North American Energy Standards Board
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GECTF Preliminary Discussion Points List – Expanded & Categorized

Purpose: The purpose of this document is to reflect the GECTF Preliminary Discussion Points List in the categorization developed during the April 13-14, 2004 GECTF meeting. Categories include:

A. Energy Day
B. Communications (format, frequency)
C. Gas Nominations Timelines
D. Electric Market Timelines
E. Gas Contracts/Services Portfolios of Electric Companies
F. Electric Generation Gas Supply Verification
G. Available Transportation Service Provider Services
H. Natural Gas Industry Infrastructure
I. Electric Market Rules
J. Natural Gas Supply Real Time Flexibility
K. Electric Industry Infrastructure
L. Electric Industry Organization
M. Energy Reliability
Q. Information

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A. Energy Day

Flexibility/Planning:

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

1.3.2 Electric dispatch is subject to contractual and tariff commitments but is also impacted by: availability of prescheduled generation assets; congestion at bottlenecks on the transmission system; availability of incremental/decremental energy at various points in the transmission system; and the economic value of real time incremental/decremental energy at various points in the transmission system. Electric transmission tariffs (OATTs) contain curtailment policies.

1.3.3 Natural gas dispatch is subject to contractual commitments including the confirmation of the gas supply and tariff requirements, including priority of service and or curtailment procedures. Generally, natural gas dispatch is not impacted by the price of the natural gas supply.

1.3.4 In organized electric markets, the ISOs or RTOs work to maintain the balance between generation and load. Outside ISOs and RTOs, integrated utilities usually fulfill this function.

1.3.5 Electric Generators have an obligation to perform, but the determination of which generation resources are used is sometimes based on pricing but also on availability of generation inputs.

1.3.6 When does a generator know gas is needed to serve a particular market (quantity and time)?

1.3.7 RTOs/ISOs don't verify a generator's gas supply or firm capacity arrangements before accepting a generator's bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

Timelines / Scheduling:

2.1. There is one NAESB WGQ standard gas day and a standard nomination/scheduling timeline and there are many regional power days and power scheduling timelines that may contribute to difficulties in cross-commodity standardization. Identify the impact of the differences between the WGQ standard gas day and nomination/scheduling timeline and the multiple regional power market timelines.

2.1.1 There are obvious mismatches between the gas day and electric day-ahead and real time markets.

2.1.2 Each electric market has its own timeline.

2.1.3 Can the multiple electric timelines be consolidated?

2.1.4 Gas pipelines may serve multiple regional power markets, therefore individual market timelines would significantly complicate gas scheduling.

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B. Communications (format, frequency)

Flexibility/Planning:

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1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

1.7. The impact on the gas infrastructure of non-scheduled gas-fired generation coming on or going off without notice.

1.7.1 Lack of planning for peaking needs.

1.7.2 Alignment of purchase of proper services, if available.

1.7.3 An increase in gas-fired generation coming on line could result in gas flow control which would limit the gas flow at particular points.

1.7.4 New services and/or procedures (such as 'real time' natural gas service) may be needed.

1.7.5 What are the current solutions for handling the needs of peaking generation facilities?

1.7.6 If a market takes unauthorized gas deliveries, other scheduled shippers may be adversely impacted.

1.9. Is there a need for more intraday flexibility in gas scheduling?

1.9.1 The need for intraday flexibility in gas scheduling should be weighed for the needs of both industries.

1.9.2 If a change is only for the benefit of the electric industry, then the change should not occur.

1.9.3 Additional intraday nominations opportunities increase the availability of feedback data for the pipelines and would make the industries more transparent.

1.9.4 There is the need for something closer to real time or same day flexibility, but the facilities are currently not in place.

1.9.5 LDCs cannot manage additional flexibility (logistical issues).

1.9.6 Flexibility has economic value.

1.9.7 The physical nature of the commodities is different. It takes 2.5 to 3 days for gas input in the gulf to travel to New York. Electricity is instantaneous and cannot be stored.

