

List of Questions from SAR Comment Form for Second Posting of Coordinate Interchange Transactions SAR

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1. Do you agree that this proposed standard should, to the extent possible, allow market mechanisms to develop to support the proposed reliability objectives?

Responses: Yes – 22 No – 1

Mirant

This standard should focus on outlining/describing the information the IA requires from Service Functions and Operating functions, as applicable, in order to support reliability objectives. Only in the case of interaction between the IA and one of the Merchant Functions should the market participants, through the NAESB process, utilize market mechanisms to support the proposed reliability objectives. For example, the SAR can indicate that the source Generator must provide ramp rate information to the IA. It's NERC's responsibility to make this a standard. It should be up to the market participants, via NAESB, to determine the best way (business practice) to accomplish this task.

Consideration:

This is a restatement of what is intended.

Nebraska Public Power

I believe that market mechanisms are appropriate. However if market mechanisms are not able to meet reliability criteria then a backup system such as TLR has to be available.

Consideration:

This is a restatement of what is intended. There are several other SARs that address meeting reliability criteria. Backup systems or procedures that involve both reliability and market mechanisms are expected to be developed cooperatively with NAESB.

Reliant

Approval by NAESB is necessary for NERC to adopt standards that may impede or alter business standards developed by NAESB.

Consideration:

Once the industry has agreed upon the scope and need for a standard the NERC/NAESB Joint Interface Committee will meet to decide whether the standard should be developed as a reliability standard by NERC or a business practice standard by NAESB.

SRP

Of course the answer to this question should be "yes." However, the development of market mechanisms should not delay the Standard from going into effect as soon as possible. The Standard may be modified later, as required, to integrate with approved market mechanisms. It will take some time for the market mechanisms to be developed. Reliability should not be impaired in the interim.

Consideration:

This is a restatement of what is intended.

We Energies

Yes, but only to the extent that the benefits to be gained from market efficiencies exceed the costs of failing to maintain reliability of the interconnection. If we save \$1.00 by creating efficiencies through a more robust marketplace but the societal cost of reduced reliability (e.g., blackouts or the threat of blackouts) is \$1.25, then we haven't gained anything.

Consideration:

Addressing this is beyond the scope of this SAR Drafting Team.

2. Do you agree that this SAR should focus on Interchange as related to the multiple schedules that make up the Net Scheduled Interchange for a Control Area today?

Responses: Yes – 19 No – 4

BPA Power Line

Market mechanisms should be allowed to develop, but we must not lose sight of the dynamic nature of electric systems. System Operators must respond in the NOW. Market mechanisms must be set up to operate in an appropriate time frame. It is an unrealistic expectation to think the market will be able to respond in time to mitigate real time contingencies. Pre-crisis designation of the resources which will provide the capacity and energy necessary for maintenance or system stability is mandatory. The requirements set forth in the final iteration of this Standard should facilitate the use of resources by System Operators. They should not be a hindrance to that end nor should they be a hindrance to meeting the requirements of other Standards.

Consideration:

This is a restatement of what is intended.

CAISO

The CAISO agrees with this statement given the understanding that it is referring to the schedules between Balancing Authorities only.

Consideration:

According to the Functional Model, the schedules will go from Interchange Authority to Balancing Authority, and not from BA to BA.

Cinergy

This is an area of great uncertainty moving under SMD, however if one viewed the SMD market in the future as fulfilling the role of the BA, then the CI SAR might be one that applies to setting the standard for coordination between SMD markets. Bilaterals that go to physical implementation across markets fall under this also. If Control Areas collapse into a much-larger Balancing Authority in the future, it is not known how the granularity is maintained, or other information passed between ITPs to assess transmission impact as is currently achieved under tagging.

Consideration:

This is a concern that needs to be addressed by NERC in its comments to SMD. This is being forwarded to NERC staff for their inclusion in the response to SMD.

ERCOT

The function of implementing Net Scheduled Interchange between Balancing Authorities should be addressed in the Balance Resources and Demand SAR. The Interchange Authority is the prime function for coordination of interchange transactions and the Balancing Authority function is for physical implementation in the new Reliability model.

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to accurately reflect the functional relationship between the BA and the IA.

Manitoba Hydro

Information related to all schedules should be provided from the Interchange Authority to the Balancing Authorities implicated in the transactions

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to accurately reflect the functional relationship between the BA and the IA.

Mirant

Assuming today's CA is the BA of tomorrow.

Consideration:

The Functional Model took the Control Area and broke it into several functions, one of which is the Balancing Authority.

Nebraska Public Power

Whatever information that is necessary to perform reliability assessments should be the focus of the SAR.

Consideration:

This is one of the purposes of the SAR. Without addressing the following, it is not possible to ensure that the data needed for reliability analyses is accurate.

