



Fuel Requirements for Black Start Resources Manual 12 Updates

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Operating Committee
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- Fuel Requirements for Black Start Resources (FRBSR) was approved in November, 2022.
- Some items outlined in the approved package matrix were inadvertently not included in previous M-12 updates
- Conforming M-12 changes are required to align with Fuel Assurance package previously approved in the Stakeholder Process



Approved FRBSR Matrix



Special Sessions: Fuel Requirements for Black Start Resources

Fuel Requirements for Black Start Resources

PACKAGE/ PROPOSAL MATRIX

| | | Packages | |
|--|---|-----------|------------|
| +A7:E | Design Components | Pri ri | Status Quo |
| 3 | Onsite fuel, water level, stored energy, etc., starting systems and non-fuel consumables compensation | Medi | None |
| <p>If the on-site fuel inventory, water level, stored energy, etc. of a Fuel Assured black start resource falls below the run hour requirements for any length of time during any period, PJM must be notified within 24 hours.</p> <p>Black start monthly revenues will be foregone for months in which the fuel inventory is deficient. If the fuel inventory, water level, stored energy falls below the run hour requirement as the result of a regulatory requirement for approved planned outage (full derate) or as a result of operating during a PAI, monthly Black Start revenues will not be withheld.</p> | | | |



Special Sessions: Fuel Requirements for Black Start Resources

Fuel Requirements for Black Start Resources

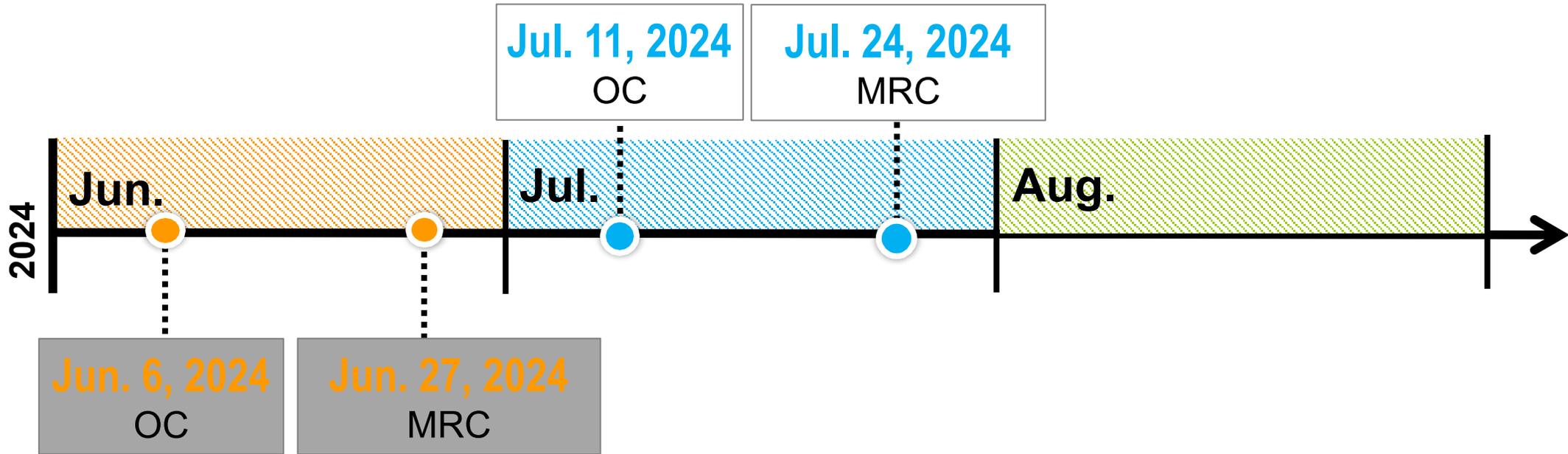
PACKAGE/ PROPOSAL MATRIX

| | | Packages | |
|--------|-----------------------------|------------|---|
| #+A7:E | Design Components | Prio ri | Status Quo |
| | | | H - PJM / Brookfield / DC OPC |
| 4 | Fuel inventory verification | Med ium | <p>Black start CTs reports to PJM dispatch and units are placed in max-emergency when they carry less than 10 hours of fuel (M14d). Some hydro units report pond levels via telemetry.</p> <p>Fuel Assured units must provide fuel/energy verification to PJM upon PJM request. Fuel/energy level telemetry to PJM is an acceptable form of verification. For natural gas resources, PJM will validate all contractual arrangements for gas supply/delivery. If the on-site fuel inventory of a Fuel Assured black start resource falls below the run hour requirements for any length of time during any period, PJM must be notified within 24 hours.</p> |

- Only M-12 and Black Start Test Form will be updated
- Conforming changes
 - Adding exceptions for lost revenue associated with failure to maintain fuel inventory:
 - Low fuel inventory due to responding to a PAI
 - Tanks out of service due to regulatory inspections
 - Removing 6 month fuel assurance inventory notification requirement from M-12
 - Generators must provide fuel and non-fuel consumable inventory verification upon PJM request
 - Annual verification requirement will be added to Black Start Test form

- The follow sections of Manual 12 will be updated:
 - Section 4.5.10 – Performance Standards
 - Section 4.5.12 - Testing
 - Section 4.5.13 – Testing and Training Standards and Records
 - Section 4.5.14 – Non-Performance

Endorsements



First Reads

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FRBSR M-12 Updates



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