

Training Disclaimer: ISO New England (ISO) provides training to enhance participant and stakeholder understanding. Not all issues and requirements are addressed by the training. Consult the effective [Transmission, Markets and Services Tariff](#) and the relevant [Market Manuals](#), [Operating Procedures](#) and [Planning Procedures](#) for detailed information. In case of a discrepancy between training provided by ISO and the Tariff or Procedures, the meaning of the Tariff and Procedures shall govern.

CROW System

Generation Outage Coordination Training



Presentation updated 11/04/2022 to support the 11/29/2022 release of CROW. The updates are the removal of the FCM Exempt flag and a change to the outage types that go to the preliminary state on the process flow. Impacted slides are noted.



Training Disclaimer

ISO New England (ISO) provides training to enhance participant and stakeholder understanding.

Because not all issues and requirements are addressed by the training, participants and other stakeholders should not rely solely on this training for information but should consult the effective [Transmission, Markets and Services Tariff](#) (“Tariff”) and the relevant [Market Manuals](#), [Operating Procedures](#) and [Planning Procedures](#) (“Procedures”).

In case of a discrepancy between training provided by ISO and the Tariff or Procedures, the meaning of the Tariff and Procedures shall govern.

*Training examples are provided for illustrative purposes only.
Company names and numerical values used are fictitious.*

Objectives

At the completion of this training, you will be able to:

- Access and log in to the Control Room Operations Window (CROW)
- Navigate the CROW interface
- Describe the relationship between outage priority and constraint/commitment
- Submit, modify, cancel an outage request using CROW
- Identify information that can and cannot be shared with market participants



Topics

- CROW Application
- Submitting a Request
- Ensuring Application Approval
- Communication
- Information Policy

Acronyms

- **AI:** Annual Inspection
- **AVR:** Automatic Voltage Regulator
- **BA:** Balancing Authority
- **CA:** Contingency Analysis
- **CAMS:** Customer and Asset Management System
- **CMP:** Central Maine Power
- **CONVEX:** Connecticut Valley Electric Exchange
- **CROW:** Control Room Operations Window (ISO Outage Scheduling Software)
- **CSO:** Capacity Supply Obligation

- **DARD:** Dispatchable Asset Related Demands
- **DE:** Designated Entity
- **EMS:** Energy Management System
- **GOR:** Generator Outage Request
- **ISO:** Independent System Operator
- **MLCC:** Master/Local Control Center
- **OP:** Operating Procedure
- **OOS:** Out of Service
- **NSTAR:** NSTAR

Terminology and Acronyms, *continued*

- **PSNH:** Public Service of New Hampshire
- **PSS:** Power System Stabilizer
- **REMVEC:** Rhode Island-Eastern Massachusetts-Vermont Energy Control
- **SCADA:** Supervisory Control and Data Acquisition
- **SCC:** Seasonal Claimed Capability
- **SMD:** Standard Market Design
- **TOG:** Transmission Operating Guide
- **TTC:** Total Transfer Capability
- **VELCO:** Vermont Electric Power Company

Control Room Operations Window

- ❖ *Overview*
- ❖ *Access and login*
- ❖ *Navigation*



What is CROW?

- Control Room Operations Window
- Used to submit, review, and approve generation and transmission outage requests



Accessing SMD Applications

Environments

Sandbox

<https://sandboxsmd.iso-ne.com>

Used for:

- Testing code
- Employee training

Production

<https://smd.iso-ne.com>

Used for:

- Accessing CROW
- Use with validated code only

User Roles

Read Only

- Read-only access
- View outage information
 - User interface

View/Submit Only

- Read-write access
- Create, edit, view outage info

Access Using Web Services

- This is for Computer to Computer Web Services function



*There are separate **Access Using Web Services**, **Read Only** and **View/Submit Only** roles available for both the sandbox and production.*

Roles Available in CAMS

Customer Asset Management System Welcome to ISO New England's Customer Asset Management System

COMPANY | RELATIONSHIPS | PERSONS | ASSETS | SUBACCOUNTS

Basic | Requirements | Addresses | History | Applications | File Shares | Corporate Family
Committees | Governance | Change Log | **Persons** | Service Notes

Basic | **Application Groups** | File Shares | Committees | Contacts

Person Application Group Listing

Application / Group	Effective Date	Expire Date
Ask ISO / External User	01/30/2013	
CROW Gen User Role / Access Using Web Services	01/30/2013	
CROW Gen User Role / View Submit Only	01/30/2013	
CROW Gen User Role SBOX / Access Using Web Services	01/30/2013	
CROW Gen User Role SBOX / View Submit Only	01/30/2013	
EES / Read/Write	01/31/2013	



Your role is assigned by your company's security administrator

Market System → SMD Applications Sandbox Home Page

Sandbox Legend

**Production
Project**

Internal Transactions

External Transactions

(Includes New Brunswick DA Pnode Change)

**Bids & Offers
(Registered Users)**

**Demand Resource
Market User Interface**

**Financial Transmission Rights
(Registered Users)**

**Forward Reserve Market
Auction**

**CROW
Outage Scheduler**

Submit Peak Contribution

Forward Reserve Assignment

**Submit Monthly Regional Network
Load**

**NX Application
(NX-9 and NX-12D)**

**Customer and Asset
Management System**

**Energy Efficiency Measure
Database**

Informational Links

[Transmission System Information](#)

[Satellite Information](#)

[LCC CMS](#)

[LCC Vision Learning](#)

Internal Transactions

External Transactions

**Bids & Offers
(Registered Users)**

**Customer and Asset
Management System**

**Financial Transmission Rights
(Registered Users)**

**Forward Reserve Market
Auction**

**CROW
Outage Scheduler**

Forward Reserve Assignment

Submit Monthly Regional Network Load

Forward Capacity Tracking System

**Financial Assurance
Management**

**Forward Capacity Market
Reconfiguration Auction**

Forward Capacity Market CSO Bilateral Contracts

Supplemental Availability Designation

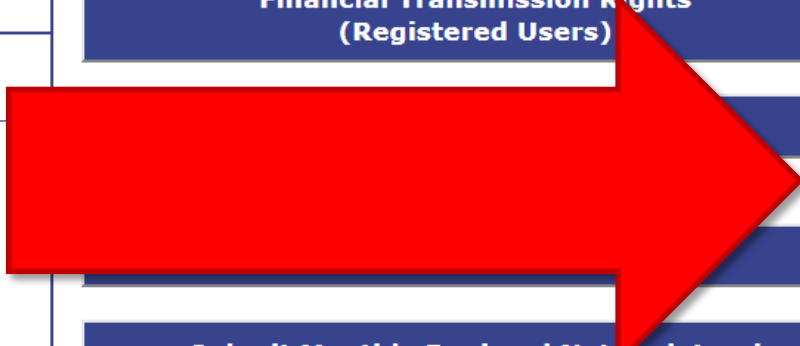
**Demand Resource
Market User Interface**

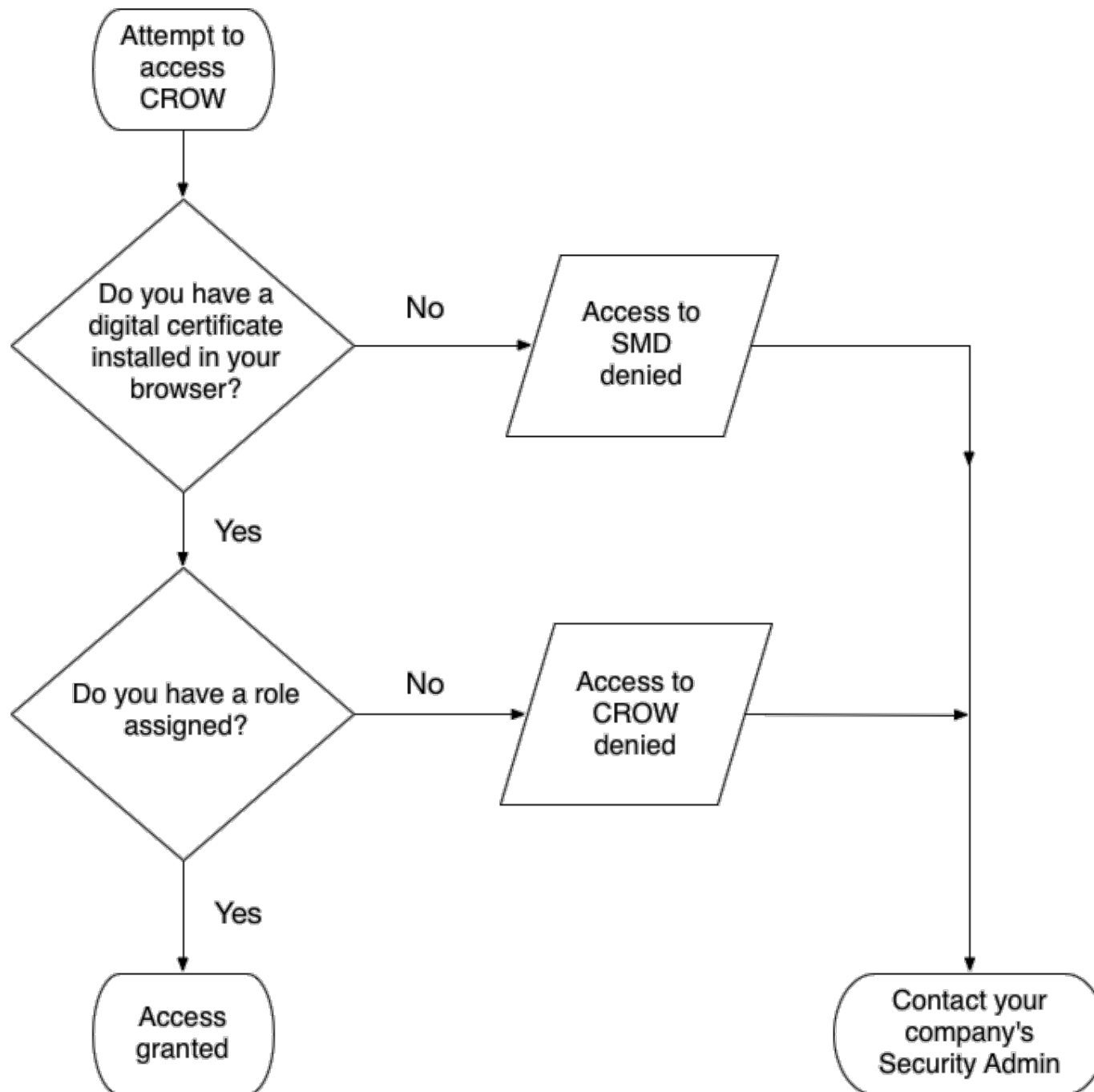
**NX Application
(NX-9 and NX-12D)**

Claimed Capability Auditing Tool

Energy Efficiency Measure Database (EEM)

DR Audit and Testing Tool





Problem loading page

https://smd.iso-ne.com

Secure Connection Failed

An error occurred during a connection to smd.iso-ne.com. SSL peer was unable to negotiate an acceptable set of security parameters. (Error code: ssl_error_handshake_failure_alert)

- The page you are trying to view cannot be shown because the authenticity of the received data could not be verified.
- Please contact the website owners to inform them of this problem.

