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VIA E-FILING

September 12, 2024

The Honorable Joel deJesus
Office of Administrative Law Judges
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426-0001

Re: PJM Interconnection, L.L.C., Docket No. EL21-91-000, -003

Dear Judge deJesus:

Pursuant to Rule 507 of the Commission's Rules of Practice and Procedures, 18 CFR § 385.507 (2023), Monitoring Analytics, LLC, acting in its role as the Independent Market Monitor for PJM Interconnection, L.L.C., hereby submits for consideration in this proceeding the Rebuttal Testimony of Joseph E. Bowring (Exhibit IMM-0021) and supporting Exhibit IMM-0022.

Respectfully submitted,

Jeffrey W. Mayes

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Eagleville, Pennsylvania,
this 12th day of September, 2024.



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**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.

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Docket No. EL21-91-000, -003

**REBUTTAL TESTIMONY OF JOSEPH E. BOWRING
ON BEHALF OF THE INDEPENDENT MARKET MONITOR FOR PJM**

1 Q 1. PLEASE STATE YOUR NAME AND POSITION.

2 A. My name is Joseph E. Bowring. I am the Market Monitor for PJM. I am the
3 President of Monitoring Analytics, LLC. My business address is 2621 Van Buren
4 Avenue, Suite 160, Eagleville, Pennsylvania. Monitoring Analytics serves as the
5 Independent Market Monitor (Market Monitor or IMM) for PJM, also known as the
6 Market Monitoring Unit (MMU). Since March 8, 1999, I have been responsible for
7 all the market monitoring activities of PJM, first as the head of the internal PJM
8 Market Monitoring Unit and, since August 1, 2008, as President of Monitoring
9 Analytics. The market monitoring activities of PJM are defined in the PJM Market
10 Monitoring Plan, Attachment M and Attachment M-Appendix to PJM Open Access
11 Transmission Tariff (OATT).¹

12 Q 2. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

13 A. The purpose of my rebuttal testimony (“Rebuttal Testimony”) is to respond to the
14 answering testimony submitted on July 17, 2024, on behalf of the sellers and their
15 supporters (collectively “Sellers”), and otherwise ensure a complete record.
16 Answering Testimony addressed includes that submitted by Adrian Kimbrough on
17 behalf of the Indicated Suppliers (“Kimbrough”); by Kevin Collins on behalf of
18 Hazelton Generation LLC (“Collins”); by William Taylor on behalf of J-Power
19 USA Development Co., Ltd. (“Taylor”); Sean Allen on behalf of Vistra Corp. and
20 Dynegy Marketing and Trade, LLC (“Allen”); Nathan Dixon on behalf of LS Power

¹ See *PJM Interconnection, L.L.C.*, 86 FERC ¶ 61,247; 18 CFR § 35.34(k)(6).

1 Development, LLC (“Dixon”); and Glen Boyle, Michael E. Bryson and Dr. Walter
2 Graf, on behalf of PJM Interconnection, L.L.C. (“Boyle,” “Bryson,” and “Graf”).
3 The testimony submitted on behalf of the Sellers fails to correctly identify the issues
4 in this case and therefore proposes an inadequate resolution. I will state the issues
5 and explain the problems with the testimony submitted on behalf of the Sellers.

6 **Q 3. PLEASE PROVIDE A SUMMARY OF THE CENTRAL ISSUE IN THIS**
7 **CASE.**

8 A. The federal tax law inputs to the formula rate for black start capital cost recovery
9 changed as a result of tax law changes that became effective on January 1, 2018.
10 The result was that the correctly calculated CRF rates decreased significantly
11 effective January 1, 2018. PJM failed to reflect those changed inputs in the CRF
12 rates paid to black start owners. PJM failed to change the CRF rates after being
13 notified of the issue by the Market Monitor. PJM finally changed the CRF rates in a
14 filing approved by order issued by the Commission on August 10, 2021, but those
15 rates failed to address the ongoing overpayments to black start resources that had
16 been selected to provide service prior to June 6, 2021.² PJM’s approach in this case
17 misunderstands the fundamental purpose of the CRF provision. That purpose is to
18 ensure the payment of 100 percent of the defined return to investors. PJM’s
19 approach would result in substantial overpayment to investors in all affected black
20 start units. This is a factual matter.

21 **Q 4. WHAT ISSUES DID THE COMMISSION SET FOR HEARING?**

22 A. The Commission’s March 24, 2023, order set the following issue of fact for hearing:

23 [W]hether, as a result of changes from the TCJA, the
24 existing CRF values result in a Capital Cost Recovery
25 Rate for generating units that were selected to provide
26 Black Start Service prior to June 6, 2021 that is unjust
27 and unreasonable. While the record does not contain
28 conclusive evidence that the existing CRF values
29 include a 35% tax rate, the Market Monitor has
30 introduced sufficient evidence that those values may
31 include a 35% tax rate, raising a disputed issue of
32 material fact as to whether changes to the tax rate

² See *PJM Interconnection, L.L.C.*, 176 FERC ¶ 61,080.

render the existing CRF values unjust and unreasonable. The import of the tax rate in the determination of the CRF value is a material fact that cannot be determined based on the existing record, which warrants setting the justness and reasonableness of the existing CRF values for hearing and settlement judge procedures.³

Contrary to the Sellers' witnesses, I conclude in this testimony that the CRF calculation for black start resources that were selected prior to June 6, 2021, included a tax rate of 36 percent and did not include the TCJA bonus depreciation provisions. I conclude that the TCJA federal tax provisions should have been included in all CRF values effective on January 1, 2018, and thereafter. I conclude that failure to include the correct tax provisions in the CRF component of the formula rate resulted in overstated rates and resulted in excess payments to black start resources that were unjust and unreasonable as a result.

Q 5. WHAT ISSUES SET FOR HEARING NEED RESOLUTION?

A. The Commission noted that the Market Monitor had provided sufficient evidence to raise the issue but did not find that there was conclusive evidence as to the tax rate included in the CRF calculations. My Direct Testimony, this Rebuttal Testimony and supporting exhibits provide dispositive evidence that the existing CRF values are based on a 36 percent tax rate, including public PJM reports.^{4 5} My Direct Testimony and supporting exhibits provide dispositive evidence that the existing CRF values are based on the use of Modified Accelerated Cost Recovery System (MACRS) depreciation, including public PJM reports.^{6 7} The question is not complicated. The straightforward CRF math demonstrates the tax rate that is

³ See *PJM Interconnection, L.L.C.*, 182 FERC ¶ 61,194 at P 32.

⁴ *Comments of the Independent Market Monitor for PJM* at 6, Docket No. ER21-1635-000 (April 28, 2021). See Direct Testimony, Exhibit IMM-0013.

⁵ *Id.* at footnote 15.

⁶ See Direct Testimony, Exhibit IMM-0005 at 6.

⁷ Spreadsheets provided in response to data requests also validate that 15 year MACRS factors were used to calculate the original CRF. See responses to Staff-IMM 1-1 and Staff-PJM 1-2, provided as Direct Testimony, Exhibit IMM-0017 and Exhibit IMM-0020.