- Each Interchange Schedule is checked for reliability before it is implemented
- The Balancing Authorities implement the Interchange Schedule exactly as scheduled

Oncor

The Reliability Model is based on a new paradigm for scheduling and coordinating Interchange Schedules and takes the BA (Control Area) out of that role. The Model places these functions in the IA role. Each Interchange Schedule, before going physical, goes through an approval process managed through the IA functions. This provides necessary reliability assessment, confirmation of transmission service from source BA to sink BA, coordination of ramping capabilities, coordination of implementation (and/or change/stop) of the schedule and notification of parties to the transaction. Net Schedule Interchange would be summed by the specific BA as the net of all separate schedules into or out of the specific BA and used to balance with its interchange meters.

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to reflect this concept.

Reliant

The traditional analysis on a per-transaction or per-schedule basis may not be efficient or feasible with bid-based markets. PSEs operating in a bid-based market system will not have point-to-point type information available to submit as schedules for analysis. NERC should move towards more physical/electrical measurement means to analyze interchange between electrically connected and metered Balancing Authorities and abandon reliance on PSEs to provide individual schedule information to perform reliability analysis.

Consideration:

This is a concern that needs to be addressed by NERC in its comments to SMD. This is being forwarded to NERC staff for their inclusion in the response to SMD.

SRP

The SARDT should apply definitions consistently in the SAR. Please see the detailed comments from WECC.

Consideration:

The revised SAR provides definitions and attempts to apply these definitions consistently.

We Energies

The focus should be broad enough to address today's structures/rules/tariffs as well as tomorrow's structures/rules/tariffs. Energy flows between control areas today may show up as schedules but under SMD/larger control areas the same flows may not show up as "schedules." Reliability entities need sufficient information to be able to effectively mitigate frequency issues and stability or thermal overloads on transmission elements.

Consideration:

Core reliability needs should be addressed by this standard and should be applicable under any market structure.

3. Do you agree that coordination of Net Scheduled Interchange between Balancing Authorities is a key component of reliability and a central objective of this proposed standard?

Responses: Yes – 18 No – 5

BPA

IOS need to go through the same process to ensure non-discriminatory access to the system.

Consideration:

We agree, those evaluating ISO services should decide if a SAR is needed.

ERCOT

Coordination of Net scheduled Interchange is a key component of reliability, but it is the responsibility of Interchange Authorities, not Balancing Authorities in the new Reliability model.

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to accurately reflect the functional relationship between the source and sink BAs and between the BA and the IA.

Manitoba Hydro

The Coordination between the Balancing Authorities is coordinated by the Interchange Authority.

Consideration:

This is correct.

MECS

While the coordination of Net Scheduled Interchange is a key component two other issues must be addressed to assure that the required functionality is provided. First, the treatment of dynamic schedules must be coordinated to complete the ACE equation and meet reliability objectives. Second, the supply of accurate data to the Reliability Authority is essential to support their reliability mission.

Consideration:

We will ensure that this is passed on to the associated Standards Drafting Team.

Mirant

Although coordination of net scheduled interchange is a key component of reliability, I don't believe that it is/should be the central objective of this standard. Under the functional model, the IA will only need to communicate with the source and sink BAs of the interchange transaction. The IA will need to communicate with any intermediary BAs regarding losses.

Consideration:

There are other reporting relationships that are important for the IA. The IA will communicate reliability-related data with the RA and the TSP.

Nebraska Public Power

The central objective of this SAR is reliability assessments. That assessment may require more information than the Net Scheduled Interchange.

Consideration:

The central objective of this SAR is to ensure that the interchange-related data provided to the RA is accurate for the RA to use in Reliability Analyses. The RA relies upon other functions to provide other data that is also used in developing these analyses. Other data will be addressed in other SARs.

Oncor

In the new paradigm, schedules are between the source BA and IA and the IA and sink BA. The old daisy-chain of source BA to interim BA to interim BA to sink BA for a single schedule will not exist. Continuity is provided through the transmission reservation from source to sink and TSP(s) work with interim BAs to satisfy loss needs via loss schedules or compensation. This central focus should be on standards for the IA functions. NOTE: In the preface to question 4, the BA does not give transaction information to the RA for security studies. This is an IA function.

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to accurately reflect the functional relationship between the source and sink BAs and between the BA and the IA.

PJM

The issue for Inter-regional reliability is that the producing area and the consuming area both know and implement a given transaction. One must be clear about the phrase between Balancing Authorities. If the phrase were to only relate to between adjacent BAs then the Standard is not sufficiently flexible to handle non-traditional approaches.

The Functional Model properly addressed this point by looking at this activity from the view that BAs balance with IAs and not with each other. That of course allows for BAs to deal with one another in the traditional way (Note: the Model would interpret that to indicate that the two adjacent entities serve both as BAs and IAs).

The Model's concept that intra-BA transactions are matters for that RA and that BA properly allows commercial models to develop, models that are of commercial concern to the entities involved while at the same time maintaining interconnection reliability. The concept of Balancing Authority vs Control Area must be kept in mind. Both of these entities are defined by metering requirements and not by transaction models. Network transactions and internal dynamic scheduling is of no concern to this standard.

