

Appendix C2 DSM Market Potential Study IRP Rule Cross-Reference

IRP Section	IRP Subsection	Mandate	Location
20 CSR 4240-22.050(1)		The utility shall identify a set of potential demand-side resources from which demand-side candidate resource options will be identified for the purposes of developing the alternative resource plans required by 4 CSR 240-22.060(3). A potential demand-side resource consists of a demand-side program designed to deliver one (1) or more energy efficiency and energy management measures or a demand-side rate. The utility shall select the set of potential demand-side resources and describe and document its selection—	Chapter 2
	20 CSR 4240-22.050(1)(A)	To provide broad coverage of—	n/a
	20 CSR 4240-22.050(1)(A)1	Appropriate market segments within each major class;	EE Market Characterization - Section 2.1.2(b) DR/DSR Market Characterization - Section 2.1.3(a) Exhibit A_Energy Residential Appliance Saturation Survey
	20 CSR 4240-22.050(1)(A)2	All significant decision-makers, including at least those who choose building design features and thermal integrity levels, equipment and appliance efficiency levels, and utilization levels of the energy-using capital stock; and	Stakeholder Engagement - Section 1.1
	20 CSR 4240-22.050(1)(A)3	All major end uses, including at least the end uses which are to be considered in the utility's load analysis as listed in 4 CSR 240-22.030(4)(A)1.;	EE Market Characterization - Section 2.1.2(b) DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(1)(B)	To fulfill the goal of achieving all cost-effective demand-side savings, the utility shall design highly effective potential demand-side programs consistent with subsection (1)(A) that broadly cover the full spectrum of cost-effective end-use measures for all customer market segments;	Potential Scenarios - Section 2.1.1 Calculation of EE Potential - Section 2.1.2(e) DR/DSR Potential Estimation - Section 2.1.3(d) IRP Bundle Design Approach - Section 3.1.2
	20 CSR 4240-22.050(1)(C)	To include demand-side rates for all customer market segments;	DR/DSR Market Characterization - Section 2.1.3(a)
	20 CSR 4240-22.050(1)(D)	To consider and assess multiple designs for demand-side programs and demand-side rates, selecting the optimal designs for implementation, and modifying them as necessary to enhance their performance; and	Potential Scenarios - Section 2.1.1 DR/DSR Potential Assessment - Section 2.1.3(d) IRP Bundle Design Scenarios - Section 3.1.2(C)
	20 CSR 4240-22.050(1)(E)	To include the effects of improved technologies expected over the planning horizon to—	n/a
	20 CSR 4240-22.050(1)(E)1	Reduce or manage energy use; or	EE Market Characterization - Section 2.1.2(b) DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(1)(E)2	Improve the delivery of demand-side programs or demand-side rates.	DSM Portfolio Framework - Section 3.2
20 CSR 4240-22.050(2)		The utility shall conduct, describe, and document market research studies, customer surveys, pilot demand-side programs, pilot demand-side rates, test marketing programs, and other activities as necessary to estimate the maximum achievable potential, technical potential, and realistic achievable potential of potential demand-side resource options for the utility and to develop the information necessary to design and implement cost-effective demand-side programs and demand-side rates.	Data Development - Section 2.2 Exhibit A_Energy Residential Appliance Saturation Survey
		The utility shall develop potential demand-side programs that are designed to deliver an appropriate selection of end-use measures to each market segment. The utility shall describe and document its potential demand-side program planning and design process which shall include at least the following activities and elements:	Potential Study Analysis Approach - Section 2.1 IRP Bundle Design Approach - Section 3.1.2
	20 CSR 4240-22.050(3)(A)	Review demand-side programs that have been implemented by other utilities with similar characteristics and identify programs that would be applicable for the utility;	IRP Bundle Utility Program Review - Section 3.1.2(a)
	20 CSR 4240-22.050(3)(B)	Identify, describe, and document market segments that are numerous and diverse enough to provide relatively complete coverage of the major classes and decision-makers identified in subsection (1)(A) and that are specifically defined to reflect the primary market imperfections that are common to the members of the market segment;	EE Market Characterization - Section 2.1.2(b) DR/DSR Market Characterization - Section 2.1.3(a) Exhibit A_Energy Residential Appliance Saturation Survey

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20 CSR 4240-22.050(3)	20 CSR 4240-22.050(3)(C)	Identify a comprehensive list of end-use measures and demand-side programs considered by the utility and develop menus of end-use measures for each demand-side program. The demand-side programs shall be appropriate to the shared characteristics of each market segment. The end-use measures shall reflect technological changes in end-uses that may be reasonably anticipated to occur during the planning horizon;	EE Measure Development - Section 2.1.2(d) DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(3)(D)	Assess how advancements in metering and distribution technologies that may be reasonably anticipated to occur during the planning horizon affect the ability to implement or deliver potential demand-side programs;	DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(3)(E)	Design a marketing plan and delivery process to present the menu of end-use measures to the members of each market segment and to persuade decision-makers to implement as many of these measures as may be appropriate to their situation. When appropriate, consider multiple approaches such as rebates, financing, and direct installations for the same menu of end-use measures;	DSM Portfolio Framework - Section 3.2 Exhibit G_Every Program Descriptions
