

Memo

Date: April 19, 2019

To: Colleagues/Docket 05-CE-146

From: SOUL of Wisconsin

Re: SOUL Motion for discovery to allow Wisconsin ratepayers to understand the potential economic impacts of the Project.

Additional precedent to assist the discussion (and attached to this memo)

From Rockdale-West Middleton 345 kV
DIRECT TESTIMONY OF JAMES HODGSON ON BEHALF OF AMERICAN
TRANSMISSION COMPANY LLC and ATC MANAGEMENT INC (PSC REF#: 107759)

Referring to techniques and resources that Mr. Hodgson used in December 2009, SOUL would like to briefly address the six hardships the Applicants have posed that might stand in the way of providing Wisconsin ratepayers estimates of how \$22.7 to \$349.3 million in potential, net monetized benefits would be reflected on monthly electric bills, on average, for residential, commercial and industrial classes.

1. Each Wisconsin electric utility's revenue requirement over the next forty years;

Hodgson on p. 7 *"In other words, I calculated the percentage increase in each LDC's forecasted annual revenue requirement for each year attributable to the Project...."* and he goes on to describe, *"..how the LDC's Annual Revenue Requirement values were derived."*

SOUL: Perhaps tariff schedules, FERC Form 1 Reports, the proposal's escalator to account for inflation, and other familiar documents, Mr. Hodgson was able to access the revenue requirements for multiple utilities/customers affected by Rockdale-West Middleton and produce a cents per month estimate for Madison area customers.

2. How each Wisconsin utility would allocate that revenue requirement among its various customer classes over the next forty years;

Mr. Hodgson indicates that he, *"calculated the average rate impact across all rate classes for each LDC."*

SOUL believes that this amount could be further divided and understand that these divisions vary a bit from utility to utility. For this reason, SOUL has suggested dividing the revenue requirement and other benefits, using EIA, state-wide usage summations, by class which, in 2017, were: Residential: 31%; Commercial: 34%; and Industrial: 35%. SOUL's goal is to enable ratepayers to see the *relative scale* of the potential impacts on customer bills, on average, not provide extreme accuracy which is not our intent.

3. The structure of each Wisconsin electric utility's retail tariffs (or rates) for each customer class, and how those rates or tariffs would change over the next forty years

SOUL: Mr. Hodgson acknowledged that the annual required revenue amounts decline. He provided an estimate of the cost impact only for the first year resulting in a fairly useful estimate. The Applicants have provided the \$22.7 to \$349.3 million in potential, net monetized benefits in 2018 dollars over the 40 year period. SOUL's request is to translate this range in total benefits into an estimates for each class, per month, over 40 years

4. How each Wisconsin electric utility would allocate the change in transmission charges resulting from the Project among each customer class over the next forty years;

SOUL is not sure which transmission charges the Applicants are referring to, but,...

If the allocation changes would result in a substantial. overall changes, SOUL encourages the applicants to estimate and include these impacts, but, if not, SOUL is asking the Applicants to present estimates that show ratepayers the *relative scale* of the impacts on customer bills, on average

5. How the various categories of the Project's benefits (energy cost savings, capacity cost savings, insurance value, avoided reliability benefits, and asset renewal benefits) would be allocated among various electric utilities and their retail customers or members over the next forty years; and,

If the Applicants are suggesting that the (small in comparison) capacity cost savings and insurance value changes would differ significantly enough from LDC to LDC and shift benefit allocations very differently across the state, this factor can be estimated and included, but, it does not appear to have been a concern of Mr. Hodgson's. SOUL's is interested in Wisconsin ratepayers being able to consider the *relative scale* of the potential impacts on customer bills, on average.

Question: Are transmission reliability and asset renewal project costs (and avoided costs) billed/credited to individual ATC customers? We are under the impression that a large percentage of these costs/avoided costs are spread fairly evenly across ATC's footprint.

If the Applicants are suggesting that benefits from avoided reliability and asset renewal projects over time would differ significantly enough from LDC to LDC and shift benefits to customers very differently across the state, this factor can be estimated and included, but, it does not appear to have been a concern of Mr. Hodgson's.

If the Applicants are suggesting that benefits from energy cost savings would not be proportional to usage, SOUL encourages this factor to be estimated and included, but, it does not appear to have been a concern of Mr. Hodgson's. SOUL's goal in this discovery is allowing customers to see *relative scale* of the potential impacts on customer bills, on average.