1 incorporated in the referenced CRF values. As a result, my Direct and Rebuttal
2 Testimony demonstrate that the existing CRF values that PJM continues to apply to
3 black start resources selected prior to June 6, 2021, are simply wrong. The federal
4 income tax rate was reduced to 21 percent and the MACRS depreciation was
5 replaced with the more favorable bonus depreciation. Because the CRF values do
6 not include the actual tax rate and depreciation provisions that became effective on
7 January 1, 2018, both of which significantly reduced the taxes paid by the
8 referenced black start resources, the rates necessarily allow for over recovery of the
9 investment that the rate is designed to recover, and are therefore unjust and
10 unreasonable. The rate is excessive and the over recovery is substantial. The rate
11 cannot be properly determined to be just and reasonable based on a determination
12 that the impact is de minimis. The impact is not de minimis.

13 Once the factual issue is resolved, the issue of how to determine the appropriate
14 going forward CRF values for units selected prior to June 6, 2021, must be resolved,
15 in order to ensure just and reasonable recovery of their discrete investment under the
16 applicable formula rate.

17 **Q 6. DOES WITNESS KIMBROUGH QUESTION THE FEDERAL TAX RATE**
18 **INCLUDED IN THE ORIGINAL CRF VALUES?**

19 A. Yes.

20 **Q 7. WHAT IS THE EVIDENCE FOR THE LEVEL AND DEFINITION OF**
21 **THE FEDERAL TAX RATE IN THE ORIGINAL CRF VALUES?**

22 A. PJM's required reports to stakeholders that document explicitly the inputs to CRF
23 calculations and that the level of the federal tax rate included in the CRF values is
24 36 percent.⁸ PJM also included the 36 percent tax rate in its report to stakeholders
25 dated October 2019, after the tax law changes took effect. The income tax and
26 depreciation assumptions are also validated by responses to discovery questions by
27 the Market Monitor and PJM. In response to S-IMM-1.1, the Market Monitor
28 provided a spreadsheet that shows the calculation of the CRF values.⁹ In response to
29 S-PJM-1.2, PJM provided a copy of the original spreadsheet that was used to

⁸ See Direct Testimony, Exhibits IMM-0006 at 7, IMM-0007 at 8 and IMM-0008 at 8.

⁹ Direct Testimony, Exhibit IMM-0017.

1 calculate the CRF values.¹⁰ These CRF values, including the superseded 36 percent
 2 federal tax rate, and the superseded MACRS depreciation, have applied and
 3 continue to apply to black start resources that were selected to provide black start
 4 service prior to June 6, 2021.

5 **Q 8. SOME WITNESSES ASSERT THAT THERE IS A RANGE OF**
 6 **REASONABLENESS FOR THE CALCULATION OF THE RATE IN THIS**
 7 **PROCEEDING. DO YOU AGREE?**

8 A. No. The formula rate in this proceeding does not have a range of reasonableness.
 9 Each component of the formula rate is clearly defined. The CRF component of the
 10 formula has a single correct value based on specific defined inputs.^{11 12 13}

11 When the Market Monitor identified the impact of the tax change on the accuracy of
 12 the CRF values, neither the Market Monitor, nor PJM nor any stakeholder identified
 13 any other issue with the accuracy of the CRF values. The Market Monitor requested
 14 that PJM file to change the CRF values solely to address the impacts of the change
 15 in the applicable tax rates. The level and accuracy of the tax provisions in the black
 16 start formula rate are the only issues in this case.¹⁴ After prolonged and unnecessary
 17 delay, PJM filed to correct the impact of the tax change issue going forward, and no
 18 other issue, in Docket No. ER21-1635-000. In response to the Market Monitor and
 19 others' pleadings protesting the failure to address the impact on the CRF values of
 20 the tax change issues on formula rates applied prior to June 6, 2021, and no other
 21 issue, the Commission issued a show cause order in Docket No. EL21-91-000.¹⁵

10 Direct Testimony, Exhibit IMM-0020.

11 PJM Filing, ER05-1410 (August 31, 2005) Tab C (Revised Original Sheet No. 590).

12 Affidavits by Joseph Bowring and Raymond Pasteris included in PJM's Filing in ER05-1410 describe the CRF calculation and the model assumptions. *Id.*, Tab G (Affidavit of Joseph E. Bowring) at 23, and Tab I ("Independent Study to Determine Cost of New Entry Combustion Turbine Power Plan Revenue Requirement," Attachment to the Affidavit of Raymond M. Pasteris on Behalf of PJM Interconnection, L.L.C.) at 3–4.

13 See Direct Testimony, Exhibit IMM-0011 at 7.

14 See 176 FERC ¶ 61,080 at PP 46–49; *PJM Interconnection, L.L.C.*, 182 FERC ¶ 61,194 at PP 32–33 (2023).

15 176 FERC ¶ 61,080.

1 The assertions that the numbers are fuzzy and that all the results are pretty much the
2 same are factually incorrect and unsupported by the testimony. Most of the
3 assertions that the black start formula rate results are subject to a range of
4 reasonableness are based on the cost of capital and not on the provisions of the tax
5 code.

6 The repeated assertions (Witness Kimbrough and Witness Graf) that the cost of
7 capital includes judgment are correct and completely irrelevant to this case. The cost
8 of capital is not at issue in this case. The provisions of the tax code are not a matter
9 of judgment. The relevant provisions of the tax code in this case are clear,
10 unequivocal and not subject to a range of reasonableness. Witness Graf confuses the
11 evaluation of the rate of return in regulatory proceedings with the calculation of a
12 CRF. The CRF does include the cost of capital but that cost of capital is clearly and
13 unambiguously defined and is not subject to a range of reasonableness. The same is
14 true of the other inputs to the CRF calculation and the formula rate.

15 Contrary to Witness Kimbrough, Witness Boyle and Witness Graf, there is not and
16 never has been a zone of reasonableness applicable to the CRF. The CRF is an input
17 to the black start formula rate. The CRF is a formula with defined components. PJM
18 has always applied the formula rate exactly as mathematically defined. PJM has
19 never suggested or applied a range of reasonable CRFs to any black start resource.
20 When the federal tax provisions changed, the appropriate CRF value was a single
21 number for each identified duration. There is no zone of reasonableness in this case
22 of a black start formula rate with an objectively incorrect input. The federal tax
23 provisions are not a matter of regulatory judgment like the cost of capital. The CRF
24 values for post June 6, 2021, black start resources have been correctly calculated.
25 The CRF values for those black start resources that received and continue to receive
26 a windfall starting on January 1, 2018, are overstated.

27 **Q 9. WERE THE CRF VALUES ALWAYS BASED ON EXPLICITLY STATED**
28 **INPUT VALUES, INCLUDING THE APPLICABLE FEDERAL INCOME**
29 **TAX RATE?**

30 A. Yes. There are six defined inputs to the CRF formula: debt to equity ratio, rate of
31 return on equity, interest rate on debt, federal income tax rate, state income tax rate
32 and depreciation factors.¹⁶ These inputs were stated explicitly the very first time that

¹⁶ See the Market Monitor reports on the CRF calculations in Direct Testimony, Exhibits IMM-0003 and IMM-0004 .