Timelines / Scheduling:

2.2. Identify notice requirements that are to be provided to pipelines and/or service providers by shippers regarding load and flow changes. Identify the need for increased and/or more formal communication protocols between natural gas and power operations / control room personnel.

2.2.1 Communication procedures should be formalized. This could include informing the pipelines of a day ahead generation plan and projected gas needs in MMBtu or MCF. This should include both daily and hourly requirements.

2.2.2 Modifications should be communicated when known.

2.2.3 There are potential confidentiality and code of conduct issues.

2.2.4 There is a potential for coordinated maintenance outages.

Terminology:

4.1. There are differences in terminology between natural gas and power (e.g., does “Firm” mean the same thing in both commodities?)

C. Gas Nominations Timelines

Flexibility/Planning:

1.1. Identify the impact of weather and other uncontrollable factors on generation and gas load swings.

1.1.1 Issues may include pricing, unknown generation needs, and gas units being turned on or off with short notice.

1.1.2 While there may not be available services to mitigate, there could be market-based tools available.

1.1.3 There is a lack of historical statistics with respect to extreme weather on generation unit availability.

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

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1.8. Identify examples of the service characteristics that could meet the market needs for increased delivery flexibility.

1.8.1 Service Characteristics:

1.8.1.1 Firm vs. IT

1.8.1.2 Firm Balancing

1.8.1.3 Should be developed to work for both uniform flow markets and non-uniform flow markets without producing negative impacts on other markets.

1.8.1.4 Any service offerings are tied to operational characteristics.

1.8.1.5 Storage based services (non-notice or short notice).

1.8.1.6 Park & Loan

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<u>Timelines / Scheduling:</u>

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2.1.1 There are obvious mismatches between the gas day and electric day-ahead and real time markets.

2.1.2 Each electric market has its own timeline.

2.1.3 Can the multiple electric timelines be consolidated?

2.1.4 Gas pipelines may serve multiple regional power markets, therefore individual market timelines would significantly complicate gas scheduling.

2.4. Can the natural gas producers and marketers react to 'within the day' requirement changes?

2.4.1 There is a lag between gas scheduling and the related change in gas flow rates.

2.4.2 Producers will not nominate or confirm gas at well heads to markets requiring irregular flows. Marketers are willing to use all available services to serve the needs of all customers.

2.4.3 What is the reasonable minimum amount of notice necessary to affect a change of supply to meet load?

D. Electric Market Timelines

Flexibility/Planning:

1.1. Identify the impact of weather and other uncontrollable factors on generation and gas load swings.

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E. Gas Contracts/Services Portfolios of Electric Companies

Flexibility/Planning:

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1.4. Distinguish between the need for changes to the NAESB WGQ Standards and the need to make adjustments to gas contract portfolios (supply, transportation and/or other services) and/or gas infrastructure requirements. Additional incentives may be needed to encourage entities to diversify their gas contract portfolios to meet their market requirements.

1.7. The impact on the gas infrastructure of non-scheduled gas-fired generation coming on or going off without notice.

1.7.1 Lack of planning for peaking needs.

1.7.2 Alignment of purchase of proper services, if available.

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1.8.1 Service Characteristics:

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Timelines / Scheduling:

2.4. Can the natural gas producers and marketers react to 'within the day' requirement changes?

2.4.1 There is a lag between gas scheduling and the related change in gas flow rates.

2.4.2 Producers will not nominate or confirm gas at well heads to markets requiring irregular flows. Marketers are willing to use all available services to serve the needs of all customers.

2.4.3 What is the reasonable minimum amount of notice necessary to affect a change of supply to meet load?

Reliability:

3.2. Distinguish between coordination issues that are originated by 1) true reliability issues versus 2) those caused by trading risk management practices.