6. How each Wisconsin electric utility would incorporate those benefits into the utility's

retail rates over the next forty years.

In their discovery, Applicants are encouraged to explain that utilities are able to shift the benefits in different ways and not necessarily have them show as direct, same potential reductions on bills. The purpose of the discovery request is to translate the \$22.7 to \$349.3 million over 40 years as a range in benefit amounts distributed as if they were the only influence on bills.

Thank you for allowing us to share these additional thoughts to this discussion.

Sincerely,

/s/ **Rob Danielson**

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**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application of American Transmission	)	
Company, as an Electric Public Utility,	)	
to Construct a New 345 kV Line from	)	Docket No. 137-CE-147
the Rockdale Substation to the	)	
West Middleton Substation, Dane	)	
County, Wisconsin	)	

**DIRECT TESTIMONY OF JAMES HODGSON ON BEHALF OF
AMERICAN TRANSMISSION COMPANY LLC and ATC MANAGEMENT INC**

TABLE OF CONTENTS

	Page
INTRODUCTION	263
NET NPV ANALYSIS OF THE PROJECT OPTIONS	265
RATE IMPACT ANALYSIS	266

INTRODUCTION

Q. Please state your name, employer, title and business address.

A. My name is James Hodgson, and I am employed as a Corporate Financial Planning Strategist by ATC Management Inc., the corporate manager of American Transmission Company LLC (together "ATC"). My office is located at N19 W23993 Ridgeview Parkway, West Waukesha, Wisconsin 53188-1000.

Q. What are your responsibilities with ATC?

A. My primary responsibilities at ATC include developing and using the corporate pro-forma financial models used in the monthly forecasting and annual financial planning processes, performing other strategic financial analysis, and providing ad-hoc financial analysis services to ATC personnel.

Q. Please describe your background, including your educational and professional experience as it relates to this direct testimony.

A. I have a Bachelor's degree in Economics from Grinnell College (1990), a Masters degree in Finance from the University of Iowa (1992), and a Chartered Financial Analyst charter (2003). I also have 16 years of experience in utility economic and financial analysis. I have been with ATC for over 7 years in the Financial Planning Department.

Q. What have your responsibilities been in relation to the Rockdale to West Middleton Transmission Project ("Project")?

A. As discussed in Mr. Khudai's direct testimony, after identifying a need to reinforce the transmission system in Dane County, ATC's planning department evaluated various

1 options for solving the Dane County Problem. I calculated the net net present value
2 (“NPV”) costs associated with the studied options, including the Rockdale-Cardinal 345
3 kV Option, the Albion-Cardinal 345 kV Option, the All 138 kV Option, the North
4 Madison-Cardinal 345 kV Option, and the Rockdale-Blount 345 kV Option. In a similar
5 fashion, I also calculated the net NPV costs associated with the Peaker Plus 138 kV
6 Option and the revised net NPV costs for the Albion-Cardinal 345 kV Option in
7 Completeness Response 1-83 (PSC Ref. No. 90654), and the net NPV costs for the West
8 Middleton generation options in the New Generation Analysis, which is Exhibit 9. The
9 results of my analyses are contained in Table 11a and Appendix F of the Rockdale–West
10 Middleton 345 kV Transmission Project Planning Scope Document (“Planning Scope
11 Document”), which is Appendix C to the Joint Application for Certificate of Public
12 Convenience and Necessity and Utility Permit Application filed in this docket (“Joint
13 Application”), Appendix A of Completeness Response 1-83, and Appendix A of Exhibit
14 9. In addition, I performed the rate impact analysis for this Project.

15 **Q. What are the purposes of your direct testimony?**

16 A. The purposes of my direct testimony are to: (1) describe how I calculated the estimated
17 net NPV costs for each option considered in the Project Scope Document, Completeness
18 Response 1-83, and the New Generation Analysis; and (2) present the results of my rate
19 impact analysis for this Project and describe how I conducted that analysis.

NET NPV ANALYSIS OF THE PROJECT OPTIONS

Q. Please generally describe how you conducted the net NPV analysis contained in the Project Scope Document, Completeness Response 1-83, and the New Generation Analysis.

