

Standards Development Process Issues:

These are issues concerning the process of developing the standards, not the content of the standards. As the process becomes clearer, they probably will resolve themselves.

- **Future Updates to the Use Cases:** How would recommended changes get incorporated into the Use Cases? (Task Force Comments/Clarifications/Recommendations)

Standards Recommendations:

These are recommendations for particular things that are suggested to be in the standards. The standards developments process should resolve these issues.

- The Task Force should cite the foundation technologies already identified by the OSC, and either recommend these, or provide alternatives and rationale for proceeding in a different direction. As cited in the Comments/Clarifications/Recommendations section, use of the term OASIS in the Coordinate Interchange Use Case may have been confusing in light of the ESC's documents stressing that OASIS is a standard interface and not one or specific set of physical computer systems. Likewise, the Task Force's use of the term OASIS Node may continue to lead readers to believe that the OASIS standards will be implemented in single OASIS node. We suggest that at least a definition be provided to the effect that an "OASIS Node" is that collection of computer systems that implement the OASIS standard interface between Market Participants and Market Operators (e.g., ISOs, RTOs, TSPs, etc.). (OATI, Paul Sorenson)
- In the twelfth bullet, Outage Data, all "view" Use Cases should indicate that access to certain data will be limited based on access controls. Outages are only one of many commercially sensitive pieces of information that will be managed through the OASIS interface. (OATI, Paul Sorenson)
- The commercial sensitivity of the **Outage Data** submitted in the OASIS II Use Cases must be considered. Not all submitted outages may be released for public viewing. A means to filter the data available to the public must be included in the requirements. (Task Force Comments/Clarifications/Recommendations)
- **Time standardization:** One of the things that clearly must be standardized is time. The daily scheduling calendar of required submission times, evaluation deadlines, market clearing times (realizing a range of times may be required to accommodate various markets) and coordination of regional flows is the major source of difficulty scheduling. Additionally, sub-hourly timeframes must be considered. (What document will Replace the Tagging Requirements in NERC policy 3?) (Task Force Comments/Clarifications/Recommendations)
- Under **Usability Requirements**, the following statement is made: "Time will be represented in UTC but displayed in a time zone of the user's choice". This should be clarified to say that all dates and times in all messages will be in UTC and conversion to

other time zones will be handled by the GUI or the receiver of the message. (Task Force Comments/Clarifications/Recommendations)

- **System Reliability:** Basing the communication architecture on the public Internet does place an upper limit on how reliable it can be because of communication path overload, viruses, etc. The design should incorporate redundant copies of shared data with an ability to operate in isolation when communication is interrupted. When communication is restored, the systems should support recovery and reconciliation of shared data. (Task Force Comments/Clarifications/Recommendations)
- In the fourth bullet [Comments/Clarifications/Recommendations], System Reliability, there has been no presupposition that OASIS II, in whole or part, be implemented on the public Internet. (OATI, Paul Sorenson)
- **Objects vs. Communication protocols:** The ESC Use Case Specification says that it is a foundation for communication protocols and standards. Yet the things that are communicated (such as Entity, Generator Offer, Profile, etc.) are much like classic IT “objects”. Defining those things as objects would allow the abstraction of many of the use case actions to cover more than one type of item. Processes such as validation, modification, withdrawal, recovery, and construction of an audit trail could be specified at a generic object level rather than being separately defined for each item.
- The role of an Administrator in the **User Registration** should be expanded (Task Force Comments/Clarifications/Recommendations)
- **Data Retrievability:** The Notify Subscribers use case says that participant must provide an online, accessible computer system that is able to respond to the notification. It is always possible for the notification to fail because of a failure on the sender, receiver, or the internet. The electronic scheduling design must include a means to recover from those failures. One method of recovery is to recover past notifications that were missed. Another way to recover is to query the base data elements. A third way is to recover the change record from the base data elements. Probably some combination of all three is necessary. (Task Force Comments/Clarifications/Recommendations)

OASIS II Scope:

These are issues about what should or should not be included in the scope of OASIS II. The standards development process should resolve these issues.

