



**UG 19**

**NYISO Expectations of Generator  
Operation During a Gas Restriction or  
Interruption User's Guide**

**Issued: November 2021**

**Version: 1.2**

**Effective Date: 11/17/2021**

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## Revision History

Version	Date	Revisions
1.0	05/25/2017	Initial Release
1.1	10/26/2018	Update Section 5 to define “timely” for SRE requests
1.1	05/06/2019	Recertified and links updated
1.2	11/17/2021	Recertified Updates to Sections 2, 3, 4, 5, 6 & 7 to provide further clarification in each section.

## 1. INTRODUCTION

On days when gas system reliability could be at risk, the Local Distribution Company (“LDC”), interstate or intrastate gas pipeline may, as permitted by its Federal Energy Regulatory Commission (“FERC”) or New York Public Service Commission (“NYPSC”) approved tariffs or customer contract, invoke an Operational Flow Order (“OFO”) or issue other instructions restricting use of gas imbalance service. Under extreme circumstances, interruptible customers may also have their gas service interrupted to protect gas system reliability. Unlimited use of balancing gas by Generators could, in some circumstances, endanger gas system reliability. This document is applicable to all Generators that are available to be Bid into the NYISO markets, but for or subject to potential fuel limitations.

When the Generator’s LDC or pipeline has issued an OFO, or other legally authorized instruction restricting the use of gas balancing services, a Generator may be subject to unauthorized use charges or to penalties for incurring gas imbalances that exceed certain limited tolerances specified in the OFO or instruction. As a general practice, the NYISO will not permit inclusion in Generator reference levels of unauthorized use charges or penalties for violating Operational Flow Orders or for violating legally authorized LDC/pipeline instructions restricting gas usage. However, if and to the extent that a Market Party has obtained specific authorization from the relevant natural gas LDC or pipeline to use gas at a Generator that would otherwise be unauthorized or subject to a penalty, the NYISO shall not consider such usage to be unauthorized use. Market Parties shall make every effort to clearly document authorization they obtain from an LDC or pipeline. Documentation obtained after the fact will be considered.

This document describes the NYISO’s expectations for entities that Bid into the NYISO administered markets during times when an OFO or other legally authorized instructions restricting the use of balancing services are in effect. This guide is written in general terms that may not apply to a Generator’s unique circumstances.

Installed Capacity Providers have an obligation to Bid, schedule, or notify for all hours in the Day-Ahead Market (“DAM”) in accordance with the *NYISO Market Administration and Control Area Services Tariff* (“Services Tariff”) Section 5.12.7 (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>). In addition to the Services Tariff requirements for Installed Capacity Providers, it is generally expected that any available Generator that is acting in a competitive manner would be bidding into both the Day- Ahead Market and the Real-Time Market.

Nothing in this document alters NYISO's economic withholding rules.

### **1.1. General Statements**

For the purpose of this document, the term “portfolio” refers to gas balancing resources available to one or more Generator(s) by contract or tariff.

For purposes of this document, the term “OFO” refers to a legally authorized Operational Flow Order issued by the LDC or pipeline to which a Generator is interconnected.

For purposes of this document, the term “interruption” refers to a legally authorized notice of interruption or temporary service discontinuance issued by the LDC or pipeline to which the Generator is interconnected.

The failure of a gas-only Generator to offer additional incremental Energy or Ancillary Services (in excess of its scheduled MWs) in real-time during an OFO due to the inability of the Generator to obtain or deliver gas to the Generator's pipeline meter or LDC meter as a result of the OFO would be deemed conduct consistent with competitive behavior for purposes of physical withholding evaluations conducted pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23).

Gas-only Generators are not expected to Bid into the Day-Ahead Market to the extent they are unable to obtain or deliver gas to the Generator's burner tip. If an interruption of gas transportation service is announced by a gas transportation service provider before the Day- Ahead Market Bid window closes, a Generator would be expected to notify NYISO outage scheduling of a forced outage to the extent it is unable to obtain or deliver gas to the Generator's pipeline meter or LDC meter. See Section 5 GADS Reporting.

If an interruption of gas service occurs after a gas-only Generator receives a Day-Ahead Market schedule, the Generator is expected to be derated for “lack of fuel” (see Section 5 GADS Reporting), and is expected to notify the NYISO of its unavailability due to lack of fuel through its Transmission Owner (“TO”).

