

Top 10 Adjustments that Electric and Gas Load-serving Entities and Merchant Producers Need to Implement to Position Themselves for Interconnection and Coordination

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Overview Issues

- **Issue 1** – Timing inconsistencies between the way natural gas is bought, sold, and nominated and electricity is offered in the DAM will become more of a problem than it is today due to growth of intermittent generation and gas operation incompatibilities, scheduling and lack of regulatory consistency.
- **Issue 2** – Coordination of the Power Generation “Socialized” model with the Natural Gas “Competitive” model and the devil’s in the details;
- **Issue 3** – Regulatory coordination between state and federal agencies regarding coal-to-gas-fired conversions, gas supply growth, and infrastructure investment and coordinated state-to state planning;
- **Issue 4** - Planning for new pipelines and coordination with ISOs and power generators and cost recovery for gas infrastructure requirements;
- **Issue 5** – Pipeline contracting procedures and subtleties; need for firm service that is economical for power generation competition;

Overview Issues

- **Issue 6** – Risks associated with natural gas contingencies such as emergency curtailment, delivery and fuel planning practices;
- **Issue 7** – Operational challenges for electric renewables for Ramp Up, Ramp Down, Dual Peaks Multiple Unit Starts, Intermittency, etc. and natural gas delivery;
- **Issue 8** – Power generation requirements for automatic generation control (AGC), load following and optimization and Security Constrained Economic Dispatch and (SCED) response rates/issues;
- **Issue 9** – Pipeline physical and operation limitations to support electric powers' "wish list" for "instant service" that presents pipeline capacity and pressures, pressure fluctuations and re-pressuring challenges;
- **Issue 10** – Communications, understanding of terminology, operations and cultural differences between the natural gas and electric power industries.

Need for Improved and Increased:

- Information sharing and communication between gas and electric industries;
- Cross-industry education and understanding of and clarity on pipeline services;
- Coordination of pipeline scheduling and time zone/ISO DAM timing and emergency operations differences;
- More involvement, active participation and guidance from state, regional (States and ISOs) and federal regulators going forward on gas-electric issues and solutions;
- Flexible solutions to interdependency issues (incentivize/penalize – don't mandate);
- Power generator tariff change coordination with gas industry to allow analyses, coordination and solutions before implementation.

Think...Analyze...Apply

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