



Joint Initiative Infrastructure Work Group Update Dynamic Scheduling

September 29, 2008

Meeting Agenda

- Scope and assumptions
- Deliverables
- Work streams
- Key Milestones
- Next Steps and Meeting Schedule

Straw Scope Statement

- Scope of initial effort is to develop a business case and feasibility assessment for the development of a common dynamic communication infrastructure/ protocol that will allow participating entities to purchase or sell capacity and energy on a dynamic basis.
- The protocol will use existing transmission service products, as available, and existing scheduling processes to the extent practical.

Key Assumptions

- This effort is intended to define the minimum structure necessary to support implementation of a common dynamic communication infrastructure/protocol. Expansion and/or enhancement of this infrastructure may be considered in future stages.
- This infrastructure/protocol will enable the source and sink for a dynamic schedule to be changed easily and quickly.
- This effort is limited to the development of a business case and high level technical design for communication structure and protocols only
 - The technical design will accommodate many product types, but product development is out of scope
 - Identification of an energy product that will use this infrastructure is highly desirable

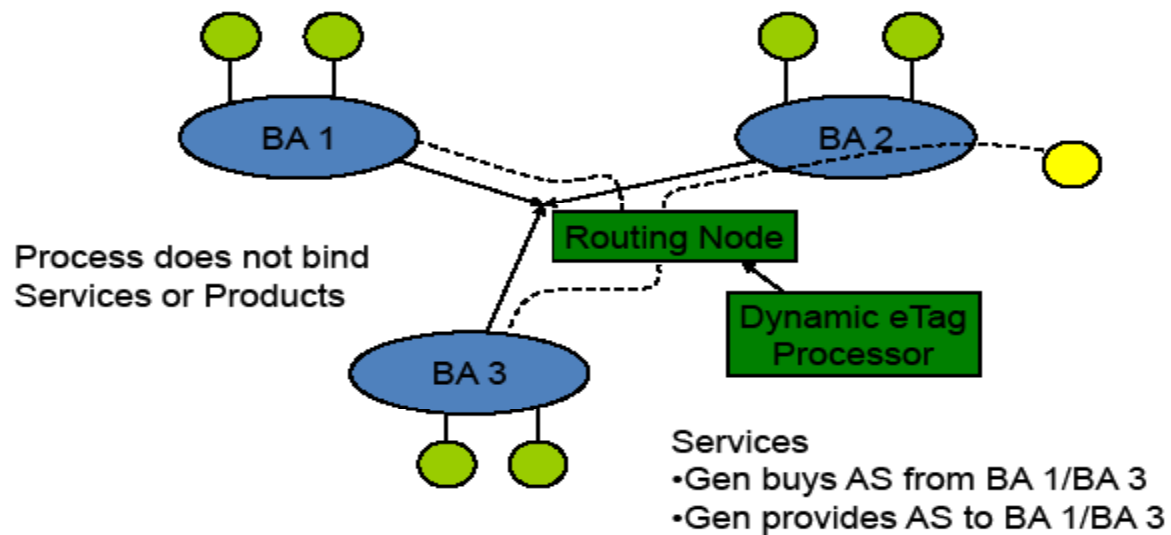
Key Assumptions

- Tariff changes will not be required
- Bi-lateral two party trades between the parties is assumed
- A node will be developed for a group of aggregated utilities. Each balancing area will not have its own node
- Nodes will communicate with balancing areas
 - Generators participating in transactions will do so via a balancing authority

Conceptual Diagram



NTTG Putting it together



Out of Scope

- Development of products
- Development of a market or bi-lateral trading board
- Tariff changes
- Creation of intra-hour etags (if developed elsewhere, design will accommodate them with necessary lead time)

In-Scope

- Assess and specify technical feasibility requirements and develop high level design
 - How many nodes
 - Information exchange
 - Node-to-BA
 - Node-to-Node
 - BA-to-Gen
 - EMS calculations based on product requirements (dynamic schedule)
 - Determine dynamic eTag source and processing
 - What are reliability responsibilities – redundancy requirements?

In-Scope

- Describe technical protocols and system implementation requirements
- Review and assess legal/jurisdictional issues
- Business case development
 - Key objectives, assumptions, purpose
 - Final project implementation plan
 - Deliverables and milestones
 - Capital and OM costs (staffing resources, hw/sw, etc.)
 - Implementation timeline
 - Value and when will it be realized
 - Risks and how they will be addressed
 - Dependencies
- Development of an Implementation Agreement
 - Terms & Conditions for host and participants
 - Terms & Conditions for opting out

Final Report – Draft Outline

Dynamic Scheduling Infrastructure	
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Potential Work Streams

Policy Workgroup

- Authority to act on behalf of participating utility

Protocol Development Workgroup

- EMS /AGC Control Operation specialists

Implementation Plan Development

- EMS/AGC Control Operation Specialists

Key Milestones/Dates

October	November	December	January
<ul style="list-style-type: none"> ▪ Define ICCP Structure <ul style="list-style-type: none"> • How many nodes? • Communication between nodes • Common template ▪ EMS Implementation <ul style="list-style-type: none"> • What data is driving the routing process (how do you set up transaction?) • Where is the data coming from (who supplies via what mechanism?) • Who initiates transaction? 	<ul style="list-style-type: none"> ▪ EMS Implementation <ul style="list-style-type: none"> • Energy accounting implementation issues • AGC Calculation ▪ Contract Issues 	<ul style="list-style-type: none"> ▪ Implementation Plan <ul style="list-style-type: none"> • Utilize existing ADI hw/sw or purchase? • Deliverables & milestones • Resources requirements • Capital and maintenance costs • Implementation schedule ▪ Review and assess legal/jurisdictional issues 	<ul style="list-style-type: none"> ▪ Business case development <ul style="list-style-type: none"> • Key objectives, assumptions, purpose • Benefits and when realized • Risks and how addressed ▪ Development of Implementation Agreement ▪ Offer Implementation Agreement

Next Steps

- Further flesh out technical issues and concerns that will need to be addressed
- Categorize issues by human resource/expertise requirement and estimate workload complete tasks
- Next meeting is scheduled for 9/29 via conference call or in person at the WECC Offices in SLC after the Joint Initiation Integration Meeting