**4 CSR 240-20.092 Definitions for Demand-Side Programs and Demand-Side Program Investment Mechanisms**

*PURPOSE: This rule incorporates definitions for all terms used in 4 CSR 240-20.093 Demand-Side Programs Investment Mechanisms (DSIM) and 4 CSR 240-20.094 Demand-Side Programs.*

(1) As used in 4 CSR 240-20.093 and 4 CSR 240-20.094, the following terms mean:

(A) ~~Achievable Potential means the amount of energy use that efficiency can realistically be expected to displace assuming the most aggressive program scenario possible (e.g., providing end-users with payments for the entire incremental cost of more efficiency equipment). Achievable potential takes into account real-world barriers to convincing end-users to adopt efficiency measures, the non-measure costs of delivering programs (for administration, marketing, tracking systems, monitoring and evaluation, and so on), and the capability of programs and administrators to ramp up program activity over time;~~

**Utility Stakeholders: Oppose changing to NAPEE definitions of potential, as they do not align with the IRP process. Support using ACEEE definitions. ACEEE defines Technical, Economic, Realistically Achievable, and Maximum Achievable Potentials. ACEEE definitions are also used in the Chapter 22 IRP rules. NAPEE definitions are outdated (2007). Program potential is not relevant to Missouri, which uses an IRP process. NAPEE definitions would be relevant to a resource standard state. Other stakeholders support changing the definitions (as well as removing the link between IRP and MEEIA).**

**Response: DE requests that the ACEEE source document be provided; a brief search identified a 2008 ACEEE document, but the definitions are not the same. DE continues to support the use of the NAPEE definitions. Specifically, we recommend the following definition:**

**“Achievable Potential means the amount of energy use that efficiency can realistically be expected to displace assuming the most aggressive program scenario possible (e.g., providing end-users with payments for the entire incremental cost of more efficiency equipment). Achievable potential takes into account real-world barriers to convincing end-users to adopt efficiency measures, the non-measure costs of delivering programs (for administration, marketing, tracking systems, monitoring and evaluation, and so on), and the capability of programs and administrators to ramp up program activity over time;”**

(B) Annual report means a report of information concerning a utility’s demand-side programs having the content described in 4 CSR 240.093(8);

(C) Approved demand-side program means a demand-side program or demand-side program pilot which is approved by the commission in accordance with 4 CSR 240-20.094 Demand-Side Programs;

(D) Avoided cost or avoided utility cost means the cost savings obtained by substituting demand-side programs for existing and new supply-side resources. Avoided costs include avoided utility costs resulting from demand-side programs’ energy savings and demand savings associated with generation, transmission, and distribution facilities including avoided probable environmental compliance costs. The utility shall use the same methodology used in its most recently-adopted preferred resource plan to calculate its avoided costs;

(E) Baseline demand forecast means a reference forecast of summer and winter demand at the class level in the absence of any new demand-side programs but including the effects of naturally-occurring energy efficiency and any codes and standards that were in place and known to be enacted at the time the forecast is completed;

(F) Baseline energy forecast means a reference forecast of energy at the class level in the absence of any new demand-side programs but including the effects of naturally-occurring energy efficiency and any codes and standards that were in place and known to be enacted at the time the forecast is completed;

(G) Cost recovery component of a DSIM means the methodology approved by the commission in a utility’s filing for demand-side program approval to allow the utility to receive recovery of costs of approved demand-side programs with interest;

(H) Customer class means major customer rate groupings such as residential, small general service, large general service, and large power service;

(new) Deemed results means the energy savings or the demand savings, documented or calculated, in the TRM multiplied by the documented measure count. The sum of all measures installed in a program times their TRM value equals the Program’s deemed results. The sum of all Program’s deemed results equals the Portfolio deemed result.

(I) Demand means the rate of electric power use over an hour measured in kilowatts (kW);

(J) Demand response means measures that decrease peak demand or shift demand to off-peak periods;

(K) Demand-side portfolio or portfolio of programs means all of a utility’s demand-side programs at a defined point in time that has been approved under a utility’s approved MEEIA plan;

(L) 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, and combined heat and power;

**Public Council, Utility stakeholders: Oppose addition of distributed generation to the above definition as going beyond the intent of the statute. Distributed generation does not necessarily modify consumption of energy on the consumer’s side of the meter.**

