BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's 3rd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA	)))))	**File No. EO-2018-0211**

STAFF CHANGE REQUEST

COMES NOW the Staff of the Missouri Public Service Commission ("Staff") and for its *Change Request* respectfully states as follows:

1. On October 25, 2018, a *Stipulation and Agreement* ("October 2018 Stipulation") was executed in this matter, containing an evaluation, measurement, and verification ("EM&V") schedule in its attached MEEIA 2019-21 Report. The October 2018 Stipulation was approved by the Commission on December 5, 2018. In accordance with the approved EM&V schedule, the parties engaged the process for plan year 2020 ("PY20").

2. Consistent with this schedule, on June 11, 2021, Ameren's contracted, independent, third-party evaluator, Opinion Dynamics, filed its *PY20 EM&V Report* in EFIS.

3. In accordance with Commission Rule 20 CSR 4240-20.093(8), the Commission's independent auditor, Evergreen Economics, submitted its *Independent EM&V Audit of the Ameren MO PY2020 Program Evaluations* on June 24, 2021.

4. Opinion Dynamics applied a twenty percent, program level "COVID adjustment" reduction to the free ridership values for the Ameren PY20 Standard,

Custom, and Retro Commissioning programs.[1] Evergreen Economics strongly opposes this adjustment. The relevant portions of the Evergreen Economics report concerning the "COVID adjustment" are attached hereto as Appendix A.

5. In response to Opinion Dynamic's proposed reduction, Evergreen argues:

> It is a completely arbitrary adjustment based on a very small sample of contractors that provided only general responses to questions about the pandemic. There is no justification provided for why the adjustment should be 20 percent, other than that this number will provide the answer that ODC [Opinion Dynamics] was originally hoping to get. It also relies on the faulty assumption that the free ridership should be the same as the prior year, even though economic conditions have changed dramatically and the free ridership would be expected to change as a result.[2]

6. Evergreen Economics further argues "…allowing this will set a very bad precedent, as it permits an arbitrary adjustment due solely to the fact that the evaluation results (using a previously approved algorithm) did not match the pre-conceived notion of what the 'correct' answer should be…the economic conditions in 2020 should result in a higher free ridership rate and so the original unadjusted free ridership result is not surprising."[3]

7. Evergreen Economics also recommends:

- For future evaluations, the actual point estimates for both the In Service Rate ("ISR") and Hours of Use ("HOU") parameters be used and the criterion of being statistically different from 1.0 be dropped;[4]
- Beginning in PY2021, Ameren's independent, third party evaluator either 1) look into additional granularity on the Effective Full Load Hours

[1] *PY 2020 Evaluation Reports*, Vol. 3 Business Portfolio Evaluation Report, pg. 16.
[2] *Independent EM&V Audit of the Ameren MO PY2020 Program Evaluations*, pg. 6. See also Appendix A, pg. 2.
[3] Ibid.
[4] *Id*, pg. 7.

("EFLH") values to allow for more specificity to the appropriate measures, or 2) use custom peak coincidence calculations to better estimate demand savings;[5]

- The randomized controlled trial ("RCT") approach be used when the data is available for thermostat manufacturers, even at the expense of having an inconsistent approach across thermostat manufacturers and/or programs; and[6]
- In the future, participating business demand response customers that do not have interval data and who are not verified by the evaluation team as being active accounts should be assigned a savings value of zero.[7]

8. The October 2018 Stipulation binds the signatories to the impact evaluation portion of the final EM&V Reports, as the reports may be modified by the Commission's resolution of any Change Request. The accuracy of the impact evaluation in each EM&V final report approved by the Commission is significant, because the EM&V will be used for the calculation of the true-up of the Throughput Disincentive ("TD") and for the calculation of the Earnings Opportunity ("EO") for Ameren Missouri's Rider EEIC.

9. Staff recommends the Commission accept Evergreen Economics' recommended changes to Opinion Dynamics PY20 EM&V Report as provided above.

10. As Evergreen Economics is the Commission's expert, the Commission may choose to call its expert to testify at a hearing if necessary, should Ameren not accept

[5] Ibid.
[6] *Id*, pg. 8.
[7] *Id*, pg. 9.

Staff's recommendation If the Commission does not intend to call Evergreen Economics as a witness, Staff may choose to do so.

WHEREFORE, Staff files this Change Request and recommends the Commission accept Evergreen Economics' final EM&V report.