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F. Electric Generation Gas Supply Verification

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G. Available Transportation Service Provider Services

Flexibility/Planning:

1.2. Discuss ways to accommodate the natural gas requirements of new generation as it comes online in various regions.

a. The impact on the gas infrastructure of new gas-fired generation facilities.

1.2.1 Gas input supply, transportation capacity availability, and capacity contract rights (types of available services) are relevant to new gas-fired generation facilities.

1.2.2 Type of generation facility and physical location of the facility are relevant issues.

1.2.3 Lack of North American electric scheduling standards is problematic.

1.2.4 Electric generation facility citing is a regulated process.

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

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1.5. Allowing more flexibility to non-firm gas shippers may impact the service levels and contractual rights of existing / traditional firm shippers.

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<u>Timelines / Scheduling:</u>

2.4. Can the natural gas producers and marketers react to 'within the day' requirement changes?

2.4.1 There is a lag between gas scheduling and the related change in gas flow rates.

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H. Natural Gas Industry Infrastructure

Flexibility/Planning:

1.2. Discuss ways to accommodate the natural gas requirements of new generation as it comes online in various regions.

a. The impact on the gas infrastructure of new gas-fired generation facilities.

1.2.1 Gas input supply, transportation capacity availability, and capacity contract rights (types of available services) are relevant to new gas-fired generation facilities.

1.2.2 Type of generation facility and physical location of the facility are relevant issues.

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1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

1.4. Distinguish between the need for changes to the NAESB WGQ Standards and the need to make adjustments to gas contract portfolios (supply, transportation and/or other services) and/or gas infrastructure requirements. Additional incentives may be needed to encourage entities to diversify their gas contract portfolios to meet their market requirements.

1.5. Allowing more flexibility to non-firm gas shippers may impact the service levels and contractual rights of existing / traditional firm shippers.

1.8. Identify examples of the service characteristics that could meet the market needs for increased delivery flexibility.

1.8.1 Service Characteristics:

1.8.1.1 Firm vs. IT

1.8.1.2 Firm Balancing

1.8.1.3 Should be developed to work for both uniform flow markets and non-uniform flow markets without producing negative impacts on other markets.

1.8.1.4 Any service offerings are tied to operational characteristics.

1.8.1.5 Storage based services (non-notice or short notice).

1.8.1.6 Park & Loan

1.8.1.7 Linepack

1.8.1.8 Communication mitigation RFP procedure by pipeline.

1.8.1.9 There are economics to providing any service.

1.9. Is there a need for more intraday flexibility in gas scheduling?

1.9.1 The need for intraday flexibility in gas scheduling should be weighed for the needs of both industries.

1.9.2 If a change is only for the benefit of the electric industry, then the change should not occur.

1.9.3 Additional intraday nominations opportunities increase the availability of feedback data for the pipelines and would make the industries more transparent.

1.9.4 There is the need for something closer to real time or same day flexibility, but the facilities are currently not in place.

1.9.5 LDCs cannot manage additional flexibility (logistical issues).

1.9.6 Flexibility has economic value.

1.9.7 The physical nature of the commodities is different. It takes 2.5 to 3 days for gas input in the gulf to travel to New York. Electricity is instantaneous and cannot be stored.

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Timelines / Scheduling:

2.3. Identify the impact of coincident and near coincident peaks of natural gas markets and power markets. For example, the winter gas and electric usage peaks are early in the morning or late in the afternoon.

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I. Electric Market Rules

Flexibility/Planning:

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

1.3.2 Electric dispatch is subject to contractual and tariff commitments but is also impacted by: availability of prescheduled generation assets; congestion at bottlenecks on the transmission system; availability of incremental/decremental energy at various points in the transmission system; and the economic value of real time incremental/decremental energy at various points in the transmission system. Electric transmission tariffs (OATTs) contain curtailment policies.

1.3.3 Natural gas dispatch is subject to contractual commitments including the confirmation of the gas supply and tariff requirements, including priority of service and or curtailment procedures. Generally, natural gas dispatch is not impacted by the price of the natural gas supply.

