IRP Stakeholder Meeting

March 26th, 2021

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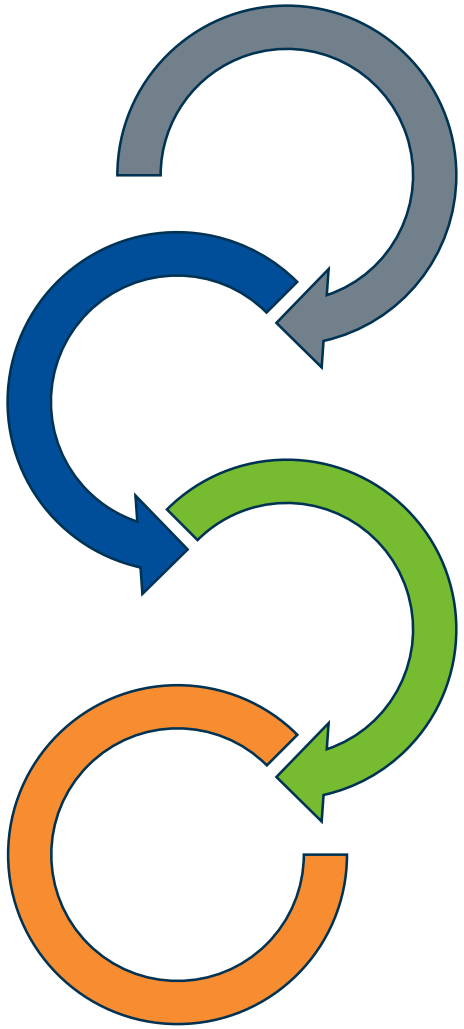
Agenda

- Update on IRP Development Progress
- Inputs & Assumptions Update
  - Documentation Provided
  - Load Forecast Summary
  - Updated Request for Proposal (RFP)
- Alternative Resource Plans Modeled To-Date
- Uncertain Factors & Scenarios Update
- Preliminary Revenue Requirement Results
- Preferred Plan Selection Framework
- Next Steps

Triennial IRP Development Timeline



Refining Assumptions and Inputs

Early April: 2020 Annual Update Stakeholder Meeting to introduce process

Gathering Input

July: Stakeholder meeting to discuss modeling assumptions / inputs

Conducting Analysis

Late Q3 – Early Q1: Stakeholder meeting(s) to discuss preliminary results

- ***October 19th:*** *Initial review of preliminary results*
- ***December 16th:*** *Additional stakeholder meeting to review next round of results*
- ***January 21st:*** *Demand-Side (Electrification, DSM, Behind-the-Meter solar & storage) Focused Discussion*
- ***As Needed:*** *Topical meetings with specific stakeholders on comments received*

Reviewing Results

Q1 2021: Review updated results and distribute draft volumes .030 to .050

Recap of Engagement To-Date

Gathering Input

July 2020
Reviewed key input assumptions and provided overview of analytical process

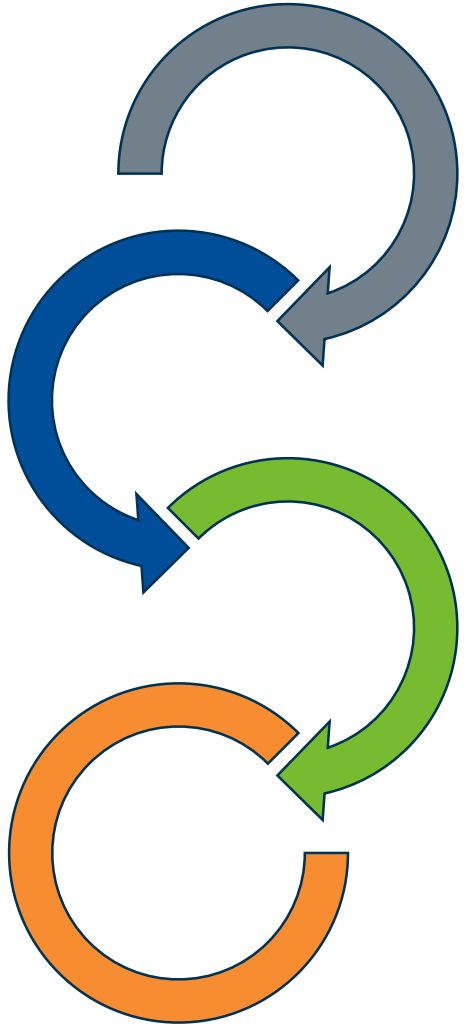
Received stakeholder feedback on assumptions and inputs