	20 CSR 4240-22.050(3)(G)	Estimate the characteristics needed for the twenty (20)-year planning horizon to assess the cost effectiveness of each potential demand-side program, including:	Potential Scenarios - Section 2.1.1 Calculation of EE Potential - Section 2.1.2(e) DR/DSR Potential Estimation - Section 2.1.3(d)
	20 CSR 4240-22.050(3)(G)1	An assessment of the demand and energy reduction impacts of each stand-alone end-use measure contained in each potential demand-side program;	EE Measure Development - Section 2.1.2(d) DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(3)(G)2	An assessment of how the interactions between end-use measures, when bundled with other end-use measures in the potential demand-side program, would affect the stand-alone end-use measure impact estimates;	Calculation of EE Potential - Section 2.1.2(e) DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(3)(G)3	An estimate of the incremental and cumulative number of program participants and end-use measure installations due to the potential demand-side program;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)4	For each year of the planning horizon, an estimate of the incremental and cumulative demand reduction and energy savings due to the potential demand-side program; and	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5	For each year of the planning horizon, an estimate of the costs, including:	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5A	The incremental cost of each stand-alone end-use measure;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5B	The cost of incentives paid by the utility to customers or utility financing to encourage participation in the potential demand-side program. The utility shall consider multiple levels of incentives paid by the utility for each end-use measure within a potential demand-side program, with corresponding adjustments to the maximum achievable potential and the realistic achievable potential of that potential demand-side program;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5C	The cost of incentives to customers to participate in the potential demand-side program paid by the entities other than the utility;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5D	The cost to the customer and to the utility of technology to implement a potential demand-side program;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5E	The utility's cost to administer the potential demand-side program; and	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(G)5F	Other costs identified by the utility;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(H)	A tabulation of the incremental and cumulative number of participants, load impacts, utility costs, and program participant costs in each year of the planning horizon for each potential demand-side program; and	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(3)(I)	The utility shall describe and document how it performed the assessments and developed the estimates pursuant to subsection (3)(G) and shall provide documentation of its sources and quality of information.	IRP Bundle Development - Analysis Approach (Section 3.1) Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
			The utility shall develop potential demand-side rates designed for each market segment to reduce the net consumption of electricity or modify the timing of its use. The utility shall describe and document its demand-side rate planning and design process and shall include at least the following activities and elements:
20 CSR 4240-22.050(4)(A)		Review demand-side rates that have been implemented by other utilities and identify whether similar demand-side rates would be applicable for the utility taking into account factors such as similarity in electric prices and customer makeup;	Potential Study Data Development 1.1.1(a) Regional and National Data Sources, DR/DSR Potential Estimation - Section 2.1.3(d)

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20 CSR 4240-22.050(4)	20 CSR 4240-22.050(4)(B)	Identify demand-side rates applicable to the major classes and decision-makers identified in subsection (1)(A). When appropriate, consider multiple demand-side rate designs for the same major classes;	DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(4)(C)	Assess how technological advancements that may be reasonably anticipated to occur during the planning horizon, including advanced metering and distribution systems, affect the ability to implement demand-side rates;	DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(4)(D)	Estimate the input data and other characteristics needed for the twenty (20)-year planning horizon to assess the cost effectiveness of each potential demand-side rate, including:	n/a
	20 CSR 4240-22.050(4)(D)(1)	An assessment of the demand and energy reduction impacts of each potential demand-side rate;	DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(4)(D)(2)	An assessment of how the interactions between multiple potential demand-side rates, if offered simultaneously, would affect the impact estimates;	DR/DSR Program Characterization - Section 2.1.3(b)