PJM filed the CRF values in the capacity market filing. The Market Monitor developed the CRF method that was incorporated in the CRF tables in the PJM OATT.

Q 10. DID ANY WITNESSES INCORRECTLY REFER TO THE CRF CALCULATION AS A BLACK BOX?

A. Yes. In his affidavit on behalf of PJM, supporting PJM's filing initiating this proceeding, Thomas Hauske stated: "[N]either the Tariff nor the PJM Manuals specify the bases, assumptions, or calculation method of the existing Black Start Service CRF values, which are thus essentially "black box" values."¹⁷ Since the assumptions and method are not documented in the Tariff or PJM Manuals, PJM did not have a process in place to update these "black box" values when they changed."

Witness Kimbrough repeated the assertion that the CRF calculation was a black box and that the details of the calculation were not known.¹⁸

Q 11. IS THE CRF CALCULATION A BLACK BOX CALCULATION?

A. No. The CRF calculation is not and has never been a black box calculation. The CRF calculation is based on a limited set of known inputs that result in the defined CRF values that were first listed in a table in Attachment DD to the PJM OATT. In addition to the fact that the Market Monitor calculated the CRF values and the details of those calculations have been provided, PJM also explicitly states the detailed assumptions of the original CRF calculation. A process for updating CRF values existed and continues to exist, and that process was provided in public reports to PJM stakeholders.¹⁹

¹⁷ PJM Section 205 Filing, Docket No. ER21-1635-000 (April 7, 2021), Attachment B (Affidavit of Thomas Hauske on Behalf of PJM Interconnection, L.L.C.) at para. 10.

¹⁸ IS-0001 PUB (Kimbrough Answering Testimony) at 6-10.

¹⁹ See PJM reports that demonstrate PJM's knowledge of the detailed nature of the CRF calculations: Direct Testimony, Exhibits IMM-0007 at 7, IMM-0008 at 8, IMM-0009 at 8, IMM-0012 at 9.

1 **Q 12. IS THE FEDERAL INCOME TAX RATE ONE OF THE INPUTS TO THE**
2 **CRF CALCULATION?**

3 A. Yes. The federal income tax rate is one of the explicitly stated inputs to the CRF
4 calculation. The original CRF calculations explicitly included a federal income tax
5 rate of 36 percent. This tax rate was included in the original PJM RPM filing, has
6 been stated publicly by the Market Monitor on numerous occasions, and was
7 included in PJM's reports to stakeholders on black start costs.²⁰

8 **Q 13. SEVERAL WITNESSES STATE THAT THEY WERE NOT AWARE OF**
9 **THE FINANCIAL PARAMETER ASSUMPTIONS AND INCOME TAX**
10 **ASSUMPTIONS USED TO CALCULATE THE CRF WHEN THE**
11 **DECISION TO PROVIDE BLACK START SERVICE WAS MADE. ARE**
12 **THESE ASSERTIONS RELEVANT TO THIS PROCEEDING?**

13 A. No. The purpose of this proceeding is to determine the federal income tax
14 assumptions that were used in the calculation of the original CRF, determine if the
15 continued use of the outdated CRFs result in a just and reasonable capital recovery
16 and to identify a remedy in case that the recovery is not just and reasonable. The
17 Market Monitor has provided indisputable proof that the original CRF calculation
18 used a 36 percent federal income tax rate and 15 year Modified Accelerated Cost
19 Recovery System (MACRS) depreciation factors.^{21 22} The Market Monitor has
20 provided indisputable proof that the failure to update the CRF to reflect the changes
21 in the federal income rules will result in \$89.7 million in capital recovery payments
22 over the amount that would have been required had the TCJA been immediately
23 reflected in the CRF.^{23 24} The Market Monitor has recently proposed an accurate,
24 just and reasonable resolution to this case that would reduce the excess capital

²⁰ See Direct Testimony, Exhibits IMM-0006 at 7, IMM-0007 at 8, IMM-0008 at 8, IMM-0012 at 9, Exhibit IMM-0020.

²¹ Id.

²² IMM-0005 REV at 6, IMM-0017 REV.

²³ See p. 25:19-21, Table 1.

²⁴ See IMM response to PJM-IMM-DR 1.7, Attachment A (CUI//PRIV-HC) (July 8, 2024).

1 recovery payments to \$31.4 million and still provide equity investors with returns in
2 excess of 12 percent.²⁵

3 Witness Taylor, Witness Dixon, and Witness Allen all state that generators did not
4 know the details of the CRF calculations.

5 **Q 14. LS POWER STATES THAT THEY EVALUATE POTENTIAL**
6 **INVESTMENTS ON A “PRE-TAX” BASIS? IS THIS ASSERTION**
7 **RELEVANT?**

8 A. No. The purpose of this proceeding is to determine the federal income tax
9 assumptions that were used in the calculation of the original CRF, determine if the
10 continued use of the outdated CRFs result in a just and reasonable capital recovery
11 and to identify a remedy in case that the recovery is not just and reasonable.

12 **Q 15. ARE WITNESS ALLEN’S ASSERTIONS ABOUT BONUS**
13 **DEPRECIATION CORRECT?**

14 A. No. Under the TCJA, bonus depreciation is only applicable for capital investments
15 placed in service after September 27, 2017. Vistra Witness Allen states that the
16 Vistra units providing black start service began providing service prior to September
17 1, 2017, and were therefore not eligible for bonus depreciation. Witness Allen states
18 that the “IMM is arguing the inputs need to be revised such that the federal income
19 tax rate is reduced 21% and the depreciation rate altered to reflect a 100% bonus
20 depreciation rate.”²⁶

21 Contrary to Mr. Allen’s position, the Market Monitor’s position is that the correct
22 tax provisions should be applied to each black start resource at all times. The Market
23 Monitor applies the bonus depreciation and the tax rate components of the tax code
24 as relevant.

25 **Q 16. ARE BLACK START UNITS THAT ARE NOT ELIGIBLE FOR BONUS**
26 **DEPRECIATION EARNING WINDFALL PROFITS?**

27 A. Yes. All black start capital recovery payments for black start units that began
28 service prior June 6, 2021, have been grossed up to cover a 36 percent federal
29 income tax rate. Since January 1, 2018, the federal income tax has been 21 percent.

²⁵ See IMM Offer of Settlement, EL21-91-000 et al. (September 10, 2024).

²⁶ VIS-0001 REV PUB (Allen Answering Testimony) at 13-17.

1 This fact is ignored in Witness Allen's illogical assertion that Vistra has not earned
2 windfall profits because they are paid "the amount that was contemplated at the time
3 these resources were committed to provide Black Start Service."