[Try Again](#) [Report this error ▼](#)

Connecting... x +

smd.iso-ne.com Search

100% +

User Identification Request

This site has requested that you identify yourself with a certificate:

smd.iso-ne.com:443
Organization: "ISO New England, Inc"
Issued Under: "GeoTrust, Inc."

Choose a certificate to present as identification:

le-06410183-27fc-42a9-aa40-dfac4d761226 [11:21:DB:5C:2A:AB:4E:7E:C4:FD:32:23:56:A4:55:AC:4A:79]

Details of selected certificate:

Issued to: E=esanchez@iso-ne.com,CN=Eduardo Sanchez (50051),OU=ISNE,OU=USER ID - 600031112,O=ISO New England Inc,L=Holyoke,ST=MA,C=US
Serial Number: 11:21:DB:5C:2A:AB:4E:7E:C4:FD:32:23:56:A4:55:AC:4A:79
Valid from 1/23/2015 12:33:14 PM to 1/24/2016 12:33:14 PM
Certificate Key Usage: Signing,Key Encipherment
Email: esanchez@iso-ne.com
Issued by: CN=NAESB Issuing CA - SHA256 - G2,O=GMO GlobalSign Inc.,L=Portsmouth,ST=New Hampshire,C=US

Remember this decision

OK Cancel

Waiting for smd.iso-ne.com...

SMD Applications Home Page

https://smd.iso-ne.com

ISO new england

SMD Applications Home Page

Market System → SMD Applications Home Page

Informational Links

- [Transmission System Information](#)
- [Satellite Information](#)
- [LCC CMS](#)
- [LCC Vision Learning](#)

Internal Transactions	External Transactions
Bids & Offers (Registered Users)	Customer and Asset Management System
Financial Transmission Rights (Registered Users)	Forward Reserve Market Auction
Submit Meter Reading	CROW Outage Scheduler
Submit Peak Contribution	Forward Reserve Assignment
Submit Monthly Regional Network Load	Forward Capacity Tracking System
Financial Assurance Management	Forward Capacity Market Reconfiguration Auction
Forward Capacity Market CSO Bilateral Contracts	Supplemental Availability Designation
Demand Resource Market User Interface	DR Audit and Testing Tool
Claimed Capability Auditing Tool	NX Application (NX-9 and NX-12D)

https://smd.iso-ne.com/crow_web/login.aspx

CROW Web 5.1.3.87 - Transmission Outage Request Index

Outage Request Index

Outage Request Index

Outage Request Type: Transmission Generation

Outage Request Date: 2015 / 06 / 29 to 2015 / 06 / 30

Control Center: [Dropdown] [Text] [List...]

Voltage Class: is between [Dropdown] and [Dropdown] kV

Requested By: [Dropdown]

Request Status: All

Constraint/Commit.: All

Request Priority: All

Pending Approvals: Ignore Filter

Equipment Type(s): All

Outage Number: [Dropdown] [Text] - [Text] [Find] [Export to Excel] [Export to Gantt] [Refresh] [No Auto Refresh] [TOR/GOR Gantt] [New Outage Request]



Click here for the [CROW Web 5.1.3.87 User Reference](#).
CROW Web support is available at ISO New England Customer Support, or by sending email to [CROW Web Support](#).

Success!

Navigating CROW



CROW Web 5.1.3.87 - Options

Date/Time Options

Time Zone:

Pacific Time (UTC - 08:00)

Daylight Savings:

Eniwetok, Kwajalein (UTC - 12:00)

Midway Island, Samoa (UTC - 11:00)

Date Format:

Hawaii (UTC - 10:00)

Alaska (UTC - 09:00)

Pacific Time (UTC - 08:00)

Mountain Time (UTC - 07:00)

Central Time (UTC - 06:00)

Eastern Time (UTC - 05:00)

Atlantic Time (UTC - 04:00)

Newfoundland (UTC - 03:30)

Brasilia, Buenos Aires (UTC - 03:00)

Mid Atlantic (UTC - 02:00)

Azores, Cape Verde Island (UTC - 01:00)

Greenwich Standard Time (UTC + 00:00)

Amsterdam, Berlin, Bern (UTC + 01:00)

Athens, Istanbul, Minsk (UTC + 02:00)

Baghdad, Kuwait, Moscow (UTC + 03:00)

Tehran (UTC + 03:30)

Abu Dhabi, Muscat, Baku (UTC + 04:00)

Kabul (UTC + 04:30)

Asset Naming Options

Asset Naming Options:

Update Your Password

Enter

passw

Upda

Your i

least

Old Password:

●●●●●●●●

New Password:

Confirm Password:

your new

s and click the

it must be at

Outage Request Notification Options

Send Me Outage Request Approval/Denial



CROW Web 5.1.3.87 - Options

My Equipment Groups

Options

Date/Time Options

Time Zone: Eastern Time (UTC - 05:00)

Daylight Savings: Use Daylight Savings Time Use Standard Time

Date Format: MM/DD/YYYY

YYYY/MM/DD

MM/DD/YYYY

DD/MM/YYYY

Asset Naming Options

Asset Naming Options: 1-Line Designation

Update Your Password

Enter your current password in the **Old Password** field. Enter your new password in the **New Password** and **Confirm Password** fields and click the **Update** button below.

Your new password cannot be your first name or last name, and it must be at least three characters in length.

Old Password: ●●●●●●●●

New Password:

Confirm Password:

Outage Request Notification Options

Send Me Outage Request Approval/Denial

CROW Web 5.1.3.87 - Options

Date/Time Options

Time Zone: Eastern Time (UTC - 05:00) ▼

Daylight Savings: Use Daylight Savings Time
 Use Standard Time

Date Format: YYYY/MM/DD ▼

Asset Naming Options

Asset Naming Options: 1-Line Designation ▼

- 1-Line Designation
- External Name
- Asset Long Name

Update Your Password

Enter your current password in the **Old Password** field. Enter your new password in the **New Password** and **Confirm Password** fields and click the **Update** button below.

Your new password cannot be your first name or last name, and it must be at least three characters in length.

Old Password:

New Password:

Confirm Password:

Asset Naming Options

Asset Naming
Options:

1-Line Designation ▾

Update Your Password

Enter your current password in the **Old Password** field. Enter your new password in the **New Password** and **Confirm Password** fields and click the **Update** button below.

Your new password cannot be your first name or last name, and it must be at least three characters in length.

Old Password:

New Password:

Confirm Password:

Outage Request Notification Options

Send Me Outage Request Approval/Denial Notifications:

Outage Request Form Options

Close Outage Request Form After Saving:

Update

Click here for the [CROW Web 5.1.3.87 User Reference](#).
CROW Web support is available at ISO New England Customer Support, or by sending email to [CROW Web Support](#).

Example of Notification Email

 **CROW Web Reports**

CROW Web - Outage Request #1-15004892 Cancelled (VERNON VERN Reduction: 4.84 MW) Short Term

Outage Request Number:	1-15004892, Rev. #3 (Planned)
Outage Request Status:	Cancelled
Status Updated By:	Kretschmar, Eric R. on 06/10/2015 07:34
Reason For Cancellation:	Weather, LCC
Requested Equipment:	VERNON VERN Reduction: 4.84 MW
Planned Start:	Outage: 06/10/2015 07:00
Planned End:	Outage: 06/11/2015 17:00
Duration:	Exactly 2 Day(s) Continuous
Reason/Priority:	inspection on T12 Transformer that will take unit 1 and unit 2 out of service during the period of work
Notification Comments:	
Outage Request Priority:	Short Term
Request Updated:	06/10/2015 07:34

Click here for the [CROW Web 5.1.3.87 User Reference](#).
CROW Web support is available at ISO New England Customer Support, or by sending email to [CROW Web Support](#).

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/07/01 08:00 - 2015/07/03 16:00
 Continuous



- Request Summary
- Request Details/Approval
- Studies
- Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: ISO New England

Outage priority:

Outage status:

Priority date:

Planned start: 2015 / 07 / 01 08:00

Continuous/Daily: Continuous

Planned end: 2015 / 07 / 03 16:00

Outage duration: Exactly 3 Day(s)

First actual start: / /

Last actual end: / /

Asset Id: Summer SCC:

[Linked Outages](#) 0

Asset Name: Winter SCC:

Equip. Requested:

LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
Please click the "Add..." button to add outage equipment.						
						Add... Clear...

External Comments:

ISO Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/22 08:00 - 2015/08/26 16:00 Continuous



Request Summary Request Details/Approval Studies Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
Requested by: Sanchez, eduardo A.
Company: ISO New England
Outage status:
Planned start: 2015 / 08 / 22 08:00
Planned end: 2015 / 08 / 26 16:00
First actual start:

Date Requested:
Outage priority:
Priority date:
Continuous/Daily: Continuous
Outage duration: Exactly 5 Day(s)
Last actual end:

Asset Id: Summer SCC: [Linked Outages](#) 0

Asset Name: Winter SCC:

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
Please click the "Add..." button to add outage equipment.							
							Add... Clear...