Reviewing Results

March 2021[1]
Providing additional preliminary modeling results

Submitting draft documentation for key inputs

Receiving final pre-filing stakeholder feedback



Refining Assumptions and Inputs

April 2020
Reviewed 2020 Annual Update findings

Provided overview of stakeholder process for 2021 Triennial

Conducting Analysis

October, December 2020
January 2021
Provided confidential input assumptions and expected modeling scenarios

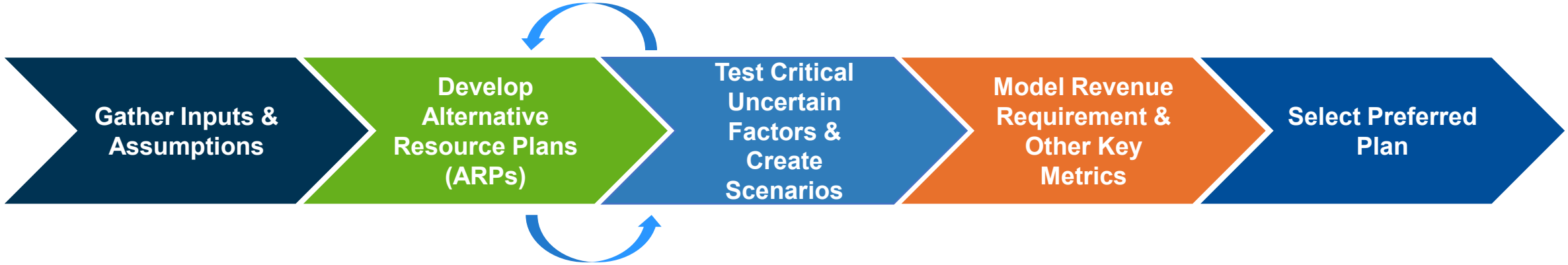
Reviewed 2 rounds of early ARP results

Provided details on electrification, behind-the-meter solar and storage, and DSM studies

Received stakeholder feedback on inputs, scenarios, and ARPs

1) Meeting structured to comply with 20 CSR 4240-22.080(5)(A) requirements plus additional round of preliminary modeling results

Overall Analytical Process



Load Forecasts
Low, Mid, High, Electrification

Fuel Forecasts
Nat Gas, Coal, Fuel Oil

DSM Forecasts
Maximum and Realistic Potential

New Generation
Capital, O&M, Operational info

Existing Generation
Capital, O&M, Operational info

ARPs include combinations of unit retirements, unit additions, DSM levels

Evergy Combined
50 ARPs

Evergy Metro
10 ARPs

Evergy MO West
6 ARPs

Combinations of Critical Uncertain Factors analyzed – currently 27 total combinations:

Load
Low, Mid, High

Nat Gas
Low, Mid, High

CO_2
Low, Mid, High

20-Year Net Present Revenue Requirement (NPVRR) calculation of ARPs for each of the 27 scenarios

ARP providing lowest NPVRR across scenarios is generally selected as the Preferred Plan.

Higher NPVRR ARP can be selected but decision must be supported

Gather Inputs & Assumptions

Laura Becker
Al Bass

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Draft Documentation Provided

- 4 CSR 240-22.030: Load Analysis and Load Forecasting
- 4 CSR 240-22.040: Supply-Side Resource Analysis
- 4 CSR 240-22.045: Transmission and Distribution Analysis
- 4 CSR 240-22.050: Demand-Side Resource Analysis

Changes in Inputs to Load Forecasting Models

- Historical data for customers, kwh and $/kwh: June 2020
- DOE forecasts of appliance and equipment saturations and kwh/unit: Updated 2020
- Class models in the 2021 Metro and MO West filing are the same as the 2018 filing.
- The Company also re-evaluated the elasticities (price, output, household income, household size) used in the models and adjusted them to improve the model fit as applicable.
- EPRI electric vehicle adoption projections in the 2021 Triennial filing are updated from the 2018 filing.
- EIA West North Central end-use saturations were calibrated to the Metro and MO West 2020 appliance saturation survey and C&I saturation survey results.
- End-use intensity estimates from the EIA West North Central division were calibrated to the conditional demand outputs from the 2020 Metro and MO West potential study.
- An electrification adoption scenario was layered onto the high case energy and peak forecasts to produce a high case electrification scenario.

