FILED
May 11, 2017
Data Center
Missouri Public
Service Commission

MEEIA rules

Comments from the Missouri Office of the Public Counsel Geoff Marke Economist

Opportunity Cost

New Oxford American Dictionary:
The loss of potential gain from other
alternatives when one alternative is chosen

- Goal = ensure that scarce resources are used efficiently.
- Scare Resources = money, lost time, pleasure and any other benefit that provides value should also be considered an opportunity cost.

OPC	Exhibit No.
Cate 5/4	10 Reporter ML
File No E	K-1016-0334

The Proposed MEEIA Rules

Non Energy Benefits

 Delete all references to Non-Energy Benefits

II) Non Energy Benefits means—

1. Direct benefits to participants in utility demand side programs, including, but not limited to, increased property values, increased productivity, decreased water and sewer bills, reduced

operations and maintenance costs, improved tenant-satisfaction, and increases to the comfort,

health, and safety of participants and their families;

2. Direct benefits to utilities, including, but not limited to, reduced arrearage carrying costs, reduced customer collection calls/notices, reduced termination/reconnection costs, and reduced bad debt write-offs; or

3. Indirect benefits to society at large, including, but not limited to, job creation, economic development, energy security, public safety, reduced emissions and emission related health care costs, and other environmental benefits;

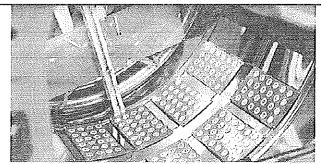
4. Non-Energy Benefits may be included in cost effectiveness tests unless they cannot be calculated with a reasonable degree of confidence;



- The quantification of non energy benefits is a subjective exercise that will result in greater uncertainty and risk for the utility and nonparticipating ratepayers.
- Quantifying non-energy benefits will not raise energy and demand savings targets.
- It will only increase the likelihood of free ridership and result in a regressive policy outcome.

Rationale continued...

- Opportunity costs (time and money)
- Most items are already cost-effective
 - Mix and match: measure, program, portfolio, R&D, Pilot, low-income
- Unintended consequences (budget and realized savings) such as...
- Locking in an inferior product... see CFLs



GE, DOE roll out ultrasonic clothes dryer prototype to reduce energy consumption

 "Scientists estimate the new dryer, which essentially vibrates moisture out of clothing, is about five times more efficient than traditional appliances.

Budget 4 CSR-240-20.094(4) (B) 12

- Previous rules = 20% variance
- Proposed rules = 40% variance
- OPC Added language:
- Detailed notification plan for informing customer classes and trade allies when portfolio budget is 80% exhausted and when it is 100% exhausted. Notification plan will consist of specific dates in which applications will no longer be accepted and when all measures must be installed and operational for custom projects.

- Cycle I utilized a net shared benefit model
- If costs increased—benefits decreased
- · Select utilities went over budget
- Cycle II does not adhere to a net shared benefit model
- Budgets not blank checks
- Should mirror what happens with supply-side investments
- Otherwise you are unfairly shifting risk to consumers

Definition changes

• Demand-side program means any program conducted by the utility to modify the net consumption of electricity on the retail customer's side of the electric meter, including, but not limited to, energy efficiency measures, load management, demand response, interruptible or curtailable load, combined heat and power, and distributed generation but not including deprivation of service or low-income weatherization;

- Energy efficiency means measures
 that reduce the amount of electricity required
 to achieve a the same or better given end use;
- Measure means any device, technology, behavioral response-mechanism, or operating procedure that makes it possible to deliver an adequate level and quality the same or better levels of energy service while—

- Modifications are consistent with industry standards
- Deprivation is <u>not</u> energy efficiency or conservation
- In 2009, a 93-year-old man named Marvin Schur froze to death in his home after the utility company restricted his electricity because of an unpaid bill. The official cause of his death was hypothermia, which was determined by a medical examiner who called it "a slow, painful death." Mr. Schur owed more than \$1,000 and, as a penalty, the utility company installed a "limiter" to restrict his use of electricity, resulting in his death. A utility bill was found on Mr. Schur's kitchen table with a large amount of money attached to it—a sign that he was trying to save up to pay his bill.