External Comments:

ISO Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/08/22 08:00 - 2015/08/26 16:00
 Continuous



Request Summary Request Details/Approval Studies Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: ISO New England

Outage priority:

Outage status:

Priority date:

Planned start: 2015 / 08 / 22 08:00

Continuous/Daily: Continuous

Planned end: 2015 / 08 / 24 16:00

Outage duration: Exactly 3 Day(s)

First actual start: / /

Last actual end: / /

Asset Id: Summer SCC: [Linked Outages](#) 0

Asset Name: Winter SCC:

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
--	-----	----	---------	-------------------	---------------	----------	-----------------------

Please click the "Add..." button to add outage equipment.

[Add...](#) [Clear...](#)

External Comments:

ISO Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/06/30 08:00 - 2015/06/30 16:00
 Continuous



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
Requested by: Sanchez, eduardo A.
Company: Exelon Generation Company, LLC
Outage status:
Planned start: 2015 / 06 / 30 08:00
Planned end: 2015 / 06 / 30 16:00
First actual start: / /

Date Requested:
Outage priority:
Priority date:
Continuous/Daily: Continuous
Outage duration: Exactly 8 Hour(s)
Last actual end: / /

Asset Id: Summer SCC:
Asset Name: Winter SCC:

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
Please click the "Add..." button to add outage equipment.							

Add... Clear...

External Comments:

Add... button is not active until an 'Outage priority' is set

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/06/30 08:00 - 2015/06/30 16:00
 Continuous



Request Summary Request Details/Approval Attachments (0)

'Planned' outage is not available unless 'Planned start' date/time is ≥ 15 days in the future

Date Requested:

Outage priority:

Priority date:

Continuous/Daily:

Outage duration: Hour(s)

Last actual end:

- Planned Overrun
- Forced
- Short Term
- MVAR Testing
- Owner Test**
- Informational

Planned start: 2015 / 06 / 30 08:00

Planned end: 2015 / 06 / 30 16:00

First actual start: / /

Asset Id: Summer SCC:
 Asset Name: Winter SCC:

Equip. Requested:

LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
-----	----	---------	-------------------	---------------	----------	-----------------------

Please click the "Add..." button to add outage equipment.

Add... Clear...

External Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/07/30 08:00 - 2015/07/30 16:00
 Continuous



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: Exelon Generation Company, LLC

Outage priority:

Outage status:

Priority date:

Planned start: 2015 / 07 / 30 08:00

Continuous/Daily:

Planned end: 2015 / 07 / 30 16:00

Outage duration: Hour(s)

First actual start:

Last actual end:

- Planned
- Planned Overrun
- Forced
- Short Term
- MVAR Testing
- Owner Test
- Informational

Asset Id: Summer SCC:

Asset Name: Winter SCC:

Equip. Requested:

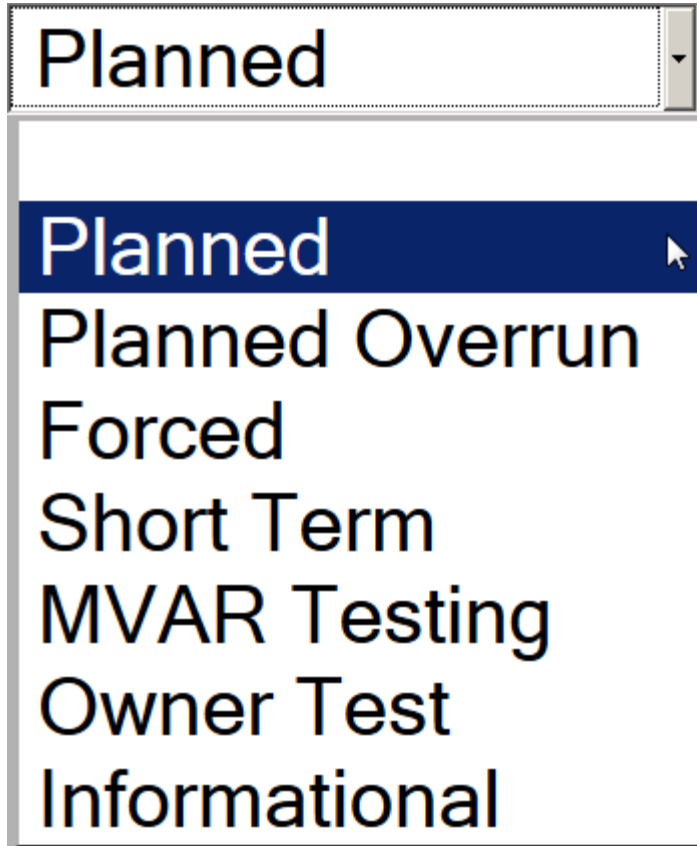
	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
--	-----	----	---------	-------------------	---------------	----------	-----------------------

Please click the "Add..." button to add outage equipment.

[Add...](#) [Clear...](#)

External Comments:

Planned Outage (PO)



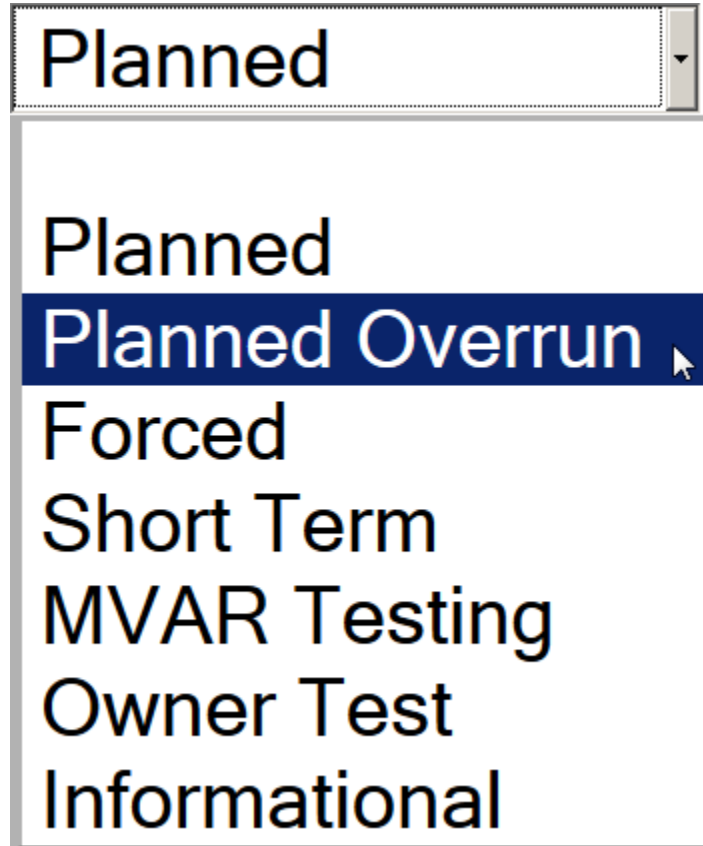
Scheduled in advance

(≥ 15 days)

Predetermined duration

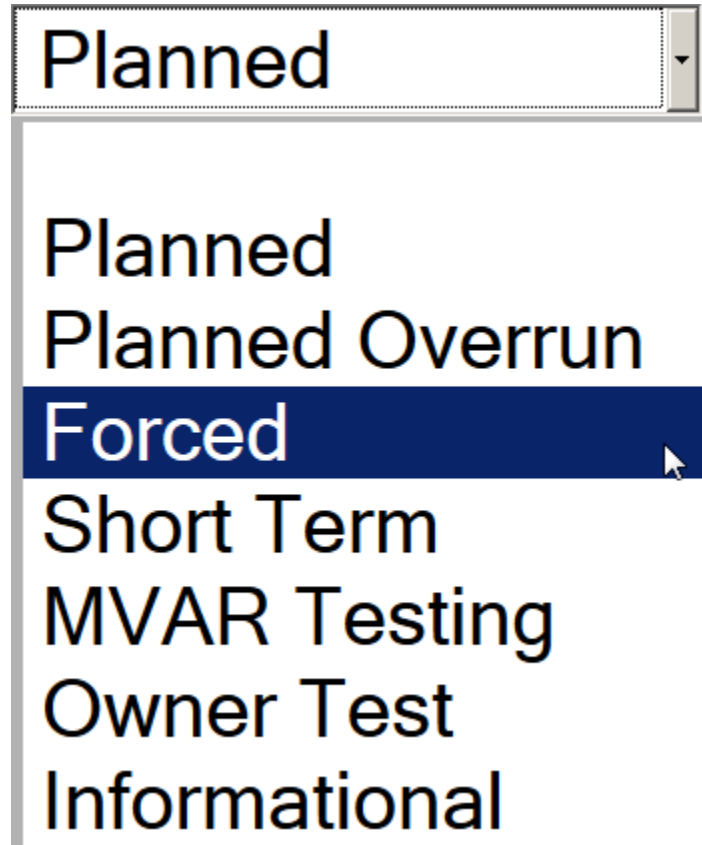
Example: annual maintenance

Overrun Planned Outage (OPO)



- Overrun of a PO
- Can request up until Thursday before scheduled return of PO

Forced Outage (FO)

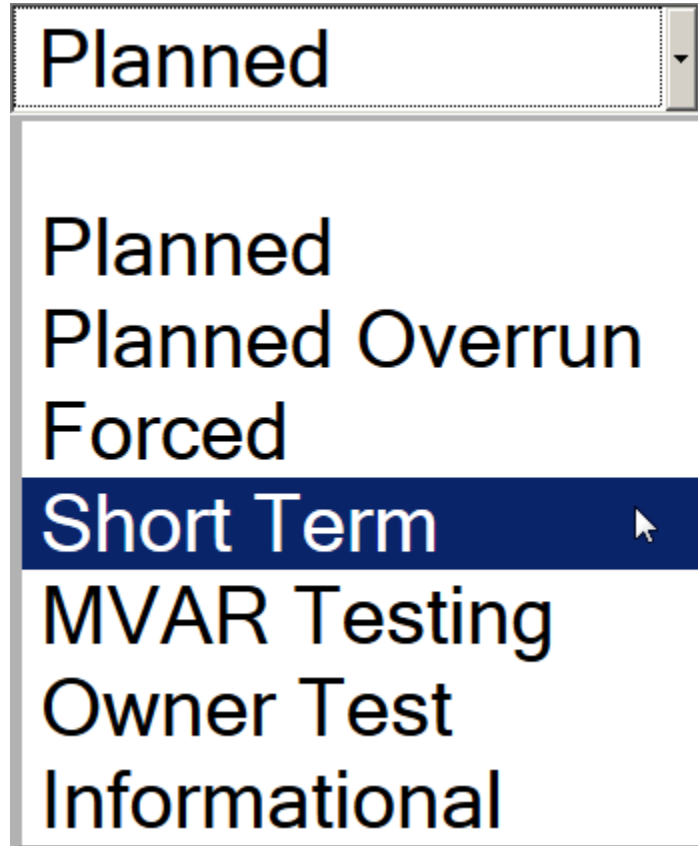


- Outage not approved by ISO in the form of a PO or MO
- Requires a notification to the ISO Generation or Forecast Desks
- A FO cannot turn into a scheduled PO