A. I first calculated each option's estimated incremental annual revenue requirement under ATC's Attachment O of the MISO Transmission and Energy Market Tariff ("TEM"). I then calculated the NPV of the total ATC revenue requirement increase attributable to each option over that option's depreciable life. I also calculated the NPV of the estimated line loss savings resulting from each option over that option's depreciable life. I then netted the NPV line loss savings from the NPV total revenue requirement to produce the projected net NPV cost for each option.

Q. Please describe in more detail how you calculated these net NPV costs.

A. I conducted the ATC revenue requirement increase analysis over the assumed 40 year depreciation life of the assets using the following steps:

1. I calculated the annual revenue requirement for each option under the rate formulas set forth in ATC's Attachment O to the MISO TEM. Under Attachment O, the pre-certification expenditures are expensed and the capitalized expenditures during construction do not accrue Allowance for Funds Used During Construction ("AFUDC"), but they are included in rate base. I also included ongoing expenses for environmental impact fees and incremental operations and maintenance costs in the annual revenue requirements.

- 1 2. I then calculated the NPV of the revenue requirement over a depreciation life of 40 years
2 for each option. I used a nominal discount rate of 8.5% to be consistent with the rate
3 used by the PSC staff in its Final Report on Transmission Access in Docket #137-EI-100.
4 3. I calculated the NPV of the annual line loss savings associated with each option over the
5 same 40 year period. The annual capacity and energy savings values I used in this
6 analysis were computed by Mr. Khudai and the planning department. I also used a
7 discount rate of 8.5% in the calculation.
8 4. I then calculated the net NPV cost of each option by subtracting the total NPV line loss
9 savings from the total NPV revenue requirement for each option. This net NPV cost
10 shows each option's net impact on ATC's revenue requirement.

11 **RATE IMPACT ANALYSIS**

12 **Q. How does ATC recoup its costs?**

13 A. ATC does not charge the end-use customer directly but rather collects its revenue from
14 the local distribution companies ("LDCs") and other transmission customers under a
15 tariff approved by the Federal Energy Regulatory Commission ("FERC"). Thus, in order
16 to estimate the impact of this Project on the end-use customers, it is necessary to focus on
17 revenues rather than ATC's customer's rates.

18 **Q. How does ATC's annual revenue requirement differ from the LDC's annual**
19 **revenue requirement?**

20 A. For ATC, the annual revenue requirement is the amount ATC is allowed to annually
21 recoup from its customers (the LDCs and other transmission customers) through its
22 FERC tariff. For the LDCs, the annual revenue requirement is the amount the LDCs are

1 allowed to recoup from their customers (the end-users), which is generally established on
2 a forecast basis although some LDCs have authorized deferrals for certain ATC costs.
3 Because the Project would represent a capital investment, ATC's revenue requirement
4 will increase by the allowed return on and cost of its investment in the Project.

5 **Q. Please describe how you conducted the rate impact analysis for this Project.**

6 A. The retail rate impact analysis includes three primary components: (1) the total forecasted
7 annual revenue requirement of each LDC without the Project ("LDC Annual Revenue
8 Requirement"); (2) the forecasted increase in ATC's annual revenue requirement
9 stemming from the Project, adjusted for MISO regional cost-sharing ("ATC's Annual
10 Project Increase"); and (3) the forecasted annual increase in each LDC's revenue
11 requirement attributable to ATC's Annual Project Increase ("LDC's Annual Project
12 Increase"). To calculate the Project's average end-user customer impact percentage for
13 each year, I simply took each LDC's Annual Project Increase and divided by the
14 forecasted LDC Annual Revenue for each LDC. In other words, I calculated the
15 percentage increase in each LDC's forecasted annual revenue requirement for each year
16 attributable to the Project.

17 **Q. Please describe how the LDC's Annual Revenue Requirement values were derived.**

18 A. The forecasted annual revenue requirement value for each LDC was calculated as the
19 LDC's annual total electric operating revenues (as reported on page 300 line 27 of the
20 2007 FERC Form 1) escalated at 3% per year through 2021. This escalation rate was
21 used to represent a long-term increase consistent with the historic rate of inflation. To the

1 extent that future LDC revenue requirements increase at a rate greater than the assumed
2 3%, the retail end-user rate impact of this Project would be reduced.