Respectfully Submitted,

/s/ Travis J. Pringle
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand delivered, transmitted by facsimile or electronically mailed to all parties and/or counsel of record this 1st day of July, 2021.

/s/ Travis J. Pringle

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AFFIDAVIT OF BRAD J. FORTSON

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW BRAD FORTSON and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Change Request;* and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

Brad J Fortson

BRAD J. FORTSON

JURAT

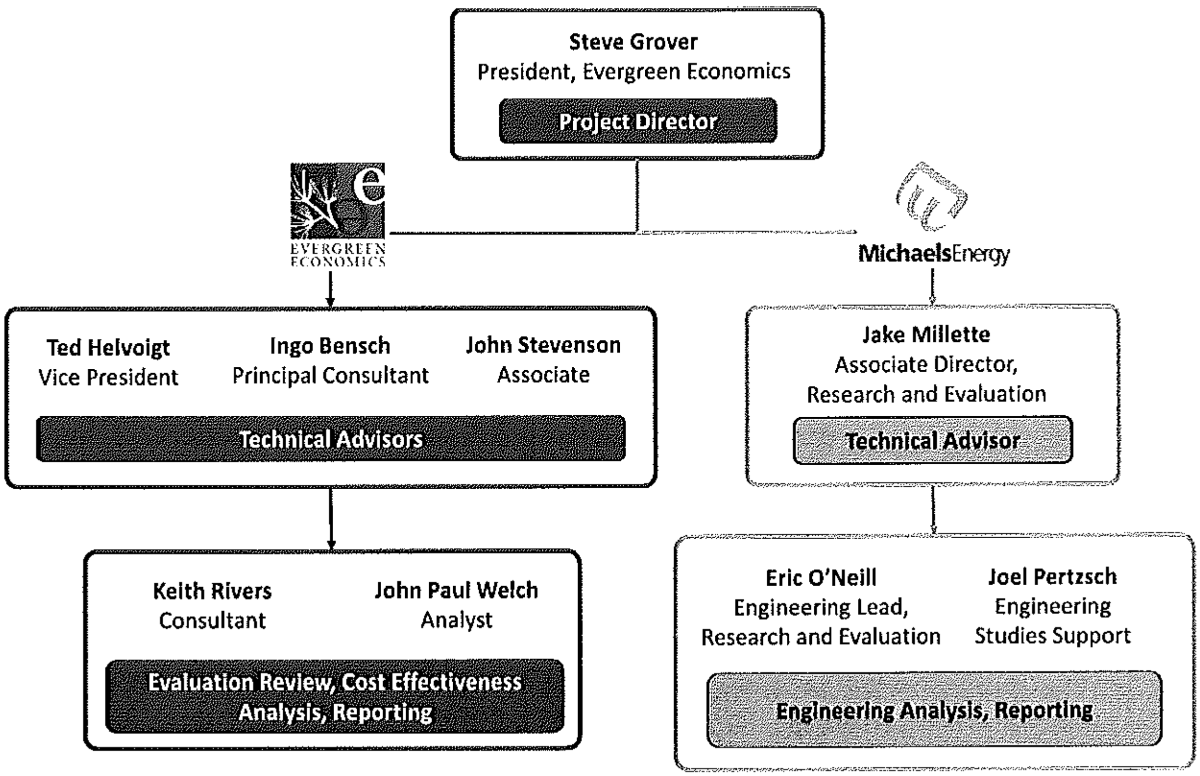
Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 1st day of July, 2021.

DIANNA L. VAUGHT
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: July 18, 2023
Commission Number: 15207377

Dianna L. Vaught

Notary Public

Figure 1: Evergreen Audit Team Organization



The audit team is required to review program evaluation activities and provide comments on compliance with 4 CSR 240-22.070(8) and the overall quality, scope, and accuracy of the program evaluation reports, as well as recommendations to improve the evaluation and reporting process.

A review of the PY2020 evaluation indicates that all evaluation reports are well written, complete, and meet the minimum requirements for impact and process evaluations stipulated in 4 CSR 240-22.070(8). These reports are also generally consistent with the best practices established for the industry, with the exception of the adjustment made for the Covid pandemic.

Audit Conclusions and Recommendations

Over the last year the audit team has had several meetings with ODC on analysis methods and were able to come to an agreement on several evaluation issues. ODC has also addressed many of the comments we made on a draft version of the PY2020 report. Below we identify some remaining issues and areas where we believe the evaluations can be improved.

