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

OASIS II Vision

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OASIS II Vision

~~For business entities that operate in the electric utility industry,~~ OASIS II is envisioned to ~~be a mechanism that will~~ provide electronic communications standard to facilitate the procurement and scheduling of energy and related services ~~between~~ among market participants (PSEs, LSEs, GPEs, etc…) and operating entities (traditional TPs, CAs, RTOs/ISOs, etc…). OASIS II should provide a seamless method for ~~interacting with~~ procuring and scheduling of transmission, ancillary services, and energy, regardless of region or operating entity using the standardized electronic communications. OASIS II should 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.

Following are the ~~K~~key ~~aspects in the~~ objectives of this vision for OASIS II. ~~include meeting (addressing?) the following objectives:~~

- Facilitate Procurement of Energy, Transmission and Ancillary Services
- Accommodate both Physical and Financial Transmission Rights
- Facilitate Rights Tracking and Electronic Scheduling
- Accommodate Regional Diversity
- Ensure Reliable System Operations
- Accommodate Market Operations
- Support Market Monitoring
- Provide Standard Interfaces
- Function Consistently and Reliably
- Facilitate energy balancing and settlement among operators and participants.
- Be Cost Effective

Facilitate Procurement of Energy, Transmission and Ancillary Services

OASIS II will provide standardized mechanisms for submitting energy offers and bids for Day Ahead and Real Time markets (i.e, typical ISO/RTO two-settlement market structures). These energy products may include both energy and certain ancillary services (e.g. operating reserves and regulation). Support for non-centralized market structures (e.g., power exchanges, automated bilateral matching systems, etc.) should also be addressed. The procurement of Transmission Services either separately or in coordination with Energy and/or Ancillary service procurement through OASIS II must be provided. 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.

Accommodate Physical and Financial Transmission Rights

OASIS II will accommodate the procurement of either 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.

Facilitate Rights Tracking and Electronic Scheduling

OASIS II will ~~must~~ standards ~~allow~~ for the tracking of rights to resources and scheduling of those rights to occur in a timely manner. OASIS II will ~~must~~ provide mechanisms for scheduling energy and ancillary commitments concurrent with their procurement and accommodate the entry of schedules for energy or ancillary commitments that were procured in non-OASIS markets. OASIS II will ~~must~~ also allow for coordination and confirmation of schedules, as well as other functions, electronically and seamlessly between all parties within and between regions. All OASIS II systems will ~~must~~ support real-time status updates regarding current schedules/transactions, as well as historical audit and analysis of past transactions.

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 ~~must~~ provide adequate information to support timely reliability analysis and operational management of the electric grid. 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 sourc and sink information so that the reliably 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 Market Operations

OASIS II will~~must~~ provide adequate information to support a variety of market operations. This includes provision of automated data exchange to analyze offers and bids, to calculate LMP, determine resource adequacy, process reservations, calculate ATC, informal and/or formal bulletin boards to match buyers and suppliers etc.

Support Market Monitoring

OASIS II will~~must~~ 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.

Provide Standard Interfaces

To ensure efficiency, OASIS II systems will~~must~~ 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 ~~must~~ be developed and implemented.

Function Consistently and Reliably

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

Facilitate energy balancing and settlement among operators and participants.

Oasis II will provide communications standards for energy (not financial) settlement amond 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.

Be Cost Effective

Finally, OASIS II systems will~~must~~ be cost effective. Technical standards will~~must~~ be developed in light of current industry trends and widely available software tools that will reduce the cost of implementation. The architecture will ~~must~~ 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.