elsewhere?</p> <p>Response: We believe that the Transmission Owners may not be the only entity to conduct this assessment. In the case where a new customer (may it be load customer of a generator) also provides the transmission connection facilities, the Transmission Owner may not be involved in the assessment.</p> <p>14. Pertaining to Functional Entities Generator Operator and Generator Owner: There seems to be some duplication regarding provision of maintenance plans by these two functional entities in bullets 4 and 2 respectively. Is this</p>

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		<p>intentional?</p> <p>15. Pertaining to Functions Generator Operation and Generator Ownership: The GOP has a task to develop annual maintenance plans and the GO has a task to authorize maintenance of owned generating facilities. We believe these refer to the same thing but there is no reciprocal relationship between the GO and the GOP to submit (receive) the annual plan for approval/authorization.</p> <p>Response 14 and 15: There is duplication as you suggest. The tasks for maintenance of assets are assigned to the Transmission Owner / Generator Owner. We have revised the appropriate tasks and relationships for TO, GO, TOP, GOP, RC, and BA to reflect this. Please see redline for specifics.</p> <p>16. Pertaining to PSE Entity bullet 7: We suggest moving this item to the Ahead of Time and/or After the Hour. We do not understand why the PSE would receive this information in Real Time from the LSE. In addition, the LSE does not have an action to provide this information in real-time.</p> <p>Response: We agree with you and have moved this item to Ahead of Time.</p> <p>17. PSE Function bullet 2, 4: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: A Request for Interchange may not be a complete end-to-end transaction. The idea in these tasks is to focus not on partial transactions but on the completed Arranged Interchange. Once the complete end-to-end transaction is in a shape to submit to an IC it is Arranged. That Arranged Interchange is submitted to the IC for confirmation that all the parts are indeed agreed to by all parties. Thus the Request is not part of the FM, whereas the Arranged Interchange is. Success of submission is not the relevant issue. Indeed an Arranged Interchange may not be submitted to an IC. In such a case the PSE would have curtailed its own work.</p> <p>18. PSE Entity bullet 1: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. “as applicable to develop a Request for Interchange”.</p> <p>Response: Task 1 is an explanation of what a PSE does in advance. Its origin is in explaining one fundamental role of the PSE. It is neither a definition of a Requested Interchange nor is it a definition of an Arranged Interchange, it is a definition of what a PSE does. We have revised this to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>19. PSE Entity bullet 2: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. Suggest: “Submits Request For Interchange to Interchange Coordinator”.</p> <p>Response: We agree and have made the requested revision.</p> <p>20. PSE Entity bullet 6: We suggest that the generic terminology in the previous version is more appropriate. If the generic terminology is not maintained, should consider including Implemented Interchange curtailments as anything that</p>

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		<p>the BA has implemented is no longer a Confirmed Interchange so curtailments can occur on both Confirmed and Implemented Interchange.</p> <p>Response: We concur and have revised this to: “Notifies Interchange Coordinators of Confirmed Interchange and Implemented Interchange cancellations or terminations.”</p> <p>21. Pertaining to LSE entity bullet 8: Why is the LSE notifying the Load-Serving Entities, should this be Purchasing-Selling Entities.</p> <p>Response: We concur and have removed the LSE from bullet 8.</p> <p>22. Pertaining to LSE Entity bullet 13: We suggest this item be removed. PSE does not have an action to provide this information to the LSE, nor does the item seem relevant in real-time since there is no reference to curtailment. Also, in bullet 15 they appear to have received any real-time curtailment information directly from the Interchange Coordinator.</p> <p>Response: We concur and have deleted item 13.</p> <p>23. Pertaining to Function Load-Serving: It is not clear what bullet #6 is referring to. Please clarify its intent.</p> <p>Response: We have removed items 6 and 8 pertaining to Arranged interchange and inserted a new item using the correct term (RFI): Submits Requests For Interchange to Interchange Coordinators.</p> <p>24. LSE function bullets 6, 8: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: We have revised item 6 to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>We have revised item 8 to: “Submits Requests For Interchange to Interchange Coordinators.”</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>Northeast Power Coordinating Council</p>	<p>Yes</p>	<p>1. Pertaining to Function - Standards Development: Bullet #1 Change to “Develop, implement and maintain a standards development process that included procedures for appeals.” Bullet #2 Change to “Develop and maintain Reliability Standards in accordance with the standards development process”? We also believe there should be a task to “manage the Standards development process”. Bullet #4 Delete since this is part of the process and has been included in #1.</p> <p>Response:</p> <ul style="list-style-type: none"> - Bullet #1: We do not believe this change is necessary since this bullet already has that general provision - Bullet #2: We do not believe this change is necessary since the Functional Model describes tasks and relationships in general terms and at a high level. Conditions such as “in accordance with the standards development process” are at

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		<p>Interchange area, must be valid and balanced.</p> <p>Response: We agree. We have combined these two items as one: “Receives final approval or denial of a request for an Arranged Interchange from the Interchange Coordinator”.</p> <p>7. Pertaining to the Balancing Authority entity bullet 32: This is an example where the generic term in the previous version is easier to understand and where the standard should be left to provide the additional details. A curtailment can occur on a Confirmed Interchange or an Implemented Interchange. In both cases, the curtailment would be initiated as an Arranged Interchange that is going through the approval process. The BA would actually have to receive and approve the Arranged Interchange associated with the curtailment, so referring to receiving the Confirmed Interchange doesn’t tell the whole story. We would recommend leaving the previous language.</p> <p>Response: We have revised it to include Implemented Interchange. The language in the previous version (Interchange Schedule) did not cover the case where curtailment occurs to a Confirmed Interchange (i.e., curtailed before it starts).</p> <p>8. Pertaining to the Balancing Authority entity bullet 33: If the generic terminology is not maintained, then the language should be modified to reflect that the BA will verify that their Implemented Interchange matches the Interchange Coordinator’s Confirmed Interchange.</p> <p>Response: We have revised it (now bullet 32) to “Confirms Implemented Interchange with Confirmed Interchange provided by the Interchange Coordinators after the hour for “checkout.”</p> <p>9. Pertaining to the Balancing Authority entity bullet 34: If the generic terminology is not maintained, then the language should be modified to reflect that the BAs will be verifying their respective Implemented Interchange, not the Confirmed Interchange.</p> <p>Response: We have revised it (now bullet 33) to: “Confirms Implemented Interchange and Confirmed Interchange with adjacent Balancing Authorities after the hour for “checkout.””.</p> <p>10. Pertaining to Function Transmission Service. Bullet #5 Is this a reliability-related task as referred to in the introduction to the Functional Model? If not it should be deleted.</p> <p>Response: This was included as recognition that losses can be handled as either physically or financially. It was to help address the concept.</p> <p>11. Pertaining to the TSP Entity bullet 5: Suggest including a reference to the Interchange transaction in some manner because the TSP does not provide transmission service approval to the IC, only confirmation that the OASIS information utilized on the Arranged Interchange is valid. For example, “Confirms to Interchange Coordinator that transmission service requests as utilized on the Arranged Interchange (or Interchange Schedules) are valid.”</p> <p>Response: We have revised it to: “Confirms validity of transmission service requests indicated in the Arranged Interchange with Interchange Coordinators”.</p>

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		<p>such a case the PSE would have curtailed its own work.</p> <p>18. PSE Entity bullet 1: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. “as applicable to develop a Request for Interchange”.</p> <p>Response: Task 1 is an explanation of what a PSE does in advance. Its origin is in explaining one fundamental role of the PSE. It is neither a definition of a Requested Interchange nor is it a definition of an Arranged Interchange, it is a definition of what a PSE does. We have revised this to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p> <p>19. PSE Entity bullet 2: This is an item where it seems the Request For Interchange is more appropriate than the Arranged Interchange. Suggest: “Submits Request For Interchange to Interchange Coordinator”.</p> <p>Response: We agree and have made the requested revision.</p> <p>20. PSE Entity bullet 6: We suggest that the generic terminology in the previous version is more appropriate. If the generic terminology is not maintained, should consider including Implemented Interchange curtailments as anything that the BA has implemented is no longer a Confirmed Interchange so curtailments can occur on both Confirmed and Implemented Interchange.</p> <p>Response: We concur and have revised this to: Notifies Interchange Coordinators of Confirmed Interchange and Implemented Interchange cancellations or terminations.</p> <p>21. Pertaining to LSE entity bullet 8: Why is the LSE notifying the Load-Serving Entities, should this be Purchasing-Selling Entities.</p> <p>Response: We concur and have deleted the reference to LSE.</p> <p>22. Pertaining to LSE Entity bullet 13: We suggest this item be removed. PSE does not have an action to provide this information to the LSE, nor does the item seem relevant in real-time since there is no reference to curtailment. Also, in bullet 15 they appear to have received any real-time curtailment information directly from the Interchange Coordinator.</p> <p>Response: We concur and have deleted item 13.</p> <p>23. Pertaining to Function Load-Serving: It is not clear what bullet #6 is referring to. Please clarify its intent.</p> <p>Response: We have removed item 6 as it is covered by item 8: “Request implementation of Arranged Interchange.”</p> <p>24. LSE function bullets 6, 8: These items should refer to the Request for Interchange as it is not Arranged Interchange until it is successfully received by the Interchange Coordinator.</p> <p>Response: We have revised item 6 to: “Arranges for transmission service from Transmission Service Providers and makes arrangements for reliability-related services with Generator Owners or Load-Serving Entities.”</p>

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		<p>We have revised item 8 to: "Submits Requests For Interchange to Interchange Coordinators."</p> <p>25. Section I.14 Load-Serving Entity (LSE) states, "The Functional Model assigns to the LSE the identification of loads for curtailment (such as loads subject to voluntary curtailment, and loads that are critical and should be excluded from non-voluntary curtailment where possible) and the development of load profiles and load forecasts." Non-Voluntary Curtailments: Automatic Underfrequency Load Shedding (UFLS) In NPCC, the transmission owner (TO) and/or distribution provider (DP) owns and operates the UFLS program. Load shedding equipment is located at area substations and local area loads are shed by area substation, not by specific LSE-designated customer or customer groupings. Individual or group LSE-specified customer curtailments cannot be effectuated. Directed Manual Load Shedding The NYISO as Reliability Coordinator (RC) and Transmission Operator (TOP) may direct TOs and DPs to engage in manual load shedding in response to system conditions. The LSE's are not involved or consulted. Load Profiles and Load Forecasts: In New York, load profiles for non-demand (energy-only) metered loads are developed by the DP and are provided to Customers, Energy Services Companies (ESCOs) and Load Serving Entities (LSEs) for use in their load forecasting and energy billing. Demand-metered loads may also use DP-developed load profiles where metered demands fall outside specific meter performance criteria, indicating a metering problem. The potential economic interest of the LSE in determining load data (in scheduling and for balancing and billing purposes) precludes the LSE from performing this function. The impartial DP is better suited to perform this function. Summary - Version 5 of the Functional Model does not reflect current practice in New York (and elsewhere) with regard to the roles performed by the LSE, TO and DP. The DP function should include the role of UFLS owner and operator, selecting the loads to be shed (e.g., by area substation).</p> <p>Response: We assume your comments are directed at the Technical Document, not the Model, as you referenced Section I.14. The LSE contracts energy delivery to the end-use customers and is responsible for conveying customers' specific concerns and/or requirements which may affect continuity of supply (the so called critical loads). The LSE thus has a task to specify any such requirements to whichever entity that interrupts power supply, even for non-voluntary nature. We agree that the TO and DP own the UFLS relays and will include loads that are connected to such relays in the UFLS program. However, prior to these critical loads being shed due to UFLS relay operation, provision may be made to connect these loads to a different feeder that is not tripped by the UFLS relays. In the case where such arrangements cannot be made, then the critical loads will be informed so that they may make alternative arrangements (backup supply, for example). Note that identification of critical customer load does not necessarily mean such loads will be excluded from getting shed; it just means flexibility may be pursued or alternative arrangements may be made. We do not see that this contradicts with any market or operational setup.</p> <p>A similar argument applies to manual load shedding. Further, we do not suggest that the LSE be consulted prior to manual load shedding; we only suggest that the LSE makes such identification ahead of time so as to provide an opportunity for exploring options.</p> <p>In general, new and existing load customers arrange for energy delivery with the LSE. Hence, the LSE has the contractual obligation and the necessary information on the profile and amount of forecast load. The DP, being a "wires"</p>