Free Ridership Adjustment for Covid-19

APPENDIX A

A new addition to the evaluation this year was the application of a 20 percent reduction in the free ridership rate for the BizSavers Program to account for Covid-19. This adjustment was based on the results from contractor interviews, where 6 of the 13 contractors indicated that project cancellations or delays were smaller for BizSaver participants than with non-participating projects. The remaining contractors indicated that there was no effect from the program, or that the BizSavers projects actually had a greater incidence of delays.

The information included in the report does not come close to meeting the standard required to justify this very unusual type of adjustment. There is no rationale provided for translating very general responses into a very specific 20 percent reduction in free ridership. One could just as easily have concluded that a majority of contractors (7 of 13) reported no effect on project delays or cancellations. We have also commented in the past about the over-reliance on contractor opinions on the influence of the program, as they have a vested interest in promoting the program to evaluators and Ameren to keep the rebate dollars available.

This Covid adjustment assumes that the free ridership rate should be relatively constant across years, but this is a faulty assumption particularly in situations like 2020 where economic conditions have changed drastically. A similar change in equipment purchases would be expected to occur during a recession, where some customers decide to delay or cancel projects until economic conditions improve. In both these cases, the effect is on the **level** of participation observed for that year, **not** on the free ridership rate for the remaining participants. For those customers that are still able to participate in the program under Covid restrictions, we would expect the average free ridership to increase.

To see how this might work, consider the following example (summarized in Table 1) where the program population is divided into two groups[1]: those in most need of program rebates, and those in least need. For those with the most need of rebates, their free ridership rate would be lower as they are the most dependent on the program. Since their financial need is the greatest, they are also the most likely to delay or cancel the project due to Covid. Conversely, the second group has less need for rebates and therefore their free ridership rate is higher. Since their financial situation is stronger, they are more likely to be able to move forward with their project even during Covid. In this example, and shown in the table below, the free ridership rates are 0.40 and 0.20 for both groups.

In a normal year, both types of customers do projects and the resulting average free ridership rate is 0.32 (based on the number of participants use in this example). In the Covid year (or a recession year), the group that is in most need of the program decides not to participate, leaving the other group to determine the free ridership rate of 0.40. There is

[1] In reality there would be a distribution of need across participants and consequently a range of free ridership rates. For simplicity, we limit the example to two customer groups.

no need for an adjustment to the free ridership rate in this case; it is an accurate reflection of the rate for the smaller group of customers that were able to participate during the Covid year. Note that if this result were reduced by 20%, then the free ridership rate would equal 0.32, the same as when both groups participated.

Table 1: Covid Free Ridership Example

		Free Ridership	
Customer Type	N	No Covid Year	Covid Year
Most in need of the program	200	0.20	---
Least in need of the program	300	0.40	0.40
Average NTG		**0.32**	**0.40**

For these reasons, we strongly discourage allowing the 20% free ridership adjustment. It is a completely arbitrary adjustment based on a very small sample of contractors that provided only general responses to questions about the pandemic. There is no justification provided for why the adjustment should be 20 percent, other than that this number will provide the answer that ODC was originally hoping to get. It also relies on the faulty assumption that the free ridership should be the same as the prior year, even though economic conditions have changed dramatically and the free ridership would be expected to change as a result. We note that this adjustment is not made for the residential programs or new construction, both of which we would expect to be more sensitive to the Covid restrictions due to the lack of access to the Federal Paycheck Protection Program PPP assistance that the commercial customers are able to utilize.

We understand that the savings resulting from this adjustment is small for PY2020. However, allowing this will set a very bad precedent, as it permits an arbitrary adjustment due solely to the fact that the evaluation results (using a previously approved algorithm) did not match the pre-conceived notion of what the "correct" answer should be. As we have argued above, the economic conditions in 2020 should result in a higher free ridership rate and so the original unadjusted free ridership result is not surprising.

BizSavers Report – In Service Rate (ISR) and Hours of Use (HOU) parameters

In our comments on the draft report, we questioned the approach of adjusting the ISR and HOU parameters only if they were statistically different than 1.0. ODC pointed out that this method was documented in their PY2020 Evaluation Plan prior to the analysis being conducted. ODC also responded that these parameters had derived from desk reviews from the PY2019 evaluation, and that the HOU verification was just one component of the more comprehensive desk reviews/onsite visits that considered a range of project characteristics. For PY2020, it would have been an adjustment to program-tracked data for