**Response: DE agrees that “distributed generation” is not by itself a demand-side program or measure; however, “combined heat and power,” which is now included, is clearly a demand-side program or measure and thus appropriate for inclusion in the list of eligible programs. As discussed during the 6/26 workshop, a utility program incorporating CHP would “modify the net consumption of electricity on the retail customer’s side of the electric meter;” the word “modify” in this sense cannot be narrowly construed to mean “reduce,” as this would preclude certain non-energy efficiency programs such as load management, demand response, and interruptible or curtailable load programs. Even if CHP did not enable non-energy efficiency programs, however, it would likely be eligible as an energy efficiency program since it tends to improve energy efficiency generally and electrical efficiency more specifically by incorporating the use of waste heat.**

**Regardless of the *current* statutory or regulatory flexibility which already allows for the use of CHP, DE still supports providing clarity through the *explicit* incorporation of CHP into the *revised* rules here due to Staff’spast disagreement about CHP’s eligibility under MEEIA; this will provide certainty in the future.**

(~~M) Demand-side program plan means a particular combination of demand-side programs that has been approved under a utility’s approved MEEIA plan to be delivered according to a specified implementation schedule and budget;~~

(N) Demand-side programs investment mechanism, or DSIM, means a mechanism approved by the commission in a utility’s filing for demand-side program approval to encourage investments in demand-side programs. The DSIM may include, in combination and without limitation:

1. Cost recovery of demand-side program costs through capitalization of investments in demand-side programs;

2. Cost recovery of demand-side program costs through a demand-side program cost tracker;

3. Accelerated depreciation on demand-side investments;

4. Recovery of lost revenues and throughput disincentive; and

5. Utility incentive based on the achieved performance level of approved demand-side programs;

(O) Demand savings target means the annual demand savings level approved by the commission at the time of each demand-side portfolio’s approval, or adjusted based on an approved mechanism. ~~Demand-side savings targets are the baseline for determining the utility’s demand-side portfolio’s demand savings performance levels (in the methodology for the utility incentive component of a demand-side portfolios investment mechanism (DSIM)~~

(P) DSIM cost recovery revenue requirement means the revenue requirement approved by the commission in a utility’s filing for demand-side program approval or a DSIM rate adjustment case to provide the utility with cost recovery of demand-side program costs based on the approved cost recovery component of a DSIM;

(Q) DSIM rate means the charge on customers’ bills for the portion of the DSIM revenue requirement assigned by the commission to a rate class;

(R) DSIM revenue requirement means the sum of the DSIM cost recovery revenue requirement, DSIM utility lost revenue requirement or DSIM throughput disincentive revenue requirement, and DSIM utility incentive revenue requirement;

(S) DSIM utility incentive revenue requirement means the revenue requirement approved by the commission to provide the utility with a portion of net shared benefits based on the approved utility incentive component of a DSIM;

(T) DSIM utility lost revenue requirement means the revenue requirement explicitly approved (if any) by the commission to provide the utility with recovery of lost revenue based on the approved utility lost revenue component of a DSIM;

(New) DSIM utility throughput disincentive revenue requirement means the revenue requirement approved by the commission to provide the utility with recovery of throughput disincentive ~~a portion of net shared benfits~~ based on the approved utility throughput disincentive component of a DSIM;

(U) Economic potential means the theoretical subset of the technical potential that is economically cost effective as compared to conventional supply-side energy resources, assuming the immediate implementation of

efficiency measures with no regard for the gradual “ramping up” process of real-life programs, ignoring the

market barriers to ensuring the actual implementation of such measures, and only considering the costs of

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**Utility Stakeholders: Oppose changing to NAPEE definitions of potential, as they do not align with the IRP process. Support using ACEEE definitions. ACEEE defines Technical, Economic, Realistically Achievable, and Maximum Achievable Potentials. ACEEE definitions are also used in the Chapter 22 IRP rules. NAPEE definitions are outdated (2007). Program potential is not relevant to Missouri, which uses an IRP process. NAPEE definitions would be relevant to a resource standard state. Other stakeholders support changing the definitions (as well as removing the link between IRP and MEEIA).**

**Response: DE requests that the ACEEE source document be provided; a brief search identified a 2008 ACEEE document, but the definitions are not the same. DE continues to support the use of the NAPEE definitions. Specifically, we recommend the following definition:**

**“Economic potential means the theoretical subset of the technical potential that is economically cost-effective as compared to conventional supply-side energy resources, assuming the immediate implementation of efficiency measures with no regard for the gradual “ramping up” process of real-life programs, ignoring the market barriers to ensuring the actual implementation of such measures, and only considering the costs of efficiency measures themselves while ignoring any programmatic costs (e.g., marketing, analysis, administration) that would be necessary to capture them;”**

(V) Electric utility or utility means any electric corporation as defined in section 386.020, RSMo;

(W) Energy means the total amount of electric power that is used over a specified interval of time measured in kilowatt-hours (kWh);

(X) Energy efficiency means measures that reduce the amount of electricity required to achieve a given end-use;

(Y) Energy savings target means the annual energy savings level approved by the commission at the time of each demand-side portfolio’s approval, or adjusted by an approved mechanism. Energy savings targets are the baseline for determining the utility’s demand-side portfolio’s energy savings performance levels (in the methodology for the utility incentive component of a DSIM);

(new) Evaluated results means the energy savings or the demand savings, documented through measurement and verification, multiplied by the measure counts, documented through measurement and verification. These results may then be adjusted by the evaluation of Net to Gross savings (NTG).