Net System Input and Peak Forecast – Evergy Metro

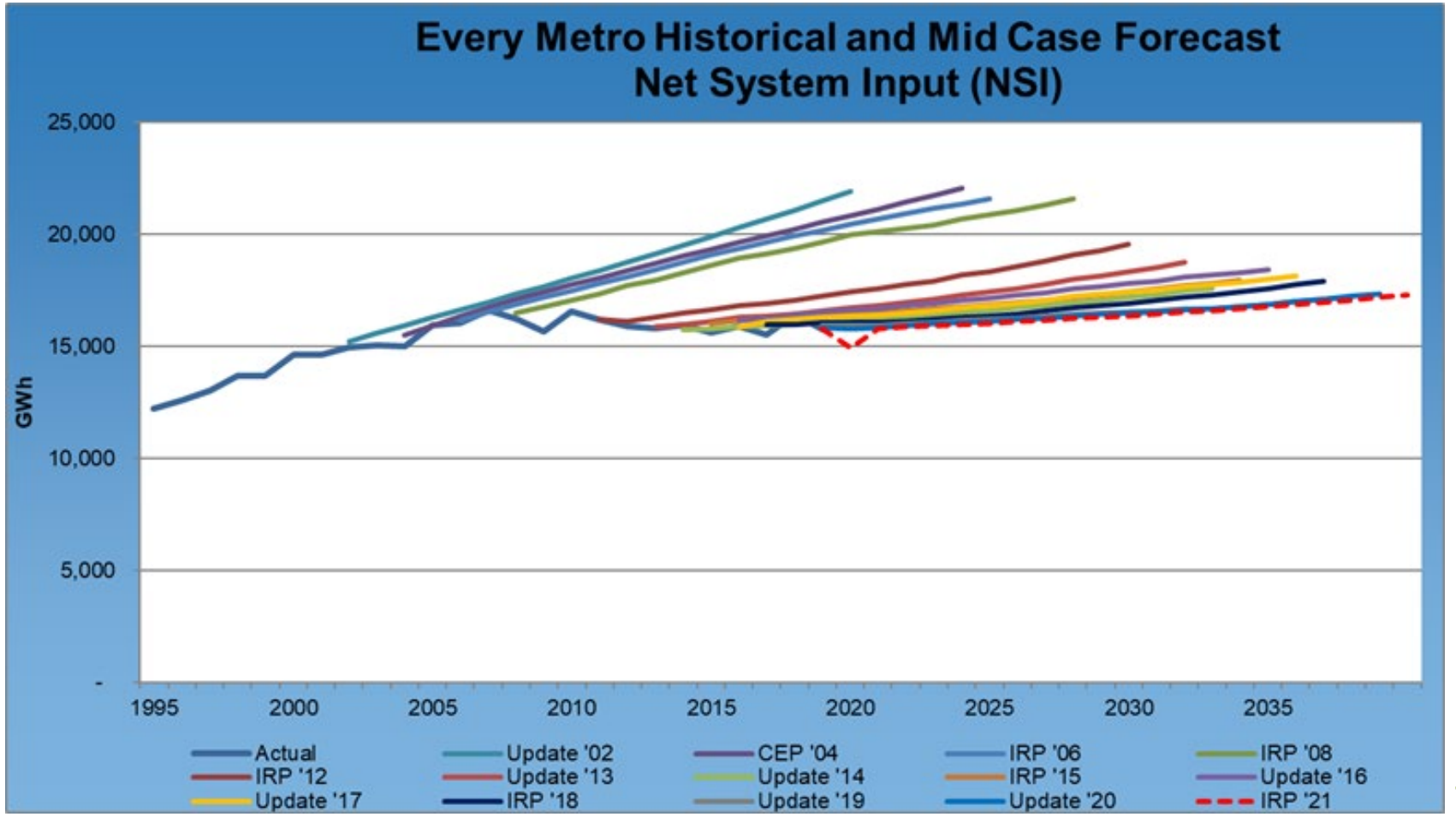
Net System Input (NSI) and Peak Forecast										
Date	Gross NSI (MWh)		DSM	Net NSI (MWh)		Gross Peak (MW)		DSM	DVC	Net Peak (MW)		Gross LF
2002	14,810,168			14,810,168		3,229				3,229		0.5236
2003	15,100,010	2.0%		15,100,010	2.0%	3,307	2.4%			3,307	2.4%	0.5212
2004	15,434,710	2.2%		15,434,710	2.2%	3,600	8.9%			3,600	8.9%	0.4894
2005	15,735,417	1.9%		15,735,417	1.9%	3,496	-2.9%			3,496	-2.9%	0.5138
2006	15,960,834	1.4%		15,960,834	1.4%	3,416	-2.3%			3,416	-2.3%	0.5334
2007	16,286,867	2.0%		16,286,867	2.0%	3,718	8.8%			3,718	8.8%	0.5001
2008	16,306,299	0.1%		16,306,299	0.1%	3,703	-0.4%			3,703	-0.4%	0.5027
2009	16,024,573	-1.7%		16,024,573	-1.7%	3,642	-1.6%			3,642	-1.6%	0.5023
2010	16,057,247	0.2%		16,057,247	0.2%	3,605	-1.0%			3,605	-1.0%	0.5084
2011	15,918,871	-0.9%		15,918,871	-0.9%	3,573	-0.9%			3,573	-0.9%	0.5086
2012	15,642,354	-1.7%		15,642,354	-1.7%	3,401	-4.8%			3,401	-4.8%	0.5250
2013	15,733,616	0.6%		15,733,616	0.6%	3,444	1.3%			3,444	1.3%	0.5215
2014	15,908,170	1.1%		15,908,170	1.1%	3,540	2.8%			3,540	2.8%	0.5130
2015	15,882,360	-0.2%		15,882,360	-0.2%	3,591	1.4%			3,591	1.4%	0.5193
2016	15,827,972	-0.3%		15,827,972	-0.3%	3,524	-1.9%			3,524	-1.9%	0.5127
2017	15,951,842	0.8%		15,951,842	0.8%	3,485	-1.1%			3,485	-1.1%	0.5225
2018	15,849,039	-0.6%		15,849,039	-0.6%	3,518	1.0%			3,518	1.0%	0.5143
2019	15,742,056	-0.7%		15,742,056	-0.7%	3,498	-0.6%			3,498	-0.6%	0.5137
2020	15,206,916	-4.1%	(10,470)	15,196,446	-4.1%	3,347	-4.9%	(19)	(50)	3,278	-6.8%	0.5187
2021	15,795,102	3.9%	(61,580)	15,733,522	3.5%	3,505	4.7%	(37)	(50)	3,418	4.3%	0.5144
2022	15,862,419	0.4%	(116,953)	15,745,466	0.1%	3,515	0.3%	(57)	(50)	3,408	-0.3%	0.5152