3 **Q. How did you calculate ATC's Annual Project Increase values?**

4 A. The cost estimates in Exhibit 24 for this Project were used to determine the Project-
5 related ATC annual revenue requirement increase for each year over the Project's life.
6 The least expensive proposed route, the Rockdale-Beltline Route, and the most expensive
7 proposed route, the Albion-FitchBeltline Route, were considered in this analysis in order
8 to give a range of potential impacts for all four proposed routes. These increases include
9 both the allowable rate of return on the capital invested as well as the recovery of
10 expenses, as adjusted for the impacts of regional cost-sharing.

11 **Q. Please describe how you incorporated the regional cost sharing and line loss savings**
12 **into this analysis.**

13 A. The regional cost sharing and line losses savings were incorporated as follows:

- 14 1. The annual Network Upgrade Charge ("NUC") for the Project was calculated in
15 accordance with the methodology set forth in Attachment GG of the MISO tariff.
16 The NUC allocates the allowed return on the gross investment in a project including
17 taxes and an allocation of the Company's other operating expenses.
- 18 2. The portion of the total ATC annual revenue requirement attributable to the Project,
19 as calculated in accordance with ATC's Attachment O of the MISO tariff, was then
20 reduced by the NUC.

1 3. The NUC is billed by MISO across the MISO system in accordance with the
2 allocation methodology in Schedule 26. For this project FERC has estimated that
3 82.55% of the NUC will be allocated to the ATC network customers and the
4 remaining 17.45% will be allocated to customers outside of ATC's territory.
5 Therefore, I added 82.55% of the NUC back into ATC's annual revenue requirement
6 increase attributable to the Project.

7 4. The line loss savings were not factored into this retail rate impact analysis. Inclusion
8 of the line loss savings would result in a reduction of the aggregate retail customer
9 costs; however, the amount of savings realized by each LDC will vary depending on
10 the change in load flows across each LDC's service territory. Therefore, this level of
11 detail was not included in the LDC specific retail rate impact analysis.

12 5. The calculation is as follows:

$$\begin{aligned} &\text{Project-Related Increase in Annual Revenue Requirement} - \text{NUC} + (82.55\% \text{ of} \\ &\text{NUC}) = \text{ATC's Annual Project Increase} \end{aligned}$$

15 **Q. Once ATC's Annual Project Increase values were calculated, how did you then**
16 **calculate the forecasted annual increase in each LDC's revenue requirement**
17 **attributable to ATC's Annual Project Increase ("LDC's Annual Project Increase")?**

18 A. I allocated ATC's Annual Project Increase to each of the LDCs proportionately to their
19 2008 load ratio share (the LDC's average load at the time of the ATC monthly system
20 coincident peak) to determine the LDC's Annual Project Increase.

21 **Q. Did you calculate the exact rate impact to each particular rate class of each LDC**
22 **(e.g., residential v. industrial customers)?**

1 A. No, I did not calculate the percentage increase for each rate class. Instead, I calculated
2 the average rate impact across all rate classes for each LDC.

3 **Q. What were the results of the rate impact analysis?**

4 A. The rate impact analysis showed that end-use customer rates would approximately
5 increase on average in the peak cost year of 2014 by between 0.29% and 0.32% for the
6 Rockdale-Beltline Route (with an average of 0.31%) and between 0.34% and 0.38% for
7 the Albion-FitchBeltline Route (with an average of 0.36%), depending on the LDC. For
8 MGE customers, the peak increase on the average customer bill will be approximately
9 0.29% for the Rockdale-Beltline Route and 0.32% for the Albion-FitchBeltline Route in
10 2014. The average rate increase due to the Project for the period 2009-2014 will be
11 0.17% for all LDC's and 0.16% for MGE specifically for the Rockdale-Beltline Route,
12 and 0.20% for all LDC's and 0.19% for MGE specifically for the Albion-FitchBeltline
13 Route. If the increased costs to the LDC are distributed equally accros its customer
14 classes, a retail customer with a \$75 monthly electric bill would see an increase in 2014
15 of \$0.23 per month attributable to the Rockdale-Beltline Route and \$0.27 per month
16 attributable to the Albion-FitchBeltline route. The year 2014 is the peak revenue
17 requirement year because that is the first full year with the Project completed. After
18 2014, the rate impact will decrease due to accumulated depreciation reducing the rate
19 base impact of the Project. The results of the retail rate impact anlaysis are presented in
20 Exhibit 29.

21 **Q. Does this complete your direct testimony?**

22 A. Yes, it does.