

**NAESB Wholesale Electric Quadrant
Electronic Scheduling Subcommittee
OASIS II Scoping Task Force**

OASIS II Vision

**Version 1
Draft
April 15, 2004**

OASIS II Vision

OASIS II is envisioned to provide electronic communication standards to facilitate the procurement and scheduling of energy and related services among market participants (PSEs, LSEs, GPEs, etc...) and operating entities (traditional TPs, CAs, RTOs/ISOs, etc...). OASIS II should provide a seamless method for procuring and scheduling of transmission, ancillary services, and energy, regardless of region or operating entity using the standardized electronic communications. OASIS II will also facilitate standard communications between operating entities to assist in coordinating market operations (Market Redispatch, Line Loading Relief, etc.) and the exchange of operational reliability information. OASIS II will be implemented through the development of Industry Standards addressing both the technical Standards and Communications Protocols and the procedural Business Practice Standards required to achieve this vision. OASIS II will support the implementation of the NERC Functional Model, corresponding NERC Standards and corresponding NAESB Standards. [Will all the NAESB standards that are under development be 'under' OASIS II - or are the OASIS II Business Practice Standards separate from other NAESB Standards (i.e. CIBP) - cjm] I think this is a true statement, but I don't know that we need it in here.

Following are the key objectives of the vision for OASIS II.

- Facilitate Procurement of Energy and Ancillary Services
- Facilitate Procurement of both Physical and Financial Transmission Rights
- Facilitate Electronic Scheduling of Interchange Transactions
- Accommodate Financial Only Contracts
- Accommodate Regional Diversity
- Ensure Reliable System Operations
- Support Market Operations for Centralized Markets
- Accommodate Data Publishing to Industry
- Support Market Monitoring
- Function Consistently and Reliably
- Be Cost Effective

Facilitate Procurement of Energy and Ancillary Services

OASIS II will provide standardized mechanisms for the procurement of energy and ancillary services to both centralized market structures (i.e. typical ISO/RTO two-settlement markets) and non-centralized market structures (e.g. power exchanges, automated bilateral matching systems, etc). In a centralized market, this procurement will likely be achieved through the submittal of price-sensitive or price-taking energy offers and bids into the Day Ahead and Real Time markets. The energy products in a centralized market may include both energy and certain ancillary services (e.g. operating reserves and regulation). In a non-centralized market structure the required procurement of Transmission Services either separately or in coordination with Energy and/or Ancillary service procurement will need to be addressed. [this seems too detailed for a vision document. I thought this section was relating to 'resources' (i.e generators), not

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Comment: In previous versions I interpreted this 'section' to deal with generator resources, not external transactions. Moved content to Electronic Scheduling section

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transactions). - clm] Resources was intended to refer to the services offered by those generators. If language should change, let's update it but not remove it.

Facilitate Procurement of Both Physical and Financial Transmission Rights

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OASIS II will accommodate the procurement of both financial or physical transmission rights and facilitating secondary markets for trading those rights. There will also be a mechanism for tracking transmission rights that have been obtained outside of OASIS II.

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Facilitate Electronic Scheduling of Interchange Transactions

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OASIS II will facilitate submittal and confirmation of transactions that are tracked as 'interchange' (i.e. transactions impacting multiple reliability entities). The facilitation needed between the procurement of transmission, energy and ancillary services may vary between centralized and non-centralized markets. OASIS II will also consider the need for coordination between all parties within and between regions for these transactions, as required by the NERC functional model. All OASIS II systems will support real-time status updates regarding current schedules/transactions, as well as historical audit and analysis of past transactions. [I was trying to get away from the generic term 'electronic scheduling', so I changed the tone of this to match the 'Coordinate Interchange' aspect of transactions. I'm assuming this section is only referring to transactions. I didn't understand how the 'tracking of rights to resources' was related to electronic scheduling - so if I missed the point of the previous comment, I apologize. - clm] Key here is to say that the OASIS is responsible for knowing who owns rights to transmission or other resources procured on the OASIS. IN other words, how do you deal with resale, reassignment, etc...

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Accommodate Financial Only Contracts

OASIS II will accommodate the submittal of bilateral (i.e financial only) contracts. These contracts may be for energy or ancillary commitments but do not impact the real-time operation of the bulk power system. OASIS II will provide participants a means to electronically submit these contracts for market settlement processes. [I separated the 'financial only' (non-OASIS) contracts out from the electronic scheduling section to hopefully reduce confusion between the two subjects. - clm]

Accommodate Regional Diversity

OASIS II should implement common business models when appropriate, but allow for both regional and market diversity and innovation. Various time frames, congestion management schemes, ramping rules, ancillary services, and uses of resources must be allowed. OASIS II should also support various market models for the trading of transmission and energy, but in a manner that allows for exchange of common data to eliminate input redundancy. This means that same data field such as capacity may mean

contract path capacity in a contract path model but may mean bid capacity in a financial model.