Consideration:

The Purpose/Industry Need section of the SAR has been modified and the detailed description of the SAR (Item 6.) has been modified to accurately reflect the functional relationship between the relationship between the source and sink BAs and between the BA and the IA.

Coordination of scheduling within a BA, by definition, is not addressed by this SAR. The model addresses coordination between the Source and Sink BA – in this case the Source and Sink BA are identical.

Reliant

However, PSEs in a bid-based market may not be able to provide the same level of information regarding transactions as currently done in a point-to-point market model. The ensuing questions no. 4 -11, seem to be predicated on the existing point-to-point type transmission service that easily identifies source and sink control areas for analysis of interchange. The positive responses provided to this set of questions should not be used by the Standards Drafting Team to infer that PSEs must provide same information to the Balancing Authorities, Interchange Authorities or any relevant functions of the Functional Model. These positive responses should be taken as only agreement that the stated functional authorities may be required to communicate such information - how such information is generated cannot be assumed to be provided solely from PSEs engaged in transactions.

Consideration:

The SAR DT recognizes this and will ensure that this information is provided to the associated Standards Drafting Team.

SRP

Regardless of the number of Balancing Authorities in the future, the Coordination of Interchange between these entities is an integral part of load-generation balancing and operating the transmission system within its limits.

Consideration:

The revised SAR provides definitions and attempts to apply these definitions consistently.

We Energies

Coordination of Net Scheduled Interchange between BAs is a key component of reliability but not necessarily the central objective of this proposed standard. The central objective of the proposed standard should be to ensure information about schedules/transactions/energy flows is provided to the reliability operator so proper steps can be taken to alleviate reliability issues.

Consideration:

The central objective of this SAR is to ensure that the interchange-related data provided to the RA is accurate for the RA to use in reliability analyses. The RA relies upon other functions to provide other data that is also used in developing these analyses. Other data will be addressed in other SARs. The concept you address is also an objective that has to be met.

4. Should the proposed standard include requirements that the following transaction data be provided from the Interchange Authority to the Balancing Authority

- Requested MW amount (Yes – 23 No – 1)
- Start time (Yes – 24 No – 0)
- Ramp duration (Yes – 24 No – 0)
- Approved/valid balanced interchange requirements (Yes – 24 No – 0)

CAISO

The CAISO wishes to clarify that Questions 4.1-4.4 refers to individual transaction schedules, and that “approved...interchange requirements” refers to properly tagged transactions.

Consideration:

Under today’s implementation this is the way this information would be provided.

5. Should the proposed standard include requirements that the following transaction data be provided from the Interchange Authority to the Transmission Service Provider?

- Interchange transaction requests for approval (Yes – 23 No – 1)

(Note – no comments were submitted on this question.)

6. Should the proposed standard include requirements that the following transaction data be provided from the Interchange Authority to the Purchasing Selling Entity?

- Approval/denial of transaction (Yes – 24 No – 0)
- Interchange transaction requirements (Yes – 21 No – 3)

CAISO

The CAISO does not feel that the wording of Question 6.2 is clear enough to formulate a response.

Consideration:

The IA submits interchange transaction requests to the TSP for approval. TSPs approve transactions between two entities. There is no other way to ensure that a transaction that is going to flow does not cause a transmission problem.

7. Should the proposed standard include requirements that the following transaction data be provided from the Balancing Authority to the Interchange Authority?

- Confirmation of ramping capability (Yes – 23 No – 1)

CAISO

The CAISO believes that this data should be bi-directional, that is it should go from the Interchange Authority to the Balancing Authority as well.

Consideration:

The Functional Model shows that this data is sent in both directions.

8. Should the proposed standard include requirements that the following transaction data be provided from the Balancing Authority to the Interchange Authority?

- Confirmation of ramping capability (Yes – 23 No – 1)

(Note – no comments were submitted on this question.)

9. Should the proposed standard include requirements that the following transaction data be provided from the Transmission Service Provider to the Interchange Authority?

- Approval/denial of transaction request (Yes – 23 No – 1)

(Note – no comments were submitted on this question.)

10. Should the proposed standard include requirements that the following transaction data be provided from the Purchasing Selling Entity to the Interchange Authority?

- Request for approval of interchange transactions (Yes – 24 No – 0)
- Confirmation of interchange transaction (Yes – 22 No – 2)

(Note – no comments were submitted on this question.)

11. Should the proposed standard include requirements that the following transaction data be provided from the Reliability Authority to the Interchange Authority?

- Approval/denial of schedule request (Yes – 23 No – 1)

(Note – no comments were submitted on this question.)

12. Are there any other functions defined in the Functional Model that have requirements in the coordination process that should be included in the proposed standard?

Responses: Yes – 5 No – 16

BPA Power Line

The "Generator" should be part of the coordination process. All interchange schedules must start with a generator as the source. Proper identification of the generator and it's location are needed to run power flow studies and to analyze the operational impacts of the interchange. Generators should be included in the scope of this standard or at the very least in the information path. described in preceding paragraphs.