Gas balancing services are bundled into some LDC transportation services, rather than provided as a separate service. For purposes herein, bundled gas imbalance access is equivalent to use of gas balancing services.

## 2. DAILY OPERATIONAL FLOW ORDER (OFO)

During a daily OFO, the following rules apply:

### 2.1. Gas Only Generators - Single Generator

#### 2.1.1. Day-Ahead Market Expectations

Since one electric day spans portions of two gas days, Generators' Bids should consider the OFO for the appropriate 24-hour gas day.

A Generator is expected to reflect any costs (risks) associated with operating during an OFO period and for complying with the OFO restrictions in its Bids. Consistent with Services Tariff Section 23.3.1.4.6.2, charges associated with violating an OFO may not be included in Generator reference levels.

#### 2.1.2. Real-Time Market Expectations

A gas-only Generator is not expected to offer additional, incremental Energy or Ancillary Services in real-time during an OFO if it cannot obtain or deliver additional gas to the Generator's pipeline meter or LDC meter or would have to use unauthorized natural gas to satisfy its Energy or Ancillary Services offer.

A gas-only Generator is expected to offer into the Real-Time Market whenever it is capable of obtaining or delivering gas to the Generator's pipeline meter or LDC meter and operating in real-time, even if the Generator was not awarded a Day-Ahead Market schedule.

A gas-only Generator is expected to offer into the Real-Time Market if the Generator was awarded a Day-Ahead Ancillary Services schedule for hours outside the available gas nomination period.

If a Generator is unable to or chooses not to offer in the Real-Time Market during the period it was awarded a Day-Ahead Ancillary Services schedule, the Generator must be derated to 0 MW for that time period. See Section 5 GADS Reporting.

The failure of a gas-only Generator to offer additional incremental Energy or Ancillary Services (in excess of its Day-Ahead scheduled MWs) in real-time, during an OFO, due to the inability to obtain or deliver additional gas to the Generator's pipeline meter or LDC meter would not be considered physical withholding pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23).

### 2.2. Dual Fuel Generators - Single Generator

#### 2.2.1. Day-Ahead Market Expectations

A dual-fuel Generator that has been assigned a default reference fuel type of gas, but is unable to



obtain or deliver gas to the Generator's pipeline meter or LDC meter due to an OFO, might nonetheless be able to run on oil for the day. In such circumstances, the Generator is expected to include a fuel type adjustment (from gas to oil) in its Market Information System ("MIS") Bid form.

### **2.2.2. Real-Time Market Expectations**

Generators that are otherwise available, are expected to Bid for all hours of the Real-Time Market. A dual-fuel Generator that has been assigned a default reference fuel type of gas, but is unable to obtain or deliver additional gas to the Generator's pipeline meter or LDC meter due to an OFO, might nonetheless be able to run on oil for the day. In such circumstances, it is expected the Generator will include a fuel type adjustment (from gas to oil) in its MIS Bid form. By including a fuel type adjustment (*e.g.*, from gas to oil) in its MIS Bid form, the Generator may avoid unnecessary mitigation and the Generator may be available on oil to provide additional incremental Energy and/or Ancillary Services. If a Generator has sufficient oil, but fails to offer into the Real-Time Market on oil, the Generator will be reviewed for possible physical withholding pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23) and the Generator is expected to report this appropriately in GADS. See Section 5.0 GADS Reporting. Consistent with Services Tariff Section 23, Suppliers with generating units committed by the NYISO for service to protect NYCA reliability or local area reliability, except for Behind-the-Meter Net Generation Resources and Energy Storage Resources, will be eligible to recover startup and minimum generation costs that were not Bid, that were not known before the close of the Real-Time Scheduling Window, and that were not recovered in the Dispatch Day. However, megawatts scheduled Day-Ahead are not eligible to recover such additional costs.

## **2.3. Portfolio (combination of gas only & dual fuel Generators)**

### **2.3.1. Day-Ahead Market Expectations**

A Generator is expected to reflect any costs (risks) associated with operating during an OFO period and for complying with the OFO restrictions in its Bids. Consistent with Services Tariff Section 23.3.1.4.6.2, charges associated with violating an OFO may not be included in Generator reference levels.

Alternatively, to the extent a dual-fuel Generator reasonably expects it will be unable to obtain or deliver additional gas to the Generator's pipeline meter or LDC meter it could Bid on its alternate fuel during an OFO period.

