

# Gas Contingency Switching Costs Proposal

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Members Committee  
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- Issue to address compensation was identified at the December 2017 MRC meeting while approving changes to Manuals M3 and M13 to address gas contingency impact on the electric system
- Problem statement and issue charge approved at January MRC and assigned to MIC
  - Examine costs associated with Operationalizing Gas Pipeline Contingencies
  - Held 10 MIC Special Sessions

Package	Yes	No	Abstain	% Support	Pass/Fail
<b>A (Calpine)</b>	<b>109</b>	<b>37</b>	<b>19</b>	<b>75%</b>	<b>PASS</b>
B (PJM)	62	108	32	36%	FAIL
C (Direct)	71	98	48	42%	FAIL
D (PJM2)	68	102	33	40%	FAIL

## Purpose

Define a formula rate to compensate generators following a PJM Operating Instruction to switch fuel (source or type) for all costs and/or financial loss.

*Gas Contingency Switching Costs = Gas Balancing Costs and Penalties + Other Gas Balancing Costs and Penalties + Start Up Costs + Real Time Lost Opportunity Revenue*

Component	Status Quo	Calpine proposal
Gas Balancing Costs and Penalties (includes commodity and non-commodity costs)	<ul style="list-style-type: none"> <li>• Costs associated gas pipeline storage, park and loan, or other similar tariff-based rate for gas balancing can be included if the cost is included in the FCP and can be calculated prior to creating a cost-based offer.</li> <li>• Penalties and gas balancing commodity costs – No Compensation</li> </ul>	<p>Pre-contingency issued Operating Instruction</p> <ul style="list-style-type: none"> <li>• Entitled to recovery</li> </ul> <p>Post-contingency issues Operating Instruction</p> <ul style="list-style-type: none"> <li>• Entitled to recovery unless PJM can show the generator was unable to operate for a reason other than a result of the fuel switch</li> </ul>
LOC – Reduced Output	LOC is subject to review	LOC based on initial fuel before a switch, reduction, or shutdown for the duration of the Operating Instruction event
Deviation charges (Operating Charge & DA v. RT LMP Differential)	No Operating Reserve charges for deviation (subject to review, assumes following dispatch)	<p>Exempt from Deviation charges during the following period:</p> <ul style="list-style-type: none"> <li>• Start: Issuance of Operating Instruction</li> <li>• End: sooner of:               <ul style="list-style-type: none"> <li>– Reaches basepoint after returning to original fuel</li> <li>– 10 AM the next operating day</li> </ul> </li> </ul>
Capacity Performance Non-Performance Charge exemptions	<p>Exempt MWs include:</p> <ul style="list-style-type: none"> <li>• Associated with approved gen outage</li> <li>• MWs not scheduled by PJM</li> <li>• MWs scheduled down by PJM</li> </ul>	Exempt from the issuance of the Operating Instruction until the generator returns to the original fuel / source

Component	Status Quo	Calpine proposal
Real Time lost opportunity revenue (loss resulting from using different fuel / source)	No compensation	Entitled to recovery: $(\text{Cost of Fuel B} - \text{Cost of Fuel A}) * \text{Real Time MW}$  (MWs includes the quantity that would have been scheduled using Fuel A based on the greater of PJM Real Time or Day Ahead commitment)
Segments for Fuel Switch (BOR)		<ul style="list-style-type: none"> <li>• New segment starts at issuance of Operating Instruction</li> <li>• Ends at the sooner of:               <ul style="list-style-type: none"> <li>– end of the Operating Instruction</li> <li>– end of the operating day</li> </ul> </li> </ul>
Schedule change availability	Schedules can only be updated if a unit has opted-in to Intraday offers	Generators (opt-in and (even those not on intraday offer updates) may: <ul style="list-style-type: none"> <li>• update current schedules immediately after Operating Instruction notification</li> <li>• switch to alternate (another fuel) schedules if fuel switching.</li> </ul>
Allocation of Costs	N/A (Costs are currently not compensated)	Allocated as part of make-whole compensation for reliability

- OATT
  - Att. K-Appendix, sec 3.2.3 (s): NEW: Gas Contingency Switching Costs; as well as changes to other aspects of operating reserves as needed.
  - Att. DD, sec 10A(d): revised to remove units following Operating Instruction to switch fuel/source from the Performance Shortfall calculation
- OA
  - Schedule 1, sec 3.2.3 (s): NEW: Gas Contingency Switching Costs; as well as changes to other aspects of operating reserves as needed.
  - Schedule 2 (potentially)
- Manual 11
  - 2.3.3: revised to account for Gas Contingency Switching Costs; allow any generator to update costs while following an Operating Instruction to switch fuel/source
  - E: NEW attachment related to submittal of Gas Contingency Switching Costs
- Manual 15
  - 2.3.8: NEW: Gas Pipeline Contingency Fuel Cost Calculation and Fuel Cost Policy
- Manual 18
  - 8.4a: revised Non-Performance Assessment
- Manual 28
  - 5.2.9: NEW: Credits for Resource Performing Gas Contingency Switching
  - 5.3: Credits associated with gas contingency switching are allocated as Balancing Operating Charges for reliability on a pro-rata share of real-time load plus exports