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		<p>provider on the other hand, is responsible for making and maintaining connection to the end-use customers and it, too, needs the load profile and forecast information to provide adequate facilities. In many jurisdictions, both the LSE and DP functions are within the same organization and hence many believe that it is the DP that takes ownership of the energy delivery to end-use customers. However, it is within the Function Model that the distinction between LSE and DP is made to more clearly delineate the tasks for arranging for energy delivery and providing connection to supply sources, regardless of how these functions are organized corporately in the industry.</p> <p>The Model assigns the tasks of providing and maintaining load shedding systems and implementing load shedding to the DP so we do not see any conflict with the commenter's belief. The Model does not assign any such tasks to the LSE.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>LCRA Transmission Services Corporation</p>	<p>Yes</p>	<p>1. Revise second sentence under #6 Transmission Operator - Maintenance: "The Transmission Operator may then develop or receive from the Transmission Owner the detailed maintenance schedules (dates and times) based on the Transmission Owner's maintenance plans and requirements, and provides those schedules to the Reliability Coordinator and others as needed." (Note: this provides for the TOP to either develop OR receive detailed maintenance schedules from the TO).</p> <p>Response: The FM recognizes that the asset owner has final say over what is done with its asset, including maintenance. Thus the default responsibility is on the Owner to ensure that maintenance is done. We have revised the section to: "The Transmission Owner then develops or arranges for the development of the detailed maintenance schedules (dates and times) based on the Transmission Owner's maintenance plans and requirements, and provides those schedules to the Reliability Coordinator and others as needed." (see page 14, paragraph 3)</p> <p>2. Change first sentence in #9, Transmission Owner, to include provision for long-term planning: "The Transmission Owner owns its transmission facilities and provides for the long-term planning and maintenance of those facilities." (Note: Adding "long-term planning" provides consistency with the language in Transmission Planner (item 4) which states "...Traditionally transmission planning has been associated with one or more Transmission Owners, i.e. reinforcement and corrective action plans must be associated with certain Transmission Owner facilities.")</p> <p>Response: We do not believe this change is appropriate. Long-term planning is a task of the Transmission Planner's, which could be in the same organization as the Transmission Owner. The Transmission Owner, in the Functional Model, owns the facilities and develops maintenance plans, among other tasks associated with the facilities, but it does not do any transmission planning. The Transmission Planner does.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		

Organization	Yes or No	Question 6 Comment
RRI Energy	Yes	<p>Comment: RRI Energy does not agree that NERC should take a wait and see approach in determining if Demand Response Resource Owner and Operator entity categories need to be added to the Functional Model (FM). Demand Response (DR) participation has recently experienced a step-change in significance and is estimated to continue increasing, as evidenced by the most recent PJM base residual auction for Delivery Year 2012/13 that occurred less than 2 months after the FMWG sub-group report was issued. In that auction, 9,847 MW' of DR was offered, representing a 500% increase from the previous auction. Of that, 7,047 MW' of DR cleared, representing 5.2% of the 136,143.5 MW' that cleared the auction. In constrained areas in PJM, 4,723 MW' of DR cleared the auction, which is 7.3% of the 65,452.3 MW' that cleared in the constrained area. The FMWG sub-group recognized the potential to impact reliability as indicated on page 5 of the report, which states that "the sub-group recognized the value of local arrangements, and in fact used this as a basis for concluding that there is no urgency in bring(ing) DR providers under NERC' authority. However, the sub-group concluded that at some point in the future, as DR becomes an increasingly more important and extensive resource, it will be appropriate to move beyond a sole reliance on local requirements, and bring DR under NERC. At that point in time in the future, there will be more experience with the types of DR that have in fact significantly penetrated the market and hence new or modified reliability standards can be better targeted." Given that DR participation is increasing now, NERC should address DR issues now to ensure that there are no gaps. The industry must be proactive in developing ALR based requirements for DR. RRI believes that now is the appropriate time to address DR in the Reliability Standards and not after a problem surfaces. RRI does not believe that the argument that there are operating agreements or market rule requirements that may limit adverse reliability-related impacts is sufficient, on its own, to justify deferring action on DR. This same argument could also be applied to other entities covered by reliability standards and it is not clear to RRI what distinguishes DR from these other entities as it relates to the impact on reliability; particularly given the step-change in DR evidenced in the recent few months. RRI agrees with the sub teams findings that the requirements applicable to GO's or GOP's should not be made automatically applicable to a DR provider. Rather a new set of reliability standards should be created. One approach to creating such rules would be to use as a starting point the operating agreements and market rule requirements mentioned above as an input to the standard development process. Because of its fresh nature, this effort could serve as a model in revamping existing standards that need modified. RRI recommends that NERC immediately begin looking at this issue. RRI feels that the existing NERC Reliability Standards Development Process can be used to address these questions.</p>
<p>Response: The FMWG thanks you for your comment. At this time, there are no reliability standards that mandate the use of or stipulate the behavior for implementing demand response. Notwithstanding this absence, there is no barrier to developing such standards if needed even before such a function and the corresponding functional entity (if needed) are defined in the Functional Model. The FMWG Demand Response sub team reviewed the inclusion of Demand Response into the model, but came to the conclusion that it was not appropriate to include Demand Response at this time. Entities should not be added to the model unless there is a distinct set of reliability related tasks that can not be performed under another functional entity. We will continue to monitor the developments in the Demand Response area and revise the model as appropriate.</p>		

Organization	Yes or No	Question 6 Comment
Transmission Access Policy Study Group	Yes	<p>Comments: The Distribution Function includes (at page 46) designing and maintaining UFLS/UVLS equipment and providing and implementing load shedding, and the Distribution Provider Functional Entity description includes (at page 47) “Implements voltage reduction and sheds load as directed by the Transmission Operator or Balancing Authority. Similar characterizations of the DP as implementing UFLS/UVLS permeate the Technical Document. See, e.g., page 59 (“The Distribution Provider provides the facilities that could be used to shed load for emergency action.”); page 20 (“The Distribution Provider provides the switches and reclosers necessary for emergency action.”). TAPS is concerned that the Functional Model’s assumption that the DP is the entity that owns and operates UFLS/UVLS equipment is not consistent with actual practice in many areas. For example, in some areas, UFLS/UVLS equipment is owned and operated by TOs, which can be a more efficient and equitable way of addressing involuntary curtailments than requiring small DPs to own and operate UFLS/UVLS equipment that would operate on a far more granular basis than in the surrounding system. In addition, TAPS is also concerned that the DP-focused UFLS/UVLS discussion in the Functional Model and Functional Model Technical Document not prejudice or otherwise affect the ongoing discussion in the UFLS/UVLS SDT regarding how it is determined, in a given area or region, which entity is responsible. Thus, TAPS recommends that the UFLS/UVLS discussions be modified to reflect the fact that in some areas, entities other than the DPs (e.g., TOs) own and operate UFLS/UVLS equipment. In addition, the August 6 Webinar on Functional Model Version 5 included a discussion of the Planning Committee’s suggestions that Demand Resource Operators and Demand Resource Owners be added to the Functional Model, and FMWG’s determination not to add these functions to Version 5 of the Functional Model. TAPS agrees that new Demand Response functions should not be added to the Functional Model at this time. More generally, TAPS urges caution in expanding the Functional Model and NERC standards to incorporate new demand response functions. Such functions may be already encompassed within existing functions and, to the extent they are distribution-focused, may not be necessary for the reliability of the BES.</p>
<p>Response: The FMWG thanks you for your comment. The Functional Model provides a general description of the reliability tasks and inter-entity relationship and interactions when performing these tasks. The Model is not prescriptive, nor does it mandate any requirements. We do recognize that Transmission Owners may own UFLS/UVLS equipment but we believe that such cases are when the Transmission Owners have facilities to which the end-use customers are connected and served. In this case, the Transmission Owners themselves are also Distribution Providers, by definition (see NERC Glossary of Terms). We believe the Model presents the general understanding and reflects actual practices in most areas. Absent any evidence, we are unable to accept the argument that having the Distribution Provider own and operate UFLS/UVLS equipment is inconsistent with the actual practice in the majority of the areas.</p> <p>We believe that UFLS/UVLS equipment is generally located at the buses to which end-use customers are directly connected. While there may be situations where such is not the case, and the UFLS/UVLS equipment is located at a Transmission Owner’s facilities to which no end-use customers are directly connected, and is by design located at such locations to trip lines/feeders to multiple DP facilities, the Functional Model does not preclude such an arrangement.</p> <p>The FMWG thanks you for supporting our decision to defer adding a demand response function and the corresponding functional entity.</p>		
American Public Power Association	Yes	See the TAPS comments on the discussion of the DP and TO functions. As a practical matter many TOs perform UFLS and UVLS functions through ownership and operation of the underlying equipment. The implication of the Version 5

Organization	Yes or No	Question 6 Comment
		<p>functional model is that since the DP function performs these activities, then TOs should also be registered as DPs in the compliance registry. Despite attempts to say otherwise, the Functional Model will have implications for how standards are developed, with consequences for how reliability tasks are assigned to various registered entities. APPA agrees with TAPS that Demand Response related functions should not be added to Version 5 of the FM. Note that both documents require editorial review - there are numerous minor errors.</p>
<p>Response: The FMWG thanks you for your comment. Please see out response to TAPS's comments concerning UFLS and UVLS. We will review both documents carefully to correct the errors.</p>		
<p>Wisconsin Electric Power Company (d/b/a We Energies)</p>	<p>Yes</p>	<p>In the definition "Functional Entity - Generator Operator" (page 49 of the Function Definitions and Functional Entities document): A) Item #1 under Day Ahead indicates the GOP provides "generation commitment plans" to the BA. In an RTO market (e.g., MISO) a GOP might not develop commitment plans as these would be an outcome of market processes conducted by the Market Operator. Item #1 should be revised to read "...generation commitment INFORMATION OR plans to the Balancing Authority" (new wording in CAPS).</p> <p>B) Item #7 appears to confer authority on the RC that it may not have under its applicable Tariff. Depending on the tariff, an RTO may have the ability to suggest changes to generator outage schedules and may be able to provide reimbursement for moving outages, but not have the ability to unilaterally revise a scheduled generator outage. Item #7 should be rewritten to read "COORDINATES [not "revises"] generation maintenance plans WITH [not "per directive of"] Reliability Coordinator" because any authority to reschedule generator outages should only be conferred by FERC via tariff and the Reliability Standards should not assume or imply this authority exists.</p>
<p>Response: The FMWG thanks you for your comment. Item #1: We do not believe the addition is necessary since a plan is informational until it is executed. Item #7: Based on other comments, the FMWG moved this task to the Generator Owner rather than the Generator Operator and revised it to: 7. Revises the generation maintenance plans as requested by the Reliability Coordinator. We have changed "as directed" to "as requested" to address the authority concern.</p>		
<p>National Rural Electric Cooperative Association</p>	<p>Yes</p>	<p>NRECA commends the FMWG in its efforts to continue improving the clarity of the NERC Functional Model. NRECA is concerned that with the changes proposed in Version 5, the Applicability for many of the existing FERC approved Reliability Standards, NERC BOT approved Reliability Standards and Reliability Standards under development will require modification. In addition, any modifications to the Functional Model require a thorough review of the Statement of Compliance Registry Criteria utilized to determine which entities are required to comply with mandatory Reliability Standards. As in NRECA's comments to previous drafts/versions to the Functional Model, it is essential that an Implementation Plan for version 5 of the Functional Model be developed to incorporate the proposed changes in all of</p>

Organization	Yes or No	Question 6 Comment
		the documents and processes that utilize the Functional Model as a basis or reference document.
<p>Response: The FMWG thanks you for your comment. The FMWG will develop a detailed implementation plan to clearly identify the necessary changes to the reliability standards and any resulting changes to registration. The Functional Model, however, does not dictate which organization must register for what responsible entities. This is driven by the applicability of the standards.</p>		
Florida Municipal Power Agency (FMPA)	Yes	<p>On page 47, in the “Introduction to Distribution Provider”, the first sentence is not correct, the Distribution Provider does not deliver “electrical energy to “the transmission system”. We assume that the word “to” in this sentence should be replaced with “from”.</p> <p>The Distribution Function includes (at page 46) designing and maintaining UFLS/UVLS equipment and providing and implementing load shedding, and the Distribution Provider Function includes (at page 47) “Implements voltage reduction and sheds load as directed by the Transmission Operator or Balancing Authority.” Similar characterizations of the DP as implementing UFLS/UVLS permeate the Technical Document. See, e.g., page 59 (“The Distribution Provider provides the facilities that could be used to shed load for emergency action.”); page 20 (“The Distribution Provider provides the switches and reclosers necessary for emergency action.”). FMPA is concerned that the Functional Model’s assumption that the DP is the only entity that owns and operates UFLS/UVLS equipment is not consistent with actual practice in many areas. For example, in some areas, UFLS/UVLS equipment is owned and operated by TOs, which can be a more efficient and equitable way of addressing involuntary curtailments than requiring small DPs to own and operate UFLS/UVLS equipment that would operate on a far more granular basis than in the surrounding system. In addition, FMPA is also concerned that the DP-focused UFLS/UVLS discussion in the Functional Model and Functional Model Technical Document not prejudice or otherwise affect the ongoing discussion in the UFLS/UVLS SDT regarding how it is determined, in a given area or region, which entity is responsible. Thus, FMPA recommends that the UFLS/UVLS discussions be modified to reflect the fact that in some areas, entities other than the DPs (e.g., TOs) own and operate UFLS/UVLS equipment. In addition, the August 6 Webinar on Functional Model Version 5 included a discussion of the Planning Committee’s suggestions that Demand Resource Operators and Demand Resource Owners be added to the Functional Model, and FMWG’s determination not to add these functions to Version 5 of the Functional Model. FMPA agrees that new Demand Response functions should not be added to the Functional Model at this time. More generally, FMPA urges caution in expanding the Functional Model and NERC standards to incorporate new demand response functions. Such functions may be already encompassed within existing functions and, to the extent they are distribution-focused, may not be necessary for the reliability of the BES.</p>
<p>Response: The FMWG thanks you for your comment.</p> <p>P. 47: We will revise the sentence to “The Distribution Provider delivers electrical energy to the End-use Customer from the transmission system.”</p> <p>The Functional Model provides a general description of the reliability tasks and inter-entity relationship and interactions when performing these tasks. The Model is not prescriptive, nor does it mandate any requirements. We do recognize that Transmission Owners may own UFLS/UVLS equipment but we believe that such cases</p>		