(Z) Evaluation, measurement, and verification, or EM&V, means the performance of studies and activities intended to evaluate the process of the utility’s program delivery and oversight and to estimate and/or verify the estimated actual energy and demand savings, benefits, cost effectiveness, and other effects from demand-side programs;

(AA) Filing for demand-side program approval means a utility’s filing for approval, modification, or discontinuance of demand-side program(s) which may also include a simultaneous request for the establishment, modification, or discontinuance of a DSIM;

(BB) General rate proceeding means a general rate increase proceeding or complaint proceeding before the commission in which all relevant factors that may affect the costs or rates and charges of the electric utility are considered by the commission;

(CC) Interruptible or curtailable rate means a rate under which a customer receives a reduced charge in exchange for agreeing to allow the utility to withdraw the supply of electricity under certain specified conditions;

(DD) Lost revenue means the reduction in utility retail revenuethat occurs as a result of utility demand-side programs approved by the commission in accordance with 4 CSR 240-20.094. Lost revenues are only those revenues lost due to energy and demand savings from utility demand-side programs approved by the commission in accordance with 4 CSR 240-20.094 Demand-Side Programs.;

(EE) Market potential study means a quantitative analysis of the amount of energy and demand savings that may ~~either~~ exist~~s~~, is cost-effective, and ~~or~~ could be realized through the implementation of energy efficiency programs and policies.

(new) Market Transformation- is the strategic process of intervening in a market to create lasting change in market behavior by removing identified barriers or exploiting opportunities to accelerate the adoption of all cost-effective energy efficiency as a matter of standard practice.

(FF) Maximum achievable potential means energy savings and demand savings relative to a utility’s baseline energy forecast and baseline demand forecast, respectively, resulting from expected program participation and ideal implementation conditions. Maximum achievable potential establishes a maximum target for demand-side savings that a utility can expect to achieve through its demand-side programs and involves incentives that represent a very high portion of total programs costs and very short customer payback periods. Maximum achievable potential is considered the hypothetical upper-boundary of achievable demand-side savings potential, because it presumes conditions that are ideal and not typically observed;

**Utility Stakeholders: Oppose changing to NAPEE definitions, as they do not align with the IRP process. Support keeping current definitions as reflected above. Program potential is not relevant to Missouri, which uses an IRP process. It would be relevant to a resource standard state. Several other stakeholders support changing the definitions (as well as removing the link between IRP and MEEIA).**

**Response: DE requests that the ACEEE source document be provided; a brief search identified a 2008 ACEEE document, but the definitions are not the same. DE continues to support the use of the NAPEE definitions. Please see our definition above for “achievable potential.”**

(GG) Measure means any device, technology, behavioral response mechanism, or operating procedure that makes it possible to deliver an adequate level and quality of energy service while—

1. Using less energy than would otherwise be required; or

2. Altering the time pattern of electricity so as to require less generating capacity or to allow the electric power to be supplied from more fuel-efficient units;

(HH) Net shared benefits means the program benefits ~~measured and documented through evaluation, measurement, and verification (EM&V)reports or a technical resource manual~~ for approved demand-side programs less the sum of the programs’ costs including design, administration, delivery, end-use measures, incentive payments to customers, EM&V, utility market potential studies, and technical resource manual; .

(II) Non Energy Benefits means effects attributable to energy efficiency programs apart from energy savings

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: these non energy benefits would be the only NEBS considered for the TRC and the UCT tests; and
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 ~~shall~~ may be included in cost-effectiveness tests such as ~~the total resource cost test and~~ the societal cost test unless they cannot be calculated with a reasonable degree of confidence;.