- In the second bullet within [Comments/Clarifications/Recommendations] on Usability Requirements, the UI is mentioned for exactly the same reason it is shown in the task force’s OASIS Node diagram; a user interface should be provided in addition to a standard messaging interface. The degree to which the UI is standardized is subject to debate. (OATI, Paul Sorenson)

- The last paragraph [of OASIS Node Interactions] of this section seems to allude to some type of communications network design. The interactions diagram has no necessary relationship to a physical network topology, and any inference that it does should be removed. The interactions will be there regardless if they are mediated on a true peer-to-peer basis or as a centralized repository. The mode of communication will be different (e.g., direct database access as opposed to XML messaging), but the interactions are still necessary and will be occurring. (OATI, Paul Sorenson)
- Suggest that the Data Store and Database [in the Typical OASIS node diagram] be shown outside the bounds of the OASIS Node, or additional databases and systems outside of the OASIS Node be added. As an implementation of a standard interface, the actual “OASIS Node” will be responsible for processing information that may be scattered across many internal systems just as your Backoffice Integration section shows. (OATI, Paul Sorenson)
- The **Post Schedules** use case says *"The Market Operator or Balancing Authority is responsible for posting all Schedules on OASIS by the time established for the market area. The Schedules posted on OASIS will be the source of dispatch instructions for the Market Participants (unless provided by real time telemetry or other automated mechanism). They will be used by the MO or BA for assessing energy imbalance, compliance with instructions, settlements, etc."* This statement must be modified. Coordination of the schedules with other 'Authorities' is outside this Use Case. As such, any schedules posted to OASIS would be for information only. Currently, this data is not required to be posted until 7-days after-the-fact. Why has it been brought so close to Real-Time? Also, it is not acceptable for OASIS to be the source of dispatch instructions. That is a Real-Time function between Control Rooms and generators and is independent of this Use Case. (Task Force Comments/Clarifications/Recommendations)
- The **Bilateral Schedule** Use Case does not cover 'transactions' as they exist in markets where they may be against the Spot Market, and may have a price associated with them. We believe additional Use Case(s) will be needed to address this concern. (Task Force Comments/Clarifications/Recommendations)
- If agent functionality is envisioned, that feature should be specifically addressed in the **Registration** Use Cases. Is this a high level registry item or region specific item (Task Force Comments/Clarifications/Recommendations)

Document Spelling, Grammar, Clarity:

These are issues about the wording of the documents themselves. They should be resolved by the document author.

- In the ninth bullet [Comments/Clarifications/Recommendations], Use Case Diagrams, the lines between Actors and Use Cases are not meant to show interactions between Actors. (OATI, Paul Sorenson)
- As a point of clarification, the Use Cases intentionally modeled many actors from the NERC Functional Model. In this decomposition of functions, there is no specific references to physical entities intentionally. Physical entities within the electric industry

may perform more than one function and therefore act in the role of several actors.
(OATI, Paul Sorenson)

- A statement [about the OASIS II Entity Relationship Diagram] should be made to the effect that this diagram is not a comprehensive description of all entities nor their relationships required in OASIS II, but is meant to illustrate the major entity components as identified in the ESC Use Cases. In particular, there is no relationship between self-schedules, bilateral schedules, clearing prices, etc., that all become “schedules”. (OATI, Paul Sorenson)
- **Coordinate Interchange:** The Flow of Events in this section reference [of the Use Case document] OASIS as if it is an application with terms such as "OASIS received", "OASIS validations", "OASIS retrieves". OASIS is merely the message format - applications at either end of the message will have to perform any required functions. This terminology should be modified
- The lines showing interaction in the **Use Case Diagrams** do not necessarily match the text. It is not clear if the text should be modified to match the diagrams, or if the diagrams should be modified to match the text. (Task Force Comments/Clarifications/Recommendations)

Questions:

Questions are simply issues where the person asking the question is unclear about what is meant in the documents. They probably do not need to be resolved at all.

- **Coordinate Interchange:** How do the processes and flow of events outlined here correlate to the NERC and NAESB standards being developed? (Task Force Comments/Clarifications/Recommendations)
- Under **Usability Requirements**, a generic statement is made concerning the user interface. Since OASIS II is focused on a messaging format, what does this reference to user interfaces apply to? (Task Force Comments/Clarifications/Recommendations)