Consideration:

Generators are in the information path, but the generator data is carried through other functions that are involved in this standard. Please reference the Functional Model.

Cinergy

For delivery of self-provided losses to the TSPs along the path, who is the delivery to? Some RTOs have a way of internally allocating all self-provided losses to various BAs based upon the methodology TSP - would the TSP be viewed as a BA for this function if the IA is "dropping off" MW only to the TSP?

Consideration:

The SAR includes a requirement that the IA confirms the approvals from all involved parties and authorizes, upon confirming approvals, the implementation of interchange schedules. This would include ensuring that the TSP has satisfied loss needs with interim BAs.

ERCOT

Ensure requirements for losses are met.

Consideration:

The SAR includes a requirement that the IA confirms the approvals from all involved parties and authorizes, upon confirming approvals, the implementation of interchange schedules. This would include ensuring that the TSP has satisfied loss needs with interim BAs.

NPCC

When considering transactions that are scheduled across seams between RTOs/ITPs and or ISOs the NERC Functional Model is unclear in who assumes the Interchange Authority function. NPCC feels this is a fundamental seams issue which needs to be coordinated with the resulting FERC SMD Order.

Consideration:

Under the Functional Model, each organization must identify what function(s) it wants to perform. The functions in the Functional Model are not concerned with organizational structure. The entity that steps forward and obtains certification to perform the Interchange Authority will serve as the Interchange Authority. These standards are written for functions, not for organizations.

NYISO

An RTO/ISO actually carries out most of the functions defined in the Functional model. In the Northeast, the reliability checks including checks for ramp are carried out by the individual Reliability Authorities (now "Reliability Coordinators" I think). There probably could be some recognition of this in the Standard.

Consideration:

Under the Functional Model, each organization must identify what function(s) it wants to perform. The functions in the Functional Model are not concerned with organizational structure. The entity that steps forward and obtains certification to perform the Interchange Authority will serve as the Interchange Authority. These standards are written for functions, not for organizations.

Oncor

IA should ensure the TSP has satisfied loss needs with interim BAs

Consideration:

The SAR includes a requirement that the IA confirms the approvals from all involved parties and authorizes, upon confirming approvals, the implementation of interchange schedules. This would include ensuring that the TSP has satisfied loss needs with interim BAs.

PJM

Coordinate Interchange deals with transaction verification and their role in the ACE equation.

Coordinate Operations deals with the reliability Assessments of both transactions and all other aspects of interregional operations.

Consideration:

We'll coordinate with the SAR DT involved in Coordinate Operations to ensure that there isn't any duplication.

13. Do you think the Coordinate Interchange Transactions SAR should be combined with the Coordinate Operations SAR?

Responses: Yes –4 No – 18

Allegheny

However, many items are interrelated.

Consideration:

We'll coordinate with the SAR DT involved in Coordinate Operations to ensure that there isn't any duplication.

CAISO

The CAISO feels that the subject matter of the SAR "Coordinate Interchange Transactions" is sufficiently important and complex to be a separate standard. However, we also feel that the two SAR's should reference each other, and/or incorporate mutual principle elements.

Consideration:

We'll coordinate with the SAR DT involved in Coordinate Operations to ensure that there isn't any duplication.

Cinergy

Coordination of transmission operations is much different than coordination of energy schedules and primarily impacts different functions.

Consideration:

We'll coordinate with the SAR DT involved in Coordinate Operations to ensure that there isn't any duplication.

Duke Energy

As long as the significant issues encompassed by the Coordinate Interchange Transactions SAR are adequately addressed within the Coordinate SAR, Duke Energy would not be opposed to combination of the two SARs.

Consideration:

We'll coordinate with the SAR DT involved in Coordinate Operations to ensure that there isn't any duplication.

Manitoba Hydro

These two SARs cover different activities related to the use of the interconnected transmission facilities for delivery of energy from generation to load. They should be dealt with by separate SARs.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

MECS

Although the two are related in part, they each address different and specific functions.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

Mirant

Each proposed SAR has a distinct enough focus to warrant being separate.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

Nebraska Public Power

As long as reliability is addressed the location of the requirements is inconsequential.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

Oncor

While interchange certainly must be coordinated, this SAR has a singular focus of defining standards for the IA functions. Coordinate Operations has a much broader scope and wider range of needs.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

PG&E

But upon further review and discussion of issues requiring a combination of certain features, this may be considered on a case by case basis.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

SRP

Based on the broad scope of the Coordinate Operations SAR, one could argue that it could encompass all reliability criteria. If that is the case, it might as well become a NERC mission statement instead of a SAR. We need finer granularity than that in the SARs. The Coordinate Interchange SAR is an example of that granularity.

Consideration:

The consensus of the comments received indicated that these should be kept separate.

14. Identify any Regional Differences that you feel should be included in this SAR

AEP

There may not be any regional differences but there could be interconnection differences that should be included in this SAR.