Examples:

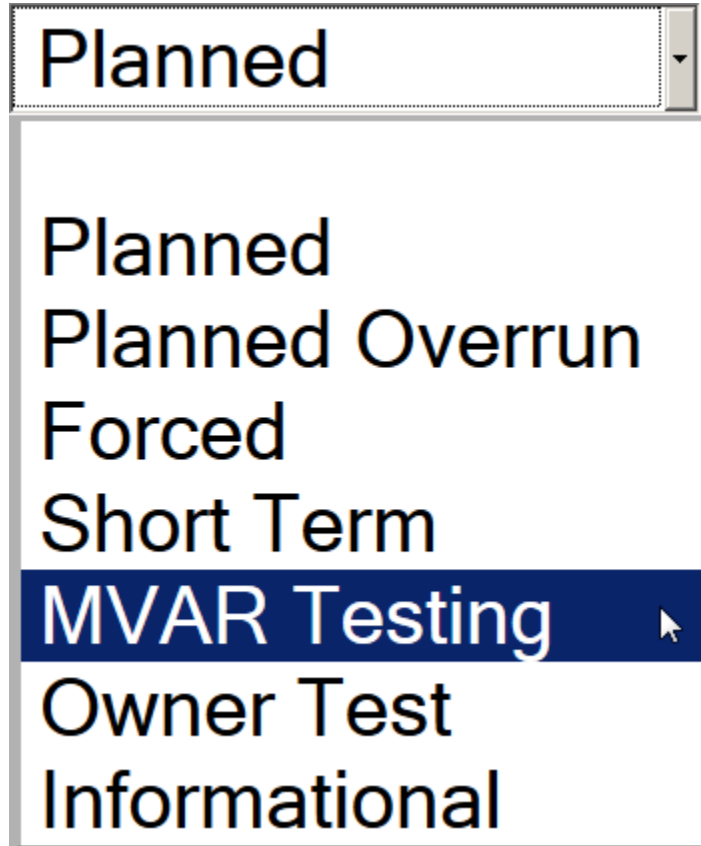
- Emergency
- Unanticipated failure

Short Term Outage (STO)



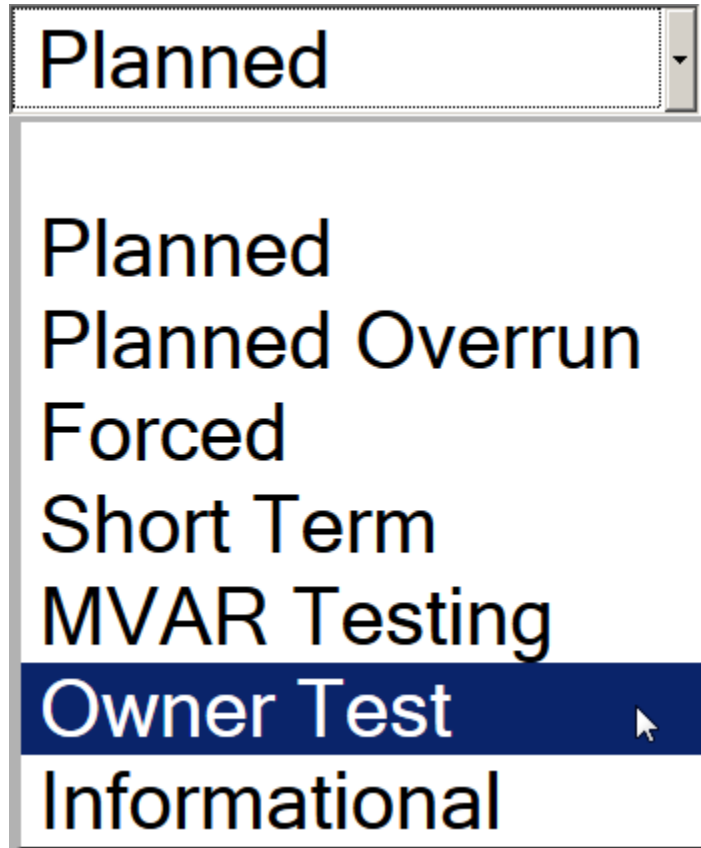
- Submitted through CROW
- Must be called in if after 9:00 a.m. on the day before outage start

MVAR Test



- OP-23
- Used for MVAR testing in conjunction with Schedule 2 business practices
- Leading or lagging

Owner Test (OT)

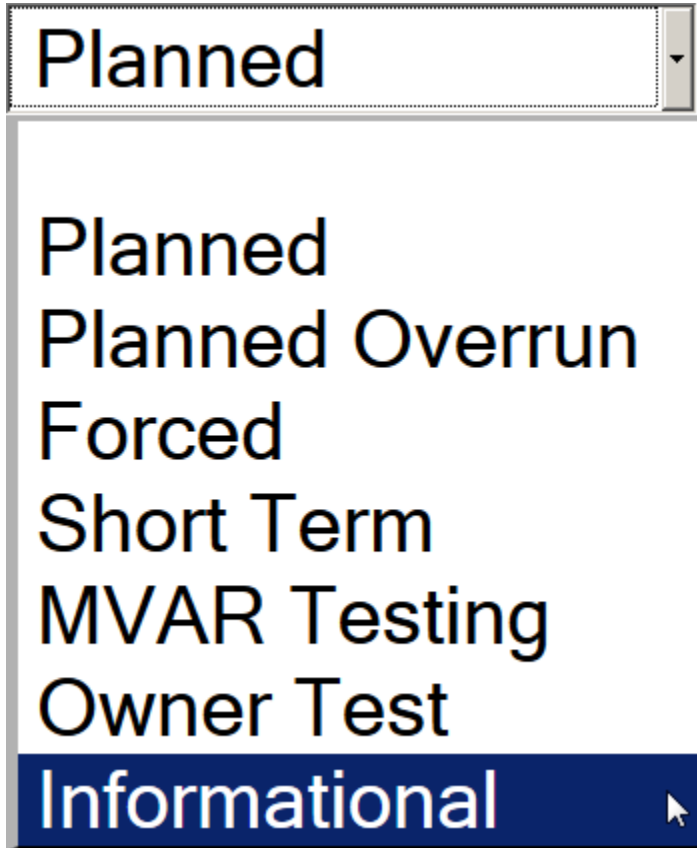


- Used for testing at a predefined schedule
- Helps with coordination of system reliability
- OT application ensures testing can be carried out
 - Except in case of emergency

Examples:

- General testing
- Tuning, Emissions
- Blackstart tests

Informational



- Used for automatic voltage regulator (AVR) or power system stabilizer (PSS) outages
- Communications work
- Still need to contact ISO verbally

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A. **Date Requested:**

Company: Exelon Generation Company, LLC **Outage priority:** Planned

Outage status: **Priority date:**

Planned start: 2015 / 08 / 30 08:00 **Continuous/Daily:** Continuous

Planned end: 2015 / 08 / 30 16:00 **Outage duration:** Exactly 8 Hour(s)

First actual start: / / **Last actual end:** / /

Asset Id: Summer SCC:
Asset Name: Winter SCC:

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
Please click the "Add..." button to add outage equipment.							



Outage Cause: [] []

Forced Rescheduling: No

External Comments:

Submit

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
 Requested by: Sanchez, eduardo A. Date Requested:
 Company: Exelon Generation Company, LLC Outage priority: Planned
 Outage status: Priority date:
 Planned start: 2015 / 08 / 30 08:00 Continuous/Daily: Continuous
 Planned end: 2015 / 08 / 30 16:00 Outage duration: Exactly 8 Hour(s)
 First actual start: Last actual end:

Asset Id: [611](#) Summer SCC: 612.429
 Asset Name: [VTYA](#) Winter SCC: 615

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	VELCO_CC	Entergy Nuclear Power Marketin	VT_YK	VT_YK Unit VTYA 611	21 kV	Vermont	<Please Choose>

Add... Clear...

Outage Cause:

Forced Rescheduling: No

External Comments:

Empty text area for external comments.