Organization	Yes or No	Question 6 Comment
		<p>are when the Transmission Owners have facilities to which the end-use customers are connected and served. In this case, the Transmission Owners themselves are also Distribution Providers, by definition (see NERC Glossary of Terms). We believe the Model presents the general understanding and reflects actual practices in most areas. Absent any evidence, we are unable to accept the argument that having the Distribution Providers own and operate UFLS/UVLS equipment is inconsistent with the actual practice in the majority of the areas.</p> <p>We believe that UFLS/UVLS equipment is generally located at the buses to which end-use customers are directly connected. While there may be situations where such is not the case, and the UFLS/UVLS equipment is located at a Transmission Owner’s facilities to which no end-use customers are directly connected, and is by design located at such locations to trip lines/feeders to multiple DP facilities, the Functional Model does not preclude such an arrangement.</p> <p>The FMWG thank you for supporting our decision to defer adding a demand response function and the corresponding functional entity.</p>
<p>NERC Standards Review Subcommittee</p>	<p>Yes</p>	<p>On page 8 of the redline document, it is stated that the Model has been refocused on Tasks versus responsibility and that discussions associated with responsibility have been removed. The MRO NSRS disagrees due to the fact that Functional Entities are still responsible for Tasks so the discussion of responsibility has not been removed. MRO NSRS agrees that certain Functions perform certain Tasks but this does not remove an individual organization's responsibility for performing the Task if they have registered for the function that is responsible for the Task. The function is still responsible but the tasks could be covered or shared by multiple responsible entities.</p> <p>Response: The change from “Responsible Entity” to “Functional Entity” is intended to provide a clearer demarcation between the Functional Model – which provides a general description of (a) the reliability tasks, the entity that performs these tasks and the interrelationship between functional entities, and (b) the reliability standards which are not constrained by the tasks presented in the Model. The Model does not prescribe responsibility for tasks: this will be stipulated if and when a standard is developed. Note that not every task presented in the Model has or will have a standard developed for it, and hence there is no specific “responsibility” assignment if there isn’t a standard developed for a specific task.</p> <p>The diagram on page 26 of the redline document showing the RTO as both the RC and the TOP and delegating tasks to the TO is not consistent with the explanation of the TOP/TO relationship described on page 25 in the 4th paragraph with respect to delegation.</p> <p>Response: We have revised to diagram (page 15 of the redline version) to remove the TO from the lower boxes.</p> <p>In paragraph 6 on page 43 of the redline document, there is discussion of assigning the LSE identification of loads for curtailment. It goes on to discuss loads subject to voluntary curtailment and loads that are critical that should be excluded from non-voluntary curtailment. While this is correct, the transition between voluntary curtailment and non-voluntary curtailment should be revised so that it is smoother.</p> <p>Response: Thank you for the suggestion. We have revised the paragraph to remove the parenthetical phrase and point the reader to Section II, 114: Roles in Load Curtailment for more detailed information. (See page 24, paragraph 6 of redline)</p>

Organization	Yes or No	Question 6 Comment
		<p>In section 15 where the Compliance Enforcement Authority is described, it would read better if it was revised to say: NERC is the Compliance Enforcement Authority. NERC has overall responsibility for monitoring compliance with Reliability Standards. The Reliability Assurers (formerly referenced to as “Regional Entities”) assists NERC and have a major role in the actual performance of the monitoring under their delegated agreements with NERC.</p> <p>Response: We have revised the section to:</p> <p>“NERC is the Compliance Enforcement Authority. The Regional Entities have a major role in the actual performance of the monitoring, under delegated authority from NERC.” (See page 25 of redline)</p> <p>The MRO NSRS has two suggestions for the glossary: 1) put the entities in alphabetical order and 2) in the previous definition of Planning Coordinator the planning horizon timeframe of one year and beyond was used. In the new definition, the one year and beyond timeframe has been removed. This appears to remove the timeframe connection between the Planning Coordinator and the Transmission Planner.</p> <p>Response: We have made these modifications. The entire table will show up as “redline” due to the fact that the table was alphabetized. (See page 50-54 of the redline.)</p> <p>For the “Technical Document, Transmission Planner”, revise “long-term” plan references to be “near-term and longer-term” plans. The TPL reliability standards refer to “near-term” and “longer-term” horizons and do not use the terminology of “long-term” plans.</p> <p>Response: We do not believe this change is necessary since the Function Model presents a general view and we believe the use of the term “long-term” appropriately reflects the planning horizon of Transmission Planners.</p> <p>For the “Introduction”, replace “The Model is a guideline for the development of standards and their applicability.” with “The Model is a guideline for the development of the NERC Compliance Registry Criteria, which in turn should guide the development of new and revised standards and their applicability.” For example, in the NERC Reliability Standard NUC-001, what is a “transmission entity” For the “Function - Transmission Ownership”, add a new item 6: Implements applicable Transmission Planner and Planning Coordinator transmission expansion plans.</p> <p>Response: We do not agree with this change. From a sequence of event viewpoint, a description of tasks precedes the development of standards required to ensure the tasks are performed (in a certain manner), which in turn stipulates the responsible entities that drives the registration requirement. We believe Compliance Registry Criteria is driven by standards, not the other way around.</p> <p>For the “Function - Transmission Owner”, add a new item 12: Communicates which transmission expansion plans it intends to implement to any applicable Transmission Planners and Planning Coordinators. A Transmission Owner constructs and maintains transmission facilities so it would be reasonable to associate the responsibility of implementing a transmission plan with this functional entity. It should be noted that a Transmission Owner may need to enter into an agreement which indicates which entity will implement certain portions of the transmission plan.</p>

Organization	Yes or No	Question 6 Comment
		<p>Response: This is addressed in item 6: Provides transmission expansion plans and changes to the Planning Coordinator and Transmission Planners.</p> <p>For the Function “Distribution”, revise item 4 to “Provide and implement automatic voltage and frequency load-shed capability as needed, including end-use load connected to the transmission system.</p> <p>Response: We do not agree with the proposed change. By load shed capability as described in Item 4, it includes capability for manual load shedding as well. Further, the NERC definition for Distribution Provider already covers the case where end-use customers are served at the transmission voltage level.</p> <p>For the “Technical Document, Planning Coordinator”, remove the text that a Planning Coordinator be “possibly the Regional Entity itself”. This guide should not purvey the concept of a Regional Entity registering as a functional entity with itself and then monitoring itself.</p> <p>Response: “Regional Entity” is only one of the several examples of how the Planning Coordinating function may be performed. It does not purvey the concept of an RE, or any entities for that matter, to register as a functional entity. In the case where an RE does indeed register as a Planning Coordinator, its monitoring will need to be addressed in the standard. There are already examples of such cases (an RE is contracted to perform the Reliability Function).</p> <p>Considering the terminology changes in Version 5 of the Technical Document, the comment column in the “Terminology Changes” Table should call for a change in the Statement of Compliance Registry Criteria for any applicable functional entities which may have been modified, reassigned or redefined recently within the industry by FERC, NERC, other stakeholders, etc.</p> <p>Response: The FMWG disagrees and does not feel this is necessary.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>City Water, Light & Power - Springfield, IL</p>	<p>Yes</p>	<p>p. 9 Under Day Ahead Analysis, replace Balancing Authority with Balancing Authority(ies).</p> <p>Response: We have made this change. (See page 6, paragraph 5 of redline.)</p> <p>p. 12 The responsibility to shed load needs to be clearer. Is it the BA's responsibility or the RC's responsibility?</p> <p>Response: Both the BA and the RC have the authority to shed load. The BA sheds load under an energy emergency; the RC sheds load under the conditions when it must act as a last line of defense when its BA or TOP is unable to address a reliability concern.</p> <p>p. 13 The PC should have the responsibility to develop near and long range plans similar to the TP.</p> <p>Response: The Planning Coordinator coordinates plans of the Transmission Planners and Resource Planners. The</p>

Organization	Yes or No	Question 6 Comment
		<p>Planning Coordinator itself does not actually develop near term or long term plans.</p> <p>p. 17 Doesn't the PC instead of the TP develop plans for transmission service and interconnection requests. In MISO it is the PC's responsibility, not the TP's responsibility.</p> <p>Response: The Transmission Planners develop plans in response to long term requests for transmission service and for connecting new facilities (not the interconnection with adjacent transmission systems). The Planning Coordinator coordinates plans developed by Transmission Planners and Resource Planners; it does not develop any transmission plans. The fact that MISO performs this task would suggest that MISO is performing the Transmission Planning function, not the Planning Coordinator function.</p> <p>p. 43 Change "and" to "but" in LSE "does not have bulk power system assets ("wires") BUT does take title to energy"</p> <p>Response: We have made this change. (See page 24, paragraph 5 of redline.)</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
Georgia Transmission Corporation	Yes	<p>Some of the Standards, i.e. COM-001 and COM-002, include requirements to use the English language for all inter-entity BES reliability communications. This was applicable to RC, TOP, BA, GOP, TSP, LSE, and PSE registrations. What is concerning, is that the "requirement" specified the use of the English language "unless agreed to otherwise", which suggests that it is an "option" and not a "requirement". Additionally, one must question the measurability from an audit stand point, and the administrative burden to those entities not directly impacted by language barriers by their neighbors. GTC would like to offer the solution to provide further context, explanations, and opinions within the Functional Model to encompass the intuitive nature of understanding BES reliability communications (using the same languages) by the entities described within the functional model. Perhaps defining or stating this obvious good practices option (of using English unless agreements are in place) within the each Entities Definition. Then, SDT can remove these types of (good practices) requirements within certain Standards, and focus more on performance-based requirements that have a clear beneficial impact on reliability of the BES.</p>
<p>Response: The FMWG thanks you for your comment. We do not believe stating this obvious is good practice within each entity definition is necessary, nor is it an effective way to address the language issue. Further, we do not believe this is a reliability task.</p>		
Hydro One Networks Inc.	Yes	<p>Suggestions for improvement:</p> <p>1. Function - Standards Development: Bullet #1 Change to "Develop, implement and maintain a standards development process that included procedures for appeals." Bullet #2 Change to "Develop and maintain Reliability Standards in accordance with the standards development process"? Bullet #4 Delete since this is part of the process and has been included in #1.</p>

Organization	Yes or No	Question 6 Comment
		<p>Response:</p> <ul style="list-style-type: none"> - Bullet #1: We do not believe this change is necessary since this bullet already has that general provision - Bullet #2: We do not believe this change is necessary since the Functional Model describes tasks and relationships in general terms and at a high level. Conditions such as “in accordance with the standards development process” are at the next level of detail that is more appropriate for inclusion in the terms of reference of some authorized entity such as the NERC Standards Committee. The same applies to your suggestion to add “manage the standards development process”. - Bullet #4: We agree with the suggestion to remove this bullet. <p>2. Function - Reliability Assurance. Bullet #5 Reference to a readiness assessment was removed from the Technical Document. It should also be removed in the FM.</p> <p>Response: The Technical Document provides additional information to help explain certain aspects of the model which, in the FMWG’s view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. We did not think readiness assessment warranted such an elaboration and hence discussion in the Technical Document was removed. However, the task is deemed necessary in the Reliability Assurance function and it retained. Regarding “Area”, the general rule is to capitalize it when the word is used to describe a specific boundary, such as Planning Coordinator Area, Reliability Coordinator Area.</p> <p>3. Function Transmission Ownership: Include as a separate task “Perform connection assessments in response to requests for supply from new customers.”</p> <p>Response: We believe that the Transmission Owners may not be the only entity to conduct this assessment. In the case where a new customer (may it be load customer of a generator) also provides the transmission connection facilities, the Transmission Owner may not be involved in the assessment.</p> <p>4. Functional Entities Generator Operator and Generator Owner: There seems to be some duplication regarding provision of maintenance plans by these two functional entities in bullets 4 and 2 respectively.</p> <p>5. Functions Generator Operation and Generator Ownership: The GOP has a task to develop annual maintenance plans and the GO has a task to authorize maintenance of owned generating facilities. We believe these refer to the same thing but there is no reciprocal relationship between the GO and the GOP to submit (receive) the annual plan for approval/authorization.</p> <p>Response 4 and 5: There is duplication as you suggest. The tasks for maintenance of assets are assigned to the Transmission Owner / Generator Owner. We have revised the appropriate tasks and relationships for TO, GO, TOP, GOP, RC, and BA to reflect this. Please see redline for specifics.</p> <p>6. LSE entity bullet 8: LSE appears notifying the LSE, should this be Purchasing-Selling Entities?</p>

