

GREAT LAKES SYMPOSIUM

ON **SMART GRID** AND THE
NEW ENERGY ECONOMY

Smart Grid Innovation: Impacts on Retail and Wholesale
Electricity Markets and Procurement

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SMART GRID INNOVATION: IMPACTS ON THE ELECTRICITY MARKETPLACE and PROCUREMENT

- What is the Illinois Power Agency?
The central purchasing agent for default service electricity supply to ComEd and Ameren residential and small commercial customers.
- What is the marketplace in which the IPA operates?
Competitive wholesale generation, retail supply competition, regulated delivery service, broad multi-state marketplace in MISO and PJM.
- What is the IPA's mission?
Meet consumer demand at the lowest cost over time using a portfolio of standard market products, long and short-term contracts, renewable and clean coal resources, demand management and energy efficiency, taking into account the benefits of price stability.

SMART GRID INNOVATION: IMPACTS ON THE ELECTRICITY MARKETPLACE and PROCUREMENT

Why does the Smart Grid matter?

It is an enabling platform
for unprecedented consumer opportunities and benefits
through better portfolio management,
by engaging the consumer
as a partner in supply decisions.

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How does it do this?

Enables a convergence of the retail and wholesale power markets.

Provides new market opportunities /increases competitiveness

Can increase the dynamic nature of retail load beyond the historic influences of weather, economy and (more recently) retail choice of supplier.

Improves supply/demand portfolio risk management opportunities

SMART GRID INNOVATION: IMPACTS ON THE ELECTRICITY MARKETPLACE and PROCUREMENT

Enables a greater convergence of the retail and wholesale power markets.

- Demand-side resources can compete with supply-side options in real time.
- Greater economic efficiency: Consumers see the “real” costs of consumption decisions.

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Provides new market opportunities /increases competitiveness

- A platform for innovation in competitive markets.
- More choice of resources to dispatch to meet economic and reliability goals.
- Niche markets target willing customers rather than socializing all costs (i.e. rolling blackouts, voltage reductions, higher rates to all for higher cost resources).
- Engages new parties such as appliance manufacturers and retailers.

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Can increase the dynamic nature of retail load beyond the historic influences of weather, economy and (more recently) retail choice of supplier.

- A risk if unmanaged, a resource if well understood and planned-for.
- Requires an educated consumer, competent marketers and well-understood rules and protocols across multi-state regions (MISO and PJM)

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Improves supply/demand portfolio risk management opportunities

Consumer behavior can lead to overall price stability, even when bills are based on hourly prices.

SMART GRID INNOVATION: IMPACTS ON THE ELECTRICITY MARKETPLACE and PROCUREMENT

Not without its own risks, which must be addressed:

- Requires competitively neutral access
- Protect the confidentiality of customer-specific billing, usage and load shape data – customer authorization
- Ensure no double counting of benefits by the delivery and supply entities
- Address security and reliability vulnerabilities

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Risks (continued):

- Need to allocate scarce resources:
 - Transmission Investment vs. Smart Grid Investment
 - For the foreseeable future, central generation will still be the backbone of the supply system
 - New generator installs
 - Congestion relief
 - RTO seams mitigation

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Thank you!

Questions?