Consideration:

If you are aware of any interconnection differences, these should also be highlighted so they can be added to the SAR. Please do so during the next comment period.

BPA Power Line

I believe that the need for any regional differences will not manifest itself until the Standard takes on a somewhat less nebulous shape.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. Regional Differences can be highlighted during the standard drafting and comment periods.

CAISO

There are 4 regional differences already identified for the Western Interconnection in the Existing NERC Policy #3 "Interchange". They are: 1.) Ramp times (physical feasibility as well as timing and duration); 2.) Start time; 3.) Dynamic Schedules; and 4.) Inadvertent payback. In addition, there is the inherent difference in operating characteristics of the Western Interconnection and the Eastern Interconnection, such as Stability limitations in the West and Thermal limitations in the East. It is the assumption of the ISO that the NERC Organizational Standards would be written at a level that most Regional differences would be avoided in the OS and addressed in Regional policies and Commercial Business Practices.

Consideration:

Some portions of existing Policy #3 will not transition into the new Coordinate Interchange standard. Elements of Policy #3 will transition into other SARs. This process was intended to give the Regions more flexibility to develop more detailed standards for their region.

Duke Energy

Duke Energy is unaware of any in our region, but if there where, the Standard should not take them into consideration.

Consideration:

It is up to the industry to address any regional difference that is proposed. If the industry does not support a regional difference, it will not be included in the Standard.

ERCOT

As a single Control Area (Balancing Authority) interconnection there are no true Interchange Schedules in ERCOT. The only Interchange is over DC ties which will have unique requirements.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. We have added your comment to the "Regional Differences" section of the SAR.

Nebraska Public Power

Regional differences involving RTO market design may need to be considered prior to implementation of Standard Market Design (SMD) as proposed by FERC.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. Regional Differences can be highlighted during the standard drafting and comment periods.

NYISO

See comments above regarding role of RTOs/ISOs, in general. There are also differences in the type of competitive internal and external markets coordinated by the RCs. For instance, request for transaction approval in the NYISO is really a bid/offer that is economically evaluated. I think, however, the SAR as described, although not specific, does actually accommodate this process. Certainly, we should review the FERC SMD NOPR to ensure that no SAR strays from the direction FERC intends to take.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. Regional Differences can be highlighted during the standard drafting and comment periods. We expect that the SMD will be clearer before this standard is posted for balloting.

Oncor

ERCOT has an Interconnection Difference by Legislative direction for retail choice. There are no transmission reservations requirements and generation/load schedules are part of the real-time competitive market.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. We have added your comment to the "Regional Differences" section of the SAR.

SRP

The Reliability Coordinators in the Western Interconnection currently do not have the level of involvement as those in the Eastern Interconnection. The NERC Functional Model bundles responsibilities under several generic Authority entities. We understand that the same entity may perform multiple Authority responsibilities. However, the differences in responsibilities between the East and West can cause confusion when the SARs are applied. This problem will increase once some form of FERC Standard Market Design is implemented. We suggest that the right to request regional differences within a SAR be preserved until the full scope of industry changes and ensuing regional differences are known. Until that time, the Regions themselves must define the differences on behalf of their members.

Consideration:

While it is better to identify Regional Differences as early in the standards development process as possible, this is not a requirement. Regional Differences can be highlighted during the standard drafting and comment periods. We expect that the SMD will be clearer before this standard is posted for balloting.

15. Do you think the Coordinate Interchange Transactions SAR should cover the coordination of Interconnected Operations Services?

Responses: Yes – 7 No – 15

Summary Consideration:

In the functional model, IOS services are deployed by the BA. If they are provided to the BA via interchange schedule, then that aspect is already covered in the SAR. The SAR includes all aspects of the interchange schedule. There were sufficient comments about IOS services that the ISO is encouraged to review the comments and the SARs in progress and see if there is a need for a separate SAR for IOS services.

BPA

I think that IOS should be included because they have the potential to be implemented. In that case, they require ramping ability and transmission availability. Not including them could lead to leaning on the system or overloads when they are deployed. If they are not able to be deployed properly, it could cause reliability problems to the Balancing Authority that was relying on those IOS.

BPA Power Line

Proper planning for the operational day/hour requires that the System Operator know where on the system the ability to "inc" or "dec" resources lies. We could envision this activity as "coordinating "potential" interchange". A resource pledged to provide reserves which is on the "wrong" side of a congested path will provide little help if called upon to mitigate a contingency. Regulation, Spinning Reserves, Supplemental Reserves, and Balancing Energy resources should be required to meet this Standard and should therefore be included in the scope of standard development process.

CAISO

In response to the first part of the question, the CAISO does not feel that the "Coordinate Interchange Transactions" SAR should be combined with the "Interconnected Operations Services" SAR.

In response to the second part of the question, YES, the CAISO feels that the lack of coordination of IOS presents a reliability concern, and should be addressed in a SAR.