(JJ) Non-participant test (sometimes referred to as the ratepayer impact measure test or RIM test) is a measure of the difference between the change in total revenues paid to a utility and the change in total cost incurred by the utility as a result of the implementation of demand-side programs. The benefits are the avoided cost as a result of implementation. The costs consist of incentives paid to participants, other costs incurred by the utility, and the loss in revenue as a result of diminished consumption. Utility costs include the costs to administer, deliver, and evaluate each demand-side program;

(KK) Participant test means the test of the cost-effectiveness of demand-side programs that measures the economics of a demand-side program from the perspective of the customers participating in the program;

(LL) Preferred resource plan means the utility’s resource plan that is contained in the resource acquisition strategy most recently adopted submitted before a MEEIA filing by the utility’s decision-makers in accordance with 4 CSR 240-22;

(MM) Probable environmental compliance cost means the likely, expected, or anticipated cost to the utility of complying with new or additional environmental legal mandates, taxes, or other requirements that, in the judgment of the utility’s decision-makers, may be reasonably be expected to be incurred by the utility and which would result in environmental compliance costs that could have a significant impact on utility rates. In estimating its avoided probable environmental compliance costs, the utility shall consider factors including, but not limited to, reductions in risks, liabilities, and other costs under the Clean Air Act, the Clean Water Act, the Endangered Species Act, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, and related federal and state laws and regulation;

(NN) Program pilot means a demand-side program designed to operate on a limited basis for evaluation purposes before full implementation;

(OO) Realistic achievable potential means energy savings and demand savings relative to a utility’s baseline energy forecast and baseline demand forecast, respectively, resulting from expected program participation and realistic implementation conditions. Realistic achievable potential establishes a realistic target for demand-side savings that a utility can expect to achieve through its demand-side programs and involves incentives that represent a moderate portion of total program costs and longer customer payback periods when compared to those associated with maximum achievable potential;

**Utility Stakeholders: Oppose changing to NAPEE definitions, as they do not align with the IRP process. Support keeping current definitions as reflected above. Program potential is not relevant to Missouri, which uses an IRP process. It would be relevant to a resource standard state. Several other stakeholders support changing the definitions (as well as removing the link between IRP and MEEIA).**

**Response: DE requests that the ACEEE source document be provided; a brief search identified a 2008 ACEEE document, but the definitions are not the same. DE continues to support the use of the NAPEE definitions. Specifically, we recommend the following definition:**

**“Program potential refers to the efficiency potential possible given specific program funding levels and designs. Program potential studies can consider scenarios ranging from a single program to a full portfolio of programs. A typical potential study may report a range of results based on different program funding levels;”**

(PP) Societal cost test means the total resource cost test with the addition of societal benefits (externalities such as, but not limited to, environmental or economic benefits) to the total benefits of the total resource cost test;

(QQ) Staff means all personnel employed by the commission, whether on a permanent or contract basis, except: commissioners; commissioner support staff, including technical advisory staff; personnel in the secretary’s office; and personnel in the general counsel’s office, including personnel in the adjudication department. Employees in the staff counsel’s office are members of the commission’s staff;

(RR) Statewide technical resource manual means a document developed by the state-wide collaborative and approved by the commission that is used by all electric utilities to assess energy savings and demand savings attributable to energy efficiency and demand response;

(SS) ~~Technical potential means the theoretical maximum amount of energy use that could be displaced by efficiency, disregarding all non-engineering constraints such as cost-effectiveness and the willingness of end-users to adopt the efficiency measures. Technical potential is often estimated as a “snapshot” in time, assuming the immediate implementation of all technologically feasible energy saving measures, with additional efficiency opportunities assumed as they arise from activities such as new construction;~~ Technical potential means energy savings and demand savings relative to a utility’s baseline energy forecast and baseline demand forecast, respectively, resulting from a theoretical construct that assumes all feasible measures are adopted by customers of the utility regardless of cost or customer preference;

**Utility Stakeholders: Oppose changing to NAPEE definitions, as they do not align with the IRP process. Support keeping current definitions as reflected above. Program potential is not relevant to Missouri, which uses an IRP process. It would be relevant to a resource standard state. Several other stakeholders support changing the definitions (as well as removing the link between IRP and MEEIA).**

**Response: DE requests that the ACEEE source document be provided; a brief search identified a 2008 ACEEE document, but the definitions are not the same. DE continues to support the use of the NAPEE definitions. Specifically, we recommend the following definition:**

**“Technical potential means the theoretical maximum amount of energy use that could be displaced by efficiency, disregarding all non-engineering constraints such as cost-effectiveness and the willingness of end-users to adopt the efficiency measures. Technical potential is often estimated as a “snapshot” in time, assuming the immediate implementation of all technologically feasible energy saving measures, with additional efficiency opportunities assumed as they arise from activities such as new construction;”**

(TT) Technical Resource Manual, or TRM means a document used to assess energy savings and demand savings attributable to energy efficiency and demand response programs within an electric utility’s territory.