	20 CSR 4240-22.050(4)(D)(3)	An assessment of how the interactions between potential demand-side rates and potential demand-side programs would affect the impact estimates of the potential demand-side programs and potential demand-side rates;	DR/DSR Program Characterization - Section 2.1.3(b) DR/DSR Potential Estimation - Section 2.1.3(d)
	20 CSR 4240-22.050(4)(D)(4)	For each year of the planning horizon, an estimate of the incremental and cumulative demand reduction and energy savings due to the potential demand-side rate; and	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(D)(5)	For each year of the planning horizon, an estimate of the costs of each potential demand-side rate, including:	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(D)(5)A	The cost of incentives to customers to participate in the potential demand-side rate paid by the utility. The utility shall consider multiple levels of incentives to achieve customer participation in each potential demand-side rate, with corresponding adjustments to the maximum achievable potential and the realistic achievable potentials of that potential demand-side rate;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(D)(5)B	The cost to the customer and to the utility of technology to implement the potential demand-side rate;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(D)(5)C	The utility's cost to administer the potential demand-side rate; and	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(D)(5)D	Other costs identified by the utility;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(E)	A tabulation of the incremental and cumulative number of participants, load impacts, utility costs, and program participant costs in each year of the planning horizon for each potential demand-side program;	Exhibit E_Every Metro 2023 IRP Data, Exhibit F_Every West 2023 IRP Data
	20 CSR 4240-22.050(4)(G)	The utility shall describe and document how it performed the assessments and developed the estimates pursuant to subsection (4)(D) and shall document its sources and quality of information.	DR/DSR Program Characterization - Section 2.1.3(b)
20 CSR 4240-22.050(5)		The utility shall describe and document its evaluation of the cost effectiveness of each potential demand-side program developed pursuant to section (3) and each potential demand-side rate developed pursuant to section (4). All costs and benefits shall be expressed in nominal dollars.	n/a
	20 CSR 4240-22.050(5)(A)	In each year of the planning horizon, the benefits of each potential demand-side program and each potential demand-side rate shall be calculated as the cumulative demand reduction multiplied by the avoided demand cost plus the cumulative energy savings multiplied by the avoided energy cost. These calculations shall be performed both with and without the avoided probable environmental costs . The utility shall describe and document the methods, data, and assumptions it used to develop the avoided costs.	n/a
	20 CSR 4240-22.050(5)(A)1	The utility avoided demand cost shall include the capacity cost of generation, transmission, and distribution facilities, adjusted to reflect reliability reserve margins and capacity losses on the transmission and distribution systems, or the corresponding market-based equivalents of those costs. The utility shall describe and document how it developed its avoided demand cost, and the capacity cost chosen shall be consistent throughout the triennial compliance filing.	2.2.2(f)Avoided Cost Application, Exhibit H_Avoided Cost Information
	20 CSR 4240-22.050(5)(A)2	The utility avoided energy cost shall include the fuel costs, emission allowance costs, and other variable operation and maintenance costs of generation facilities, adjusted to reflect energy losses on the transmission and distribution systems, or the corresponding market-based equivalents of those costs. The utility shall describe and document how it developed its avoided energy cost, and the energy costs shall be consistent throughout the triennial compliance filing.	2.2.2(f)Avoided Cost Application, Exhibit H_Avoided Cost Information

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20 CSR 4240-22.050(5)	20 CSR 4240-22.050(5)(A)3	The avoided probable environmental costs include the effects of the probable environmental costs calculated pursuant to 4 CSR 240-22.040(2)(B) on the utility avoided demand cost and the utility avoided energy cost. The utility shall describe and document how it developed its avoided probable environmental cost.	2.2.2(f)Avoided Cost Application, Exhibit H_Avoided Cost Information
	20 CSR 4240-22.050(5)(B)	The total resource cost test shall be used to evaluate the cost effectiveness of the potential demand-side programs and potential demand-side rates. In each year of the planning horizon—	IRP Bundle Development - Analysis Approach (Section 3.1) Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(B)1	The costs of each potential demandside program shall be calculated as the sum of all incremental costs of end-use measures that are implemented due to the program (including both utility and participant contributions) plus utility costs to administer, deliver, and evaluate each potential demandside program;	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(B)2	The costs of each potential demandside rate shall be calculated as the sum of all incremental costs that are due to the rate (including both utility and participant contributions) plus utility costs to administer, deliver, and evaluate each potential demandside rate; and	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(B)3	For purposes of this test, the costs of potential demand-side programs and potential demand-side rates shall not include lost revenues or utility incentive payments to customers.