

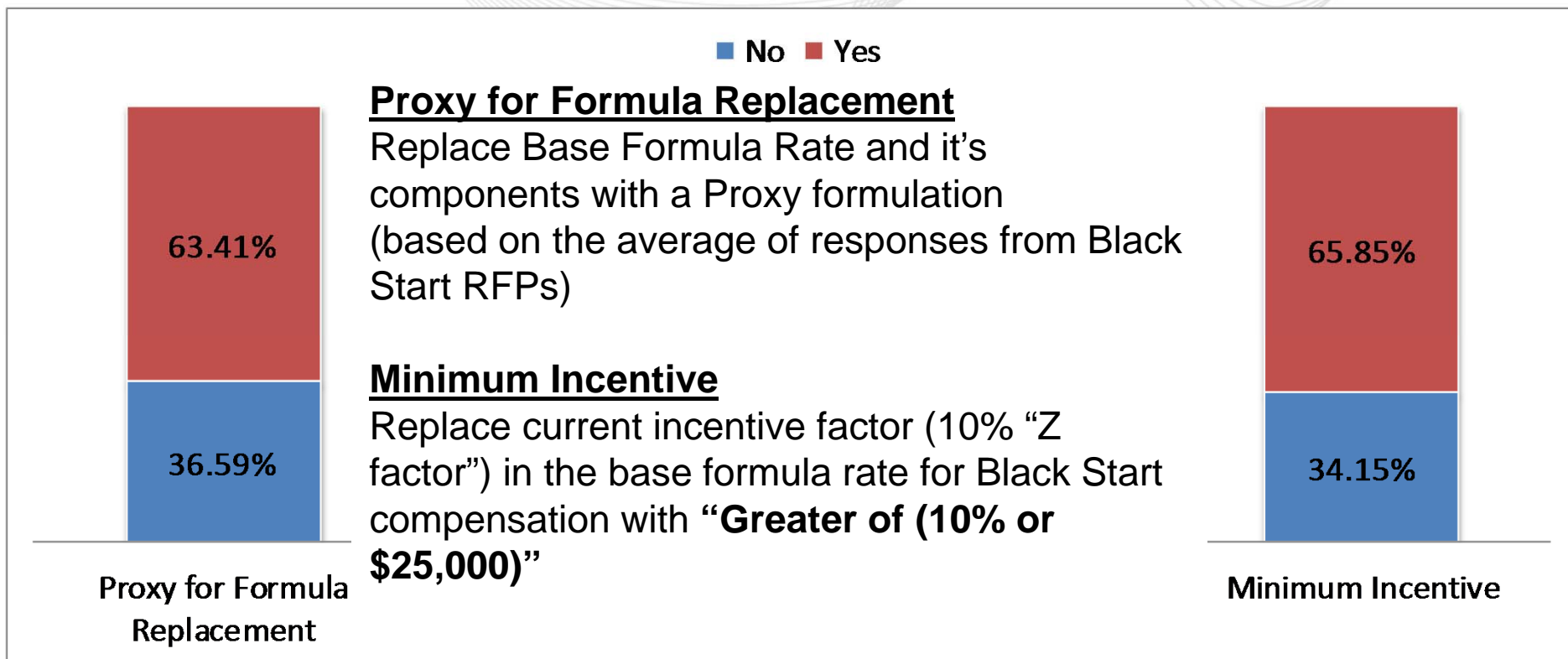


System Restoration Strategy Task Force Update

MRC
January 30, 2014

This Task Force will examine the current System Restoration Planning process to determine its viability and efficiency moving forward and recommend any changes to the System Restoration strategy and associated procurement, cost allocation, and compensation methods, inclusive of back stop options to the MRC for approval.

- ✓ **Strategy changes developed and approved by FERC on 9/9/13**
 - **RTO-wide Black Start RFP responses being evaluated (Target April 2014)**
- **Task Force developing potential changes to compensation and back stop options**
 - **Compensation Proposals going to January MRC for 1st read**
 - **Back stop proposals still being developed**



Conclusion: Minimum Incentive proposal is the main motion to be voted on. Proxy for Formula replacement is the alternative motion.



Main Proposal - Minimum Incentive Proposal

- Main change: Replace 10% "Z factor" (incentive factor) in the base formula rate for Black Start compensation with **"Greater of (10% or \$25,000)"**
 - Would guarantee a minimum incentive of \$25,000 per unit for units on base formula rate
 - Capital Recovery Rate and NERC CIP Capital Recovery Rates would not change
- Other minor changes include:
 - Allow non-ICAP Black Start units to be compensated using the offered Black Start MW
 - Allow ALR units to recover NERC Compliance costs as documented to the IMM
 - Allow for fuel storage compensation for fuels other than oil
 - Provide for a 5 year PJM internal review of formula