Cinergy

The CI SAR could enable the allocation and implementation of Operating Reserves - coordination of capacity and energy. I believe the flexibility to work with the market has to be in the process - if the market wants to work in a certain way, it might be necessary for NERC to define additional information that might have to be passed in the coordination process.

Great River Energy

The Interconnected Operations Services should be covered in their own SAR.

Illinois Power Co

IP suggests that this SAR should address those IOS that can be self supplied.

Manitoba Hydro

Any Scheduling activity related to IOS will dealt with by the Interchange Authority in a manner similar to any other Schedule.

MECS

Particularly the handling of operating reserves as interchange schedules.

Oncor

IOS services are deployed by the BA. If they are provided to the BA via interchange schedule, then that aspect is covered in the above.

PJM

This SAR deals with all transactions that cross borders. IOS in and of themselves are not reliability concerns - they are only tools for RAs and BAs to meet 's Reliability standards and therefore do not need NERC's scheduling oversight.

SRP

The types of IOS the SAR should include is a product of the market environment the entities are operating in. The SAR cannot address this issue generically. For instance, in some regions the Balancing Authority may be totally responsible for Operating Reserve and Imbalance Energy requirements through markets it administers. In other regions, the PSE may be responsible for securing its own IOS. This issue is a good example why regional differences must be accommodated once the differences are defined in the future.

16. Should the proposed standard ensure that data is provided to those functions that need to check and verify the data for agreement between Balancing Authorities?

Responses: Yes – 22 No – 0

BPA Power Line

It is absolutely necessary that the requirements of this Standard assure that the System Operator can actually implement the actions necessary to meet other Reliability Standards.

Consideration:

That is the intention of this standard.

ERCOT

Balancing Authorities are one of the functions that must be provided data on interchange by the Interchange Authority, however there are no "agreements" between Balancing Authorities.

Consideration:

Each of the certification standards includes a list of agreements that should be in place. There are no agreement requirements from BA to BA.

Illinois Power Co

Can't answer this question as we are not clear which functions are being referenced that need to check and verify the data for agreement between BA's

Consideration:

This does not address the coordination for actual metered interchange, but does address interchange between BA and IA and between IA and RA.

17. Should the proposed standard address the real-time coordination?

Responses: Yes – 15 No – 6

ATC

ATC would answer this question "No" if there are not strict guidelines on how to do coordination. If strict guidelines such that differences are eliminated, then ATC would answer this question "Yes".

Consideration:

If this is a standard, there will be clear guidelines.

BPA Power Line

Precision is the nature of the electric system, resource must exactly meet demand. Balancing Authorities should be operating to the same schedule.

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

Illinois Power Co

If what is meant by this is standards related to changes in scheduled transactions in real time.

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

Manitoba Hydro

The real time coordination should be part of the activities that are covered in the Coordinate Operations SAR

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

MECS

Real-time coordination is an essential part of the treatment of dynamic schedules that this SAR should explicitly address.

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

Mirant

It should address the coordination of interchange transactions in both the scheduling time frame and real time. Per the functional model, the IA plays a key role in the curtailment process.

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

Nebraska Public Power

If there is not real-time coordination it could lead to reliability problems

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR's scope will be clarified to ensure that this is clearly stated.

NYISO

By definition that is what this standard is supposed to do

Consideration:

Most of the industry responses indicated that this standard should address real time coordination. The SAR has been revised to contain real time elements.

We Energies

But there is a need to ensure that the reliability coordinator receives the information needed in the timeframe required to be able to implement the appropriate relief actions required to alleviate transmission security events. The information provided has to be of sufficient quality to allow the reliability coordinator to take actions which are consistent with whatever market structures/rules/tariffs are in place. This would help ensure that the actions taken to preserve reliability are done in a way that addresses the desires of the marketplace.

Consideration:

Most of the industry responses indicated that this standard should address real time coordination of interchange. The SAR has been revised to contain real time elements. This standard will include requirements that data provided to the RA be verified before being sent to the RA.

18. Is one of the reliability objectives of the proposed standard to ensure that interchange is coordinated so that the affected functions are operating to the exact same schedule at the exact same time?

Responses: Yes – 23 No – 1

BPA

Interchange schedules need to be coordinated at a time required by the Reliability Function to do assessments. This would typically begin at pre-schedule (day ahead) and the schedules would need to be in lock-step thereafter.

Consideration:

This is an accurate example – but not all schedules will be arranged on a day-ahead basis. To the extent that BAs agree to the checkout with the IA on a day ahead basis, any changes to those numbers need to be communicated.

Cinergy

I believe another reliability objective is to assure that information is passed that will enable all parties to communicate interchange on a common basis.

Consideration:

This type of requirement should be addressed in the certification requirements for the RA, BA and IA. We will

Mirant

Within acceptable tolerances

Consideration:

The compliance element of the associated standard should address how size of acceptable tolerances.

Nebraska Public Power

I do not know what you mean by exact. Schedules should be coordinated.

Consideration:

This is the intention of the SAR

SRP

The term "Exact" is relative. The entities should coordinate interchange within a defined range of accuracy that will ensure system reliability is not degraded.