Organization	Yes or No	Question 6 Comment
		<p>Response: We have removed LSE from bullet 8 and added a new bullet 11 to show the relationship with the PSE:</p> <p>11. Receives notification from Purchasing-Selling Entity if Arranged Interchange requests approved or denied.</p> <p>7. LSE Entity bullet 13: We suggest this item be removed. PSE does not have an action to provide this information to the LSE, nor does the item seem relevant in real-time since there is no reference to curtailment. Also, in bullet 15 they appear to have received any real-time curtailment information directly from the Interchange Coordinator.</p> <p>Response: We concur and have deleted item 13.</p> <p>8. Function Load-Serving: It is not clear what bullet #6 is referring to. Please clarify its intent.</p> <p>Response: We have removed item 6 as it is covered by item 8: "Request implementation of Arranged Interchange."</p> <p>9. Non-Voluntary Curtailments: Automatic Underfrequency Load Shedding (UFLS) Usually the TO and/or the DP owns and operates the UFLS program. Load shedding equipment is located at area substations and local area loads are shed by area substation, not by specific LSE-designated customer or customer groupings. Individual or group LSE-specified customer curtailments cannot be implemented.</p> <p>Response: The Functional Model provides a general description of the reliability tasks and inter-entity relationship and interactions when performing these tasks. The Model is not prescriptive, nor does it mandate any requirements. We do recognize that Transmission Owners may own UFLS/UVLS equipment but we believe that such cases are when the Transmission Owners have facilities to which the end-use customers are connected and served. In this case, the Transmission Owners themselves are also Distribution Providers, by definition (see NERC Glossary of Terms). We believe the Model presents the general understanding and reflects actual practices in most areas. Absent any evidence, we are unable to accept the argument that having the Distribution Provider owning and operating UFLS/UVLS equipment is inconsistent with the actual practice in the majority of the areas.</p> <p>We believe that UFLS/UVLS equipment is generally located at the buses to which end-use customers are directly connected. While there may be situations where such is not the case, and the UFLS/UVLS equipment is located at a Transmission Owner's facilities to which no end-use customers are directly connected, and is by design located at such locations to trip lines/feeders to multiple DP facilities, the Functional Model does not preclude such an arrangement.</p> <p>10. Directed Manual Load Shedding Usually the RC may direct TOs and DPs to engage in manual load shedding in response to system conditions. The LSEs are not involved or consulted.</p> <p>Response: We assume your comments are directed at the Technical Document, not the Model, as you referenced Section I.14. The LSE contracts energy delivery to the end-use customers and is responsible for conveying customers' specific concern and/or requirements which may affect continuity of supply (the so called critical loads). The LSE thus has a task to specify any such requirements to whichever entity that interrupts power supply, even for non-voluntary nature. We agree that the TO and DP own the UFLS relays and will include loads that are connected to such relays in the UFLS program. However, prior to these critical loads being shed due to UFLS relay operation, provision may be</p>

Organization	Yes or No	Question 6 Comment
		<p>made to connect these loads to a different feeder that is not tripped by the UFLS relays. In the case where such arrangements cannot be made, then the critical loads will be informed so that they may make alternative arrangements (backup supply, for example). Note that identification of critical customer load does not necessarily mean such loads will be excluded from getting shed; it just means flexibility may be pursued or alternative arrangements may be made. We do not see this contradicts with any market or operational setup.</p> <p>Similar argument applies to manual load shedding. Further, we do not suggest that the LSE be consulted prior to manual load shedding; we only suggest that the LSE makes such identification ahead of time so as to provide an opportunity for exploring options.</p> <p>In general, new and existing load customers arrange for energy delivery with the LSE. Hence, the LSE has the contractual obligation and the necessary information on the profile and amount of forecast load. The DP, being a “wires” provider on the other hand, is responsible for making and maintaining connection to the end-use customers and it, too, needs the load profile and forecast information to provide adequate facilities. In many jurisdictions, both the LSE and DP functions are within the same organization and hence many believe that it is the DP that takes ownership of the energy delivery to end-use customers. However, it is within the Function Model that the distinction between LSE and DP is made to more clearly delineate the tasks for arranging for energy delivery and providing connection to supply sources, regardless of how these functions are organized corporately in the industry.</p> <p>The Model assigns the tasks of providing and maintaining load shedding systems and implementing load shedding to the DP so we do not see any conflict with the commenter’s belief. The Model does not assign any such tasks to the LSE.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
FirstEnergy	Yes	<p>The FMWG went to great lengths to change the term responsible entity to functional entity; however, bullet item one on page seven then defines a functional entity as "the entity responsible for ensuring the Function is performed." It would seem responsibility assignments in the functional model are inescapable. Suggest changing the wording "the entity responsible for ensuring the Function is performed" to, "a class of organization that carries out the Tasks within a Function."</p> <p>Response: We have revised this to: The Model assigns each Function to a functional entity, that is, the entity that performs the Function.</p> <p>On page 7 bullet item 3, delete Ben’s note.</p> <p>Response: We have deleted this.</p> <p>On page 7 the fourth paragraph should be revised by deleting the phrase, "and is expected to register as the corresponding functional entity for each function." This requirement is better stated in and understood using NERC’s</p>

Organization	Yes or No	Question 6 Comment
		<p>registration rules.</p> <p>Response: We have revised it to: "An organization may perform more than one Function."</p> <p>On page 9 add the word "Reliability" in front of the phrase "Planning and Operating Functions."</p> <p>Response: We do not believe this is necessary or adds any clarity to the phrase.</p> <p>On page 19 adjust item 5 to read, "5. Conduct certification evaluations." Readiness evaluations have been retired.</p> <p>Response: An entity may request a "readiness assessment" (Not Readiness Evaluation) prior to operation as a registered entity. We will retain the current language.</p> <p>On page 21 change the function name from Planning Reliability to Reliability Planning Coordination to be consistent with the functional entity Planning Coordinator and the pattern used for the other functions (e.g. Reliability Assurance and Reliability Assurer, Reliability Operations and Reliability Coordinator) and adjust the graphic on page 9 to coincide with this change.</p> <p>Response: We disagree and will not make the revision.</p> <p>On page 31, in item 16, change "Interchange Authorities" to "Interchange Coordinators."</p> <p>Response: Thank you. We have made this change.</p> <p>On page 33, in the definition of Balancing Authority add "and supports" such that it reads, "The functional entity that integrates resources ahead of time, maintains load-interchange-balance within a Balancing Authority Area, and supports Interconnection frequency in real time.</p> <p>Response: We have revised it to "contributes to..."</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
American Transmission Company	Yes	<p>The Functional Model (FM) document currently states that the Transmission Owner "Receives approved transmission expansion plans from the Transmission Planner" but the Transmission Owner also has the responsibility to implement improvements. We believe that the document should be updated to reflect this additional obligation.</p> <p>Response: The FMWG does not believe that this addition is within the scope of the Functional Model.</p> <p>ATC believes that the Distribution Provider's tasks do not accurately capture its contractual relationship with the End-use Customer. A Distribution Provider provides a service connection to the customer and has a contractual relationship with the End-use Customer. The FM needs to acknowledge the contractual relationship between the DP and End-use Customer.</p> <p>Response: Many entities have contractual relationship with others but the Functional Model does not include the</p>

Organization	Yes or No	Question 6 Comment
		<p>contractual arrangements in the task list. We do not view having a contractual arrangement as a reliability task.</p> <p>Page 11 of the red-line document: The term End-use Customer should be modified: "The party served by a Load-Serving Entity or Distribution Provider".</p> <p>Response: We do not believe adding Distribution Provider is necessary or appropriate. In the Model and by definition, the LSE arranges for the energy delivery to serve end-use customers whereas the DP provides the connection only.</p> <p>Page 15 of the red-line document: (Guiding Principles) ATC is concerned with the view that the Functional Model is only a guideline which documents functions and tasks per functional entity. We believe that this document is the driving force behind specific changes to NERC's Reliability Standards and Rules of Procedure and should be acknowledged. Examples of how the document is driving changes and being used: 1) The NERC Standards Committee requires SDT to use the Functional Entity identifiers contained in the Functional Model Document even if that identify does not exist in Section 500 of NERC's Rules of Procedure. ("Planning Authority" is used in Section 500 but the SC requires SDT to use "Planning Coordinator" which will result in a changing Section 500 and approved reliability standards that contain identifier "Planning Authority".)2) NERC used the Functional Model document to justify its understanding of the word "directive" in a recently issued alert? In addition, the NERC Reliability Functional Model contains a number of statements describing the functions of RC, TOP, BA and DP that include the issuance of "directives" during both normal and real-time emergency conditions for purposes of ensuring bulk power system reliability. (See Rick Sergel Letter included in the SC agenda for its August 13 conference call.)3) NERC has also used this document in support of Reliability Standard filings with FERC. This document must be updated to acknowledge its impact/role in standards development, registration criteria (Section 500), and other NERC activities (i.e. Alerts and Regulatory Filings).ATC believes that this document should reflect Section 500 of NERC's Rules of Procedure and approved Reliability Standards and not be a driving force to change those documents.</p> <p>Response: Thank you for the support and suggestion. However, many commenters in previous posting argued that the Functional Model should not be prescriptive or stipulate requirements. The Functional Model should only serve as a guideline for standard development. Further, registration is driven by standard's applicability and requirements; the Functional Model does not determine registration requirements.</p> <p>It is not the FMWG's intent to use the Model to drive changes to the Rules of Procedure. From time to time, some Functional Entity's names do change to reflect the changing nature of the business and operating practice, and to reflect the majority view of the stakeholders. It is our belief that the Functional Entity names should be consistent across all NERC documents and hence we recommend making corresponding changes to these other documents when a change occurs to the Functional Model. The decision to accept the name change and to develop standards before these changes are implemented in the Rules of Procedure rests with the NERC Board of Trustees.</p> <p>Lastly, we would like to see the CCC, SC and FM Team work together to develop an overall plan which will detail the appropriate relationships between these multiple efforts.</p>

Organization	Yes or No	Question 6 Comment
		<p>Response: Thank you. We will convey your suggestion to the NERC Standards Committee and Compliance and Certification Committee.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>Duke Energy</p>	<p>Yes</p>	<p>The phrase maintains the real-time operating reliability in the Introduction to the Reliability Coordinator section implies more direct control of assets than most Reliability Coordinators in fact possess, as does the term ensures in the definition. The definition should be changed from ensures to maintains, and the description should contain clarification that the Reliability Coordinator is maintaining reliability through functional direction. This could be accomplished by changing the first sentence in the introduction to The Reliability Coordinator maintains, through functional direction, the real-time operating reliability of its Reliability Coordinator Area? This more accurately describes the responsibility.</p> <p>Response: We have changed “ensures” to “maintains”. We do not believe the added word to clarify how the Reliability Coordinator maintains reliability (i.e., via functional direction) is necessary in the definition. It’s the level of detail that is more appropriate elsewhere. Further, the same clarity (if added) will need to be introduced to other functional entities, e.g. the Balancing Authority.</p> <p>There appears to be an edit that was not removed in the third bullet of the Introduction (Ben’s note: etc.)</p> <p>Response: We have removed this.</p> <p>TTC should be removed from number 12 in the list of ahead of time relationships of the Reliability Coordinator this is correctly located in the Transmission Operations Function and Transmission Operator Functional Entity.</p> <p>Response: We believe the term TTC in Item 12 of the Reliability Coordinator’s Relationships with Other Functional Entities is needed since the Reliability Coordinator develops wide-area TTCs which may be needed by the Transmission Provider whose area crosses multiple Transmission Operator Areas. It is not a duplicated task as the Transmission Operator develops TTC for its area only.</p> <p>The phrase reliability area in Task 8 of the Balancing Function should be changed to Balancing Authority Area.</p> <p>Response: We have revised this to: Operate the Balancing Authority Area to contribute to Interconnection frequency.</p> <p>It appears that a few words were inadvertently left out of the definition of the Balancing Authority. Plans should be inserted after resource, and supports should be inserted before Interconnection, so that the definition states The functional entity that integrates resource plans ahead of time, maintains load-interchange-balance within a Balancing Authority Area, and supports Interconnection frequency in real time.</p> <p>Response: We have revised this sentence as: The functional entity that integrates resource plans ahead of time,</p>

Organization	Yes or No	Question 6 Comment
		maintains generation-load-interchange-balance within a Balancing Authority Area, and contributes to Interconnection frequency in real time.
Response: The FMWG thanks you for your comment. Please see responses above.		
WECC Reliability Coordination	Yes	The WECC RC agrees with changes of the Functional model Version 5.
Response: The FMWG thanks you for your comment.		
Bonneville Power Administration	Yes	
Electric Market Policy	Yes	

7. Do you agree with the proposed revisions to the Interchange function and Interchange Coordinator responsible entity in version 5 of the Functional Model Technical Document? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: Most commenters agreed with the revisions and suggested some alternative language as minor edits. Other commenters suggested that the FMWG coordinate with the Coordinate Interchange Standard Drafting Team (project 2008-12). The FMWG notes that we have been in contact with the drafting team and will continue to work them as they revise the INT set of standards.