1.3.4 In organized electric markets, the ISOs or RTOs work to maintain the balance between generation and load. Outside ISOs and RTOs, integrated utilities usually fulfill this function.

1.3.5 Electric Generators have an obligation to perform, but the determination of which generation resources are used is sometimes based on pricing but also on availability of generation inputs.

1.3.6 When does a generator know gas is needed to serve a particular market (quantity and time)?

1.3.7 RTOs/ISOs don't verify a generator's gas supply or firm capacity arrangements before accepting a generator's bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

Timelines / Scheduling:

2.1. There is one NAESB WGQ standard gas day and a standard nomination/scheduling timeline and there are many regional power days and power scheduling timelines that may contribute to difficulties in cross-commodity standardization. Identify the impact of the differences between the WGQ standard gas day and nomination/scheduling timeline and the multiple regional power market timelines.

2.1.1 There are obvious mismatches between the gas day and electric day-ahead and real time markets.

2.1.2 Each electric market has its own timeline.

2.1.3 Can the multiple electric timelines be consolidated?

2.1.4 Gas pipelines may serve multiple regional power markets, therefore individual market timelines would significantly complicate gas scheduling.

Reliability:

3.2. Distinguish between coordination issues that are originated by 1) true reliability issues versus 2) those caused by trading risk management practices.

J. Natural Gas Supply Real Time Flexibility

Flexibility/Planning:

1.2. Discuss ways to accommodate the natural gas requirements of new generation as it comes online in various regions.

a. The impact on the gas infrastructure of new gas-fired generation facilities.

1.2.1 Gas input supply, transportation capacity availability, and capacity contract rights (types of available services) are relevant to new gas-fired generation facilities.

1.2.2 Type of generation facility and physical location of the facility are relevant issues.

1.2.3 Lack of North American electric scheduling standards is problematic.

1.2.4 Electric generation facility citing is a regulated process.

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

1.3.2 Electric dispatch is subject to contractual and tariff commitments but is also impacted by: availability of prescheduled generation assets; congestion at bottlenecks on the transmission system; availability of incremental/decremental energy at various points in the transmission system; and the economic value of real time incremental/decremental energy at various points in the transmission system. Electric transmission tariffs (OATTs) contain curtailment policies.

1.3.3 Natural gas dispatch is subject to contractual commitments including the confirmation of the gas supply and tariff requirements, including priority of service and or curtailment procedures. Generally, natural gas dispatch is not impacted by the price of the natural gas supply.

1.3.4 In organized electric markets, the ISOs or RTOs work to maintain the balance between generation and load. Outside ISOs and RTOs, integrated utilities usually fulfill this function.

1.3.5 Electric Generators have an obligation to perform, but the determination of which generation resources are used is sometimes based on pricing but also on availability of generation inputs.

1.3.6 When does a generator know gas is needed to serve a particular market (quantity and time)?

1.3.7 RTOs/ISOs don't verify a generator's gas supply or firm capacity arrangements before accepting a generator's bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

1.7. The impact on the gas infrastructure of non-scheduled gas-fired generation coming on or going off without notice.

1.7.1 Lack of planning for peaking needs.

1.7.2 Alignment of purchase of proper services, if available.

1.7.3 An increase in gas-fired generation coming on line could result in gas flow control which would limit the gas flow at particular points.

1.7.4 New services and/or procedures (such as 'real time' natural gas service) may be needed.

1.7.5 What are the current solutions for handling the needs of peaking generation facilities?

1.7.6 If a market takes unauthorized gas deliveries, other scheduled shippers may be adversely impacted.

1.8. Identify examples of the service characteristics that could meet the market needs for increased delivery flexibility.

1.8.1 Service Characteristics:

1.8.1.1 Firm vs. IT

1.8.1.2 Firm Balancing

1.8.1.3 Should be developed to work for both uniform flow markets and non-uniform flow markets without producing negative impacts on other markets.