### **2.3.2. Real-Time Market Expectations**

Generators that are otherwise available, are expected to Bid MWs in the Real-Time Market that were not scheduled in the Day-Ahead Market. Generators are expected to Bid additional available capacity into

the Real-Time Market when the portfolio can operate within the balancing service allowed during the OFO.

Generators that have sufficient oil are expected to Bid into the Real-Time Market.

If, due to an OFO, a Generator cannot obtain or deliver sufficient gas to its pipeline meter or LDC meter to meet the Generator's Day-Ahead Market schedule, and no alternative fuel is available, the NYISO expects the Generator to take a forced outage. See Section 5 GADS Reporting.

If a Generator with sufficient oil chooses not to Bid into the Real-Time Market, the Generator will be reviewed for possible portfolio physical withholding pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23) and the Generator must derate to 0 MW. See Section 5 GADS Reporting. Generators are expected to Bid additional available capacity into the Real-Time Market when the portfolio can operate within the balancing service allowed during the OFO.

## **2.4. Portfolio (Gas-only Generators)**

### **2.4.1. Day-Ahead Market Expectations**

A Generator is expected to reflect any costs (risks) associated with operating during an OFO period and for complying with the OFO restrictions in its Bids. Consistent with Services Tariff Section 23.3.1.4.6.2, charges associated with violating an OFO may not be included in Generator reference levels.

If, due to an OFO, a gas-only Generator does not expect to be able to obtain or deliver sufficient gas to its pipeline meter or LDC meter to support bidding into the Day-Ahead Market, the NYISO expects the Generator to take a forced outage (See Section 5 GADS Reporting) and is expected to notify outage scheduling.

### **2.4.2. Real-Time Market Expectations**

Generators that are able to obtain or deliver gas to the Generator's pipeline meter or LDC meter are expected to Bid in the Real-Time Market.

Generators are expected to Bid additional available capacity in the Real-Time Market when the portfolio can operate within the balancing service allowed during the OFO.

If, due to an OFO, a gas-only Generator cannot obtain or deliver sufficient gas to its pipeline meter or LDC meter to meet the Generator's Day-Ahead schedule, the NYISO expects the Generator to take a forced outage (See Section 5 GADS Reporting) and is expected to notify the NYISO of its unavailability due to lack of fuel through its TO.

**Example #1:**

The NYISO would expect a gas-only portfolio to stack the Generators by heat rate (cost).

If a portfolio knows that they could have five of their Generators receive Real-Time Market schedules, without violating an OFO instruction requiring Generators to stay within 2% of their daily schedule, then they should offer those five Generators in the Real-Time Market and the NYISO expects the Supplier to take a forced outage for the remaining Generators in the portfolio which were scheduled in the DAM. See Section 5 GADS Reporting. It would be considered consistent with competitive behavior to not Bid the remaining Generators in the portfolio into the Real-Time Market.

**Example #2:**

When bidding into the Real-Time Market, a gas-only portfolio must take into consideration that the current bidding hour (“T”) impacts future bidding hours. If a gas-only portfolio assumes full commitment for the next bidding hour (“T+1”), and would still have bandwidth to abide by an OFO instruction to remain within 2% of their daily schedule with full commitment, then the portfolio should continue to Bid for the following hour (“T+1”). If the portfolio assumes full commitment for the second bidding hour (“T+2”) and would have no bandwidth within the 2% portfolio restriction, then they would not be considered physical withholding pursuant to the NYISO’s Market Power Mitigation Measures (Services Tariff Section 23) if they did not Bid all of their Generators for the following hour (“T+3”). The NYISO expects the Supplier to take a forced outage for the remaining Generators in the portfolio. See Section 5 GADS Reporting.

**Example #3:**

If the portfolio is on track to under burn for the day in comparison to its gas nomination (i.e., “long on gas”), the expectation would be that the Generator asset owner would offer into the Real-Time Market MWs not scheduled in the Day-Ahead Market. However, if producing an additional MW puts the portfolio into a situation that violates the OFO, then the NYISO would not find the Generators to be physically withholding if they didn’t offer into the Real-Time Market. If producing an additional MW does not put the portfolio into a situation that violates the OFO, then the NYISO would expect the portfolio to offer. If the portfolio is not offered in this situation, then the Generators not offered would be evaluated for physical withholding conduct and impact and the NYISO expects the Supplier to take a forced outage for the remaining Generators in the portfolio. See Section 5 GADS Reporting. Notwithstanding, if the Supplier does not offer into the Real-Time Market because it has sold the “additional gas” at a price higher than the expected margin from burning it to produce “additional MW”, the NYISO would not find the Supplier to be physically withholding and the NYISO would not expect the Supplier to take a forced outage for the remaining Generators in the portfolio.