Ensure Reliable System Operations

OASIS II will support submittal of outage and load forecast data by participants. While objectives of OASIS II are the submittal of information by the participants to reliability entities, additional communications may be defined to support data exchange between reliability entities. OASIS II will ensure data is collected to support timely reliability analysis and operational management of the electric grid. As such, the data needs of reliability entities as defined in the NERC Functional Model will be considered in OASIS II. The comments on source/sink seems too detailed for the vision document. It seems like 'real-time' data was previously being referred to in this section; but it doesn't seem appropriate to suggest that OASIS II will be the source for transmitting real-time operations data between reliability entities. - cjm Agreed

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Comment: This seems too specific a reference to external transactions and communication standards to be contained in the vision document.

Deleted: OASIS II must provide for automated data exchange in order to provide accurate and up-to-date information allowing entities the capability to evaluate the state of the electrical system. The market participants will provide an adequate source and sink information so that the reliability operator can analyze the system reliability in advance. The reliability operator should have enough authority to curtail transactions to ensure reliability, however the reliability operators should also provide alternate path or energy sources to serve the load

Support Market Operations for Centralized Markets

OASIS II will provide adequate information to support a variety of market operations for centralized markets. While the actual market operation functions are not part of the OASIS II scope, OASIS II must include provisions for automated data exchange to allow the market operation to perform functions such as analyze offers and bids, clear the markets and calculate LMP. I think a 'market operator' is only applicable to a centralized market - cjm Agreed, but some parts of NERC claim that even a marketer creating a liquid hub is a "market operator."

Inserted: The market participants will provide an adequate source and sink information so that the reliability operator can analyze the system reliability in advance. The reliability operator should have enough authority to curtail transactions to ensure reliability, however the reliability operators should also provide alternate path or energy sources to serve the load

Accommodate Data Publishing to Industry

OASIS II will provide adequate information to support a variety of market analysis by participants. This includes provision of automated data exchange to analyze market conditions, review current operation statuses (i.e. ATC, outages), informal and/or formal bulletin boards to match buyers and suppliers etc. this seems like the catchall for what reliability entities will have to provide back to the participants - cjm Sounds good.

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Support Market Monitoring

OASIS II will provide the capability for access to and viewing of data by market monitors. Market Monitors may also require access to data that will not be provided by OASIS II, such as proprietary transaction information, or may require immediate access to data that may not immediately be available on OASIS II.

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[This section is very confusing. I would recommend deleting it. The 'common interface' aspect is the whole vision/ purpose of OASIS II and should be captured in the opening paragraph. Other statements seem to be referencing "user interfaces", and that's not in the scope of OASIS II. - cjm] Goal here is to say that we need to keep market monitoring in mind as we develop this. For example, the PJM MMU has had difficulty procuring some data form NERC because the systems were never built with the thought that MMU would need to get into it.

Function Consistently and Reliably

OASIS II systems will be reliable. Hardware and software systems should exist to ensure that the OASIS II system is consistently available. Systems will be compliant with Industry Standards, tested, and correctly implemented prior to being allowed to participate as an OASIS II system. Systems will also provide for secure communications to ensure both the integrity of data exchange and protection of confidentiality of all information. OASIS II systems will also meet performance requirements for the exchange of data and completion of all related processes.

[I was not really sure of the objective(s) of this sectionI'm thinking the first sentence may be captured in the 'Financial Only' section. I'm thinking the second sentence may be captured in the 'Reliable Operations' section. - cjm] Key is that from an IT perspective, systems cannot go down. In other words, we'll need performance metrics.

Be Cost Effective

Finally, implementation of OASIS II systems will be managed in a cost effective manner. Technical standards will be developed in light of current industry trends and widely available software tools that will reduce the cost of implementation. The architecture will be both hardware and software platform independent. Selection of technologies that have already achieved a wide degree of standardization and adoption through other standards bodies (e.g., W3C, OASIS, ebXML etc.) should be evaluated for applicability to OASIS II. To promote a cost effective transition from existing system implementations (e.g., OASIS 1A, e-Tagging, etc.), the leveraging of concepts and components from these existing systems should be evaluated wherever practical.

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To ensure efficiency, OASIS II systems will
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- Deleted:** be developed with reasonably consistent interfaces (i.e., common nomenclatures, common data models, common navigational paradigms, etc...). The Industry should adopt specific communications standards for OASIS II to the greatest extent possible. The ability to transact business dealings through one apparent transaction ("one stop shopping") should be facilitated. Interfaces should be designed to meet the needs of a particular user base (i.e., marketers should have different interfaces than operating entities). Sufficient testing, training, and documentation will
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- Deleted:** **Facilitate energy balancing and settlement among operators and participants.**¶
Oasis II will provide communications standards for energy (not financial) settlement among parties by keeping track of deal identifications for non central market systems. Oasis II will also facilitate the information exchange for central markets, Interchange Authority, and balancing authorities to balance energy transfer among various entities.
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In other words there will be mechanism to procure a energy from source connected to node/hub/zone/control area A and delivered to a sink at node/hub/zone/control area B with a single request. The market participants should also be able to request transport and procurement of energy for trading, however all the trades must finally terminate at one or more sinks