Consideration:

The compliance element of the associated standard should address how size of acceptable tolerances.

Other Comments on the SAR

PG&E

Clarification is needed in Item 3 of the detailed description. Item 3 states:

"The Interchange Authority submits transaction data to the Transmission Service Provider that verifies and approves transmission availability."

The word "availability" can be interpreted to mean availability from a power flow perspective. We suggest using the wording directly from Page 30 of the Functional Model and revise this Item 3 to read:

"The Interchange Authority submits transaction data to the Transmission Service Provider that verifies and approves the Transaction with respect to the Transactions' transmission reservation."

Consideration:

This portion of the Functional Model is being reviewed by the FMRTF in terms of SMD. We will update the SAR to reflect the latest version of the FM.

ELCON

ELCON commented earlier on this SAR. We said then that the establishment of this SAR is premature. All commercial implications of the SAR should be identified and mitigated prior to the drafting. We still feel this way.

NAESB is now operational. There is no reason why this SAR should not, and cannot, be run through the NAESB process to identify and mitigate the commercial implications which may be significant.

Consideration:

Once the industry has agreed upon the scope and need for a standard the NERC/NAESB Joint Interface Committee will meet to decide whether the standard should be developed as a reliability standard by NERC or a business practice standard by NAESB.

Additionally, ELCON believes that the SAR fails to adequately reflect the possible implications of the FERC's SMD NOPR. The SMD contemplates LMP markets. Intra-control area transactions do not need to be scheduled in LMP markets. Requiring the information suggested in this SAR could be very burdensome on market participants and not be necessary under the FERC's proposed rules. Inter-control area transactions may need to be coordinated for reliability reasons. However, the SAR should be clear that intra-control area transactions should not be affected by this SAR.

Consideration:

This SAR is not expected to address inter-control area markets. This SAR is expected to address transactions between BAs, but not transactions that may occur within a BA.

Duke Energy

Duke Energy (Duke Power and Duke Energy North American) believes that the SAR could be incorporated into the Coordinate Operations SAR. Duke Energy did answer all questions as if the SAR were to be a stand-alone Standard.

Consideration:

There wasn't sufficient industry response in favor of combining the SARs, so they have been left separate.

Manitoba Hydro

There is a requirement for this SAR under the context of a FERC 888 Tariffs to ensure that transactions are implemented in a reliable manner. The considerations and methodologies may be significantly different under a FERC SMD Tariff environment although the reliability principles to be addressed by the SAR should quite similar if not the same.

Consideration:

The SAR DT believes the industry shares this view.

ERCOT

The scope of the SAR should be reduced to eliminate: Emphasis on Balancing Authority requirements. Interchange Authorities have the responsibility to coordinate interchange in the new functional model.

Consideration:

The revised SAR reflects this change.

Cinergy

The scope of the SAR should be expanded to include: Measurement of implementation accuracy

Consideration:

The standard should include specific measures and the associated compliance elements should address this.

Reliant

The NAESB WEQ will develop business standards for the implementation of transmission service as prescribed by the FERC Order on Standard Market Desig. This NERC standard must not impose restrictions or impediments to full implementation of that market design unless demonstrated to and agreed upon by NAESB. Although many of the requirements on PSEs and market participants have been eliminated in this revision, Reliant believes that PSEs will indirectly have to provide certain data for this reliability standard. Therefore, NERC must rely on NAESB to develop business standards for PSEs to provide any necessary data for the analysis of "interchange" as defined by NERC for reliability purposes.

Consideration:

Once the industry has agreed upon the scope and need for a standard the NERC/NAESB Joint Interface Committee will meet to decide whether the standard should be developed as a reliability standard by NERC or a business practice standard by NAESB. We expect that the certification requirements for the Reliability Authority, the Interchange Authority, the Balancing Authority and the Transmission Operator will all contain a list of agreements that must be in place before certification is granted. We encourage you to raise this issue again by submitting comments on the certification SARs when they are posted, and also by identifying any situation where you feel that we have included a requirement that will adversely impact the markets.

WECC Interchange Scheduling and Accounting Subcommittee (ISAS)

We find the basic concepts provided by the proposed Standard to be valid. However, we would like to provide several comments and recommendations for your consideration.

1. Terminology and Standardized Definitions

The SAR Drafting Team should ensure that the Standards consistently conform to NERC approved definitions. If the current definitions are not adequate or accurate, new definitions should be drafted and approved. This comment may initially be considered somewhat minor, however we believe it is very important. There is a significant difference in assessing an Interchange Schedule verses an Interchange Transaction.

The following terms are used throughout the SAR: Interchange Transaction, Interchange Schedule, schedule, and transaction. These terms seem to be used interchangeably.

Interchange Schedule and Interchange Transaction are defined NERC terms that have specific and unique meanings and requirements. We suggest that the SAR be reviewed to determine which term is appropriate in its respective context. We also suggest that if a term is being referenced, it be capitalized so the reader knows it is a defined term.

