



Black Start Tariff Section 6.4 Proposed Changes

MIC

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- Ensure appropriate incentives for new black start units
- Ensure appropriate agreement term for new black start units
- Ensure appropriate cost recovery term for new black start units
- Goal is to match reasonable expected life of black start investment with cost recovery and commitment to purchase black start service

- Ensure that commitment by seller to provide black start service is consistent with life of black start investment
- Ensure that commitment by buyers to purchase black start service is consistent with life of black start investment

- New entry black start service generation revenue requirements
 - Actual fixed costs will be recovered over the remaining life of the associated generator up to a maximum of 20 years.
 - Apply CRF factors
 - Fixed costs include all fixed costs including return on and of capital.
 - Actual variable costs will be recovered on an annual basis.
 - Tariff provisions will provide for such cost recovery.
 - Owners retain option to file with the FERC.

- Owners recovering black start service generation revenue requirements for existing units under tariff rate
 - Will continue to recover costs under that structure.
- Owners recovering black start service generation revenue requirements under FERC approved agreements
 - Will continue to collect under those agreements until expiration of the contract term.
 - After the agreement expires, only variable costs will be collected.
 - After the agreement expires, there will be no additional collection of fixed costs unless new capital investment is required in order to continue to provide black start service.

- Capital Recovery Factor (CRF)
 - Capital will be recovered based on the remaining life of the associated generator.
 - Based on 15 year MACRS tax depreciation schedule.

Age of Existing Unit	Remaining Life of Plant (Years)	Levelized CRF
1 to 5	20	0.125
6 to 10	15	0.146
11 to 15	10	0.198
16 to 20	5	0.363

- CRF Example

- A generator owner invests \$1 million to enable a seven year old unit to provide black start service.

- Life of the black start investment is 20 years.
 - From the CRF table, the default remaining age is 15 years.
 - Therefore assumed life of black start investment is 15 years.
 - The resulting CRF is 0.146.
 - The annual levelized revenue requirement for the investment in the black start unit is:

$$\$1 \text{ million} * 0.146 = \$146,000 \text{ per year.}$$

- Col 4. Full capital cost recovery in 2 years
 - Plus tariff rate for 18 years
 - Tariff rate includes capital cost recovery in excess of actual
- Col 3. Full capital cost recovery in 5 years
 - Plus tariff rate for 15 years
 - Tariff rate includes capital cost recovery in excess of actual

- Col 2. Cost-based recovery in 20 years
 - Tariff rate for 20 years per actual costs
 - Full capital and variable cost recovery
- Col 1. Cost-based recovery in 2 years
 - Variable cost recovery for 20 years
 - Full capital and variable cost recovery



Black Start Payment Recovery Options

Year	2 Year	Cost	5 Year / Tariff	2 Year / Tariff
2007	\$500,000	\$114,000	\$250,000	\$500,000
2008	\$500,000	\$114,000	\$250,000	\$500,000
2009		\$114,000	\$250,000	\$300,000
2010		\$114,000	\$250,000	\$300,000
2011		\$114,000	\$250,000	\$300,000
2012		\$114,000	\$300,000	\$300,000
2013		\$114,000	\$300,000	\$300,000
2014		\$114,000	\$300,000	\$300,000
2015		\$114,000	\$300,000	\$300,000
2016		\$114,000	\$300,000	\$300,000
2017		\$114,000	\$300,000	\$300,000
2018		\$114,000	\$300,000	\$300,000
2019		\$114,000	\$300,000	\$300,000
2020		\$114,000	\$300,000	\$300,000
2021		\$114,000	\$300,000	\$300,000
2022		\$114,000	\$300,000	\$300,000
2023		\$114,000	\$300,000	\$300,000
2024		\$114,000	\$300,000	\$300,000
2025		\$114,000	\$300,000	\$300,000
2026		\$114,000	\$300,000	\$300,000
NPV	\$845,026	\$851,517	\$2,060,594	\$2,578,843