Alternate Proposal – Proxy for Formula Replacement

- Main change: Replace Base Formula Rate and its components with a Proxy formulation
 - Proxy developed based on the average of responses from Black Start RFPs
 - Capital Recovery Rate and NERC CIP Capital Recovery Rates would not change

| Black Start Resource Size | Initial Capital Payment to add Black Start (from RFP Responses) | Additional Black Start Resource Capital Payment (From RFP Responses) | Annual Black Start Capital Payment (using 0.125 CRF) | Additional Resource Annual Black Start Capital Payment | Annual Black Start O&M Payment (from RFP Responses) | Annual Black Start Fuel Storage Payment (from RFP Responses) | Unit Total Annual Black Start Payment (including Training) |
|---|---|--|--|--|---|--|--|
| MW <= 10* | \$275,798 | \$105,871 | \$34,475 | \$13,234 | \$3,351 | \$6,280 | \$47,855 |
| 10 > MW <= 60 | \$1,930,588 | \$741,097 | \$241,323 | \$92,637 | \$23,456 | \$43,957 | \$312,486 |
| 60 > MW <= 90 | \$5,069,227 | \$1,258,927 | \$633,653 | \$157,366 | \$37,572 | \$64,152 | \$739,127 |
| 90 > MW <=300 Small Starting requirement | \$6,861,848 | \$1,953,800 | \$857,731 | \$244,225 | \$182,896 | \$87,700 | \$1,132,077 |
| 90 > MW <=300 Medium Starting Requirement | \$16,918,852 | \$1,953,800 | \$2,114,856 | \$244,225 | \$182,896 | \$87,700 | \$2,389,202 |
| 90 > MW <=300 Large Starting Requirement | \$24,552,399 | \$1,953,800 | \$3,069,050 | \$244,225 | \$182,896 | \$87,700 | \$3,343,395 |

* No Data from RFP Responses. Assumed 5/35 of 10 > MW <= 60 MW Values



Annual Revenue Comparison for 20 MW CT

| | Status Quo | Minimum Incentive Proposal | Proxy for Base Formula Replacement |
|--------------|-------------------|---------------------------------------|--|
| Rate Type | Base Formula Rate | Base Formula Rate + Minimum Incentive | One Rate for All Units on Formula Rate |
| Capital | \$ 35,713 | \$ 35,713 | \$ 241,323 |
| O&M | \$ 2,000 | \$ 2,000 | \$ 23,456 |
| CIP O&M | Included in O&M | Included in O&M | Included in O&M |
| CIP Capital | NERC-CIP Rate | \$ NERC-CIP Rate | Included in Capital |
| Training | \$ 3,750 | \$ 3,750 | \$ 3,750 |
| Fuel Storage | \$ 5,146 | \$ 5,146 | \$ 43,957 |
| Incentive | 10% | Greater of (10% or \$25,000) | N/A |
| Total | \$ 51,270 | \$ 46,609 + \$25,000 = \$71,609 | \$ 312,486 |



Black Start Costs by Zone (Historical vs. 2 Proposals)