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Planned



Request Summary Request Details

Outage #:
Requested by:
Company:
Outage status:
Planned start:
Planned end:
First actual start:

Asset Id: [611](#)
Asset Name: [VTYA](#)

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

External Comments:

(Sanchez, eduardo A. logged in) - Mozilla Firefox
 crwapproj.iso-ne.com/crow_web/Outages/add_station_equipment.aspx?post_action=CHANGE_TAB&success=Y

ISO new england

Station Equipment **Properties**

Market Asset:

Station: Associated Units:

1-Line Designation:

External Name:

Asset Long Name:

Equipment Type:

Owned By 1:

Owned By 2:

Owned By 3:

Operated By 1:

Operated By 2:

Operated By 3:

Operated By 4:

Reliability Area 1:

Reliability Area 2:

Reliability Area 3:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
 Continuous Planned



Request Summary Request Det

Outage #:
 Requested by:
 Company:
 Outage status:
 Planned start:
 Planned end:
 First actual start:

Asset Id: [611](#)
 Asset Name: [VTY](#)

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

External Comments:

(Sanchez, eduardo A. logged in) - Mozilla Firefox

crwapproj.iso-ne.com/crow_web/Outages/add_station_equipment.aspx?post_action=CHANGE_TAB&success=Y

ISO new england

Station Equipment
Properties

Alert NPCC Member: True False

Basic Minimum Power System (BMPS): True False

Black Start: True False

EMS Key:

Equipment Number:

Fuel Type:

In-Service Date: / /

Intermittent: True False

Market Long Name:

Retirement Date: / /

Seasonal Claimed Capability - Summer: MW

Seasonal Claimed Capability - Winter: MW

State:

Voltage Class:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

Constraint/Commitment Type For VT_YK Unit VTYA 611

Out of Service

Reduction:

Forced Rescheduling: No

External Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A. Date Requested:

Company: Exelon Generation Company, LLC Outage priority:

Outage status: Priority date:

Planned start: / / Continuous/Daily:

Planned end: / / Outage duration:

First actual start: / / Last actual end: / /

Asset Id: [611](#) Summer SCC: 612.429 Physical Reduction: 612.429
 Asset Name: [VTYA](#) Winter SCC: 615 EcoMax: 0

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	VELCO_CC	Entergy Nuclear Power Marketin	VT_YK	VT_YK Unit VTYA 611	21 kV	Vermont	OOS <input type="text"/>

Outage Cause:

Forced Rescheduling:

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

Constraint/Commitment Type For VT_YK Unit VTYA 611

Out of Service

Reduction:

Forced Rescheduling:

External Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
 Continuous Planned



Request Summary

Request Details/Approval

Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: Exelon Generation Company, LLC

Outage priority:

Outage status:

Priority date:

Planned start: / /

Continuous/Daily: Continuous

Planned end: / /

Outage duration:

First actual start: / /

Last actual end: / /

Asset Id: [611](#)
 Asset Name: [VTYA](#)

Summer SCC: 612.429
 Winter SCC: 615

Physical Reduction: 100
 EcoMax: 512.429

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	VELCO_CC	Entergy Nuclear Power Marketin	VT_YK	VT_YK Unit VTYA 611	21 kV	Vermont	Reduction: 100 MW <input type="text"/>

Outage Cause:

Forced Rescheduling:

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous MVAR Testing



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) History

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

External Comments:

Constraint/Commitment Type For VT_YK Unit VTYA 611

Leading

Lagging

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Owner Test



Request Summary

Request Details/Approval

Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

External Comments:

Empty text area for external comments.

Constraint/Commitment Type For VT_YK Unit VTYA 611

General
 Black Start

OK Cancel

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00 Continuous Informational



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) History

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	VELCO_CC

Outage Cause:

External Comments:

Constraint/Commitment Type For VT_YK Unit VTYA 611

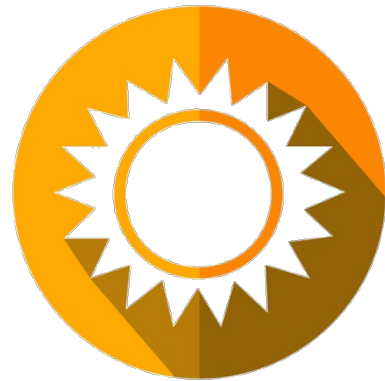
- AVR
- Miscellaneous
- Communications
- PSS

Spanning Seasons

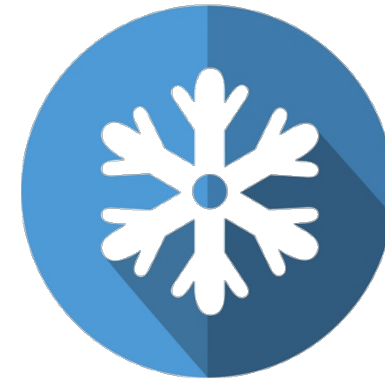
Don't do it

- Outage may not cross summer-winter boundary
- Economic maximum is based on SCC
- Submitter must notify ISO of impact of season change

Summer
June 1st to September 30



Winter
October 1st to May 31



Spanning Seasons

Example

Problem

- Desired outage 9/20-10/15
 - Spans two SCC periods (summer and winter)

Solution

- User must submit two outage requests 9/20-9/30 and 10/1-10/15
- Add a note in the 'External Comment' section
 - Part 1 of 2
 - Part 2 of 2
 - Include outage request number of other request
- ISO links the two outages and studies both as one outage

Spanning

Why you can't do it

EcoMax is the same (162)
Physical Reduction is very different (171 vs 60)

12 Day(s)

Asset Id: [9993](#) Summer Scc: 222.222
Asset Name: [AST2](#) Winter Scc: 333.333
Equip. Requested:

LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
CONVEX_CC	TRAINLP	LAKE_RD	LAKE_RD Unit TRN3 9993	21 kV	RI	Reduction: 171 MW

Physical Reduction: 171
EcoMax: 162.333

Planned start: 06 / 01 / 2011 00:00 Continuous/Daily: Continuous
Planned end: 06 / 06 / 2011 07:59 Outage duration: Exactly 6 Day(s)
First actual start: Last actual end:

Asset Id: [9993](#) Summer Scc: 222.222
Asset Name: [AST2](#) Winter Scc: 333.333
Equip. Requested:

LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
CONVEX_CC	TRAINLP	LAKE_RD	LAKE_RD Unit TRN3 9993	21 kV	RI	Reduction: 60 MW

Physical Reduction: 60
EcoMax: 162.222

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
Continuous Planned

Back Export Duplicate Home

Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A. Date Requested:

Company: Exelon Generation Company, LLC Outage priority:

Outage status: Priority date:

Planned start: 2015 / 08 / 30 08:00 Continuous/Daily: Continuous

Planned end: 2015 / 08 / 30 16:00 Outage duration: Exactly 8 Hour(s)

First actual start: / / Last actual end: / /

Asset Id: [14614](#) Summer SCC: 620 Physical Reduction: 620
 Asset Name: [KLEN](#) Winter SCC: 620 EcoMax: 0

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	OOS <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	OOS <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	OOS <input type="text"/>

Add... Clear...

Outage Cause:

Forced Rescheduling:

External Comments:

Slide updated on 11/04/2022.

Example 2
combined cycle – reduction affecting all components

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/08/30 08:00 - 2015/08/30 16:00
Continuous Planned

Request Summary

Request Details/Approval

Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: Exelon Generation Company, LLC

Outage priority:

Outage status:

Priority date:

Planned start: / /

Continuous/Daily: Continuous

Planned end: / /

Outage duration:

First actual start: / /

Last actual end: / /

Asset Id: [14614](#)

Summer SCC: 620

Physical Reduction: 99

Asset Name: [KLEN](#)

Winter SCC: 620

EcoMax: 521

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	Reduction: 33 MW <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	Reduction: 33 MW <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	Reduction: 33 MW <input type="text"/>

Outage Cause:

Forced Rescheduling:

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00 Continuous Planned

Example 3
 combined cycle
 GT1 OOS
 GT2 no change
 ST reduction

Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
Requested by: Sanchez, eduardo A. **Date Requested:**
Company: Exelon Generation Company, LLC **Outage priority:** Planned
Outage status: **Priority date:**
Planned start: 2015 / 09 / 17 08:00 **Continuous/Daily:** Continuous
Planned end: 2015 / 09 / 18 16:00 **Outage duration:** Exactly 2 Day(s)
First actual start: / / **Last actual end:** / /

Asset Id: [14614](#) **Summer SCC:** 620 **Physical Reduction:** 620
Asset Name: [KLEN](#) **Winter SCC:** 620 **EcoMax:** 0

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	OOS
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	OOS
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	OOS

Add... Clear...

Outage Cause:

Forced Rescheduling: No

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) History

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	CONVEX_CO
	CONVEX_CO
	CONVEX_CO

Outage Cause:

Mozilla Firefox

crwapproj.iso-ne.com/crow_web/Outages/req equip constraint type.aspx?outage_id=0&server_id=0&change_req_number=0&req_ε

Constraint/Commitment Type For KLEEN Unit KLG2 6432

Out of Service

Reduction: MW

Gas turbine 2

OK Cancel

Forced Rescheduling: No

External Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	CONVEX_CO
	CONVEX_CO
	CONVEX_CO

Outage Cause:

External Comments:

Constraint/Commitment Type For KLEEN Unit KLST 6433

Out of Service:

Reduction:

Steam turbine

Forced Rescheduling:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00
 Continuous Planned



Request Summary

Request Details/Approval

Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
 Requested by: Sanchez, eduardo A.
 Company: Exelon Generation Company, LLC
 Outage status:
 Planned start: 2015 / 09 / 17 08:00
 Planned end: 2015 / 09 / 18 16:00
 First actual start: / /

Date Requested:
 Outage priority: Planned
 Priority date:
 Continuous/Daily: Continuous
 Outage duration: Exactly 2 Day(s)
 Last actual end: / /

Asset Id: [14614](#) Summer SCC: 620
 Asset Name: [KLEN](#) Winter SCC: 620

Physical Reduction:
 EcoMax:

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	OOS: <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	Reduction: 0 MW <input type="text"/>
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	Reduction: 100 MW <input type="text"/>

Add... Clear...

Outage Cause:

Forced Rescheduling: No

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) History

Requested by:

Company:

Outage status:

Planned start:

Planned end:

First actual start:

Asset Id:

Asset Name:

Equip. Requested:

	LCC
	CONVEX_CO
	CONVEX_CO
	CONVEX_CO

Outage Cause:

Constraint/Commitment Type For KLEEN Unit KLG1 6438

Out of Service:

Reduction:

Gas turbine 1

OK Cancel

Forced Rescheduling: No

External Comments:

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/09/17 08:00 - 2015/09/18 16:00
 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
Requested by: Sanchez, eduardo A.
Company: Exelon Generation Company, LLC
Outage status:
Planned start: 2015 / 09 / 17 08:00
Planned end: 2015 / 09 / 18 16:00
First actual start: / /

Date Requested:
Outage priority: Planned
Priority date:
Continuous/Daily: Continuous
Outage duration: Exactly 2 Day(s)
Last actual end: / /

Asset Id: [14614](#) **Summer SCC:** 620 **Physical Reduction:** 306
Asset Name: [KLEN](#) **Winter SCC:** 620 **EcoMax:** 314

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	OOS: 206 MW
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	Reduction: 0 MW
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	Reduction: 100 MW

Add... Clear...