Organization	Yes or No	Question 7 Comment
Oncor Electric Delivery		No comment
Independent Electricity System Operator	No	In the sentence starting with “While the approval/denial process” change “Interchange Coordinator” to “Interchange function”. We recommend replacing the sentence start with “Sanctions for failure” with, “As such, Reliability Standards requirements related to the Interchange Coordinator must be applicable to and organization.”
<p>Response: The FMWG thanks you for your comment. We changed Interchange Coordinator to Interchange function as you suggest. We have removed the second sentence as the functional model is not the appropriate document to discuss compliance and sanctions. (See page 17, 4th paragraph.)</p>		
Northeast Power Coordinating Council	No	In the sentence starting with “While the approval/denial process” change “Interchange Coordinator” to “Interchange function”. We recommend replacing the sentence start with “Sanctions for failure” with, “As such, Reliability Standards requirements related to the Interchange Coordinator must be applicable to and organization.”
<p>Response: The FMWG thanks you for your comment. We changed Interchange Coordinator to Interchange function as you suggest. We have removed the second sentence as the functional model is not the appropriate document to discuss compliance and sanctions.</p>		
Southern Company	No	Interchange transactions are a marketing function. The reliability function for interchange is between Balancing Authorities. The working group should consider removing the Interchange Authority or Interchange Coordinator from the Functional Model and move the Interchange compliance responsibilities to the Balancing Authority. The functional model allows Balancing Authorities to delegate the Interchange Coordination Responsibilities to a 3rd party if desired. Transmission Service Provider is a marketing function. Providing Transmission Service only becomes a Reliability issue if the transfer capability of the bulk electric system is exceeded.
<p>Response: The FMWG thanks you for your comment. In its original work the FMWG identified many reliability related tasks and grouped these into function; one of</p>		

Consideration of Comments on Functional Model Technical Document — Version 5

Organization	Yes or No	Question 7 Comment
<p>them being Interchange, Knowledge of interchange transactions is key to any system analysis done by BAs and RCs. Thus the FMWG believes Interchange is still a viable function today. The model contemplates that the function can be done by an independent functional entity. Regarding the BA, the Functional Model was developed into logical reliability functions. Balancing was one such function in which resource plans are integrated ahead of time and load-interchange-transaction balance is maintained. Handling processing of Interchange Transactions is not part of the Balancing function.</p> <p>For the reason you state, the Transmission Service Provider is a reliability entity and should be in the model.</p>		
FirstEnergy	No	The Functional Model Working Group should coordinate its efforts with the Coordinate Interchange Standard Drafting Team (CISDT) to determine if this function should be removed. The responsibilities of the function can be applied to other functions in the model and therefore this entity is not needed. The current work by the CISDT does not reference the entity.
<p>Response: The FMWG thanks you for your comment. The FMWG contends that this is a reliability task that should be included in the model. We are coordinating with the standard drafting team that is working on the Interchange Standards.</p>		
NERC Standards Review Subcommittee	Yes	The MRO NSRS believes this question is a duplicate of #1.
<p>Response: The FMWG thanks you for your comment. Question 1 addresses the Functional Model; Question 7 addresses the Functional Model Technical Document.</p>		
WECC Reliability Coordination	Yes	The WECC RC agrees with the RC portion of the Functional Model Technical document.
<p>Response: The FMWG thanks you for your comment.</p>		
Bonneville Power Administration	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Duke Energy	Yes	

Organization	Yes or No	Question 7 Comment
Electric Market Policy	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	

8. Do you agree with the proposed revisions to clarify the Planning Reliability function and the Planning Coordinator entity in version 5 of the Functional Model Technical Document? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agree with the revisions to the Planning sections. Some commenters suggested minor edits that the FMWG included in the document. The FMWG also revised the section on “Areas” to clarify stakeholders concerns that the passage was confusing.

Organization	Yes or No	Question 8 Comment
WECC Reliability Coordination		No comment from the WECC RC.
Independent Electricity System Operator	No	<p>In paragraph 1, we believe the intent of this rather lengthy sentence would be clearer with the following change. Replace the text “with respect to established reliability standards” with “to ensure they achieve the objectives of applicable reliability standards,”.</p> <p>The opening sentences of paragraph 2 seem to diminish the role of the Planning Coordinator. We suggest the following re-wording to avoid this “The Planning Coordinator performs a number of functions similar to those carried out by the Transmission Planner, however the Planning Coordinator by its very nature will generally assume a wider perspective than that of the Transmission Planners. Some of these functions include”? followed by the list of functions contained in the text (edited appropriately to read correctly).</p> <p>Paragraph 3 recognizes a situation where no one functional entity could be identified who carries out the Planning Reliability function, but does not indicate how the standards requirements applicable to the PC are shared. This may be outside of the scope of this Technical Document but the issue is just left hanging. Could some guidance be included?</p>
<p>Response: The FMWG thanks you for your comment. The FMWG believes that the proposed wording change infers that the Planning Coordinator has a certain level of “authority” to “ensure” reinforcement and corrective action plans meet standard reliability objectives expressed in the requirements. This could be confused with compliance review and the FMWG has decided not to make the suggested revision.</p> <p>The FMWG believes that the second paragraph acknowledges the fact that the breadth and extent of the Planning Coordinator's tasks and relationships are related to that of the Transmission Planner(s) and Resources Planner(s) in its area. In and of itself, the explanation does not diminish the role as much as the real world situations being represented do. The FMWG has decided not to make the suggested revision.</p> <p>Applicability and related compliance issues for planners that join together as a group are more appropriately explained and described in the development of</p>		

Organization	Yes or No	Question 8 Comment
standards. Such a situation is currently being proposed in draft NERC standards.		
Northeast Power Coordinating Council	No	<p>In paragraph 1, we believe the intent of this rather lengthy sentence would be clearer with the following change. Replace the text “with respect to established reliability standards” with “to ensure they achieve the objectives of applicable reliability standards,”.</p> <p>The opening sentences of paragraph 2 seem to diminish the role of the Planning Coordinator. We suggest the following re-wording to avoid this “The Planning Coordinator performs a number of functions similar to those carried out by the Transmission Planner, however the Planning Coordinator by its very nature will generally assume a wider perspective than that of the Transmission Planners. Some of these functions include” followed by the list of functions contained in the text (edited appropriately to read correctly).</p> <p>Paragraph 3 recognizes a situation where no one functional entity could be identified who carries out the Planning Reliability function, but does not indicate how the standards requirements applicable to the PC are shared. This may be outside of the scope of this Technical Document but the issue is just left hanging. Could some guidance be included?</p>
<p>Response: The FMWG thanks you for your comment. The FMWG believes that the proposed wording change infers that the Planning Coordinator has a certain level of “authority” to “ensure” reinforcement and corrective action plans meet standard reliability objectives expressed in the requirements. This could be confused with compliance review and the FMWG has decided not to make the suggested revision.</p> <p>The FMWG believes that the second paragraph acknowledges the fact that the breadth and extent of the Planning Coordinators tasks and relationships are related to that of the Transmission Planner(s) and Resources Planner(s) in its area. In and of itself, the explanation does not diminish the role as much as the real world situations being represented do. The FMWG has decided not to make the suggested revision.</p> <p>Applicability and related compliance issues for planners that join together as a group are more appropriately explained and described in the development of standards. Such a situation is currently being proposed in draft NERC standards.</p>		
Duke Energy	No	<p>The first paragraph under Planning Coordinator should be consistent with the definition of Planning Coordinator in the Functional Model. The largest discrepancy is the omission of evaluates from the Technical Document discussion.</p> <p>The discussion on the boundaries of the Planning Coordinator area in the fourth paragraph is confusing and seems to conflict with the discussion of the Transmission Planner area. The fourth sentence in the Planning Coordinator discussion refers to differences in the Planning Coordinator area and the Transmission Owner boundary, but then the fifth sentence references the Reliability Coordinator and Transmission Operator area - the connection is not clear. Then the sixth sentence states that the Transmission Planner Area can be larger than the Planning Coordinator Area, but the last sentence in the second paragraph of the Transmission Planner discussion states that the Transmission Planner Area can only be smaller than or equal to the area of its related Planning Coordinator.</p>

Organization	Yes or No	Question 8 Comment
<p>Response: The FMWG thanks you for your comment. The FMWG agrees and has included the proposed addition of “facilitates” (Tech Doc page 10). The FMWG agrees that the referenced paragraph is difficult to read and understand. The FMWG has revised the paragraph for clarity. (Tech Doc page 10)</p>		
NERC Standards Review Subcommittee	No	The MRO NSRS believes this question is a duplicate of #2
<p>Response: The FMWG thanks you for your comment. : Question #2 addressed changes in the Functional Model itself whereas this question refers to the associated Technical Document that provides addition details and explanations.</p>		
Florida Municipal Power Agency (FMPA)	Yes	See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity. In addition, while the first sentence of the last paragraph of the Planning Coordinator discussion on page 11 of the Technical Document correctly states that the Planning Coordinator is not responsible for implementing the plans, the next sentence states that a Planning Coordinators “helps to ensure that adequate resources and transmission facilities are placed into service in a timely manner through the Resource Planners, Transmission Planners, and possibly others through the coordinated planning process” (emphasis added). “[H]elps to ensure” should to be replaced with “facilitate,” consistent with the Functional Model (page 23, bullet 10) and the limited authority of PCs. See FMPA response to Question 2 above.
<p>Response: The FMWG thanks you for your comment. The FMWG agrees and has made the proposed change. (See page 11, paragraph 2 of redline.)</p>		
Transmission Access Policy Study Group	Yes	See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity. In addition, while the first sentence of the last paragraph of the Planning Coordinator discussion on page 11 of the Technical Document correctly states that the Planning Coordinator is not responsible for implementing the plans, the next sentence states that a Planning Coordinator “helps to *ensure* that adequate resources and transmission facilities are placed into service in a timely manner through the Resource Planners, Transmission Planners, and possibly others through the coordinated planning process” (asterisks added for emphasis). “[H]elps to ensure” should to be replaced with “facilitate,” consistent with the Functional Model (page 23, bullet 10) and the limited authority of PCs. See TAPS response to Question 2 above.
<p>Response: The FMWG thanks you for your comment. The FMWG agrees and has made the proposed change.</p>		
American Public Power Association	Yes	See TAPS comments as well.
<p>Response: The FMWG thanks you for your comment. See the response to TAPs comments.</p>		

Organization	Yes or No	Question 8 Comment
Hydro One Networks Inc.	Yes	The intent would be clearer with the following change. Replace the text “with respect to established reliability standards” with “to ensure they achieve the objectives of applicable reliability standards,”.?
<p>Response: The FMWG thanks you for your comment. The FMWG believes that the proposed wording change infers that the Planning Coordinator has a certain level of “authority” to “ensure” reinforcement and corrective action plans meet standard reliability objectives expressed in the requirements. This could be confused with compliance review and the FMWG have decided not to make the suggested revision.</p>		
Bonneville Power Administration	Yes	
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Electric Market Policy	Yes	
FirstEnergy	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	

Organization	Yes or No	Question 8 Comment
Southern Company	Yes	

9. Do you agree with the proposed revisions to clarify the Transmission Planning Reliability function and the Transmission Planner entity in version 5 of the Functional Model Technical Document? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agreed with the proposed revisions to the Transmission Planning sections for the Technical Document. A few stakeholders suggested minor clarifying revisions and the FMWG has included these revisions in the document.

