Dissecting Transactive Mechanisms

* The green boxes are interoperability levels from the GridWise Architecture Council “GWAC Stack”.

Function 1
Organizational (Pragmatics)

Function 2
Informational (Semantics)
Technical (Syntax)

Activity
Signal
Response
Toward a Valuation Methodology

Configurational Inputs

Planning Models
1. Growth drivers
2. New assets

Model (intra-year) operations of many kinds

Operational Models

New Growth

New Assets

Infeasible Outcome

Feasible Outcome

Metrics

*Configurational inputs include circuit information, load growth, generator availability, weather data, available DER resources, operational requirements, policy, …

Diagramming Business-Value

In our scenarios, the utility is relatively passive. The LMP determines wholesale electricity price, but the utility does not actively bid for electricity.

Our model does not yet include a transmission entity in its economic model.

The wholesale market process consumes load forecasts, creates LMPs, and dispatches bulk resources.
IMPORTANT CONCEPT: The sums of value objects entering and leaving an actor in business-value diagrams represent that actor's business case!