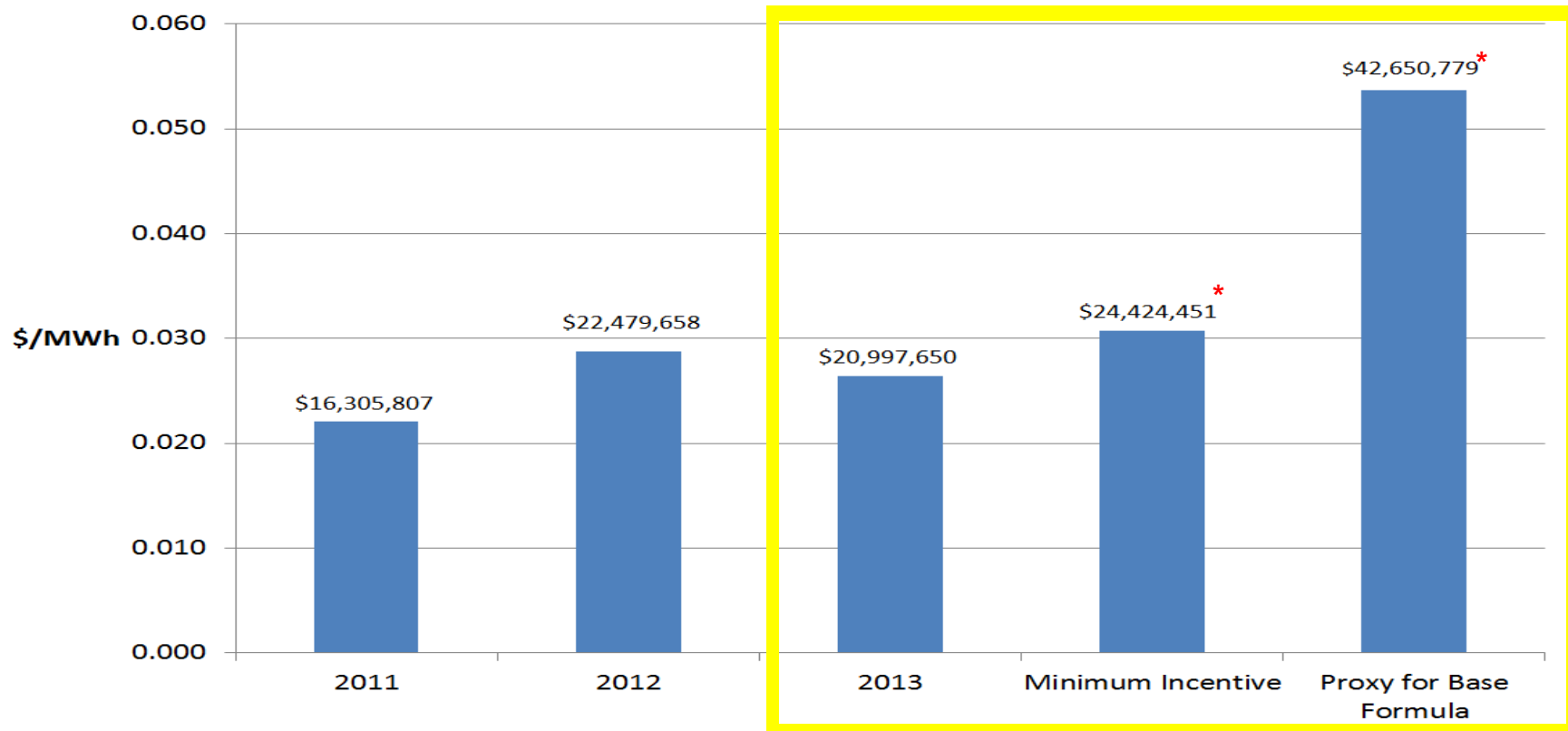
| Transmission Zone | Revenue Requirement 9/1/2011 | Revenue Requirement 9/1/2012 | Revenue Requirement 9/1/2013 | Minimum Incentive Proposal | Proxy for Base Formula Replacement |
|-------------------|------------------------------|------------------------------|------------------------------|----------------------------|------------------------------------|
| AECO | \$587,375.76 | \$612,749.80 | \$659,039.18 | \$849,126.54 | \$2,210,244.00 |
| AEP | \$641,304.41 | \$1,065,072.31 | \$713,841.68 | \$1,100,196.98 | \$1,955,964.00 |
| APS | \$163,108.11 | \$263,640.01 | \$293,618.98 | \$391,926.34 | \$885,337.00 |
| ATSI | \$110,933.66 | \$170,352.21 | \$121,530.86 | \$160,482.60 | \$624,972.00 |
| BGE | \$3,258,715.57 | \$8,220,357.01 | \$5,212,388.17 | \$5,299,327.26 | \$6,894,242.76 |
| COMED | \$3,607,130.48 | \$5,175,988.79 | \$4,394,846.18 | \$4,558,736.61 | \$5,233,355.84 |
| DAY | \$166,374.93 | \$245,123.31 | \$259,735.15 | \$436,122.86 | \$1,061,523.00 |
| DEOK | | \$331,699.42 | \$1,211,017.72 | \$1,216,925.45 | \$1,674,002.69 |
| DOM | | | \$1,069,397.17 | \$1,069,397.17 | \$1,069,397.17 |
| DPL | \$534,124.05 | \$543,207.62 | \$587,724.57 | \$1,009,295.07 | \$2,938,570.00 |
| DUQ | \$40,729.08 | \$53,404.09 | \$61,788.81 | \$61,788.81 | \$61,788.81 |
| EKPC | | | \$387,247.88 | \$402,043.52 | \$869,913.00 |
| JCPL | \$541,191.23 | \$328,467.96 | \$608,508.56 | \$626,403.28 | \$1,726,848.68 |
| METED | \$541,937.33 | \$478,493.70 | \$897,429.93 | \$897,617.32 | \$897,617.32 |
| PECO | \$1,266,963.40 | \$1,379,460.78 | \$1,548,942.76 | \$2,108,129.78 | \$7,316,155.00 |
| PENELEC | \$367,061.09 | \$573,457.48 | \$525,051.98 | \$535,152.14 | \$1,557,651.75 |
| PEPCO | \$462,700.00 | \$212,074.47 | \$325,972.27 | \$325,972.27 | \$325,972.27 |
| PPL | \$157,515.64 | \$152,847.12 | \$251,989.60 | \$569,078.44 | \$1,814,081.00 |
| PSEG | \$3,858,641.94 | \$2,673,261.66 | \$1,867,588.19 | \$2,806,728.73 | \$3,533,143.00 |
| PJM TOTAL | \$16,305,806.68 | \$22,479,657.74 | \$20,997,659.64 | \$24,424,451.18 | \$42,650,779.31 |

*Values based on existing Black Start fleet as of 9/1/13



Total RTO Black Start Costs (with per MWh cost)

SRSTF Compensation Proposal Comparison with Annual Black Start Cost per MWh



*Values based on existing Black Start fleet as of 9/1/13