4 **Q 17. PLEASE EXPLAIN WHY YOU DISAGREE WITH THE SELLERS'**
5 **TESTIMONY SEEKING TO CONTINUE CAPITAL RECOVERY**
6 **PAYMENTS BASED ON THE INCORRECT CRF VALUES.**

7 A. The testimony of Witnesses Taylor (J-Power), Allen (Vistra), Dixon (LS Power) and
8 Kimbrough (Indicated Suppliers) all rest on their asserted lack of knowledge about
9 the calculation of the CRF values. The providers maintain that since they did not
10 know the CRF included a federal tax rate they are entitled to the windfall profits
11 realized since the reduction in federal taxes that far exceed the intended 12 percent
12 return on equity. The black start providers also provide details on their specific
13 financial structure and depreciation methods. These admissions are irrelevant. The
14 Market Monitor has established that the CRFs that serve as a basis for black start
15 capital cost recovery assume a specific financial structure and include provision for
16 income taxes. The individual financial and tax strategy choices made by Sellers are
17 not relevant to the calculation of the CRF values.

18 **Q 18. ARE WITNESS KIMBROUGH'S ASSERTIONS REGARDING**
19 **ADDITIONAL CAPITAL COSTS AND FIXED O&M COST RELEVANT**
20 **TO THIS PROCEEDING?**

21 A. No. Witness Kimbrough (17-14) says the Market Monitor ignores additional capital
22 costs and O&M costs that the resources may incur during the black start service
23 period and fixed O&M costs (18-3). Witness Kimbrough is wrong on the facts.
24 Additional capital costs incurred while in service are provided for in Schedule 6A,
25 paragraph 17B. Operations and maintenance cost are recoverable under the Variable
26 BSSC provision in Schedule 6A Paragraph 17B.

27 The underlying logic that sellers should be allowed to retain excess profits to offset
28 other issues in the tariff is not consistent with logical ratemaking and is not within
29 PJM's authority to allow.

1 **Q 19. IS AFUDC (ALLOWANCE FOR FUNDS USED DURING**
2 **CONSTRUCTION) ACCOUNTED FOR IN THE CAPITAL COST**
3 **RECOVERY?**

4 A. Yes. Witness Kimbrough states, without evidence, that the Market Monitor assumes
5 “all capital costs were incurred on the first day” of the capital recovery period.²⁷
6 Witness Allen (Vistra) notes that there is a lag between the time the capital costs are
7 incurred and the time the capital cost recovery begins.²⁸ The capital investment,
8 which is multiplied by a CRF to obtain the revenue payment amount, includes
9 AFUDC (allowance for funds used during construction), also referred to as
10 capitalized interest. AFUDC allows the generation owner to capitalize carrying costs
11 incurred prior to placing the capital investment into service. The capital investment
12 used to determine the revenue payment is the fully capitalized project cost as of the
13 service start date.²⁹ This is not a model assumption but rather part of the PJM
14 process for determining black start capital cost recovery and has been part of that
15 process since the CRF was first used for black start capital cost recovery. The
16 AFUDC issue has nothing to do with the calculation of the CRF values.

17 **Q 20. PLEASE EXPLAIN WHY INCORPORATING BONUS DEPRECIATION**
18 **IN THE CALCULATION OF THE CRF IS CORRECT.**

19 A. Several witnesses argue that the bonus provisions of the tax code should be ignored
20 in the evaluation of whether or not the current CRF values are just and reasonable.
21 Witnesses Dixon (LS Power), Taylor (J Power) and Kimbrough (Indicated
22 Suppliers) state that bonus depreciation was not claimed even though the capital
23 investments were eligible for 100 percent bonus depreciation. It is irrelevant
24 whether a particular generator used bonus depreciation. Generation owners can
25 make any choices they want. But generators do not have the option to increase the
26 rate for black start service above the tariff rate.

27 **Q 21. PLEASE EXPLAIN WHY INCORPORATING BONUS DEPRECIATION**
28 **IN THE CALCULATION OF THE CRF IS CORRECT.**

29 A. Both Witness Boyle and Witness Kimbrough ignore the bonus depreciation
30 provisions of the tax code in their analyses. Neither witness has any logical reason

27 IS-0001 PUB (Kimbrough Answering Testimony) at 22-5.

28 VIS-0001 REV PUB (Allen Answering Testimony) at 8-10.

29 AFUDC was addressed in response to discovery request Staff-IMM-5.1(e).

1 for ignoring a part of the tax code in the calculation of CRF values. The CRF values
2 define the return on and of the investment in black start resources based on the
3 stated inputs. It is completely irrelevant whether the actual behavior of individual
4 unit investors match those inputs. The tariff does not provide PJM the discretion to
5 ignore parts of the CRF calculation.

6 Kimbrough argues “there is no evidence” that the units that began black start service
7 between September 2017 and June 2021 (Kimbrough defines as “Legacy Units”)
8 were eligible for bonus depreciation.³⁰ On the contrary, the federal income tax code
9 is evidence that capital investments placed in service after September 27, 2017,
10 were and are eligible for bonus depreciation.³¹ The current black start CRF formula
11 in the tariff also includes bonus depreciation.

12 It is irrelevant whether a particular generator used bonus depreciation. Generation
13 owners can make any choices they want. But generators do not have the option to
14 increase the rate for black start service above the tariff rate. Yet that is what Witness
15 Kimbrough effectively supports.

16 **Q 22. IS THE TAX DEPRECIATION METHOD ONE OF THE INPUTS TO THE**
17 **CRF CALCULATION?**

18 A. Yes. The tax laws in place prior to the TCJA provided for the use of MACRS
19 depreciation in the calculation of federal taxes. The TCJA replaced MACRS with a
20 bonus depreciation method that allowed for depreciation of 100 percent of the asset
21 value in the first year of operation.³² The impact of that change was to reduce the
22 federal income taxes owed by the affected entity. The original CRF calculations
23 explicitly included federal income tax payments based on MACRS depreciation
24 rate. The MACRS depreciation method was included in the original PJM RPM

³⁰ IS-0001 PUB (Kimbrough Answering Testimony) 20-7.

³¹ See 26 U.S. Code §168(k)(6)(A).

³² Bonus depreciation is 100 percent for capital investments placed in service after September 27, 2017 and before January 1, 2023. Bonus depreciation is 80 percent for capital investments placed in service after December 31, 2022 and before January 1, 2024, and the bonus depreciation level is reduced by 20 percent for each subsequent year through 2026. Capital investments placed in service after December 31, 2026 are not eligible for bonus depreciation. See 26 U.S. Code §168(k)(6)(A).

1 filing, has been stated publicly by the Market Monitor on numerous occasions, and
2 was included in an October 31, 2006, presentation to the MIC.³³

3 **Q 23. HAS THE MARKET MONITOR USED DIFFERENT APPROACHES TO**
4 **DEFINING THE CRF FORMULA?**

5 A. Yes. The Market Monitor has used different approaches but all of them are
6 substantively identical. The Market Monitor used a multiyear financial model to
7 calculate the CRF values that were included in Attachment DD to the PJM OATT.
8 That financial model included repayment of debt on a fixed mortgage style schedule
9 and recognized that all net revenue in excess of costs including debt costs and tax
10 obligations flow to the equity owner of the asset. This approach is called the flow to
11 equity (FTE) approach.