**Example #4:**

Post Cycle Transactions. In cases where a Generator is interconnected with an LDC or pipeline that offers nomination cycles after the conclusion of the gas day (“post cycle”), and if a Generator can typically obtain post-cycle gas, then the NYISO would expect that Generator to offer into the Real-Time Market based on the probability of getting post-cycle gas.

## 3. HOURLY (RATABLE) OPERATIONAL FLOW ORDER (OFO)

### 3.1. Gas Only Generators – Single Generator

#### 3.1.1. Day-Ahead Market Expectations

During an “hourly” or “1/24th” OFO, a gas LDC or pipeline may require its Generator customers to maintain similar levels of gas usage across an entire gas day. For gas-fired GTs that might only receive DAM schedules for an hour or two of the gas day, the DAM schedule might, in some cases, force a Generator to buy more gas than it actually needs, and then sell or burn the extra gas it purchased consistent with the relevant balancing program. The NYISO will work with Generators that face such a risk to include temporary adders in Day- Ahead Market start-up and/or minimum run time reference levels to allow Generators to reflect expected sell-back losses.

If, due to an OFO, a Generator cannot obtain or deliver sufficient gas to its pipeline meter or LDC meter to support its Bid into the Day-Ahead Market, and no alternative fuel is available, the NYISO expects the Generator to take a forced outage. See Section 5 (GADS Reporting).

Generators that are Installed Capacity Suppliers are expected to Bid in accordance with Services Tariff Section 5.12.7 for all hours of the Day-Ahead Market. If the OFO is called prior to the Day-Ahead Market Bid window closing, the NYISO expects that the Generator would include the costs associated with operating during a ratable OFO, and within the OFO restrictions, in its Day-Ahead Market Bid.

#### 3.1.2. Real-Time Market Expectations

A gas-only Generator is not expected to offer additional, incremental Energy or Ancillary Services above its DAM award in real-time during an OFO if it cannot obtain or deliver additional gas to its pipeline meter or LDC meter or would have to use unauthorized gas services to operate to effectuate its Energy or Ancillary Service offer.

If a Generator Bids into the Real-Time Market and that Bid results in violating the OFO, the penalty charges will not be included in reference levels or in the calculation of the Generator’s compensation.

Generators are expected to comply with the provisions of OATT Section 34 (also referred to as OATT Attachment BB). If the Generator is determined to be a Local Critical Generator or a Bulk Critical Generator and said Critical Generator has coordinated Feasible Natural Gas delivery with the LDC as outlined in OATT Attachment BB, it is expected that the Generator will Bid for all applicable hours in the Real-Time Market.

As outlined in Services Tariff Section 23.3.1.4.6.2.1.2, if and to the extent a Market Party has obtained specific authorization from the relevant natural gas LDC or pipeline to use gas that would otherwise be unauthorized, such use shall not be considered unauthorized use by the NYISO and the Market Party would be expected to Bid for all hours in the Real-Time Market. Market Parties shall make every effort to clearly document authorization they obtain from the LDC or pipeline. Documentation obtained after the fact will be considered.

If a Generator does not have a DAM schedule, and has not been able to obtain or deliver gas to its pipeline meter or LDC meter for the Real-Time Market, the Generator has two options:

- The Generator can Bid into the Real-Time Market. The Bid should include the costs to obtain or deliver sufficient gas to the Generator's pipeline meter or LDC meter to satisfy the restrictions of the OFO.
- If a Generator cannot obtain or deliver sufficient gas to the Generator's pipeline meter or LDC meter, then the Generator would not be expected to Bid into the Real-Time Market. The NYISO would expect the Generator to enter a Reserve Shutdown condition. See Section 5 (GADS Reporting). There would be no evaluation for physical withholding pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23) in this circumstance.