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(C)	(C) The utility cost test shall also be performed for purposes of comparison. In each year of the planning horizon—	IRP Bundle Development - Analysis Approach (Section 3.1) Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(C)1	The costs of each potential demandside program and potential demand-side rate shall be calculated as the sum of all utility incentive payments plus utility costs to administer, deliver, and evaluate each potential demand-side program or potential demand-side rate;	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(C)2	For purposes of this test, the costs of potential demand-side programs and potential demand-side rates shall not include lost revenues; and	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(C)3	The costs shall include, but separately identify, the costs of any rate of return or incentive included in the utility's recovery of demand-side program costs.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(D)	The present value of program benefits minus the present value of program costs over the planning horizon must be positive or the ratio of annualized benefits to annualized costs must be greater than one (1) for a potential demand-side program or potential demand-side rate to pass the utility cost test or the total resource cost test. The utility may relax this criterion for programs that are judged to have potential benefits that are not captured by the estimated load impacts or avoided costs, including programs required to comply with legal mandates.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(E)	The utility shall provide results of the total resource cost test and the utility cost test for each potential demand-side program evaluated pursuant to subsection (5)(B) and for each potential demand-side rate evaluated pursuant to subsection (5)(C) of this rule, including a tabulation of the benefits (avoided costs), demand-side resource costs, and net benefits or costs.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(F)	If the utility calculates values for other tests to assist in the design of demand-side programs or demand-side rates, the utility shall describe and document the tests and provide the results of those tests.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(5)(G)	The utility shall describe and document how it performed the cost effectiveness assessments pursuant to section (5) and shall describe and document its methods and its sources and quality of information.	IRP Bundle Cost-Effectiveness Screening - Section 3.1.2(b)
	20 CSR 4240-22.050(6)(A)	The utility may bundle demand-side candidate resource options into portfolios, as long as the requirements pursuant to section (1) are met and as long as multiple demandside candidate resource options and portfolios advance for consideration in the integrated resource analysis in 4 CSR 240-22.060. The utility shall describe and document how its demand-side candidate resource options and portfolios satisfy these requirements.	IRP Bundle Development - Analysis Approach (Section 3.1)

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20 CSR 4240-22.050(6)	20 CSR 4240-22.050(6)(B)	For each demand-side candidate resource option or portfolio, the utility shall describe and document the time-differentiated load impact estimates over the planning horizon at the level of detail required by the supply system simulation model that is used in the integrated resource analysis, including a tabulation of the estimated annual change in energy usage and in diversified demand for each year in the planning horizon due to the implementation of the candidate demand-side resource option or portfolio.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(6)(C)	The utility shall describe and document its assessment of the potential uncertainty associated with the load impact estimates of the demand-side candidate resource options or portfolios. The utility shall estimate—	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data IRP Bundle Development - Analysis Approach (Section 3.1)
	20 CSR 4240-22.050(6)(C)(1)	The impact of the uncertainty concerning the customer participation levels by estimating and comparing the maximum achievable potential and realistic achievable potential of each demand-side candidate resource option or portfolio; and	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
	20 CSR 4240-22.050(6)(C)(2)	The impact of uncertainty concerning the cost effectiveness by identifying uncertain factors affecting which end-use resources are cost effective. The utility shall identify how the menu of cost-effective end-use measures changes with these uncertain factors and shall estimate how these changes affect the load impact estimates associated with the demand-side candidate resource options.	Exhibit E_Evergy Metro 2023 IRP Data, Exhibit F_Evergy West 2023 IRP Data
20 CSR 4240-22.050(7)		For each demand-side candidate resource option identified in section (6), the utility shall describe and document the general principles it will use to develop evaluation plans pursuant to 4 CSR 240-22.070(8). The utility shall verify that the evaluation costs in subsections (5)(B) and (5)(C) are appropriate and commensurate with these evaluation plans and principles.	IRP Bundle Development EM&V - Section 3.2.4