12 In 2021, the Market Monitor developed a formula that is the equivalent of the
13 multiyear financial model for calculating CRF values.³⁴ However, the formula
14 provided by the Market Monitor used the weighted average cost of capital (WACC)
15 approach to defining returns to debt holders and equity owners rather than the FTE
16 approach. The WACC approach maintains a constant debt to equity ratio by
17 attributing net revenue in excess of costs to both debt holders and equity owners in
18 proportion to the debt to equity ratio. That formula was filed by PJM and approved
19 by the Commission and is now both in Attachment DD and Schedule 6A of the PJM
20 OATT.

21 As part of the Market Monitor's responses to Commission Staff discovery in this
22 case, the Market Monitor clarified that the FTE approach correctly reflects the
23 ownership interests in net revenue in excess of costs.³⁵ The pre-June 6, 2021, CRFs
24 were calculated using a flow to equity (FTE) financial model that incorporates a
25 mortgage payment approach for the loan repayment. Under this approach, the debt
26 to equity ratio is not constant during the cost recovery period. The formula for the
27 post-June 6, 2021, CRF was derived from a weighted average cost of capital
28 (WACC) financial model that maintains a constant debt to equity ratio. When the

33 See Direct Testimony, Exhibit IMM-0005.

34 Comments of the Independent Market Monitor for PJM, ER21-1635-000 (April 28, 2021) at 16.

35 See the Market Monitor's response to discovery question S-IMM-1.3, Direct Testimony, Exhibits IMM-0016 and IMM-0018.

1 revenue is equal to the level required to meet all the payment obligations, without
2 excess payments, the results of the two models are quite close.

3 When there are payments in excess of the level required to meet all the payment
4 obligations, as has occurred in this case, the difference between the models is
5 significant. In the WACC model, the revenue in excess of income taxes, required
6 interest payments and return on equity is split between accelerated loan repayment
7 and payment to equity according to the debt to equity ratio, and the debt to equity
8 ratio is maintained at a constant level during the cost recovery period. In the FTE
9 model, revenue in excess of income taxes and required debt payments flows to the
10 equity investor.

11 In this case, payments to black start resources used CRF calculations based on taxes
12 higher than actual required tax payments. As a result, there were payments in excess
13 of the level required to meet all the payment obligations. In cases where there are
14 excess payments, the FTE model accurately captures the excess returns to equity
15 while the WACC model does not.

16 Rather than assuming that a part of excess earnings flow to debt holders as the
17 WACC approach does, the FTE approach correctly recognizes that all of the excess
18 earnings flow to equity holders. The FTE approach is the correct way to calculate
19 CRF values because it reflects the fact that excess revenues flow to the equity
20 holders. The FTE is also expressed as a formula with the same inputs and same
21 input values as the Market Monitor's formula with the WACC approach.³⁶ The
22 Market Monitor developed and provided the CRF formula based on the FTE
23 approach as part of the responses to Staff discovery in this matter.³⁷

24 **Q 24. IS WITNESS GRAF CORRECT THAT THERE ARE MULTIPLE WAYS**
25 **TO CORRECTLY CALCULATE THE CRF?**

- 26 A. No. The FTE approach is the correct way to calculate CRF values because it reflects
27 the fact that excess revenues flow to the equity holders. The choice of inputs to the
28 CRF is not a matter of judgment. The inputs are defined and have been recognized
29 by PJM.

³⁶ Direct Testimony, Exhibit IMM-0003 provides the FTE formula at 11. Direct Testimony, Exhibit IMM-0004 shows the WACC formula at 7.

³⁷ See spreadsheet attached to the Market Monitor's response to discovery question S-IMM-1.3, Direct Testimony, Exhibit IMM-0018.

1 **Q 25. DOES SCHEDULE 6A PROVIDE FOR FULL RECOVERY OF BLACK**
2 **START INVESTMENT COSTS OVER A DEFINED PERIOD?**

3 A. Yes. Schedule 6A provides that at the conclusion of the recovery of the specific and
4 discrete investment cost over the defined term of the recovery period, recovery of
5 the investment cost using the Capital Cost Recovery Rate is complete. The Capital
6 Cost Recovery Rate is specifically designed for the recovery of a discrete fixed
7 capital investment plus a return on the invested capital. When the Capital Cost
8 Recovery Rate has served its purpose and provided a return of and on the
9 investment, continued black start service is then compensated under the default rate.

10 **Q 26. DO SOME WITNESSES ASSERT THAT THE RATE AT ISSUE IN THIS**
11 **PROCEEDING IS A STATED RATE AND NOT A FORMULA RATE?**

12 A. Yes. Sellers' witnesses Boyle and Kimbrough misunderstand the formula rate at
13 issue in this proceeding.

14 **Q 27. WHAT IS THE DIFFERENCE BETWEEN A STATED RATE AND A**
15 **FORMULA RATE?**

16 A. A stated rate is a fixed value approved by the Commission. A formula rate is a
17 formula approved by the Commission with defined inputs. As input values change,
18 the new values are used in the formula to calculate the applicable rate.³⁸ The Capital
19 Cost Recovery Rate is a formula rate. The CRF, a component of the Capital Cost
20 Recovery Rate, is a specific input to a formula rate that is calculated based on a
21 defined formula.

22 **Q 28. WHY DO THE EXISTING CRF VALUES RESULT IN AN**
23 **OVERRECOVERY OF CAPITAL COSTS FOR BLACK START UNITS**
24 **SELECTED PRIOR TO JUNE 6, 2021?**

25 A. The CRFs, when multiplied by the capital investment amount, result in an annual
26 revenue payment that is sufficient to provide for the return on and return of the
27 capital investment and to provide for the income taxes associated with the annual
28 revenue payment over the term of the CRF.

³⁸ See Direct Testimony, Exhibit IMM-0013 at 3–4.

1 The original CRF calculation, which resulted in values calculated by the Market
2 Monitor and proposed by PJM for inclusion in the OATT in 2005, and included in
3 Schedule 6A of the PJM OATT in 2009, was based on a federal income tax rate of
4 36 percent and depreciation using the 15 year Modified Accelerated Cost Recovery
5 System (MACRS).³⁹

6 The TCJA reduced the federal income tax rate for existing and new investments,
7 including black start investments, effective January 1, 2018. The TCJA reduced the
8 federal corporate income tax rate to 21 percent. The TCJA also included a provision
9 that allows for 100 percent bonus depreciation for property placed in service after
10 September 27, 2017, and before January 1, 2023.^{40 41}

11 The result was a significant reduction in the CRF for black start investments. The
12 continued application of the CRF inputs that include higher than actual tax
13 obligations has resulted in customers paying black start owners a windfall equal to
14 the impact of the reduction in tax obligations under the TCJA. Customers paid and
15 are paying for the capital costs of black start resources as if those resources were
16 obligated to pay taxes at the prior high rate when those resources were actually
17 paying taxes at a much lower rate.⁴²

18 PJM should have reduced CRF values immediately, effective January 1, 2018, for
19 all existing and new black start resources. The result would have been to ensure that
20 all black start owners received what they reasonably expected when PJM selected
21 them to provide black start service and to ensure that all customers paid what they
22 could have reasonably expected. Those reasonable expectations included a return on
23 and of the capital invested to provide black start service, over the defined recovery
24 period.