Organization	Yes or No	Question 9 Comment
WECC Reliability Coordination		No comment from the WECC RC.
FirstEnergy	No	On pg. 18 of the redline document, in the second paragraph, the term "deficiencies" was used. However in the revisions of the Functional Model, it appears there was sensitivity to the use of this term based on the revisions. If so, the FMWG may want to revise the technical document for consistency.
<p>Response: The FMWG thanks you for your comment and agrees that the term “deficiency” in this context may be unclear. The FMWG proposes to modify the language to remove this reference and change:</p> <p>In reporting its transmission expansion plan to the Planning Coordinator, the Transmission Planner is also expected to verify that its plans for new or reinforced facilities meet reliability standards or identify the transmission deficiencies.</p> <p>To</p> <p>In reporting its transmission expansion plan to the Planning Coordinator, the Transmission Planner is expected to assess whether its plans for new or reinforced facilities meet reliability needs or whether corrective plans are necessary. (See page 12, last paragraph of redline.)</p>		
NERC Standards Review Subcommittee	No	The MRO NSRS believes this question is a duplicate of #3
<p>Response: The FMWG thanks you for your comment. Question 3 refers to the Functional Model and this question is regarding the Technical Document.</p>		
Independent Electricity System Operator	No	To improve readability we suggest inserting a paragraph break after the third sentence of the second paragraph. After the text “by the extent of the models” insert “it uses”

Organization	Yes or No	Question 9 Comment
<p>Response: The FMWG thanks you for your comment. The FMWG agrees and has revised the paragraph for clarity. (See page 12, second paragraph of redline.)</p>		
Northeast Power Coordinating Council	No	To improve readability we suggest inserting a paragraph break after the third sentence of the second paragraph. After the text “by the extent of the models” insert “it uses”
<p>Response: The FMWG thanks you for your comment. The FMWG agrees and has revised the paragraph for clarity.</p>		
Southern Company	No	What is meant by any Transmission Planner can do a study using a wide-area model? This appears to be overly broad in some regions.
<p>Response: The FMWG thanks you for your comment. The FMWG uses the term “wide-area model” to indicate that there are system models available to planners that encompass multiple Transmission Planning Areas which are readily available to those engaged in the planning function.</p> <p>As an example, these models are developed and available from various NERC efforts both past and present such as MultiRegional Modeling Working Group “MMWG” and Eastern Interconnection Reliability Assessment Group Multi- Regional Modeling Working Group “ERAG”.</p>		
Hydro One Networks Inc.	Yes	Agree with the intent. To improve readability we suggest inserting a paragraph break after the third sentence of the second paragraph. After the text “by the extent of the models” insert “it uses”
<p>Response: The FMWG thanks you for your comment. The FMWG accepts the change and agrees it improves readability. (See page 12, second paragraph.)</p>		
Transmission Access Policy Study Group	Yes	Comments: See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity.
<p>Response: The FMWG thanks you for your comment. Please see response to TAPS in Q12.</p>		
Florida Municipal Power Agency (FMPA)	Yes	See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity.
<p>Response: The FMWG thanks you for your comment. Please see response to FMPA in Q12.</p>		
American Public Power Association	Yes	
Bonneville Power	Yes	

Organization	Yes or No	Question 9 Comment
Administration		
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Duke Energy	Yes	
Electric Market Policy	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	

10. Do you agree with the proposed revisions to clarify the Resource Planning function and the Resource Planner entity in version 5 of the Functional Model Technical Document? If no, please provide comments in support of your answer in the comment area.

Summary Consideration: The majority of stakeholders agree with the proposed revisions to the Resource Planner sections of the Functional Model. One stakeholder questioned the need for the Resource Planner in the Model because of a paucity of requirements in the standards for the Resource Planner. While it is true that there are currently few Reliability Standards that are uniquely applicable to Resource Planners, the FMWG considers the Resource Planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement. A couple of stakeholders suggested clarifying edits which the FMWG has made.

Organization	Yes or No	Question 10 Comment
WECC Reliability Coordination		No comment from the WECC RC.
FirstEnergy	No	The changes do not appear to clarify the Resource Planning function and feel that it should be reviewed further for its continued need. There appear to be few, if any, NERC reliability requirements that are uniquely applicable to RPs. Alternatively, the FMWG should consider SARs to establish reliability requirements uniquely applicable to RPs.
<p>Response: The FMWG thanks you for your comment. While true that there are currently few Reliability Standards that are uniquely applicable to RPs, the FMWG considers the resource planning function crucial to maintaining resource adequacy. The FMWG recognizes that not all tasks in the Functional Model may be represented by a standard requirement.</p>		
SERC Planning Standards Subcommittee	No	The note that the Resource Planner considers reactive power in his resource plans needs to be changed. The resource Planner focuses on real power and reactive power is incidental to his main purpose. Planning for both static and dynamic reactive power is a Transmission Planner function.
<p>Response: The FMWG thanks you for your comment. We agree and have removed the reference to reactive power. (See page 13, second paragraph.)</p>		
Independent Electricity System Operator	No	We propose the following changes to the text: At the end of the fourth paragraph, append after “outside the area defined by the specific loads” the text “as well as the capabilities of intervening transmission facilities.”
<p>Response: The FMWG thanks you for your comment. We agree with the perceived intent of your proposed change, but prefer an alternative phrasing to “intervening transmission facilities.” The sentence will be changed to read as follows:</p>		

Organization	Yes or No	Question 10 Comment
<p>"The analysis and development of resource plans by their very nature will need to consider generation capacity and other resources outside the area defined by the specific loads, <u>as well as the transmission capability to access those resources.</u>" (See page 13, third paragraph.)</p>		
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>We propose the following changes to the text: At the end of the fourth paragraph, append after "outside the area defined by the specific loads" the text "as well as the capabilities of intervening transmission facilities."</p>
<p>Response: The FMWG thanks you for your comment. We agree with the perceived intent of your proposed change, but prefer an alternative phrasing to "intervening transmission facilities." The sentence will be changed to read as follows: "The analysis and development of resource plans by their very nature will need to consider generation capacity and other resources outside the area defined by the specific loads, <u>as well as the transmission capability to access those resources.</u>" (See page 13, third paragraph.)</p>		
<p>Transmission Access Policy Study Group</p>	<p>Yes</p>	<p>Comments: See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity.</p>
<p>Response: The FMWG thanks you for your comment. Please see our response to question 12.</p>		
<p>Florida Municipal Power Agency (FMPA)</p>	<p>Yes</p>	<p>See discussion in response to Question 12 below of inappropriate and unnecessary assumption of contiguity.</p>
<p>Response: The FMWG thanks you for your comment. Please see our response to question 12.</p>		
<p>NERC Standards Review Subcommittee</p>	<p>Yes</p>	<p>The MRO NSRS believes this question is a duplicate of #4</p>
<p>Response: The FMWG thanks you for your comment. Questions 4 and 10 are companion questions in that both relate to the Resource Planning function. The slight distinction is that question 4 is focused on proposed changes to the Functional Model document, while question 10 is focused on proposed changes to the Functional Model "Technical Document".</p>		
<p>American Public Power Association</p>	<p>Yes</p>	<p>Yes. See also TAPS response to Question 12.</p>
<p>Response: The FMWG thanks you for your comment. Please see our response to question 12.</p>		
<p>Bonneville Power Administration</p>	<p>Yes</p>	

Organization	Yes or No	Question 10 Comment
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Duke Energy	Yes	
Electric Market Policy	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
National Rural Electric Cooperative Association	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
Southern Company	Yes	

11. Do you agree with the proposed terminology revisions (i.e. Entity Terminology, Entity Names and Entity Definitions, as identified in the Revision Summary of this document) in version 5 of the Functional Model Technical Document, and the proposal to achieve consistency in the terms used in the Function Model and other NERC documents? If no, please provide comments in support of your answer in the comment area.

Summary Consideration:

The majority of commenters agreed with the proposed changes.

Commenters that disagreed generally proposed that Version 5 should address current NERC issues, including:

- defining the term Directive
- the long-term solution of LSEs in retail choice jurisdictions

The FMWG disagrees, believing that such issues need to be addressed outside of the Model through the Standard Development Process.

Commenters identified instances where the Model retains inappropriate references to "responsibility" - the FMWG agrees and made the recommended changes.

The FMWG will make changes to the table summarizing the terminology changes, in response to a commenter that identified the need for additional clarity.

Organization	Yes or No	Question 11 Comment
CenterPoint Energy	No	<p>CenterPoint Energy respectfully disagrees with the FMWG regarding the DP as LSE issue and is disappointed that the FMWG chose not to propose much needed changes to the Model. The FMWG within the Model Technical Document states, "the problem and its solution relate to registration, not the Tasks performed, and as such do not directly affect the Model". It is precisely because LS and LSEs are identified in the Model with the assigned Tasks and Relationships to Other Functional Entities that there is disagreement. The Technical Document acknowledges that "NERC's Standard Development Teams develop Reliability Standards that assign each reliability requirement within a standard to a functional entity, as defined in the Model." The Model itself is the foundation from which standard requirements are assigned to applicable entities.</p> <p>Even more troubling is the fact that the Functional Model Technical Document continues to include language that is clearly contrary to the statutory provisions in the ERCOT market. The statutory requirements of the Public Utility Regulatory Act of Texas ("PURA") were discussed in comments filed by CenterPoint Energy at the FERC in the docket discussed by the FMWG. Yet, the FMWG has completely ignored the legal impediments to the entities located within</p>

Organization	Yes or No	Question 11 Comment
		<p>ERCOT fulfilling the roles set forth in the Functional Model Technical Document for an LSE. For example, the document states that “the LSE may contract for reliability-related services”. However, in Texas it is a violation of the statute for the DPs to contract for services. By recommending the proposed changes and not addressing the fundamental issues, the FMWG has exacerbated the existing problems with having DPs registered as LSEs. CenterPoint Energy believes that instead of making further changes that cause greater harm, NERC should address the long-term solution to the issue of the LSE function. CenterPoint Energy believes that the appropriate manner in which to address the issue is to review each requirement and determine the appropriate entity to perform the function. As FERC and NERC agree, a separate but related effort is needed to then determine through the standard review process if the LSE is the appropriate applicable entity for certain standards and requirements. CenterPoint Energy acknowledges that there are some standard requirements that are currently included in the LSE category that should be assigned to the DP category. However, it is also true that some standard requirements that are assigned to the LSE category are not functions of DPs, and thus should be assigned to other registered entities.</p>
<p>Response: The FMWG thanks you for your comment. Please see response to CenterPoint Energy's comment to Question 5. The problems noted and their solutions relate to registration, not the Tasks performed, and as such do not directly affect the Model, notwithstanding any role the Model may have in shaping the development of standards and registration processes. Also, as indicated in the Technical Document, page 48, NERC has agreed to undertake the development of a long-term solution to the registration and compliance aspects of the LSE and DP in retail choice jurisdictions.</p>		
Southern Company	No	Definitions should be moved to the NERC Glossary and not be contained in this document.
<p>Response: The FMWG thanks you for your comment. The FMWG disagrees. The model contains definitions of functional entities as they relate to the model as a self-contained document. If these entities are also a defined term in the Glossary, there should be consistency between the two. The FMWG plans to submit a SAR to make necessary revisions to the Glossary for consistency.</p>		
FirstEnergy	No	If the FMWG agrees with our comment in Question 5 above, then conforming changes are needed in the technical document as well.
<p>Response: The FMWG thanks you for your comment. The FMWG did not make any revisions based on your comment to question 5 (please see response above).</p>		
NERC Standards Review Subcommittee	No	The MRO NSRS believes this question is a duplicate of #5
<p>Response: The FMWG thanks you for your comment. This question regards the terminology of the Functional Model Technical Document and Question 5 relates to the Functional Model.</p>		
National Rural Electric	Yes	NRECA found the Glossary table somewhat confusing in determining which changes are required and why some terms

Organization	Yes or No	Question 11 Comment
Cooperative Association		are not presently included in the Glossary and why the FMWG was not considering the inclusion of undefined terms.
<p>Response: The FMWG thanks you for your comment. The Glossary table pages 49-54, provides the Version 5 definitions (recommended for use in the Glossary), along with the associated Version 4 definitions, and the current Glossary definitions (April 20, 2009). The comment column concerns the nature of conforming changes that would be required in the Glossary.</p> <p>For Entities not used in a standard, there is no need for a glossary definition. To help provide clarity for the three entities not in the glossary, we have edited the right hand entry in the “Comment” column to: “Term not used in Reliability Standards and therefore is not required in the Glossary.” (See table beginning on page 50 of redline)</p>		
American Public Power Association	Yes	See also the APPA and TAPS responses to Q. 5.
<p>Response: The FMWG thanks you for your comment. Please see response to Q5.</p>		
Florida Municipal Power Agency (FMPA)	Yes	See FMPA response to Question 5.
<p>Response: The FMWG thanks you for your comment. Please see response to Q5.</p>		
Transmission Access Policy Study Group	Yes	See TAPS response to Question 5.
<p>Response: The FMWG thanks you for your comment. Please see response to Q5.</p>		
WECC Reliability Coordination	Yes	The WECC RC agrees with no changes made to the reference of Reliability Coordinator.
<p>Response: The FMWG thanks you for your comment.</p>		
Bonneville Power Administration	Yes	
Brazos Electric Power Cooperative, Inc.	Yes	

Organization	Yes or No	Question 11 Comment
Central Lincoln	Yes	
City Water, Light & Power - Springfield, IL	Yes	
Duke Energy	Yes	
Electric Market Policy	Yes	
Hydro One Networks Inc.	Yes	
Independent Electricity System Operator	Yes	
LCRA Transmission Services Corporation	Yes	
Manitoba Hydro	Yes	
Northeast Power Coordinating Council	Yes	
Oncor Electric Delivery	Yes	
RRI Energy	Yes	
SERC Planning Standards Subcommittee	Yes	

12. Do you have any other comments regarding the proposed revisions to the Functional Model Technical Document (v5)? If yes, please provide comments in support of your answer in the comment area.

