



Manual Changes Clarifying Impacts of Operationalizing Gas Contingencies on Reserves

Natalie Tacka

Engineer, Applied Innovation

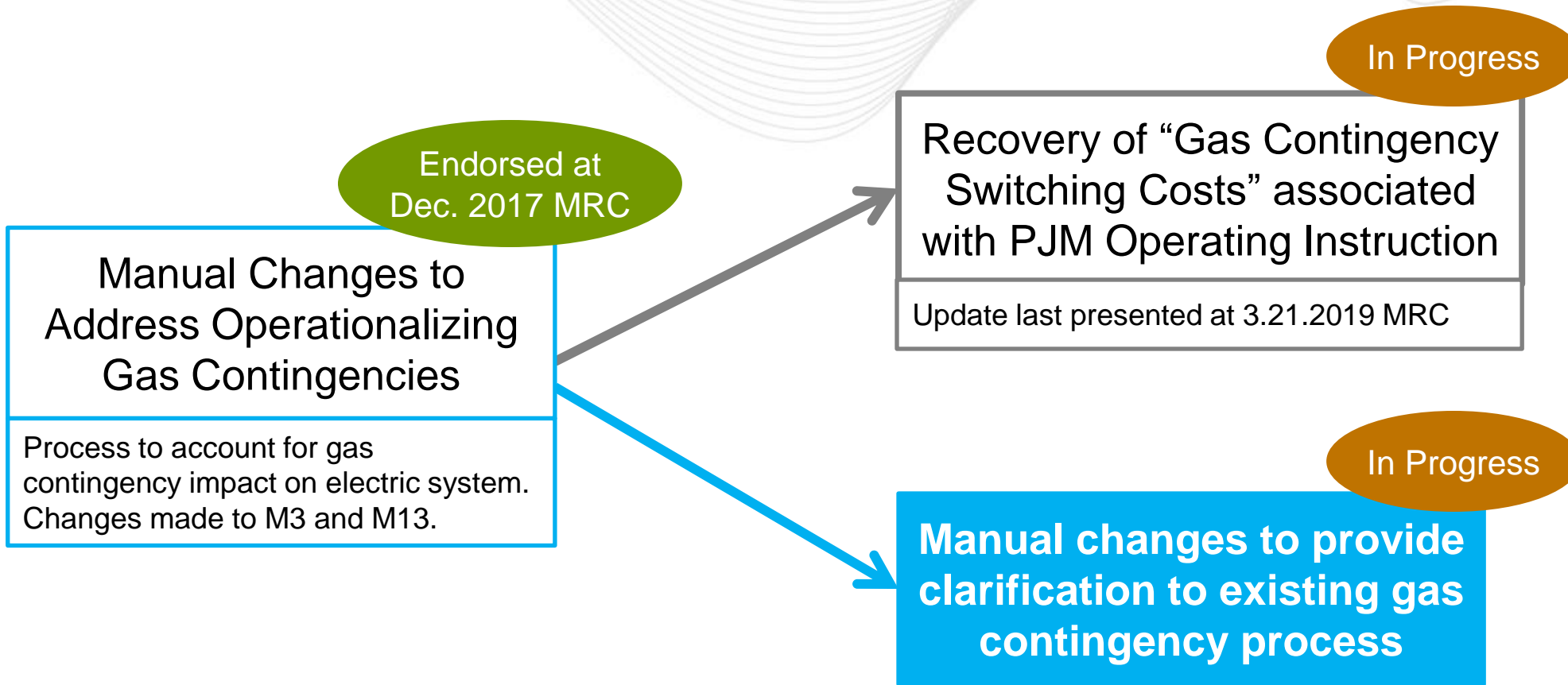
System Operations Subcommittee

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Action Required	Deadline	Who May Be Affected
Notify staff about updates to M11, M13 and M28 for clarifying of impacts of gas contingencies on reserves	4.10.2019	Market Buyers, Market Sellers



Day-Ahead Scheduling Reserve (DASR) Requirement

Current	Changes	Manual Sections Impacted
<p>Following issuance of Hot/Cold Weather Alert or escalating emergency procedures PJM will increase the Day-ahead Scheduling Reserve requirement to reflect the additional reserves typically carried under such conditions and to ensure that adequate resources are procured to meet real-time load and reserve requirements.</p>	<p>Language to address a credible gas contingency(s) in the calculation for increasing the Day-Ahead Scheduling Reserve Requirement</p>	<ul style="list-style-type: none"> Manual 13, Section 2.2 Reserve Requirements Manual 11, Section 11.2.1 Day-Ahead Scheduling Reserve Market Reserve Requirement



In the event PJM forecasts a credible natural gas contingency(s):

DASR Requirement = **Greater of** [(Base DASR Requirement + increase for Hot/Cold Weather Alert or escalating emergency procedures) **OR** \sum (**EcoMax of units part of largest credible gas contingency**)]

Current	Changes	Manual Sections Impacted
<p>If PJM issues Hot/Cold Weather Alert or escalating emergency procedures resulting in increase in DASR Requirement, charges for additional requirement resulting from difference between fixed demand and forecasted load is allocated to differences in Day-ahead demand and Real-time load when Day-ahead demand is less than Real-time load</p>	<p>Language clarifying that a gas contingency(s) is included in the universe of events settled when DASR Requirement is increased.</p>	<ul style="list-style-type: none"> Manual 11, Section 11.2.8 Day-Ahead Scheduling Reserve Market Obligation Fulfillment Manual 28, Section 19.3 Charges for Day Ahead Scheduling Reserve



In the event PJM increases the DASR Requirement due to a credible natural gas contingency(s):

Additional DASR Requirement = \sum (**EcoMax of units part of largest credible gas contingency**) – (Base DASR Requirement)

***Allocation of charges for Additional DASR Requirement is status quo**

Current	Changes	Manual Sections Impacted
<p>If a credible gas contingency is triggered, units impacted are still eligible to provide reserves</p>	<p>Language added to clarify the reserve market eligibility of resources impacted by a credible gas pipeline contingency(s)</p>	<ul style="list-style-type: none"> Manual 13, Section 3.9 Assessing Gas Infrastructure Contingency Impacts on the Electric System Manual 11, Section 4.2.1 Synchronized Reserve Market Eligibility Manual 11, Section 4b.2.1 Non-Synchronized Reserve Resource Eligibility Manual 11, Section 11.2.2 Day-Ahead Scheduling Reserve Market Eligibility



In the event PJM forecasts a credible gas pipeline contingency(s), resources that are part of the credible gas pipeline contingency(s):

- Are not eligible to be a Day-Ahead Scheduling Reserve Resource
- May be ineligible to provide Synchronized and Non-Synchronized Reserve, as determined by PJM Dispatch, depending on the severity of the contingency and other system conditions in order to ensure system reliability is maintained

- First Reads
 - SOS: 4.4.2019
 - OC : 4.9.2019
 - MIC: 4.10.2019
 - MRC: 4.25.2019

- Second Reads / Endorsement
 - SOS: 5.2.2019
 - OC: 5.14.2019
 - MIC: 5.15.2019
 - MRC: 5.30.2019