³⁹ See for example Direct Testimony, Exhibits IMM-0005 at 6, IMM-0006 at 7, IMM-0007 at 8, IMM-0008 at 8, IMM-0012 at 9.

⁴⁰ Tax Cuts and Jobs Act, Pub. L. No. 115-97, 131 Stat. 2096, Stat. 2105 (2017) at Subtitle C, Part I, SEC. 13001.

⁴¹ *Id.* at Subtitle C, Part III, SEC. 13201.

⁴² See Direct Testimony, Exhibits IMM-0014, IMM-0003, Section F at 13.

1 The Market Monitor notified PJM by email of the CRF errors on October 3, 2019.⁴³
2 Eighteen months later, in April 2021, PJM filed to update the CRFs and at that time
3 argued the original CRFs were black box values that could not be updated for
4 existing black start providers. PJM recognized in 2020 that the federal income tax
5 rate in the CRF values needed to be corrected from 36 percent to 21 percent.⁴⁴

6 When the Market Monitor identified the impact of the tax change on the accuracy of
7 the CRF values, neither the Market Monitor, nor PJM nor any stakeholder identified
8 any other issue with the accuracy of the CRF table. The Market Monitor requested
9 that PJM file to change the CRF values solely to address the impacts of the known
10 change in the applicable tax rates. After prolonged and unnecessary delay, PJM filed
11 to correct the impact of the tax change issue going forward, and no other issue, in
12 Docket No. ER21-1635-000.⁴⁵ In response to the Market Monitor and others'
13 pleadings protesting the failure to address the impact on the CRF values of the tax
14 change issues on formula rates applied prior to June 6, 2021, and no other issue, the
15 Commission issued a show cause order in Docket No. EL21-91-000.⁴⁶

16 **Q 29. PJM WITNESSES STATE THAT OVERPAYMENT OF BLACK START**
17 **UNITS WAS AN INTENDED RESULT. DO YOU AGREE?**

18 A. No. PJM Witness Boyle and PJM Witness Bryson state that the overcollection
19 should be ignored because of the potential impact on investor incentives to build
20 new black start resources. It is not PJM's role to decide to allow indeterminate
21 overrecovery because of PJM's unsupported view about incentives. PJM neither
22 defines nor applies any metric for appropriate overrecovery. PJM has not evaluated
23 whether the amount of overrecovery is needed or how PJM would know that. PJM is
24 a regulated public utility and not a regulator. PJM's policy views about a need to
25 allow overrecovery are not relevant to the evaluation of the application of the tax
26 code. The Commission has not granted PJM that authority. If PJM believes that
27 black start resources are not adequately compensated, PJM could make that
28 argument explicitly. PJM has not argued to increase payments under the black start
29 formula rate in order to increase compensation despite the fact that the forward

43 See Direct Testimony, Exhibit IMM-0009.

44 See Direct Testimony, Exhibit IMM-0013 at 9, attached, Black Start Education,
PJM Interconnection, L.L.C., PJM Operating Committee Meeting (May 14, 2020).

45 PJM FPA Section 205 Filing, Docket No. ER21-1635-000 (April 7, 2021).

46 176 FERC ¶ 61,080.

1 looking CRF values include the correct tax provisions, including bonus
2 depreciation.

3 In addition, PJM (Witness Boyle) asserts that the results of all the different CRF
4 approaches are all similar so that the overrecovery can be safely ignored. If that
5 were true, PJM and the Sellers could simply have agreed with the Market Monitor's
6 position and saved a lot of time. Clearly, PJM's position is not correct and not
7 supported by any actual facts in the affidavits. This case is about the significant
8 differences between the positions.

9 **Q 30. WHAT HAS BEEN THE RESULT OF THE FAILURE TO CORRECTLY**
10 **CALCULATE THE CRF VALUES?**

11 A. There are 49 black start generators that have received payments based on the
12 outdated CRFs that reflect federal income tax rates and depreciation schedules
13 corresponding to the tax laws in effect prior to the passage of the TCJA. The 49
14 generators include 29 black start generators that began providing black start service
15 prior to September 27, 2017, and would not have been eligible for bonus
16 depreciation under the TCJA. Of those 29 black start generators, 11 completed their
17 capital recovery terms between January 1, 2018, and June 2021. The excess
18 payments to these 29 generators were due to the change in the federal income tax
19 rate alone and were not affected by the changes to depreciation rules. Of the 49
20 black start generators, 20 began black start service after September 27, 2017, and
21 before January 1, 2023, and received excess payments as a combined result of the
22 change in the federal income tax rate and the change in depreciation rules included
23 in the TCJA. Of the 38 black start generators, from that group of 49, that have not
24 completed their capital recovery terms, 24 generators will complete their capital
25 recovery terms in 2024 and 2025. An additional 8 generators will complete their
26 capital recovery terms in 2026. The last 6 generators will complete their capital
27 recovery terms from 2035 through 2040.

28 **Q 31. DO YOU AGREE WITH WITNESS BOYLE'S DESCRIPTION OF THE**
29 **SOURCE OF THE ISSUES IN THIS CASE?**

30 A. No. The original source of the issue in this case was the failure of PJM to change the
31 CRF values in the black start formula rate, effective January 1, 2018, to correctly
32 reflect the changes in the tax code that resulted from the TCJA. PJM knew the
33 inputs to the CRF and had a tariff defined responsibility to review the black start

1 formula rate and its costs components for accuracy.⁴⁷ In PJM's review of and related
 2 report on the black start formula rates dated October 2019, PJM failed to recognize
 3 that the tax rate had changed effective January 1, 2018, and incorrectly stated the
 4 federal tax rate.⁴⁸

5 This case is about how to address PJM's failure to recognize the issue, and once the
 6 issue had been brought to their attention, PJM's failure to address the issue
 7 consistent with the tariff and in a timely manner. PJM could have filed to correct the
 8 tax rate included in the black start formula rate effective on January 1, 2018, at any
 9 time. Yet PJM failed to make any such filing. PJM proposed to change the formula
 10 rate only for black start generators that are scheduled for service after June 6, 2021.
 11 The result has been to substantially over charge PJM customers and to substantially
 12 over pay black start generators.

13 PJM, in this case, fails to take responsibility for that failure. PJM continues to delay
 14 a resolution of the issue that is based on the tax code and the tariff while attempting
 15 to blame the Market Monitor for delays.