1.8.1.4 Any service offerings are tied to operational characteristics.

1.8.1.5 Storage based services (non-notice or short notice).

1.8.1.6 Park & Loan

1.8.1.7 Linepack

1.8.1.8 Communication mitigation RFP procedure by pipeline.

1.8.1.9 There are economics to providing any service.

1.9. Is there a need for more intraday flexibility in gas scheduling?

1.9.1 The need for intraday flexibility in gas scheduling should be weighed for the needs of both industries.

1.9.2 If a change is only for the benefit of the electric industry, then the change should not occur.

1.9.3 Additional intraday nominations opportunities increase the availability of feedback data for the pipelines and would make the industries more transparent.

1.9.4 There is the need for something closer to real time or same day flexibility, but the facilities are currently not in place.

1.9.5 LDCs cannot manage additional flexibility (logistical issues).

1.9.6 Flexibility has economic value.

1.9.7 The physical nature of the commodities is different. It takes 2.5 to 3 days for gas input in the gulf to travel to New York. Electricity is instantaneous and cannot be stored.

<u>Timelines / Scheduling:</u>

2.2. Identify notice requirements that are to be provided to pipelines and/or service providers by shippers regarding load and flow changes. Identify the need for increased and/or more formal communication protocols between natural gas and power operations / control room personnel.

2.2.1 Communication procedures should be formalized. This could include informing the pipelines of a day ahead generation plan and projected gas needs in MMBtu or MCF. This should include both daily and hourly requirements.

2.2.2 Modifications should be communicated when known.

2.2.3 There are potential confidentiality and code of conduct issues.

2.2.4 There is a potential for coordinated maintenance outages.

2.4. Can the natural gas producers and marketers react to 'within the day' requirement changes?

2.4.1 There is a lag between gas scheduling and the related change in gas flow rates.

2.4.2 Producers will not nominate or confirm gas at well heads to markets requiring irregular flows. Marketers are willing to use all available services to serve the needs of all customers.

2.4.3 What is the reasonable minimum amount of notice necessary to affect a change of supply to meet load?

K. Electric Industry Infrastructure

Flexibility/Planning:

1.2. Discuss ways to accommodate the natural gas requirements of new generation as it comes online in various regions.

a. The impact on the gas infrastructure of new gas-fired generation facilities.

1.2.1 Gas input supply, transportation capacity availability, and capacity contract rights (types of available services) are relevant to new gas-fired generation facilities.

1.2.2 Type of generation facility and physical location of the facility are relevant issues.

1.2.3 Lack of North American electric scheduling standards is problematic.

1.2.4 Electric generation facility citing is a regulated process.

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

1.3.2 Electric dispatch is subject to contractual and tariff commitments but is also impacted by: availability of prescheduled generation assets; congestion at bottlenecks on the transmission system; availability of incremental/decremental energy at various points in the transmission system; and the economic value of real time incremental/decremental energy at various points in the transmission system. Electric transmission tariffs (OATTs) contain curtailment policies.

1.3.3 Natural gas dispatch is subject to contractual commitments including the confirmation of the gas supply and tariff requirements, including priority of service and or curtailment procedures. Generally, natural gas dispatch is not impacted by the price of the natural gas supply.

1.3.4 In organized electric markets, the ISOs or RTOs work to maintain the balance between generation and load. Outside ISOs and RTOs, integrated utilities usually fulfill this function.

1.3.5 Electric Generators have an obligation to perform, but the determination of which generation resources are used is sometimes based on pricing but also on availability of generation inputs.

1.3.6 When does a generator know gas is needed to serve a particular market (quantity and time)?

1.3.7 RTOs/ISOs don't verify a generator's gas supply or firm capacity arrangements before accepting a generator's bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

Timelines / Scheduling:

2.3. Identify the impact of coincident and near coincident peaks of natural gas markets and power markets. For example, the winter gas and electric usage peaks are early in the morning or late in the afternoon.