If a Generator has a DAM Ancillary Service schedule, but has not obtained or delivered gas to its pipeline meter or LDC meter for any hours other than that Ancillary Service schedule, the Generator has two options:

- The Generator can Bid into the Real-Time Market for all hours, including those outside the Ancillary Service schedule. The Bid should include the costs to obtain or deliver additional gas to the Generator's pipeline meter or LDC meter to satisfy the restrictions of the OFO.
- If a Generator cannot obtain or deliver additional gas to its pipeline meter or LDC meter, then the Generator would not be expected to Bid into the Real-Time Market outside the hours of the Ancillary Service schedule. The NYISO would expect the Generator to enter a Reserve Shutdown condition for the hours outside the Ancillary Service schedule. See Section 5 (GADS Reporting).

If a Generator has a DAM Ancillary Service schedule but cannot obtain or deliver gas to its pipeline

meter or LDC meter to satisfy this schedule in the Real-Time Market, then the NYISO would expect the Generator to take a forced outage. See Section 5 (GADS Reporting).

The failure of a gas-only Generator to offer additional incremental Energy or Ancillary Services (in excess of its scheduled MWs) in real-time during an OFO due to the inability to obtain or deliver gas to its pipeline meter or LDC meter, would be deemed conduct consistent with competitive behavior for purposes of physical withholding evaluations conducted pursuant to the NYISO's Market Power Mitigation Measures (Services Tariff Section 23).

During an "hourly" or "1/24th" OFO, a gas LDC or pipeline may require its Generator customers to maintain similar levels of gas usage across an entire gas day. For gas-fired GTs that might only receive DAM schedules for an hour or two of the gas day, the DAM schedule might, in some cases, force a Generator to buy more gas than it actually needs, and then sell the extra gas to the LDC or pipeline pursuant to a balancing service. The NYISO will work with Generators that face such a risk to include temporary adders in DAM start-up reference levels and/or minimum run times to allow Generators to reflect expected sell-back losses or gas balancing limitations.

## **3.2. Oil Generators – Single Generator**

### **3.2.1. Day-Ahead Market Expectations**

During an hourly (ratable) OFO, an oil-fired Generator that has not already been scheduled to provide non-synchronous reserves, or to start, and that must start on natural gas might need to find intraday startup gas. This may involve the Generator obtaining authorization from the LDC or pipeline allowing use of the startup gas. If the ability to obtain authorization is unknown at the time the Generator is bidding into the DAM, then the NYISO would expect the Generator to include the risk (cost) of not being granted the authorization in its Bid.

### **3.2.2. Real-Time Market Expectations**

If the LDC or pipeline refuses to authorize the use of start-up gas, then an oil-fired Generator that must start on natural gas is not expected to Bid in the Real-Time Market while the OFO is in effect. See Section 5 (GADS Reporting).

## **3.3. Dual Fuel Generators – Single Generator**

### **3.3.1. Day-Ahead Market Expectations**

Generators that are Installed Capacity Suppliers are expected to Bid in accordance with Services Tariff Section 5.7.12 for all hours of the Day-Ahead Market. A dual-fuel Generator that has been assigned a default

reference fuel type of gas, but is unable to obtain or deliver additional gas to its pipeline meter or LDC meter due to an OFO, might nonetheless be able to run on oil for the day. In such circumstances, it is expected the Generator will include a fuel type adjustment (from gas to oil) in its MIS Bid form.

### **3.3.2. Real-Time Market Expectations**

Generators that are otherwise available, are expected to Bid for all hours in the Real-Time Market. A dual-fuel Generator that has been assigned a default reference fuel type of gas, but is unable to obtain or deliver additional gas to its pipeline meter or LDC meter due to an OFO, might nonetheless be able to run on oil for the day. In such circumstances, it is expected the Generator will include a fuel type adjustment (from gas to oil) in its MIS Bid form. By including a fuel type adjustment (from gas to oil) in its MIS Bid form, the Generator may reflect the change in fuel cost in its Bid and may avoid unnecessary mitigation and the Generator may be available on oil to provide additional incremental Energy and/or Ancillary Services.

## **4. INTERRUPTION OF GAS SERVICE**

### **4.1. Gas Only Generators**

#### **4.1.1. Day-Ahead Market Expectations**

If interruption of gas service occurs or a notice of interruption has been issued by the pipeline or LDC before the Day-Ahead Market Bid window closes, Generator(s) are not expected to Bid into the Day-Ahead Market. Such Generators would be expected to notify outage scheduling of a forced outage. See Section 5 (GADS Reporting).