- Load management means load control activities that result in a reduction in peak demand, a shifting of energy usage from a peak to an off-peak period, or when system reliability is jeopardized;
- Load Control means activities that place the operation of electricity-consuming equipment under the control or dispatch of an electric utility, energy efficiency service provider, an independent system operator, or other transmission organization or that are controlled by the customer, with the objective of producing energy or demand savings;

- Clarification
- · See Com-Ed Peak Time Savings
- https://www.comed.com/WaysToSave/ForYou rHome/Pages/PeakTimeSavings.aspx



Earnings Opportunity as a cost component

- · Multiple locations within the rules.
- Need to include earnings opportunity as a component in all cost effective tests and referenced mechanism language
- Rationale:
- Earnings opportunity costs get flown through the MEEIA surcharge.
- Is one of the "three legs" of MEEIA to ensure the utility is made whole.
- Needs to be an input into all cost-effective tests.

Market Potential Study

• Market potential study means a quantitative analysis of the amount of energy and demand savings that may exist, is cost-effective, and could be realized through the implementation of energy efficiency programs, policies, and rate design. A market potential study is primarily used to inform a utility's integrated resource planning and secondarily used to inform a MEEIA application;

- · Costs can be in the millions.
- Will be used for integrated resource planning purposes whose costs are allocated across customer classes.
- No guarantee a MEEIA will be granted or sought.
- Today, opt-out customers do not pay their share.

Market Potential Study Continued...

- (3) Utility Market Potential Studies.
- A) The market potential study shall:
- 1. Consider both primary data and secondary data and analysis for the utility's service territory including but not limited to a saturation study and market profile breakdown of residential: single family, multi-family, single-family low-income, and multi-family low-income households by electricity sales, percentage of total usage, average use per household, and summer and winter peak demand;

- Ensures that housing usage data considerations are examined.
- Helps inform MEEIA design as well as rate design.

Market Potential Study Continued...

2. Be updated with primary data and analysis
no less frequently than every three (3) years.
four (4) years. To the extent that primary data
for each utility service territory is unavailable
or insufficient, the market potential study may
also rely on or be supplemented by data from
secondary sources and relevant data from
other geographic regions;

- Language amended to reflect IRP and MEEIA filings.
- It makes no sense to potentially have a fouryear old study inform programs three-years into the future (e.g., study conducted in 1999, finalized in 2000, used to set targets for programs up to 2007).

Market Potential Study Continued...

3. Be prepared by an independent third party.
 The utility shall provide oversight and guidance to the independent market potential contractor, but shall not influence the independent market potential study contractor's report(s);

- Market potential studies can be highly contentious
- Ensures independence and mirrors EM&V language that avoids conflict of interest

Market Potential Study Continued...

 4. Include a sensitivity analysis that accounts for variation in take-rate assumptions based on changes in customer rate design that account for: time-varying rates, real-time pricing, higher customer or fixed charges, and flat and tiered volumetric rates;

 Language added to inform future rate design considerations that may have a material impact on MEEIA targets and payback assumptions.

Market Potential Study Continued...

- 5.) Include a sensitivity analysis that accounts for variation in take-rate assumptions based on both an increase and decrease in heating and cooling degree days;
- 4. Include an estimate of the achievable potential, regardless of cost-effectiveness, of energy savings from low-income demand-side programs. Energy savings from multifamily buildings that house low-income households may count toward this target

 Language added to inform reasonable considerations that may have a material impact on MEEIA targets and payback assumptions.

Conflict of interest language: Third-party Independence

(7) Evaluation, Measurement, and Verification (EM&V) of the Process and Impact of DemandSide Programs. Each electric utility shall hire an independent contractor to perform and report EM&V of each commission-approved demand-side program in accordance with 4 CSR 240-20.094 Demand-Side Programs. The utility shall provide oversight and guidance to the independent EM&V contractor, but shall not influence the independent EIM&V contractor's report(s). The commission shall hire an independent contractor to audit and report on the work of each utility's independent EM&V contractor. The commission staff shall provide oversight and guidance to the independent commission contractor, but shall not influence the independent contractor's audit(s). Staff counsel shall provide legal representation to the independent contractor in the event the independent contractor is required to testify before the commission.

 Mirrors language accepted for Staff's "independent" auditor

EM&V Spend

• (7) (A) Each utility's EM&V budget shall not exceed two-and-half percent (2 ½ %) if the participating utility has deployed AMI and five percent of the utility's total budget for all approved demand-side program costs if it has not fully deployed AMI.