Summary Consideration:

(1) Several commenters reiterated their comments provided under Question 6. These comments addressed issues in the Functional Model as well as the Technical Document. We thank the commenters for reiterating their inputs, and suggest that they review our responses provided in the Summary Consideration under Question 6.

(2) Several commenters suggested that the discussion in the Technical Document inappropriately focuses on certain topics, Functional Entities and market structures while there is little discussion on some other topics. This is intentional since The Technical Document is intended to provide additional information to help explain certain aspects of the Model which, in our view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. For example, the FMWG observed that the industry appeared to be quite confused with the roles of Load-Serving Entity and Distribution Provider, and the role of the Transmission Owner in providing the facilities and implementing load shedding. For this reason, the Technical Document was expanded to provide a rather comprehensive discussion to provide readers with a broader picture of the various entities' roles in these areas. Further, the Model provides an overview of the relationships (interactions) among Functional Entities and between them and other market participants. As such, it is inevitable that the Technical Document also describes some of the interfaces between reliability and market domains.

(3) Several commenters suggested the Functional Model should include only those Functional Entities that exist, i.e. those that are in the NERC registry and must perform reliability tasks that directly impact the BES. While the Functional Model is regarded as a guide for standard development, its original scope and intent was to provide a general description of the tasks that need to be performed to ensure reliability and the interactions among market participants that may have an impact on reliability. Consistent with this intent, the Model includes functions and Functional Entities such as the standard development and reliability assurance functions and their respective Functional Entities (Standard Developer and Reliability Assurer) as their associated tasks are needed to ensure reliability although no standards are currently written to hold these entities responsible for compliance. Further, in providing a full picture of the reliability domain which includes its interface with the market domain, the Model needs to include the Market Operator to show its relationship with the Balancing Authority.

As indicated in the Introduction Section, Standards Developers are not required to include tasks envisioned in the model, nor are the Standards Developers precluded from developing Reliability Standards that are not described in the Model. When developed, standards will stipulate which entity is held accountable for meeting requirements, which in turn drives the need for entity registration. The Functional Model does not drive this, and hence it is not necessary that all Functional Entities defined in the Model be on the NERC registry.

(4) Several commenters observed some inconsistency in the use of the term "Bulk Electric System" used in the Technical Document and the term "Bulk Power System" used in the Functional Model Document. We have reviewed both documents, and changed all "Bulk Power System" terms to Bulk Electric System".

Organization	Yes or No	Question 12 Comment
Oncor Electric Delivery		No additional comment
Bonneville Power Administration	No	
Brazos Electric Power Cooperative, Inc.	No	
City Water, Light & Power - Springfield, IL	No	
LCRA Transmission Services Corporation	No	
Manitoba Hydro	No	
SERC Planning Standards Subcommittee	No	
Southern Company	No	
WECC Reliability Coordination	No	
Electric Market Policy	Yes	Dominion thanks the FMWG for their efforts in this version
Response: The FMWG Thanks you for your comment.		
Duke Energy	Yes	In the Generator Operator section, Relationship with the Balancing Authority, the word and should be removed between annual and maintenance. Also, in the sentence after Relationship with Purchasing-Selling-Entity, Interchange Transactions should be changed to Arranged Interchange. It appears that in section 12 Reliability Areas and Boundaries of Section 2, Technical Discussions, the list of relationships that the NERC Rules of Procedure specify should have the numbering removed and should have regional entities changed to Reliability Assurer.

Organization	Yes or No	Question 12 Comment
<p>Response: The FMWG Thanks you for your comment. We removed reference to maintenance plans as this is a task for the Generation Owner. (See page 49 of the FM redline.) We have changed “Interchange Transactions” to “Arranged Interchange” as indicated. The items in Section 12 are copied directly from the NERC Rules of Procedure. We will retain the section numbers for reference and the language. (See page 21 of the Technical Reference redline.)</p>		
FirstEnergy	Yes	<p>On Page 8 the Load-following through economic dispatch section should be revised to state, "The organization that serves as the Balancing Authority will in general also direct unit commitment and economic dispatch; however, in some markets, Generator Operators may be permitted to perform unit commitment and economic dispatch among the fleet of generators under their control and within the requirements accepted by the market operator."</p> <p>If the Functional Model's intended use is to guide the need for Reliability Standards regarding functional tasks and to identify the need for registration of functional entities, the Functional Model should only include entities that exist and that must perform reliability tasks that directly impact the BES. As such, there is no need for a Standards Developer or a Compliance Enforcement Authority. These entities are addressed by laws. Finally, Market Operator by definition should be eliminated from the Functional Model. If its hasn't done so already, the FMWG should consider examining the NERC registry to see if its model is fitting the industry's view of itself, as an indication of how the model should be changed or how there is a real gap in the registration; that is, real entities performing unique functions.</p>
<p>Response: The FMWG Thanks you for your comment.</p> <p>We have revised the Load-Following Through Economic Dispatch section as suggested. (See page 8 of the Technical Reference redline.)</p> <p>While the Functional Model is regarded as a guide for standard development, its original scope and intent were to provide a general description of the tasks that need to be performed to ensure reliability and the interactions among market participants that may have an impact on reliability. Consistent with this intent, the Model includes standard development and reliability assurance functions as their associated tasks are needed to ensure reliability. Further, in providing a full picture of the reliability domain which includes its interface with the market domain, the Model includes the Market Operator to show its relationship with the Balancing Authority.</p> <p>As indicated in the Introduction Section, Standards developers are not required to include tasks envisioned in the model, nor are the developers precluded from developing Reliability Standards that are not described in the Model. When developed, standards will stipulate which entity is held accountable for meeting requirements, which in turn drives the need for entity registration. The Functional Model does not drive this, and hence it is not necessary that all Functional Entities defined in the Model be on the NERC registry.</p>		
RRI Energy	Yes	Same comment that was entered in Question 6.
<p>Response: The FMWG thanks you for your comment. Please see our response under Question 6.</p>		
American Public Power Association	Yes	See comments submitted by TAPS in response to this question.

Organization	Yes or No	Question 12 Comment
<p>Response: The FMWG thanks you for your comment. Please see our response to TAPS's comments.</p>		
National Rural Electric Cooperative Association	Yes	See response to question #6
<p>Response: The FMWG thanks you for your comment. Please see response to question 6.</p>		
Georgia Transmission Corporation	Yes	<p>Some of the Standards, i.e. COM-001 and COM-002, include requirements to use the English language for all inter-entity BES reliability communications. This was applicable to RC, TOP, BA, GOP, TSP, LSE, and PSE registrations. What is concerning, is that the "requirement" specified the use of the English language "unless agreed to otherwise", which suggests that it is an "option" and not a "requirement". Additionally, one must question the measurability from an audit stand point, and the administrative burden to those entities not directly impacted by language barriers by their neighbors. GTC would like to offer the solution to provide further context, explanations, and opinions within the Functional Model to encompass the intuitive nature of understanding BES reliability communications (using the same languages) by the entities described within the functional model. Perhaps defining or stating this obvious good practices option (of using English unless agreements are in place) within the each Entities Definition. Then, SDT can remove these types of (good practices) requirements within certain Standards, and focus more on performance-based requirements that have a clear beneficial impact on reliability of the BES.</p>
<p>Response: The FMWG thanks you for your comment. We do not believe stating this obvious is good practice within each entity definition is necessary, nor is it an effective way to address the language issue. Further, we do not believe this is a reliability task.</p>		
Florida Municipal Power Agency (FMPA)	Yes	<p>The Functional Model Technical Document includes very extensive discussions of various market structures. See, e.g., pages 34-41. Although it may be reasonable to include some discussion of markets to recognize how the NERC functions operate under different market structures, much of the detail seems unnecessary or confused, given the limited NERC-related purpose of the discussion. Indeed, it seems to needlessly invade NAESB's business practice terrain. The repeated use of the undefined term "market area" only adds to the confusion. FMPA therefore suggests that much of this discussion be removed, and what remains should be clarified so that it is accurate across the varied circumstances to which it purports to apply and simply describes how the different functions operate in different markets.</p> <p>Response: The Model provides an overview of the relationship (interactions) among Functional Entities and between them and other market participants. As such, it is inevitable that the Technical Document also describes some of the interfaces between reliability and market domains. As indicated in the Introduction Section, the Functional Model is not a standard, and hence any discussion of the interactions between the reliability and market domains and description of how the NERC functions operate under different market structures are by no means or in any way invade the business terrain.</p>

Organization	Yes or No	Question 12 Comment
		<p>In describing several different functions, the Functional Model Technical Document characterizes the relevant facilities as “generally contiguous.” See, e.g., page 10 as to PCs (“The BES facilities under its purview, are generally contiguous, cover the same or aggregate areas as the Transmission Planners its coordinates.”); page 12 as to TPs (“The BES facilities in its area, i.e. under its purview, are generally contiguous.”); page 13 as to RPs (“The loads under considerations are generally contiguous and form the fundamental input for analysis of resources such as loss of load studies, etc.”). While that characterization may be generally accurate for vertically-integrated investor-owned utilities, it is not accurate as applied to municipal joint action agencies and G&T cooperatives that have geographically-dispersed loads and facilities. FMPA therefore suggests the inaccurate “generally contiguous” description be removed.</p> <p>Response: As the word implies, “generally contiguous” means nothing more than generally. It implies exceptions are not at all unusual. It does not conflict with the situation of municipal joint action agencies and G&T cooperatives having geographically-dispersed loads and facilities.</p> <p>As discussed in response to Question 6, the Functional Model Technical Document assumes that DPs own and operate UFLS/UVLS equipment. See page 59 (“The Distribution Provider provides the facilities that could be used to shed load for emergency action.”); page 20 (“The Distribution Provider provides the switches and reclosers necessary for emergency action.”). FMPA is concerned that the Functional Model Technical Document’s assumption that DPs are the only entity that owns and operates UFLS/UVLS equipment is not consistent with actual practice in many areas. For example, in some areas, UFLS/UVLS equipment is owned and operated by TOs, which can be a more efficient and equitable way of addressing involuntary curtailments than requiring small DPs to own and operate UFLS/UVLS equipment that would operate on a far more granular basis than in the surrounding system. In addition, FMPA is also concerned that the DP-UFLS/UVLS discussion in the Functional Model and Functional Model Technical Document not prejudge or otherwise affect the ongoing discussion in the UFLS/UVLS SDT regarding how it is determined, in a given area or region, which entity is responsible. Thus, as noted in response to Question 6, FMPA recommends that the UFLS/UVLS discussions be modified to reflect the fact that in some areas, entities other than the DPs (e.g., TOs) own and operate UFLS/UVLS equipment.</p> <p>Response: The Functional Model provides a general description of the reliability tasks and inter-entity relationship and interactions when performing these tasks. The Model is not prescriptive, nor does it mandate any requirements. We do recognize that Transmission Owners may own UFLS/UVLS equipment but we believe that such cases are when the Transmission Owners have facilities to which the end-use customers are connected and served. In this case, the Transmission Owners themselves are also Distribution Providers, by definition (see NERC Glossary of Terms). We believe the Model presents the general understanding and reflects actual practices in most areas. Absent any evidence, we are unable to accept the argument that having the Distribution Providers own and operate UFLS/UVLS equipment is inconsistent with the actual practice in the majority of the areas.</p> <p>We believe that UFLS/UVLS equipment is generally located at the buses to which end-use customers are directly connected. While there may be situations where such is not the case, and the UFLS/UVLS equipment is located at a Transmission Owner’s facilities to which no end-use customers are directly connected, and is by design located at such</p>