If interruption of gas service occurs or a notice of interruption has been issued by the pipeline or LDC after a Generator receives a Day-Ahead Market schedule, the Generator is expected to take a forced derate for “lack of fuel”. See Section 5 (GADS Reporting). The Generator is expected to notify the NYISO of its unavailability due to lack of fuel through its TO.

If a Generator did not Bid into the DA Market or Real-Time Market, it would not be evaluated for physical withholding pursuant to the NYISO’s Market Power Mitigation Measures (Services Tariff Section 23) during an interruption of service. Generators must report status appropriately in GADS. See Section 5 (GADS Reporting).

Installed Capacity Suppliers located East of Central-East shall Bid in the Day-Ahead Market all Capacity available for supplying 10-Minute Non-Synchronized Reserve (unless the Generator is unable to meet its commitment because of an outage as defined in the NYISO Procedures). See Section 6 (Exception.)

#### **4.1.2. Real-Time Market Expectations**

If a Generator Bid into the Day-Ahead Market, and did not get scheduled, the Generator would not be expected to Bid into the Real-Time Market. If not Bid into the Real-Time Market, the Generator would report this as a Reserve Shutdown in GADS. See Section 5 (GADS Reporting). Generators would be expected to notify their TO of their unavailability to run due to lack of fuel.

#### **4.2. Dual Fuel Generators**

If an LDC system or pipeline is experiencing low pressure, and requests that Generators behind that LDC or on that pipeline stop burning gas, the Generator is expected to contact its TO to determine if the TO needs the Generator to switch to its alternate fuel for reliability. If the TO determines that the Generator is required for reliability, the TO will place the Generator OOM (which will allow the Generator to recover additional costs incurred due to switching to its alternate fuel) and the Generator would be expected to switch to its alternate fuel. If the TO does not require the Generator to switch to its alternate fuel for reliability, the Generator will then decide to either switch to its alternate fuel and run without any mechanism to recover additional costs associated with switching to its alternate fuel; or it will choose to shut down, derate to 0 MW and report the outage appropriately in GADS. See Section 5 (GADS Reporting).



## 5. GENERATING AVAILABILITY DATA SYSTEM (GADS) REPORTING

Generators are expected to report forced outages or reserve shut down conditions in the Generator Availability Data System (GADS). This section outlines what should be reported as a forced outage and what should be reported as a reserve shutdown.

### 5.1. Reporting Forced Outages

When the Generator's LDC or pipeline has issued an OFO, instructions restricting imbalance usage, or there is an interruption of gas service, and gas is not available to the Generator, the Generator is required to enter a Forced Outage/Derate (U1, U2, U3 / D1, D2, D3) with the Cause Code 9130 or 9131 in their GADS data (except as noted below).

#### *Examples of Forced Outages:*

- Generator not available to Bid into the Day-Ahead Market due to lack of fuel.
- Generators scheduled for Energy in the Day-Ahead Market, but cannot obtain fuel in the Real-Time Market to meet the Day-Ahead schedule.
- Generators not scheduled in the Day-Ahead Market and unable to respond to an SRE request made before 13:00 of the day prior to the operating day due to lack of fuel or the LDC or pipeline refuses to authorize the use of start-up gas for an oil-fired Generator.
- 
- Generators not scheduled in the Day-Ahead Market that respond to an SRE request and are selected, but cannot operate due to lack of fuel in the Real-Time Market to meet the SRE schedule.
- Generators not scheduled in the Day-Ahead Market, but scheduled in the Real-Time Market for Incremental Energy and cannot run in the Real-Time Market because of the OFO.
- Generators not scheduled in the Day-Ahead Market but scheduled for reserves in the Real-Time Market and asked to convert to Incremental Energy and cannot operate because of the OFO.

### 5.2. Reporting Reserve Shutdowns

A reserve shutdown is a situation when a gas-only Generator is not scheduled to run in the Day-Ahead Market and cannot run in the Real-Time Market due to an inability to obtain gas.

#### *Examples of Reserve Shutdowns:*

- Generators that Bid into the Day-Ahead Market, but were not scheduled, and cannot operate in the Real-Time Market due to the OFO.
- Additional Incremental Energy or Ancillary Services MWs (in excess of its Day-Ahead scheduled MWs) not offered in real time due to lack of fuel.
- Generators not scheduled in the Day-Ahead Market and unable to respond to an SRE request made after 13:00 of the day prior to the operating day due to lack of fuel.