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L. Electric Industry Organization

Flexibility/Planning:

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

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1.3.7 RTOs/ISOs don’t verify a generator’s gas supply or firm capacity arrangements before accepting a generator’s bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

M. Energy Reliability

<u>Flexibility/Planning:</u>

1.2. Discuss ways to accommodate the natural gas requirements of new generation as it comes online in various regions.

a. The impact on the gas infrastructure of new gas-fired generation facilities.

1.2.1 Gas input supply, transportation capacity availability, and capacity contract rights (types of available services) are relevant to new gas-fired generation facilities.

1.2.2 Type of generation facility and physical location of the facility are relevant issues.

1.2.3 Lack of North American electric scheduling standards is problematic.

1.2.4 Electric generation facility citing is a regulated process.

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

1.3.1 If multiple priority of service levels are used in a nomination chain, the lowest service level may dictate the priority of the entire chain. eg. Firm service on an upstream service provider (commodity or transportation) tied to interruptible service on a downstream service provider may result in gas not being scheduled to flow as nominated. The converse is also true.

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1.3.6 When does a generator know gas is needed to serve a particular market (quantity and time)?

1.3.7 RTOs/ISOs don't verify a generator's gas supply or firm capacity arrangements before accepting a generator's bid due to the fact that a generator is obligated in the real time market to generate or to purchase the generation to cover the obligation.

1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

1.5. Allowing more flexibility to non-firm gas shippers may impact the service levels and contractual rights of existing / traditional firm shippers.

1.6. If a pipeline is fully subscribed to firm shippers and an interruptible shipper is scheduled, it is because a firm shipper is not using the capacity or additional capacity is available on a temporary basis.

1.7. The impact on the gas infrastructure of non-scheduled gas-fired generation coming on or going off without notice.

1.7.1 Lack of planning for peaking needs.

1.7.2 Alignment of purchase of proper services, if available.

1.7.3 An increase in gas-fired generation coming on line could result in gas flow control which would limit the gas flow at particular points.

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1.7.6 If a market takes unauthorized gas deliveries, other scheduled shippers may be adversely impacted.

Timelines / Scheduling:

2.1. There is one NAESB WGQ standard gas day and a standard nomination/scheduling timeline and there are many regional power days and power scheduling timelines that may contribute to difficulties in cross-commodity standardization. Identify the impact of the differences between the WGQ standard gas day and nomination/scheduling timeline and the multiple regional power market timelines.

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2.1.3 Can the multiple electric timelines be consolidated?

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2.2.4 There is a potential for coordinated maintenance outages.

2.3. Identify the impact of coincident and near coincident peaks of natural gas markets and power markets. For example, the winter gas and electric usage peaks are early in the morning or late in the afternoon.

2.4. Can the natural gas producers and marketers react to 'within the day' requirement changes?

2.4.1 There is a lag between gas scheduling and the related change in gas flow rates.

2.4.2 Producers will not nominate or confirm gas at well heads to markets requiring irregular flows. Marketers are willing to use all available services to serve the needs of all customers.

2.4.3 What is the reasonable minimum amount of notice necessary to affect a change of supply to meet load?

Reliability:

3.1. Identify the impact of any contemplated change on natural gas and power reliability.

3.1.1 How will it impact the availability of peaking power?

3.2. Distinguish between coordination issues that are originated by 1) true reliability issues versus 2) those caused by trading risk management practices.

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Q. Information

<u>Flexibility/Planning:</u>

1.3. Identify differences in the factors driving dispatch priority between natural gas and power.

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1.3.8 Market rules and/or market mitigation (price caps) can negatively impact the availability of generation assets.

1.6. If a pipeline is fully subscribed to firm shippers and an interruptible shipper is scheduled, it is because a firm shipper is not using the capacity or additional capacity is available on a temporary basis.

<u>Terminology:</u>

4.1. There are differences in terminology between natural gas and power (e.g., does "Firm" mean the same thing in both commodities?)