 Engineering and third-party costs should decrease as technology advances regarding "real-time" savings.

Total Resource Cost Test

- Utilize definition in the statute
- Also... And the second of th
- (7) (D) EM&V final reports from the utility's contractor of each approved demand-side program shall— . . .
 - (III) Determine the benefits achieved for each demand-side program and portfolio using the UCT TRC methodology.

- The TRC is the statutorily preferred costeffective test.
- It is unclear why the UCT would selectively be chosen on the back-end of the evaluation if it is not being utilized in setting the targets on the front-end (the TRC).
- The MEEIA rules should be consistent with the intention of the statute.

Total Resource Cost Test continued...

- Delete 4 CSR 240-20.093 (6) (B)
- (B) If a demand side program subject to the TRC is determined not to be cost-effective, the electric utility shall identify the causes why and present possible demand-side program modifications that could make the demand-side program cost effective. If analysis of these modified demand-side program designs suggests that none would be cost effective, the demand-side program may be discontinued. In this case, the utility shall describe how it intends to end the demand-side program and how it intends to achieve the energy and demand savings initially estimated for the discontinued demand-side program. Nothing here in requires utilities to end any demand-side program which is subject to a cost-effectiveness test deemed not cost effective immediately. Utilities proposal for any discontinuation of a demand-side program should consider, but not be limited to: the potential impact on the market for energy efficiency services in its territory; the potential impact to vendors and the utilities relationship with vendors; the potential disruption to the market and to customer outreach efforts from immediate starting and stopping of demand-side programs; and whether the long-term prospects indicate that continued pursuit of a demand-side program will result in a long term cost effective benefit to ratepayers.

- The inclusion of this additional language is unnecessary and overly burdensome to the utility.
- The choice to withdraw a program is tied almost entirely to attribution (heightened levels of free ridership) not cost effectiveness.
- Vendor impact should not be a consideration for ratepayers or the utility.
- MEEIA is not meant to subsidize or otherwise prop up a private business.

Net-to-Gross Components

- Electric utility's EM&V contractors shall:
- 1. Include specific methodology for performing EM&V work <u>including net-to-gross</u> <u>components limited solely to free ridership</u> and spillover.

- · Minimizes future conflict.
- · Represents a fair compromise.

Soft targets

- Delete <u>4 CSR 240-20.093 (2)</u>
- (2) (A) The commission shall use the greater of the annual realistic amount of achievable energy
- savings and demand savings as determined through [the utility's] a market potential study or
- the following incremental annual demand-side savings goals as a guideline to review progress
- toward an expectation that the electric utility's demand-side programs can achieve a goal of all

cost-effective demand-side savings:

- 1. For [2012] the utility's approved first progt-am-year: tln-ee-tenths percent (0.3%) of total annual energy and one percent (1.0%) of annual peak demand;
- 2. For [2013] the utility's approved second program year: five tenths percent (0.5%) of total annual energy and one percent (1.0%) of annual peak demand;
- 3. For [2014] the utility's approved third program year: seven tenths percent (0.7%) of total annual energy and one percent (1.0%) of annual peak demand;
- 4. For [2015] the utility's approved fourth-program year: nine-tenths percent (0.9%) of

Useful Benchmark

Benchmork are

other Potential studia

- The inclusion of "soft targets" in the MEEIA rules is a subjective exercise that provides questionable value to the MEEIA process.
- In practice, utilities actually work with "moving targets" between triennial IRP and MEEIA filings (e.g., three-year cycles) which makes comparisons between portfolio cycles challenging and open to interpretation.

Statewide TRM

- · Delete reference to a statewide TRM
- (10) Statewide Technical Reference Manual
- (A) Utilities and stakeholders will work to create and implement a statewide TRM that includes values and formulas for deemed savings and includes commonly used measures for all utility sectors;
- (B) The statewide TRM shall be submitted to the commission for review-
- 1. The commission may either approve or reject the proposed statewide TRM;
- 2. If the commission rejects the proposed statewide TRM, stakeholders shall address the commission concerns and submit a revised statewide TRM within ninety (90) days of an order rejecting;

Et al...

- Statewide TRM no longer applicable in current regulatory, policy and technological environment.
- · Clean Power Plan
- AMI Technology
- Opportunity Costs

Thank you for your time **QUESTIONS?**