16 **Q 32. HOW DO PJM DELAYS AFFECT THE POSSIBLE OUTCOMES IN THIS**
 17 **MATTER?**

18 A. The Commission has indicated that retroactive application of revised CRFs to black
 19 start resources that have completed their capital cost recovery is not a viable option
 20 in this proceeding.⁴⁹ There are 22 black start resources that will complete their
 21 capital recovery terms between January 1, 2025, and December 31, 2025. There are
 22 eight black start resources that will complete their capital recovery terms between
 23 January 1, 2026, and December 31, 2026. There are six black start resources that
 24 will complete their capital recovery terms after December 31, 2026. In the absence
 25 of a Commission decision, these black start resources will continue to be paid based
 26 on the incorrect and overstated CRFs through the full term of their CRFs.

⁴⁷ OATT Schedule 6A para. 18 ("Every five years, PJM shall review the formula and its costs components set forth in this section 18, and report on the results of that review to stakeholders.").

⁴⁸ See Direct Testimony, Exhibit IMM-0008.

⁴⁹ See 176 FERC ¶ 61,080 at P 50.

1 **Q 33. IS THERE A WAY TO RESOLVE THIS CASE ON A JUST AND**
2 **REASONABLE BASIS?**

3 A. Yes.

4 Witness Boyle argues that the Market Monitor's proposed resolution of this case is
5 "an obvious attempt to circumvent the prohibition on retroactive ratemaking and
6 reach back before the refund effective date the Commission established in this
7 proceeding of August 17, 2021, to attempt to recoup retroactive refunds."⁵⁰

8 The perfect resolution of this case would be to recalculate the formula rate
9 accurately for the entire period of capital cost recovery since the TCJA became
10 effective, to apply that rate going forward from the date the TCJA became effective,
11 and to require refunds of the difference between the incorrect rate and the correct
12 rate. The Commission has stated in this proceeding that this approach would
13 constitute retroactive ratemaking.⁵¹

14 The Market Monitor proposes an approach that avoids retroactive adjustments of
15 any kind. The Market Monitor approach for resolving this case with an accurate and
16 just and reasonable calculation adjusts the applicable CRF values going forward
17 from the start of the Commission's refund period, based on the capital recovered,
18 which is a function of the service period start and end dates for each affected black
19 start unit and the collected CRF value.

20 The Market Monitor has calculated those CRF values that would provide a just and
21 reasonable resolution in this case and avoid any retroactive calculations. Those CRF
22 values are in confidential Exhibit IMM-0022.

23 In addition, the Market Monitor has calculated the refunds for the Commission
24 defined refund period and the associated interest on those refunds.

25 **Q 34. HOW SHOULD THE CAPITAL COST RECOVERY RATE BE ADJUSTED**
26 **FOR THE UNITS SELECTED TO PROVIDE SERVICE PRIOR TO JUNE**
27 **6, 2021?**

28 A. The CRF values in Exhibit IMM-0022 are recalculated for the units selected to
29 provide Black Start Service prior to June 6, 2021, in order to ensure that the purpose

⁵⁰ Boyle at 16:22–17:8.

⁵¹ *Id.*

1 of the Capital Cost Recovery Rate is met, and that black start units are correctly
2 compensated over the defined term for each such unit. That recalculation reflects the
3 return of capital already received by existing black start units under the applied CRF
4 values, and, as a result, eliminates the excess recovery that would occur if the
5 current CRF values remain in place, if there is sufficient time remaining in the
6 defined term. The proposed CRF values are set at a level that pays for the full tax
7 liability and the full return on the black start capital investment (rate of return or
8 cost of capital) and the full return of the black start capital investment (depreciation)
9 over the full defined term. A description of this general approach and a formula for
10 calculating the updated CRF was included in the Market Monitor's Comments in
11 this docket.⁵²

12 Simply applying the post-June 6, 2021, CRF formula to the black start units that
13 started service prior to June 6, 2021, would not provide an equitable resolution. An
14 equitable resolution must account for the capital costs already returned to the equity
15 investors.⁵³ The reduction in the income tax liability introduced with the Tax Cuts
16 and Jobs Act significantly lowered the income tax payments. The resulting
17 increased revenues have gone to the equity investors, accelerating the capital cost
18 recovery compared to what was assumed in the original CRF values.

19 The Market Monitor's proposed corrected CRF values for resolving this case with
20 an accurate and just and reasonable calculation are based on defined steps: start with
21 the beginning of the Commission defined refund period, adjusted from August 17,
22 2021, to September 1, 2021, for administrative convenience; determine the
23 outstanding investment principal as of that date; and calculate a corrected CRF
24 based on the original financial parameters and state income tax rate assumption,
25 updated federal income tax rules and a recovery period equal to the time remaining
26 in the original capital recovery period.⁵⁴

⁵² See Comments of the Independent Market Monitor for PJM, Docket No. EL21-91-000 (November 11, 2021), corrected (November 18, 2021), at 19–26.

⁵³ The Market Monitor showed in a previous filing that an equity investor would have fully recovered its capital investment in the 2nd year of capital recovery in the case that bonus depreciation was applicable. See Direct Testimony Exhibits IMM-0014 at Table 6, Exhibit IMM-0003.

⁵⁴ For purposes of the calculations here, the refund period is assumed to start on September 1, 2021, rather than the actual Commission date of August 17, 2021, and end after 15 months, on November 30, 2022.

1 Refunds are calculated equal to the difference between the revenues using the
2 incorrect CRF values and the corrected CRF values over the 15 month Commission
3 defined refund period, from September 1, 2021, through November 30, 2022.

4 There are no refunds calculated after the end of the Commission's refund period,
5 between December 1, 2022, and December 31, 2024, based on the Commission's
6 statement on retroactive ratemaking and the limits on the Commission's refund
7 authority.

8 For the units that have a capital cost recovery period ending prior to January 1,
9 2025, there is no further adjustment. For resources that have a capital cost recovery
10 period after January 1, 2025, the corrected CRF values are applied starting on
11 January 1, 2025, through the end of the capital cost recovery period.

12 The combination of the proposed CRF values and refunds will result in a lower
13 payment for black start units than under the current, incorrect rates, but at the end of
14 the recovery period the owners of the black start units will have received revenue
15 sufficient to, or in some cases more than sufficient to, provide for the payback of
16 debt at 7 percent interest, federal and state income tax liabilities, a 12 percent return
17 on equity and the return of the equity portion of the capital investment.

18 **Q 35. HOW DO DELAYS AFFECT THE POSSIBLE OUTCOMES IN THIS**
19 **MATTER?**

20 A. There are 11 black start resources that will complete their capital recovery terms
21 between January 1, 2018, and September 1, 2021. These resources are not affected
22 by the Market Monitor's proposal.

23 There are two black start resources that will complete their capital recovery terms
24 between September 1, 2021, and December 31, 2024.

25 There are 22 black start resources that will complete their capital recovery terms
26 between January 1, 2025, and December 31, 2025. There are eight black start
27 resources that will complete their capital recovery terms between January 1, 2026,
28 and December 31, 2026. There are six black start resources that will complete their
29 capital recovery terms after December 31, 2026. In the absence of a Commission
30 decision, these black start resources will continue to be paid based on the incorrect
31 and overstated CRFs through the full term of their CRFs.