Consideration:

We agree that consistency in the terminology used is needed.

We have provided proposed modifications to the **Purpose/Industry Need** and **Brief Description** sections below. We have modified these sections based on our belief that they refer to Interchange Schedules. If they refer to Interchange Transactions, then additional reliability information needs to be confirmed between the Authorities and the Transmission Provider. This information should include where the Interchange Transaction begins, ends, and if the required transmission services (wheeling and ancillary) are adequate.

Purpose/Industry Need

To ensure that the implementation of ~~transactions~~ Interchange Schedules between Balancing Authorities are coordinated by the Interchange Authority(s) such that the following reliability objectives are met:

- Each Interchange Schedule is checked for reliability before it is implemented
- The Balancing Authorities implement the Interchange Schedule exactly as agreed upon in the Interchange Confirmation process ~~scheduled~~
- Interchange Schedule information is available for reliability assessments

The changes above assume that we are conforming to the current definition of INTERCHANGE SCHEDULE - “The planned INTERCHANGE between two ADJACENT CONTROL AREAS (Balancing Authorities) that results from the implementation of one or more INTERCHANGE TRANSACTION(S).”

“Interchange Transaction” could be substituted for “Interchange Schedule” if that was the intent of the SAR. The NERC definitions for Interchange Transactions are as follows:

TRANSACTION – “An agreement arranged by a PURCHASING-SELLING ENTITY to transfer energy from seller to a buyer.”

INTERCHANGE TRANSACTION – “A TRANSACTION that crosses one or more Control Area boundaries.”

Consideration: This standard must accommodate not just point to point but all types of transactions. In the Functional Model, interchange schedules are coordinated between the BA to IA, rather than from BA to BA. The IA will communicate reliability related data with all parties (with which the INTERCHANGE TRANSACTION must be coordinated) including the RA(s) and TSP(s).

Brief Description

To ensure reliability related data pertaining to an ~~Interchange~~ Schedule ~~transactions~~ is verified and communicated to functional authorities. Reliability related data to be verified should include megawatt magnitude, ramp start and stop times, and the ~~Interchange~~ Schedule's ~~transactions~~ duration. Reliability related data should be communicated by and between the Interchange Authority, Balancing Authority, Reliability Authority, Transmission Service Provider, and Purchasing-Selling Entity functions.

Verification of data should indicate that a mutual agreement exists between parties that intend to implement a proposed ~~Interchange~~ Schedule ~~transactions~~ as well as approval by the appropriate functional authorities.

To provide a mechanism for transaction identification that could be used for congestion management and/or relieving operating limit violations.

2. Detailed Description Section

The **Detailed Description** creates some confusion for us. Somewhere between steps 4 and 5, the “transaction” becomes an “interchange schedule.” In addition, isn’t it possible that more than one Interchange Authority could be involved with an Interchange Transaction that travels through multiple Balancing Authorities? How would this modify the communication process?

Consideration:

We will modify the SAR to include a diagram that shows the transition of a transaction into an interchange schedule. The diagram is based on the latest version of the functional model. This version of the functional model is being modified to more closely align with SMD. Please provide your comment on the interaction between the SMD and the functional model as it applies to this SAR.

Step 6 refers to “net schedules interchange.” If the intent was to use the defined term “Net Scheduled Interchange,” the term would be misused. Net Scheduled Interchange refers to a Control Area’s (Balancing Authority’s) Scheduled Interchange with the entire Interconnection, not just a single Control Area (Balancing Authority).

Consideration:

Step 6 inaccurately described a step in the process and is not included in the revised SAR. The term, ‘Net Scheduled Interchange’ is not used in the revised SAR.

3. Emergency Conditions

We assume that each SAR will include the pertinent information for maintaining the Standard under emergency conditions. The verification and/or implementation of an Interchange Transaction or Interchange Schedule under emergency conditions are significantly different than under normal conditions. We find that the **Detailed Description** section of the SAR has no defined processes that would apply under emergency conditions.

Consideration:

There is another SAR “Prepare for and Respond to Abnormal or Emergency Conditions” that addresses this topic. We will forward your comments to that SAR DT.

4. Regional Differences

No regional differences are currently identified in the SAR. We realize that approved NERC Standards will eventually replace the current NERC Policies. The new Standards are being written to conform to the NERC Board of Trustees approved Functional Model. This model identifies an unbundled reliability environment operated by Authorities with defined responsibilities. These responsibilities are significantly different from those found in the current policies. e.g. Balancing Authority verses Control Area.

We believe the Reliability Functional Model responsibilities and processes are probably generic enough to accommodate basic reliability concepts. However, the WECC reserves the right to request waivers or other criteria specific to the needs of the Western Interconnection.

Consideration:

Under the standards process, regional differences should be identified as early in the process as possible. If you are aware of any regional differences that should be included in this SAR, please identify those in your written comments on the next posting of this SAR. Regional Differences can be identified at any time during the process, including during the standard drafting posting and comment periods.