- Generators not scheduled in the Day-Ahead Market, and unable to respond to an SRE request made after 13:00 of the day prior to the operating day, due to the LDC or pipeline refusing to authorize the use of start-up gas for an oil-fired Generator.

## 6. EXCEPTION – REAL-TIME OBLIGATIONS OF INSTALLED CAPACITY SUPPLIERS LOCATED EAST OF CENTRAL-EAST

Installed Capacity Suppliers located East of Central-East are required to Bid all Capacity available for supplying 10-Minute Non-Synchronized Reserve in the Day-Ahead Market and Real-Time Market (unless the Generator is unable to meet its commitment because of an outage), except for Generators that have demonstrated to the NYISO that they are subject to environmental, contractual or other legal or physical requirements that would otherwise preclude them from providing 10-Minute Non-Synchronized Reserve (Services Tariff Section 5.12.1.11). If gas system conditions would increase the time needed to start a Generator (that is otherwise capable of starting in 10-minutes), the NYISO would deem the Generator precluded from providing 10-Minute Non-Synchronized Reserves.

*For example, consider a generator that is qualified to provide 10-Minute Non-Synchronized Reserves, requires natural gas to start, and has scheduled gas for the operating day. However, if the gas system operator requires the Generator to contact gas control before starting-up during an OFO, the additional step may preclude the Generator from being able to start and reach the required output level in 10 minutes and would, therefore, constitute an exception from the requirement to provide 10-Minute Non-Synchronized Reserves in Services Tariff Section 5.12.1.11.*

## 7. GADS REPORTING FOR INSTALLED CAPACITY SUPPLIERS LOCATED EAST OF CENTRAL-EAST WHICH PROVIDE 10-MINUTE NON-SYNCHRONIZED RESERVES

### 7.1. Reporting Forced Outages

When a gas-only Generator's LDC or pipeline has issued an OFO, instructions restricting balancing services, or there is an interruption of gas service, and gas transportation is not available to the gas-only Generator, the operator/owner is required to enter a Forced Outage/Derate (U1, U2, U3 / D1, D2, D3) with the Cause Code 9130 or 9131 in their GADS data.

#### ***Examples of Forced Outages for these Generators:***

- Generators scheduled for Incremental Energy in the DAM, but do not get fuel prior to the Real-Time Market.
- Generators scheduled in the DAM for reserves and asked to convert to Incremental Energy in the Real-Time Market but do not get fuel.
- Generators not scheduled in the DAM, but receive an SRE request or are placed OOM prior to 13:00 of the day prior to the operating day and cannot operate in the Real-Time Market because of an OFO.

### 7.2. Reporting Reserve Shutdowns

#### ***Examples of Reserve Shutdowns for these Generators:***

- OFO called in the Real-Time Market when a Generator is scheduled in the DAM for reserves and NOT asked to convert to Incremental Energy.
- OFO called in the Real-Time Market when a Generator is scheduled in the DAM for Incremental Energy or Reserves and then not scheduled in the Real-Time Market.
- Generators not scheduled in the DAM and did not Bid into the Real-Time Market because the OFO was called.
- Generators not scheduled in the DA Market but scheduled for Reserves in the Real-Time Market and NOT asked to convert to Incremental Energy but cannot run because of an OFO. It is the responsibility of the Generator to bid in a manner that appropriately represents its ability to run.
- Generators not scheduled in the Day-Ahead Market and unable to respond to an OOM or SRE request made after 13:00 of the day prior to the operating day due to an OFO.

## 8. REFERENCE LEVEL SOFTWARE (RLS) REPORTING

The NYISO expects all Generators to communicate any expected additional costs incurred as a result of operating during an OFO condition or instructions restricting imbalance usage with the Mitigation References (MR) team.

Generators are expected to comply with the provisions of the *NYISO Reference Level Manual*; (available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>), specifically section 6.3.2 (Bidding, fuel procurement and reference updates in the presence of gas balancing costs or Operational Flow Orders).

## 9. OUTAGE SCHEDULING

Generators are expected to comply with the provisions of the NYISO Outage Scheduling Manual (available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>). Please refer to the NYISO Outage Scheduling Manual when notifying the NYISO of planned and unexpected changes to the operational availability of their transmission and generating facilities. These notifications are given in the form of requests to the NYISO for consideration and approval as Outage Schedules.