As delays continue, the number of units that complete their capital recovery terms increases as does the amount of excess revenue.

Q 36. HOW WOULD THE ADJUSTMENT PROPOSED BY THE MARKET MONITOR ADDRESS THE PROBLEM?

A. If the Market Monitor's approach for resolving this case with an accurate and just and reasonable calculation were implemented effective January 1, 2025, the excess payment for capital cost recovery would be reduced from \$89.7 million to \$55.0 million based solely on the corrected capital cost recovery formula rate. The Market Monitor's approach also includes \$26.3 million in refunds. After accounting for refunds the Market Monitor's approach reduces the excess payments to \$31.4 million (See Table 1). For comparison, Table 1 also includes the Market Monitor's resolution, first proposed in November 2021 in Docket No. EL21-91-000, that shows the capital cost recovery payments that would result if the CRF updates were based on the outstanding investment principal as of January 1, 2025, with no refunds. Table 2 shows the interest on the refunds calculated according to Title 18 in the Code of Federal Regulations.⁵⁵

The Commission established a 15 month refund period that began on August 17, 2021.⁵⁶ That 15 month refund period has expired.

Table 1 Market Monitor approach for resolution compared to status quo

	Capital Recovery Payments 2018 - 2040 (\$ millions)	Payments in excess of base case (\$ millions)	Refund Payments (\$ millions)	Payments in excess of base case less Refunds (\$ millions)
Updated CRFs effective January 1, 2018 (base case)	\$424.6			
Current CRFs remain in place	\$514.3	\$89.7	\$0.0	\$89.7
Updated CRFs effective January 1, 2025	\$448.2	\$23.6	\$0.0	\$23.6
Updated CRFs effective September 1, 2024	\$479.6	\$55.0	\$23.6	\$31.4

⁵⁵ Code of Federal Regulations, Title 18, Chapter I, Subchapter B, Part 35, Subpart C §35.19a.

⁵⁶ August 10, 2021 Order at 54.

Table 2 Refund payments under Market Monitor Approach

	Refunds Under Market Monitor Settlement Offer
Total refund payments under Market Monitor Settlement Offer	\$23.6
Interest on refunds at quarterly average prime rate	\$5.2
Total refund payments with interest at January 1, 2025	\$28.7

Q 37. IS THE MARKET MONITOR'S APPROACH RETROACTIVE RATEMAKING?

A. No. The CRF is a component of a capital cost recovery formula rate that defines total payments over a defined term. If the CRF is overstated in the early years, regardless of the reason, it can be reduced in the later years in order to produce the intended result over the entire term. That is not retroactive ratemaking as it does not require the repayment of payments made under a stated or filed rate. The proposed going forward adjustment to the formula produces an outcome that is the only outcome consistent with the purpose of this specific formula rate, to provide recovery of all capital costs plus the defined return to both debt and equity investors over the defined term of the CRF.

Note that this is very different from standard cost of service ratemaking that sets a stated rate that remains in place until it is changed by a subsequent decision of the Commission. That is the essential difference between a stated rate and a formula rate designed to recover capital costs over a defined term.

Q 38. IS WITNESS BOYLE CORRECT IN SAYING THE MARKET MONITOR'S PROPOSED RESOLUTION IS RETROACTIVE RATEMAKING?

A. No. The Market Monitor proposes to change the going forward CRF value to a CRF value that is consistent with the original financial parameters (12 percent return on equity, 7 percent interest on debt and a 50-50 debt to equity ratio). The windfall due to the failure to include the correct income tax rate and the correct depreciation rules effective January 1, 2018, results in returns on equity that range from 12.8 percent to 59.8 percent under the Second Offer.

Witness Boyle fails to understand the way in which the CRF functions to provide the opportunity for a return of and on the Incremental Black Start Capital Costs in the Capital Cost Recovery Rate.

1 **Q 39. HAS THE COMMISSION RULED THAT THE MARKET MONITOR'S**
2 **RESOLUTION IS RETROACTIVE RATEMAKING?**

3 A. No. In the August 2021 Order, the Commission declined to “include in this
4 proceeding” the Market Monitor’s proposal that new CRFs, calculated using the
5 post June 6, 2021, CRF formula, be applied back to the later of the black start
6 service date or January 1, 2018.⁵⁷ The Market Monitor’s current proposal, which
7 only affects the going forward CRF values, was first introduced in a November
8 2021 comment in response to the PJM’s Answer to the Show Cause order.⁵⁸ The
9 Commission has not commented on the Market Monitor’s proposed resolution.

10 **Q 40. DO YOU AGREE WITH WITNESS BOYLE THAT THE MARKET**
11 **MONITOR'S PROPOSAL PUTS AN UNDUE ADMINISTRATIVE**
12 **BURDEN ON PJM?**

13 A. No. The data required for each black start unit are the capital investment amount,
14 the service start date and capital recovery term. These are the same data
15 requirements for assigning a CRF to any black start generator. The Market
16 Monitor’s resolution does not place an undue administrative burden on PJM both
17 because the calculations are not difficult and because the Market Monitor has done
18 all the necessary calculations and provided a copy of these calculations in
19 spreadsheet format via discovery.⁵⁹

20 In addition, once PJM has corrected the current issues with the CRFs for generating
21 units that were selected to provide Black Start Service prior to June 6, 2021, the
22 process under the Market Monitor approach will be identical to the current tariff
23 approach to units that were selected to provide Black Start Service after June 6,
24 2021.

⁵⁷ 176 FERC ¶ 61,080 at P 50.

⁵⁸ See Direct Testimony, Exhibit IMM-0014 at 49 (Section H).

⁵⁹ *Response of the Independent Market Monitor for PJM to PJM Interconnection, L.L.C.’s First Set of Data Requests*, PJM-IMM-1.7, PJM-IMM-1.13, PJM-IMM-1.15 (July 8, 2024). The responses are CUI/PRIV-HC.

1 **Q 41. PLEASE EXPLAIN THE NEW EXHIBIT SUPPORTING THIS**
2 **REBUTTAL TESTIMONY**

3 Exhibit IMM-0022 is a spreadsheet that includes the updated and corrected CRF
4 values for each unit, the parameter assumptions, the interest calculation on refunds
5 and Tables 1 and 2 from this Rebuttal Testimony. This exhibit is confidential and
6 has been marked as CUI//PRIV-HC.

7 **Q 42. DOES THIS CONCLUDE YOUR TESTIMONY?**

8 A. Yes.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.)))	Docket No. EL21-91-000, -003
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DECLARATION

JOSEPH E. BOWRING states that I prepared the rebuttal testimony to which this declaration is attached with the assistance of the staff of Monitoring Analytics, LLC, and that the statements contained therein are true and correct to the best of my knowledge and belief. Monitoring Analytics, LLC, is acting in its capacity as the Independent Market Monitor for PJM.

Pursuant to Rule 2005(b)(3) (18 CFR § 385.2005(b)(3), citing 28 U.S.C. § 1746), I further state under penalty of perjury that the foregoing is true and correct.

Executed on September 12, 2024.



Joseph E. Bowring