(UU) Throughput Disincentive means the electric utility’s revenues lost from decreased retail sales volumes due to its demand-side programs.

(VV) Total resource cost test, or TRC, a test that compares the sum of avoided utility costs and avoided probable environmental compliance costs to the sum of all incremental costs of end use measures that are implemented due to the program, as defined by the commission in rules. Benefits include the avoided costs or utility costs, avoided probable environmental compliance costs, other avoided resource benefits (*e.g.,* oil, natural gas, water), and other benefits that accrue to Missourians, including non-energy benefits as defined by the commission. Costs include the sum of all incremental costs of end­use measures that are implemented due to the program (including both utility and participant contributions), plus utility costs to administer, deliver, and evaluate each demand­side program. In estimating its avoided probable environmental compliance costs and non-energy benefits, the utility shall consider factors including, but not limited to: reductions in emissions liability under the Clean Air Act; reduction in transmission and distribution costs; reductions in the utility’s load factor or peak load; reductions in fuel costs, health and safety improvements, etc;

**Utility Stakeholders: Oppose the proposed language. The only NEBs that would qualify for the TRC would be NEBs that are benefits to the utility. The statute states “the sum of avoided utility costs and avoided probable environmental costs”. NEBs would have to be associated with the cost of compliance. Avoided costs are different than avoided utility costs and do not apply to the TRC.**

**Response: DE disagrees that the TRC should only include benefits to the utility; *the test that includes only benefits to the utility is the UCT*. Further, neither “avoided costs” nor “avoided utility costs” are ever explicitly defined in the MEEIA statute (§393.1075 RSMo.); however, the definition of the TRC at §393.1075.2(6)RSMo. is, “…a test that compares the sum of *avoided utility costs* and avoided probable environmental compliance costs to the sum of all incremental costs of end-use measures that are implemented due to the program, *as defined by the commission in rules*.” Therefore, *both the definitions of the TRC and “avoided utility costs” are subject to modification by the Commission in rules*, as per the current process.**

**As indicated in the proposed NEB language above, there are numerous types of NEBs, including those which do not directly apply to the utility. However, all NEBs which can be calculated with a reasonable degree of confidence must be included in the TRC since it is a *total* resource cost test; otherwise, the utility will be unable to assess whether or not its proposed programs and portfolio are, “… beneficial to all customers in the customer class in which the programs are proposed, regardless of whether the programs are utilized by all customers” (§393.1075.4 RSMo.). Several states already use NEBs in some form, as discussed by Malmgren and Skumatz (2014) in “Lessons from the Field: Practical Applications for Incorporating Non-Energy Benefits into Cost-Effectiveness Screening.”**

**The language as supported by DE in its comments read:**

**“Total resource cost test, or TRC, means the test of the cost­effectiveness of demand­side programs that compares the long term net present value costs and benefits. Benefits include the avoided costs or avoided utility costs, avoided probable environmental compliance costs, other avoided resource benefits (*e.g.,* oil, natural gas, water), and other benefits that accrue to Missourians, including non-energy benefits as defined by the commission in rules. Costs include the sum of all incremental costs of end­use measures that are implemented due to the program (including both utility and participant contributions), plus utility costs to administer, deliver, and evaluate each demand­side program. In estimating avoided probable environmental compliance costs and non-energy benefits, the utility shall consider factors including, but not limited to: reductions in emissions liability under the Clean Air Act; reduction in transmission and distribution costs; reductions in the utility’s load factor or peak load; reductions in fuel costs; health and safety improvements; and so on;”**

(WW) Utility cost test means the test that compares the avoided utility costs and avoided probable environmental compliance costs to the sum of all utility costs; ~~incentive payments to the customer, plus utility costs to administer, deliver, and evaluate each demand-side program to quantify the net savings obtained by substituting the demand-side program for supply-side resources;~~

(XX) Utility incentive component of a DSIM means the methodology approved by the commission in a utility’s filing for demand-side program approval to allow the utility to receive a portion of net shared benefits achieved and documented through EM&V reports;

(YY) Utility lost revenue component of a DSIM means the methodology approved by the commission in a utility’s filing for demand-side program approval to allow the utility to receive recovery of lost revenue; and

(ZZ) Utility Throughput Disincentive component of a DSIM means the methodology approved by the commission in a utility’s filing for a demand-side program approval to allow the utility to receive recovery of Throughput Disincentive.

*AUTHORITY: section 393.1075.11, RSMo Supp. 2010.\* Original rule filed Oct. 4, 2010, effective May 30, 2011.*

*\*Original authority: 393.1075, RSMo 2009.*