Outage Cause: [] []

Forced Rescheduling: No

External Comments:

[Empty text area for external comments]

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1
 (New) by Sanchez, eduardo A. 2015/09/15 08:00 - 2015/09/25 16:00
 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)

Requested by: Sanchez, eduardo A.

Date Requested:

Company: Evelon Generation Company, LLC

Outage priority:

Outage status: **600 - Annual Inspection**

Priority date:

Planned start: 601 - Boiler

Continuous/Daily: Continuous

Planned end: 602 - Circ Water

Outage duration:

First actual start: 603 - Condenser

Last actual end: / /

Asset Id: [146](#)

Physical Reduction: 620

Asset Name: [KLE](#)

EcoMax: 0

Equip. Requested: 604 - Environmental

- 605 - Electrical
- 606 - Fire
- 607 - Fuel
- 608 - Generator
- 609 - I&C
- 610 - Maintenance
- 611 - Testing
- 612 - Turbine
- 613 - Waste
- 614 - Weather
- 615 - Dual Fuel Audit
- 978 - UNDER INVESTIGATION

Outage Cause:

Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
EN Unit KLG1 6438	16 kV	North CT	OOS <input type="button" value="..."/>
EN Unit KLG2 6432	16 kV	North CT	OOS <input type="button" value="..."/>
EN Unit KLST 6433	18 kV	North CT	OOS <input type="button" value="..."/>

Forced Rescheduling:

External Comments:

Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Generation Outage Request: 0-00000000 rev. 1 (New) by Sanchez, eduardo A. 2015/09/15 08:00 - 2015/09/25 16:00 Continuous Planned



Request Summary Request Details/Approval Attachments (0)

Outage #: 0-00000000 rev. 1 (current) [History](#)
Requested by: Sanchez, eduardo A. **Date Requested:**
Company: Exelon Generation Company, LLC **Outage priority:** Planned
Outage status: **Priority date:**
Planned start: 2015 / 09 / 15 08:00 **Continuous/Daily:** Continuous
Planned end: 2015 / 09 / 25 16:00 **Outage duration:** Exactly 11 Day(s)
First actual start: / / **Last actual end:** / /

Asset Id: [14614](#) **Summer SCC:** 620 **Physical Reduction:** 620
Asset Name: [KLEN](#) **Winter SCC:** 620 **EcoMax:** 0

Equip. Requested:

	LCC	GO	Station	Circuit/Equipment	Voltage Class	Rel Area	Constraint/Commitment
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG1 6438	16 kV	North CT	OOS
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLG2 6432	16 kV	North CT	OOS
	CONVEX_CC	EXGN	KLEEN	KLEEN Unit KLST 6433	18 kV	North CT	OOS

Add... Clear...

Outage Cause: 600 600 - Annual Inspection

Forced Rescheduling: No

External Comments:

Slide updated on 11/04/2022.

Other Dropdown Menus

Outage Cause:

Forced Rescheduling:

Black Start Capable:

Outage Cause	Drop down for outage description
Forced Rescheduling	Set by ISO-NE if OP-5 rescheduling process applied
Black Start Capable	If generator flagged as such in CAMS, user must indicate whether generator will continue to be blackstart capable during the requested outage



Slide updated on 11/04/2022.

CROW Web 5.1.3.87 - Transmission Outage Request Index

✔ **Submit on 1-15003757 rev. 1 was completed successfully.**

Outage Request Index

Outage Request Index - (103 of 103 records)

Outage Request Date: 2015 / 06 / 29 to 2015 / 06 / 30

Control Center: [Dropdown] [Text Box] [List...]

Voltage Class: is between [Dropdown] and [Dropdown] kV

Requested By: [Dropdown]

Request Status: All

Constraint/Commit.: All

Request Priority: All

Pending Approvals: Ignore Filter

Equipment Type(s): All

Outage Number: [Dropdown] [Text Box] - [Text Box] [Find]

Export to Excel

Export to Gantt

Refresh

No Auto Refresh [Dropdown]

Outage Requests appearing in red are overdue.

Outage #/ Revision/ Status	Station/ Circuit/Equipment	MTE	Planned Start	Planned End	Required Approvals	Requested By/ Reason/Priority
1-15001981 Revision #7 Interim Approved	READ_ST 8448 RLY/COM		2015/06/30 15:31	2015/06/30 16:00	ISONE_CC: Approved REMVEC_CC: Approved	Prive, Edward T15-176368 - 8448 CB @ Read St - Simulated Breaker failure testing on the 8448 CB. No expected tripping.
1-15001917 Revision #4 Interim Approved	MILSTONE RLY/COM		2015/06/30 14:00	2015/06/30 20:00	CONVEX_CC: Approved ISONE_CC: Approved	Rose, Dave Millstone Risk-Sensitive Maintenance Activity U2 Emergency Diesel Generator (EDG) Run
1-15001923 Revision #10 Interim Approved	READ_ST 8448 OOS		2015/06/30 12:30	2015/06/30 13:59	ISONE_CC: Approved REMVEC_CC: Approved	Prive, Edward T15-176360 - F184 Terminal @ Read St - Test trip the F184 Terminal at Read St. See attached test trip report step 8. 69kv devices also trip but not in ISO model. 5 second reclose time
1-15001893 Revision #6 Interim Approved	N_BLOOM 2A-4T-2 RLY/COM		2015/06/30 11:31	2015/06/30 15:00	CONVEX_CC: Approved ISONE_CC: Approved	Rose, Dave P4 (=P3 P&C) Setting Request: Setting Change 2A-4T-2 Primary RIO (RIOP/4T) Relays. Retest Relay I.A.W. PSMP M8-MT-2023.

Additional Notifications

- Add additional contacts to be informed of status changes
- Prevents a single point of failure
- Enables entering a group email
- Helpful for your vacations

Request Summary | Request Details/Approval | Attachments (0)

Outage Profiles

Planned Start/ Planned End	Actual Start	Actual Complete	Circuit/Equipment	Constraint/ Commitment	Reason/ Sub Code/Com	Status/ By/ When/ Code
2015 / 07 / 22 08:00			(none)			
2015 / 07 / 22 16:00						

Build Default List

Range: 2015 / 07 / 22 To 2015 / 07 / 22

Notifications

Notification Type	Notify	Contact Information	Accepted/ Result	By/ When	Comments
Approval Notification	Sproehnle, Norman D.	nsproehnle@iso-ne.com			
Approval Notification	Sanchez, eduardo A.	esanchez@iso-ne.com			

Add...

How do I modify?

Call these people first

- Gen user can only modify an outage request if the application is in the *Preliminary* state.
- If modifications are required and the outage request is not in *Preliminary* state, the Gen User must request ISO to make changes on their behalf by calling either:

Number	Office
413-535-4378	Generation Coordinator
413-535-4340	Forecaster

What if I need to cancel?

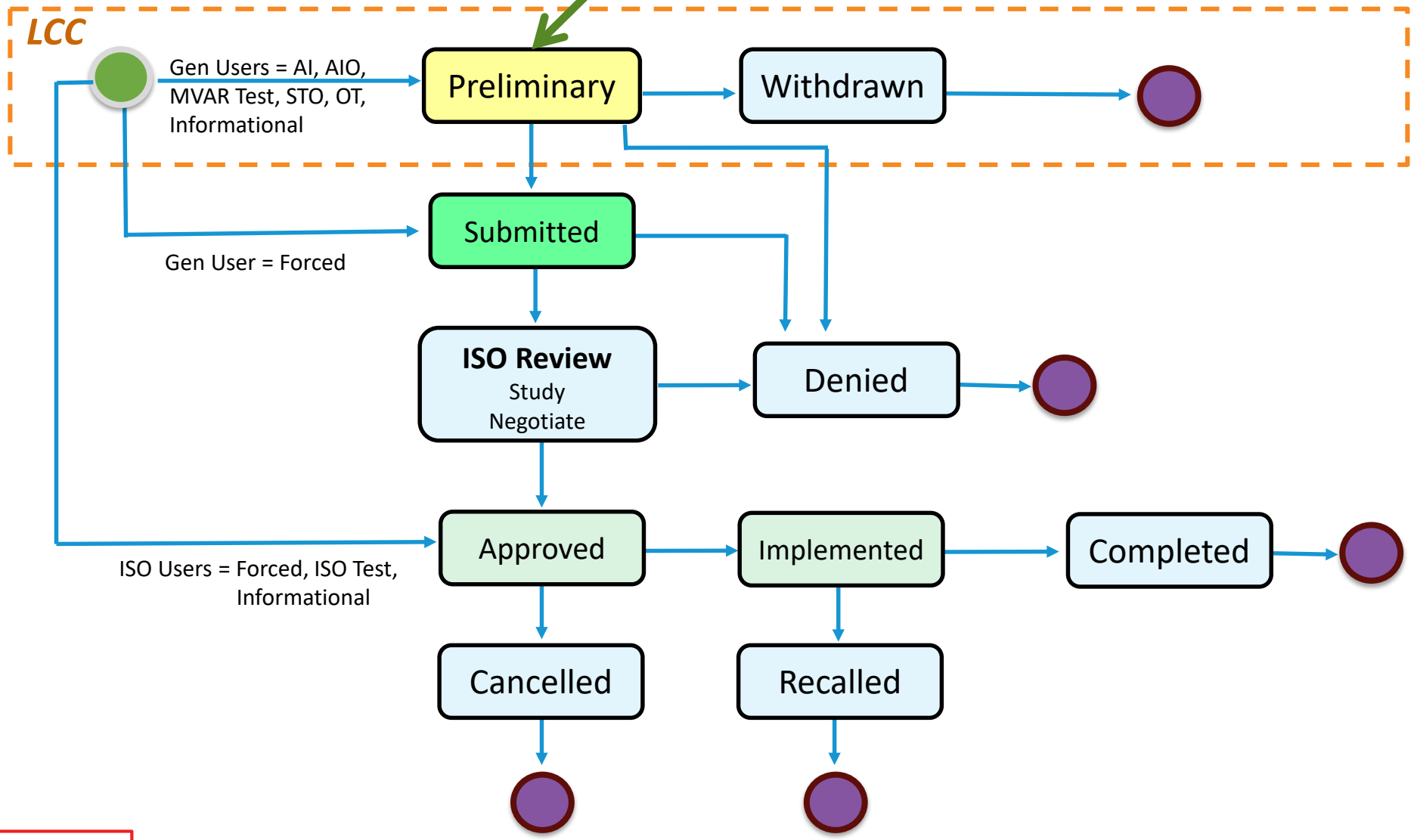
Call these people first

If the Gen User does not need the outage request and it is in the approved state, the Gen User must request ISO to set request to cancelled state on their behalf by calling either:

Number	Office
413-535-4378	Generation Coordinator
413-535-4340	Forecaster

Possible Outage States

Gen User can only modify an outage request while it is in the Preliminary state.