Organization	Yes or No	Question 12 Comment
		<p>locations to trip lines/feeders to multiple DP facilities, the Functional Model does not preclude such an arrangement.</p> <p>In addition, FMPA is concerned about the Functional Model Technical Document’s description of the LSE and DP roles in curtailments (at pages 59-60, emphasis added): “For non-voluntary curtailment, such as automatic underfrequency and undervoltage load shedding and manual load shedding, the Load-Serving Entity identifies which critical customer loads should be excluded from curtailment for safety and/or security reasons. Once identified and necessary contractual arrangements are made, the Distribution Provider (or the Transmission Operator as appropriate) will make (feeder) connection arrangement such that these critical loads will not be curtailed by the load shedding facilities until other options have been exhausted.” In the first quoted sentence, the reasons for identification of critical customers should be expanded to expressly include public health as well as safety and security. The description of the DP role in the second sentence is too absolute, failing to reflect the fact that the feeder arrangements will need to balance various factors. FMPA therefore suggests “reasonable efforts to arrange (feeder) connections” be substituted for the underlined text to allow for the necessary exercise of judgment.</p> <p>Response: We have expanded the first sentence to mention public health, safety and security. We have revised the second sentence as suggested.</p> <p>In addition, FMPA questions the use of the term “ensure in the last paragraph on page 60 (“The Load-Serving Entity is responsible for communicating requests for voluntary curtailment to the appropriate end-use customers, thereby ensuring that these loads will in fact be curtailed.”). Because there is no assurance that the customer themselves will act on the request, the last clause of this sentence should reworded to reflect that uncertainty, e.g., “thereby increasing the effectiveness of voluntary load curtailment.”</p> <p>Response: We have revised the sentence as suggested.</p> <p>FMPA is concerned that some of the discussion in the Technical Document inappropriately focuses on distribution-level reliability, and therefore goes beyond the BES reliability that should be the focus of NERC standards. For example, The discussion on page 58, under A, Voluntary Load Curtailment, of load curtailment due to overloads on the DP system should not be included in the Functional Model Technical Document since overloads of the DP system have nothing to do with Bulk Electric System reliability. On the same page, the last two sentences of the second paragraph under B. Non-Voluntary Load Curtailment (Shedding), should be struck for the same reason, as should the second paragraph under the discussion of Distribution Provider on page 59. In addition, the new sentence included on page 20 of the Technical Document i (“One Distribution Provider may be directly connected to another Distribution Provider and not directly connected to the bulk power system.”) should be removed because the sentence adds only confusion to the document.</p> <p>Response: The Technical Document provides additional information to help explain certain aspects of the model which, in the FMWG’s view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. The FMWG observed that the industry appeared to be quite confused with the roles of Load-Serving Entity and Distribution Provider, and the role of the Transmission Owner in providing the facilities and implementing load shedding. For this reason, the Technical Document was expanded to</p>

Organization	Yes or No	Question 12 Comment
		<p>provide a rather comprehensive discussion to provide readers with a broader picture of the various entities' roles in these areas. An overload situation in the DP's system is one of the possible reasons for load shedding, and is included to give a full picture of the various shedding load scenarios. The other discussions mentioned in your comments were included for similar reasons.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
<p>Transmission Access Policy Study Group</p>	<p>Yes</p>	<p>The Functional Model Technical Document includes very extensive discussions of various market structures. See, e.g., pages 34-41. Although it may be reasonable to include some discussion of markets to recognize how the NERC functions operate under different market structures, much of the detail seems unnecessary or confused, given the limited NERC-related purpose of the discussion. Indeed, it seems to needlessly invade NAESB's business practice terrain. The repeated use of the undefined term "market area" only adds to the confusion. TAPS therefore suggests that much of this discussion be removed, and what remains should be clarified so that it is accurate across the varied circumstances to which it purports to apply.</p> <p>Response: The Model provides an overview of the relationship (interactions) among Functional Entities and between them and other market participants. As such, it is inevitable that the Technical Document also describes some of the interfaces between reliability and market domains. As indicated in the Introduction Section, the Functional Model is not a standard, and hence any discussion of the interactions between the reliability and market domains and description of how the NERC functions operate under different market structures are by no means or in any way invade the business terrain.</p> <p>In describing several different functions, the Functional Model Technical Document characterizes the relevant facilities as "generally contiguous." See, e.g., page 10 as to PCs ("The BES facilities under its purview, are generally contiguous, cover the same or aggregate areas as the Transmission Planners its coordinates."); page 12 as to TPs ("The BES facilities in its area, i.e. under its purview, are generally contiguous."); page 13 as to RPs ("The loads under considerations are generally contiguous and form the fundamental input for analysis of resources such as loss of load studies, etc."). While that characterization may be generally accurate for vertically-integrated investor-owned utilities, it is not accurate as applied to municipal joint action agencies and G&T cooperatives that have geographically-dispersed loads and facilities. TAPS therefore suggests the inaccurate "generally contiguous" description be removed.</p> <p>Response: As the word implies, "generally contiguous" means nothing more than generally. It implies that exceptions not at all unusual. It does not conflict with the situation of municipal joint action agencies and G&T cooperatives having geographically-dispersed loads and facilities.</p> <p>As discussed in response to Question 6, the Functional Model Technical Document assumes that DPs own and operate UFLS/UVLS equipment. See page 59 ("The Distribution Provider provides the facilities that could be used to shed load for emergency action."); page 20 ("The Distribution Provider provides the switches and reclosers necessary for emergency action."). TAPS is concerned that the Functional Model Technical Document's assumption that DPs are the entity that own and operate UFLS/UVLS equipment is not consistent with actual practice in many areas. For example, in</p>

Organization	Yes or No	Question 12 Comment
		<p>some areas, UFLS/UVLS equipment is owned and operated by TOs, which can be a more efficient and equitable way of addressing involuntary curtailments than requiring small DPs to own and operate UFLS/UVLS equipment that would operate on a far more granular basis than in the surrounding system. In addition, TAPS is also concerned that the DP-UFLS/UVLS discussion in the Functional Model and Functional Model Technical Document not prejudice or otherwise affect the ongoing discussion in the UFLS/UVLS SDT regarding how it is determined, in a given area or region, which entity is responsible. Thus, as noted in response to Question 6, TAPS recommends that the UFLS/UVLS discussions be modified to reflect the fact that in some areas, entities other than the DPs (e.g., TOs) own and operate UFLS/UVLS equipment.</p> <p>Response: The Functional Model provides a general description of the reliability tasks and inter-entity relationship and interactions when performing these tasks. The Model is not prescriptive, nor does it mandate any requirements. We do recognize that Transmission Owners may own UFLS/UVLS equipment but we believe that such cases are when the Transmission Owners have facilities to which the end-use customers are connected and served. In this case, the Transmission Owners themselves are also Distribution Providers, by definition (see NERC Glossary of Terms). We believe the Model presents the general understanding and reflects actual practices in most areas. Absent any evidence, we are unable to accept the argument that having the Distribution Providers own and operate UFLS/UVLS equipment is inconsistent with the actual practice in the majority of the areas.</p> <p>We believe that UFLS/UVLS equipment is generally located at the buses to which end-use customers are directly connected. While there may be situations where such is not the case, and the UFLS/UVLS equipment is located at a Transmission Owner’s facilities to which no end-use customers are directly connected, and is by design located at such locations to trip lines/feeders to multiple DP facilities, the Functional Model does not preclude such an arrangement.</p> <p>In addition, TAPS is concerned about the Functional Model Technical Document’s description of the LSE and DP roles in curtailments (at pages 59-60, asterisks added for emphasis): “For non-voluntary curtailment, such as automatic underfrequency and undervoltage load shedding and manual load shedding, the Load-Serving Entity identifies which critical customer loads should be excluded from curtailment for safety and/or security reasons. Once identified and necessary contractual arrangements are made, the Distribution Provider (or the Transmission Operator as appropriate) *will make (feeder) connection arrangement* such that these critical loads will not be curtailed by the load shedding facilities until other options have been exhausted.” In the first quoted sentence, the reasons for identification of critical customers should be expanded to expressly include public health as well as safety and security. Also, the description of the DP role in the second sentence is too absolute, failing to reflect the fact that the feeder arrangements will need to balance various factors. TAPS therefore suggests that “reasonable efforts to arrange (feeder) connections” be substituted for the underlined text to allow for the necessary exercise of judgment.</p> <p>Response: We have expanded the first sentence to mention public health, safety and security. We have revised the second sentence as suggested.</p> <p>In addition, TAPS questions the use of the term “ensure” in the last paragraph on page 60 (“The Load-Serving Entity is responsible for communicating requests for voluntary curtailment to the appropriate end-use customers, thereby ensuring</p>

Organization	Yes or No	Question 12 Comment
		<p>that these loads will in fact be curtailed.”). Because there is no assurance that customers will act on the request, the last clause of this sentence should be reworded to reflect that uncertainty, e.g., “thereby increasing the effectiveness of voluntary load curtailment.”</p> <p>Response: We have revised the sentence as suggested.</p> <p>Finally, TAPS is concerned that some of the discussion in the Technical Document inappropriately focuses on distribution-level reliability, and therefore goes beyond the BES reliability that should be the focus of NERC standards. For example, the discussion on page 58, under A, Voluntary Load Curtailment, of load curtailment due to overloads on the DP system should not be included in the Functional Model Technical Document since overloads of the DP system have nothing to do with bulk electric system reliability. On the same page, the last two sentences of the second paragraph under B, Non-Voluntary Load Curtailment (Shedding), should be struck for the same reason, as should the second paragraph under the discussion of Distribution Provider on page 59. In addition, the new sentence included on page 20 of the Technical Document (“One Distribution Provider may be directly connected to another Distribution Provider and not directly connected to the bulk power system.”) should be removed because the sentence adds only confusion to the document. DPs that have no connection with the BES are not properly the subject of NERC standards or the Functional Model Technical Document.</p> <p>Response: The Technical Document provides additional information to help explain certain aspects of the model which, in the FMWG’s view, require further elaboration to address complexity or which may not be readily understood by simply reading the tasks or relationship presented in the Model. The FMWG observed that the industry appeared to be quite confused with the roles of Load-Serving Entity and Distribution Provider, and the role of the Transmission Owner in providing the facilities and implementing load shedding. For this reason, the Technical Document was expanded to provide a rather comprehensive discussion to provide readers with a broader picture of the various entities’ role in these areas. An overload situation in the DP’s system is one of the possible reasons for load shedding, and is included to give a full picture of the various shedding load scenarios. The other discussions mentioned in your comments were included for similar reasons.</p>
<p>Response: The FMWG thanks you for your comment. Please see responses above.</p>		
NERC Standards Review Subcommittee	Yes	The MRO NSRS believes this question is a duplicate of #6
<p>Response: The FMWG thanks you for your comment. It is not a duplication. Question 6 addresses the Functional Model; Question 12 addresses the Technical Document.</p>		
Hydro One Networks Inc.	Yes	We have observed some inconsistency in the use of the term “Bulk Electric System” used in the Technical Document and the term “Bulk Power System” used in the Functional Model Document.

Organization	Yes or No	Question 12 Comment
		<p>A consistency check should be made to ensure the word “area” in not capitalized when used to describe the area of purview of a functional entity e.g. “Reliability Coordinator Area”.</p>
<p>Response: The FMWG thanks you for your comment. We have reviewed the term Bulk Electric System and the word “area” throughout both documents to ensure consistency.</p>		
<p>Independent Electricity System Operator</p>	<p>Yes</p>	<p>We have observed some inconsistency in the use of the term “Bulk Electric System” used in the Technical Document and the term “Bulk Power System” used in the Functional Model Document. A consistency check should be made to ensure the word “area” in not capitalized when used to describe the area of purview of a functional entity e.g. “Reliability Coordinator Area”.</p> <p>To minimize the burden of these proposed changes on the standards development process and industry, we recommend that changes to functional entity names be introduced gradually as standards come up for review.</p>
<p>Response: The FMWG thanks you for your comment. We have reviewed the term Bulk Electric System and the word “area” throughout both documents to ensure consistency. We will consider your suggestion when developing an implementation plan to revise the Functional Entity names in the standards and the Glossary.</p>		
<p>Northeast Power Coordinating Council</p>	<p>Yes</p>	<p>We have observed some inconsistency in the use of the term “Bulk Electric System” used in the Technical Document and the term “Bulk Power System” used in the Functional Model Document. A consistency check should be made to ensure the word “area” in not capitalized when used to describe the area of purview of a functional entity e.g. “Reliability Coordinator Area”. To minimize the burden of these proposed changes on the standards development process and industry, we recommend that changes to functional entity names be introduced gradually as standards come up for review.</p>
<p>Response: The FMWG thanks you for your comment. We have reviewed the term Bulk Electric System and the word “area” throughout both documents to ensure consistency. We will consider your suggestion when developing an implementation plan to revise the Functional Entity names in the standards and Rules of Procedure.</p>		