Slide updated on 11/04/2022.

Description of the Outage States

State	Meaning
Preliminary	Application entered by Gen User, <i>still editable by Gen User</i>
Submitted	LCC has accepted application
Study	ISO is reviewing request
Negotiate	ISO has found potential conflicts with the request and is actively communicating with affected parties
Interim Approved	ISO has completed capacity assessment for Planned Outage and is performing reliability review
Approved	ISO has accepted request
Implemented	ISO has received notice from Gen User that GOR has begun; Actual Start time will reflect this notice



Slide updated on 11/04/2022.

Description of the Outage States, *continued*

State	Meaning
Completed	ISO has received notice from Gen User that GOR is completed; Actual End time will reflect this notice
Withdrawn	Gen User removed GOR while in Preliminary state
Denied	ISO or LCC denied GOR during approval process Note: If Gen User does not need the requested GOR and it is in the Submitted, Study, Negotiate or Interim Approved state, Gen User may request the ISO to set to a state of Denied on their behalf
Recalled	ISO has requested that the Gen User return the generator to service prior to Planned End of the outage due to system conditions
Cancelled	ISO or LCC cancelled GOR after it was approved Note: If Gen User does not need the requested GOR and it is in the Approved state , Gen User may request the ISO to set to a state of Cancelled on their behalf

Ensuring Application Approval

- ❖ *Information available*
- ❖ *Communication*
- ❖ *Profile*
- ❖ *Full descriptions*
- ❖ *Owner testing*

Check These Before Submitting

- [Annual Maintenance Schedule](#)
- [Three-Day System Demand Forecast](#)
- [Seven-Day Capacity Forecast](#)
- [Short-Term Outage Report](#)
- [Long-Term Outage Report](#)



Get Your Outage Approved!

Follow these steps

Provide a full description

- Providing additional information of outage request is beneficial for LCC and ISO-NE system risk assessment
- Once submitted, the 'External Comments' field is locked out to submitter, LCC and ISO-NE
- ISO comments field will be utilized for additional information

Submit an outage request for owner testing

- It is best to have the Owner Testing submitted through CROW for coordination
- Advance notice ensures testing can take place. Real-time testing requests can be denied or limited



Get Your Outage Approved!, *continued*

Communicate with your LCC & ISO

- Transmission outages with the area
- Local area generation requirements
- Full system generation requirements
- Expertise in outage coordination process
- Let us know about overruns as soon as you know

Improper outage request reduction

- Full asset outage submission when only single generator of a combined generating asset is out of service

Profile generator outages

- Submitting a blanket outage request for multiple reductions over time



Information Policy



ISO New England Information Policy



- Limits type of information that can be communicated with participants
- Market impactful information
 - Specific transmission equipment outage information
 - Specific impacts on generators and system transfer capabilities
- Currently revising what information can be communicated

Will allow

Communicating:

- Potentially limiting interfaces to be identified
- A range of typical interface limits
- Type of limit:
 - Thermal
 - Voltage
 - Stability

Will NOT allow

Communicating:

- Generator specific impacts
 - Unless only one generator is impacted
- Discrete dependences on changes to interface limits
- Specific outage that causes limits
 - Unless it is an outage at the generator point of interconnection
- Limiting contingency

Transmission Outage Coordination Process

Market Sensitive Information

Market Sensitive

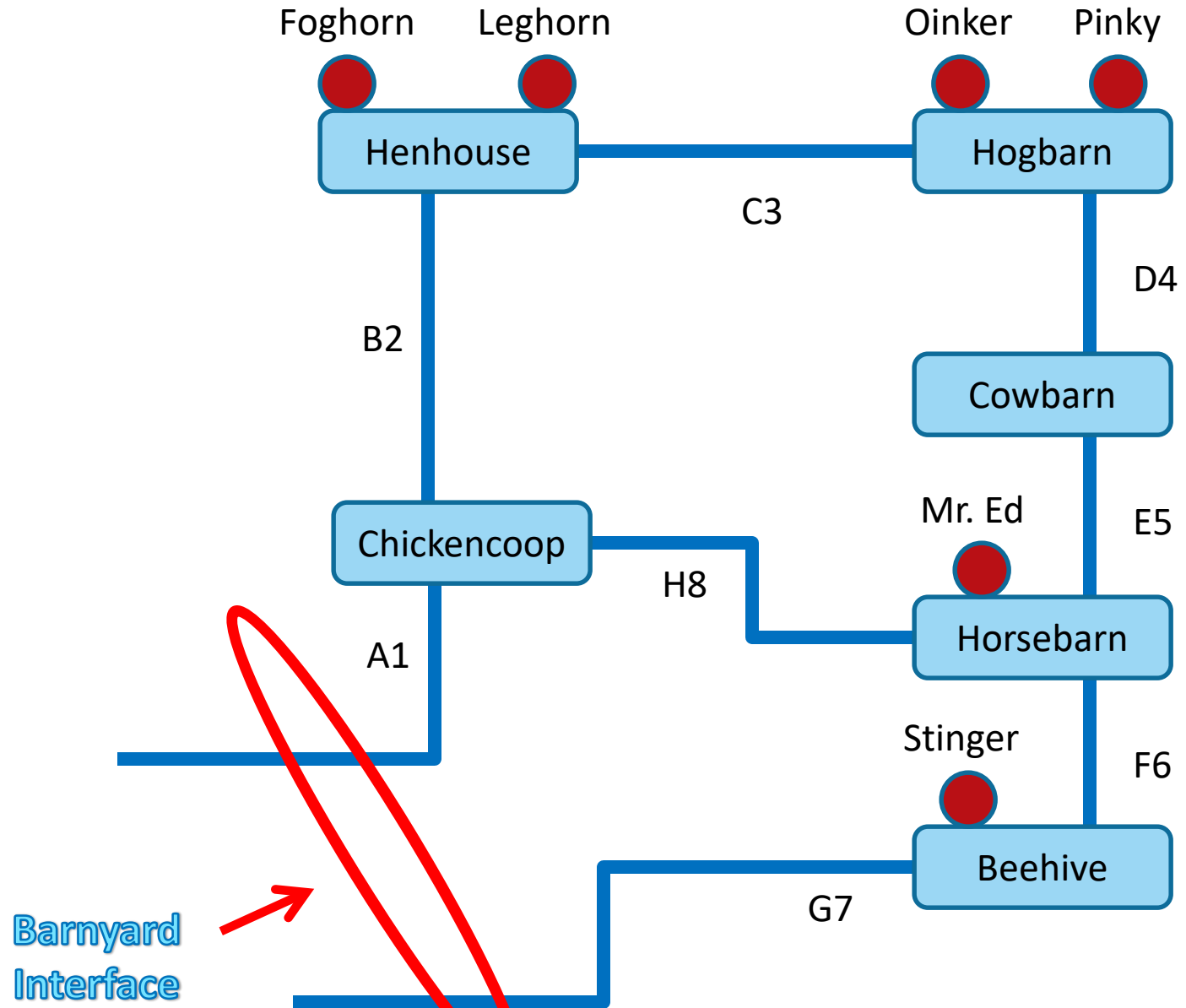
- Transmission outage that removes a generating unit from providing energy to the transmission system is considered “market sensitive”
- Based on the ISO New England Information Policy, these types of outages are not published to the stakeholders

Not Market Sensitive

Outage requests which are uploaded to the:

- Long-Term Outage Report which is updated daily
- Short-Term Outage Report which is updated every 15 minutes

Example 1



Example 1: All lines in

What can/should be communicated to generators and why?

What generators should be contacted, if any?

All generator inside the Barnyard interface

What information from the guide *can* be communicated and why?

All units can be informed of the base limit and max limit

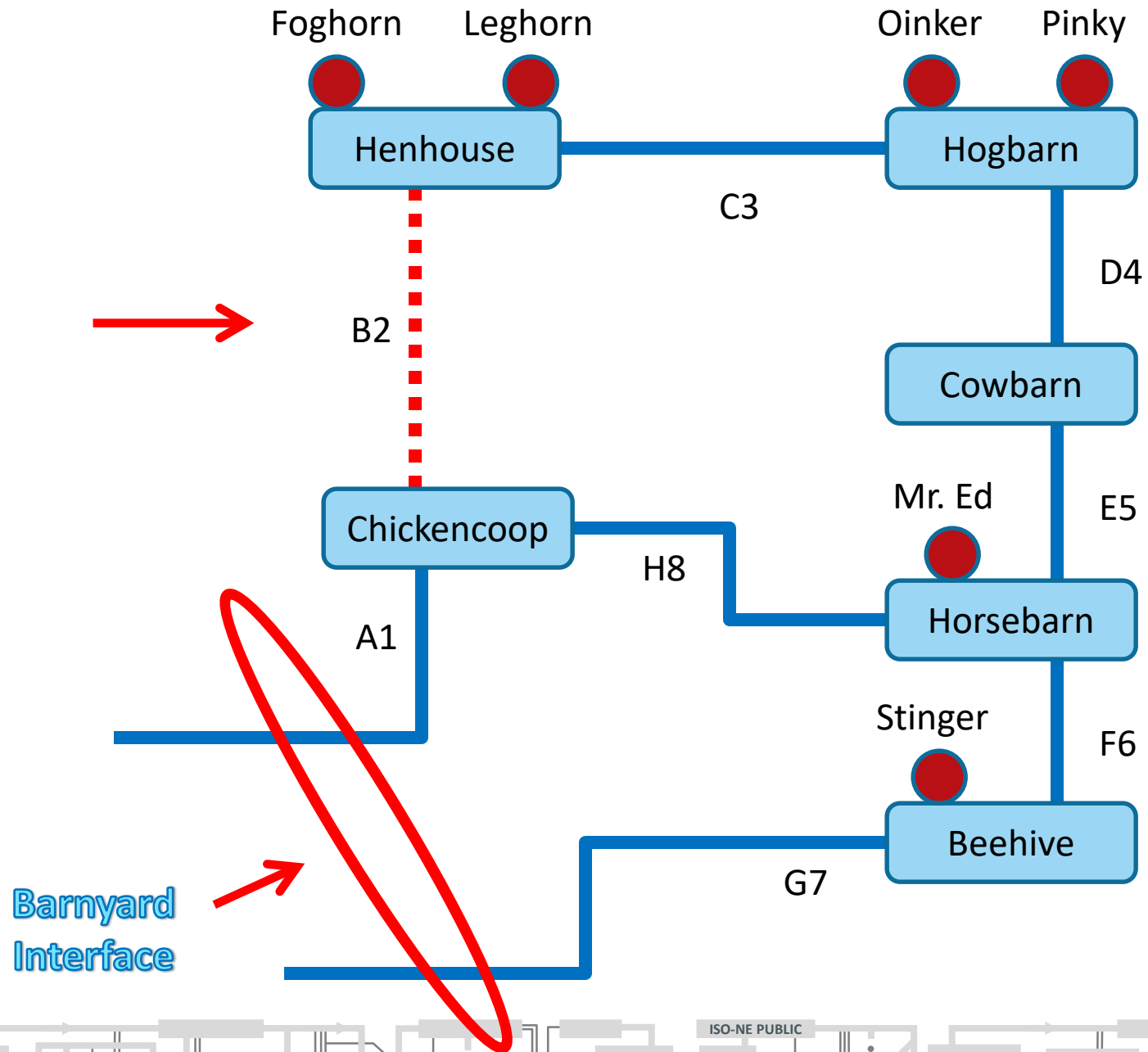
Why? They are behind the interface

What information from the guide *cannot* be communicated and why?

- Cannot discuss the discrete adders for each of the generators

Why? This provides market sensitive information on status of units and how it impacts transmission system limits

Example 2



Example 2: B2 Line OOS

What can/should be communicated to generators and why?

What generators should be contacted, if any?

Foghorn, Leghorn, Oinker and Pinky

What information *can* be communicated and why?

The units will be informed of their restriction and possible further restrictions.

Why? They are the only generators impacted

Foghorn and Leghorn can be told of the B2 Line outage condition is causing the restriction

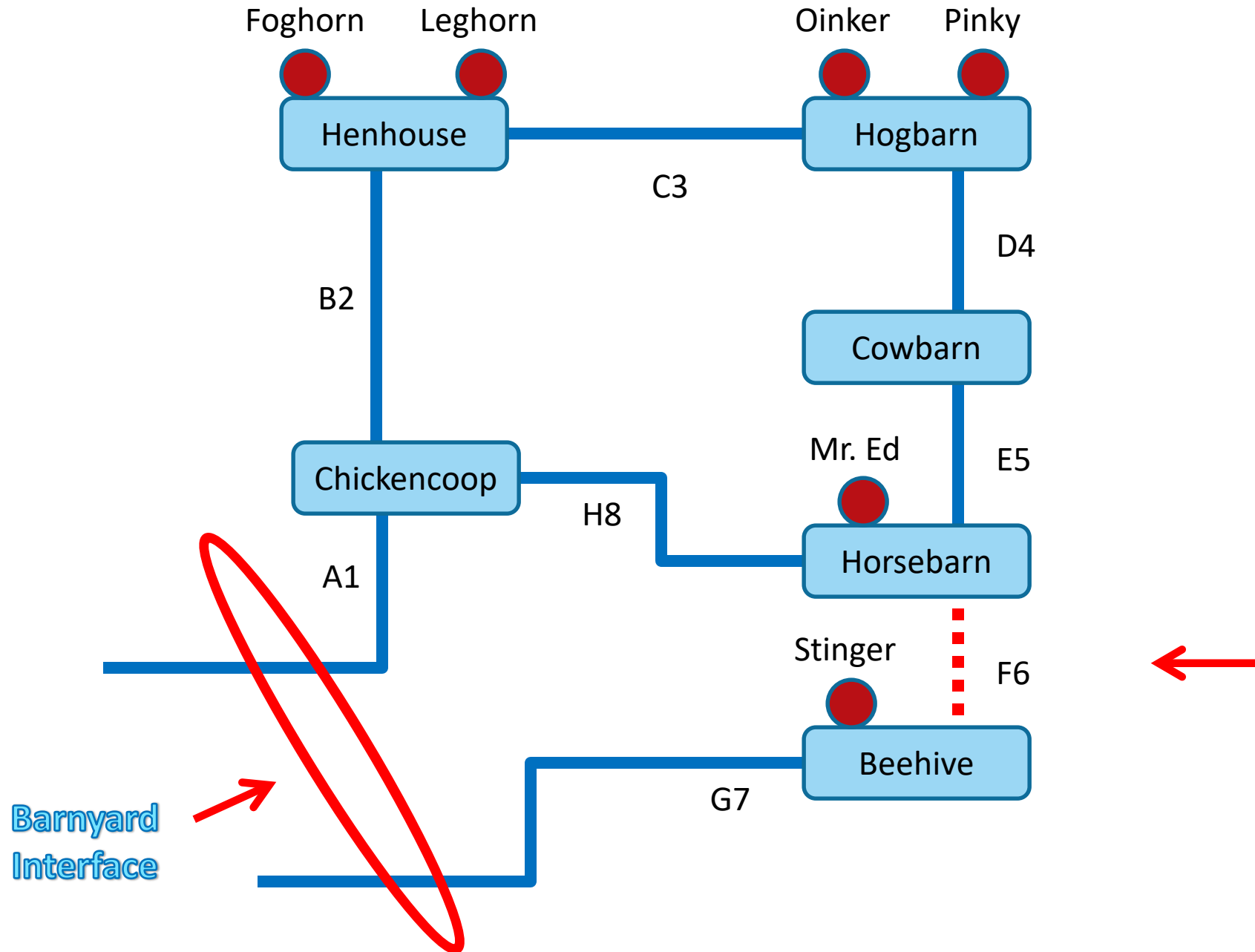
Why? Because it is at their point of interconnection

What information from the guide *cannot* be communicated and why?

- Cannot discuss other generation limit with other generator owners

Why? This provides market sensitive information on status of units and how it impacts transmission system limits

Example 3



Example 3: F6 line OOS

What can/should be communicated to generators and why?

What generators should be contacted, if any?

Mr. Ed, Oinker and Stinger

What information from the guide *can* be communicated and why?

Mr. Ed and Stinger can be told of their maximum limit

Oinker will be told to be offline

Why? They are the only generators impacted by the guide

Mr. Ed and Stinger can be told that F6 Line Out condition is causing the restriction

Why? Because it is at their point of interconnection

What information from the guide *cannot* be communicated and why?

- Cannot discuss other generation limit with other generator owners

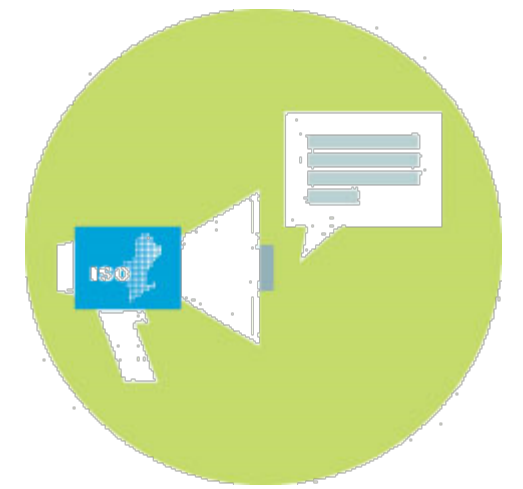
Why? This provides market sensitive information on status of units and how it impacts transmission system limits

This outage will not show up on external Short Term Outage Report due to being flagged 'Market Sensitive'

Discussion Points

Best Practices & Lessons Learned

- ISO will keep you informed as best as possible
- Work with us and we will work with you
- Call the Outage Coordination office if you have questions
 - Leave us a message if no one is there, we will call back
 - If you have IT-related issues, call Customer Service
- More information about your generator outage can increase reliability
- Keeping your generator in good working order is paramount for system reliability
- Do not hesitate to call



Job Aid

- Forecaster Desk (Control Room) 413-535-4340
- Generation Outage Coordinator (Short Term) 413-535-4378
- Long Term Outage Coordinator (Long Term) 413-535-4346
- <https://smd.iso-ne.com> (CROW web client link)
- Summer SCC June 1st to September 30th , Winter SCC October 1st to May 31st
- External Comments Field: Give as much details as possible to help ISO understand the full work scope
- OPO and Forced Outages: Keep ISO updated with details of generator and frequent communications on return to service

Outage Priority	Constraint/Commitment
Informational	AVR, Miscellaneous, Communications, PSS
Owner Test	General, Black start
MVAR Testing	Leading, Lagging
Planned	>15 days from current day
Short Term	<15 days from current day

Summary

You are now able to:

- Access and log in to CROW
- Navigate the CROW interface
- Describe the relationship between outage priority and constraint/commitment
- Submit, modify, cancel an outage request using CROW
- Identify information that can and cannot be shared with market participants



References

- [Operating Procedure No. 3 – Transmission Outage Scheduling](#)
- [Operating Procedure No. 5 Generator and Dispatchable Asset Related Demand Maintenance and Outage Scheduling](#)
- [Control Room Operator Window \(CROW\) User Guide](#)





Questions



Evaluations

Contact Participant Support and Solutions



Submit a request via Ask ISO *(preferred)*
<https://askiso.force.com/>

Email AskISO@iso-ne.com

Phone

(413) 540-4220 (call center)

(833) 248-4220

Pager *(for emergency inquiries outside of business hours)*

(877) 226-4814

**Business hours and
additional contact details
are available from the
Participant Support page**

[Visit the Participant Support page](#)