2023	15,911,100	0.3%	(132,717)	15,778,383	0.2%	3,520	0.1%	(48)	(50)	3,422	0.4%	0.5160
2024	15,988,847	0.5%	(142,495)	15,846,352	0.4%	3,531	0.3%	(50)	(50)	3,431	0.3%	0.5169
2025	16,036,114	0.3%	(136,220)	15,899,894	0.3%	3,536	0.1%	(50)	(50)	3,436	0.1%	0.5177
2026	16,096,661	0.4%	(131,918)	15,964,743	0.4%	3,545	0.3%	(49)	(50)	3,446	0.3%	0.5183
2027	16,162,517	0.4%	(129,231)	16,033,286	0.4%	3,555	0.3%	(48)	(50)	3,457	0.3%	0.5190
2028	16,252,496	0.6%	(127,101)	16,125,394	0.6%	3,569	0.4%	(48)	(50)	3,471	0.4%	0.5198
2029	16,305,192	0.3%	(127,338)	16,177,854	0.3%	3,577	0.2%	(49)	(50)	3,478	0.2%	0.5204
2030	16,363,767	0.4%	(123,335)	16,240,432	0.4%	3,586	0.3%	(46)	(50)	3,490	0.3%	0.5209
2031	16,429,407	0.4%	(108,665)	16,320,742	0.5%	3,596	0.3%	(36)	(50)	3,510	0.6%	0.5216
2032	16,520,720	0.6%	(84,010)	16,436,710	0.7%	3,611	0.4%	(21)	(50)	3,540	0.9%	0.5223
2033	16,583,048	0.4%	(61,747)	16,521,301	0.5%	3,621	0.3%	(13)	(50)	3,558	0.5%	0.5228
2034	16,669,894	0.5%	(44,569)	16,625,325	0.6%	3,636	0.4%	(11)	(50)	3,575	0.5%	0.5234
2035	16,765,699	0.6%	(33,436)	16,732,263	0.6%	3,653	0.5%	(9)	(50)	3,594	0.5%	0.5239
2036	16,884,867	0.7%	(26,063)	16,858,804	0.8%	3,673	0.5%	(8)	(50)	3,615	0.6%	0.5248
2037	16,971,796	0.5%	(17,895)	16,953,901	0.6%	3,689	0.4%	(8)	(50)	3,631	0.4%	0.5252
2038	17,078,012	0.6%	(13,517)	17,064,495	0.7%	3,708	0.5%	(7)	(50)	3,651	0.6%	0.5258
2039	17,184,712	0.6%	(10,622)	17,174,090	0.6%	3,727	0.5%	(5)	(50)	3,672	0.6%	0.5264
2040	17,294,905	0.6%	(6,084)	17,288,821	0.7%	3,746	0.5%	(3)	(50)	3,693	0.6%	0.5270

Historical Native Load is Actual Native Load (not weather-adjusted), first 6 months of 2020 are weather normal
Historical Peak is Weather Normal, first 6 months of 2020 are weather normal

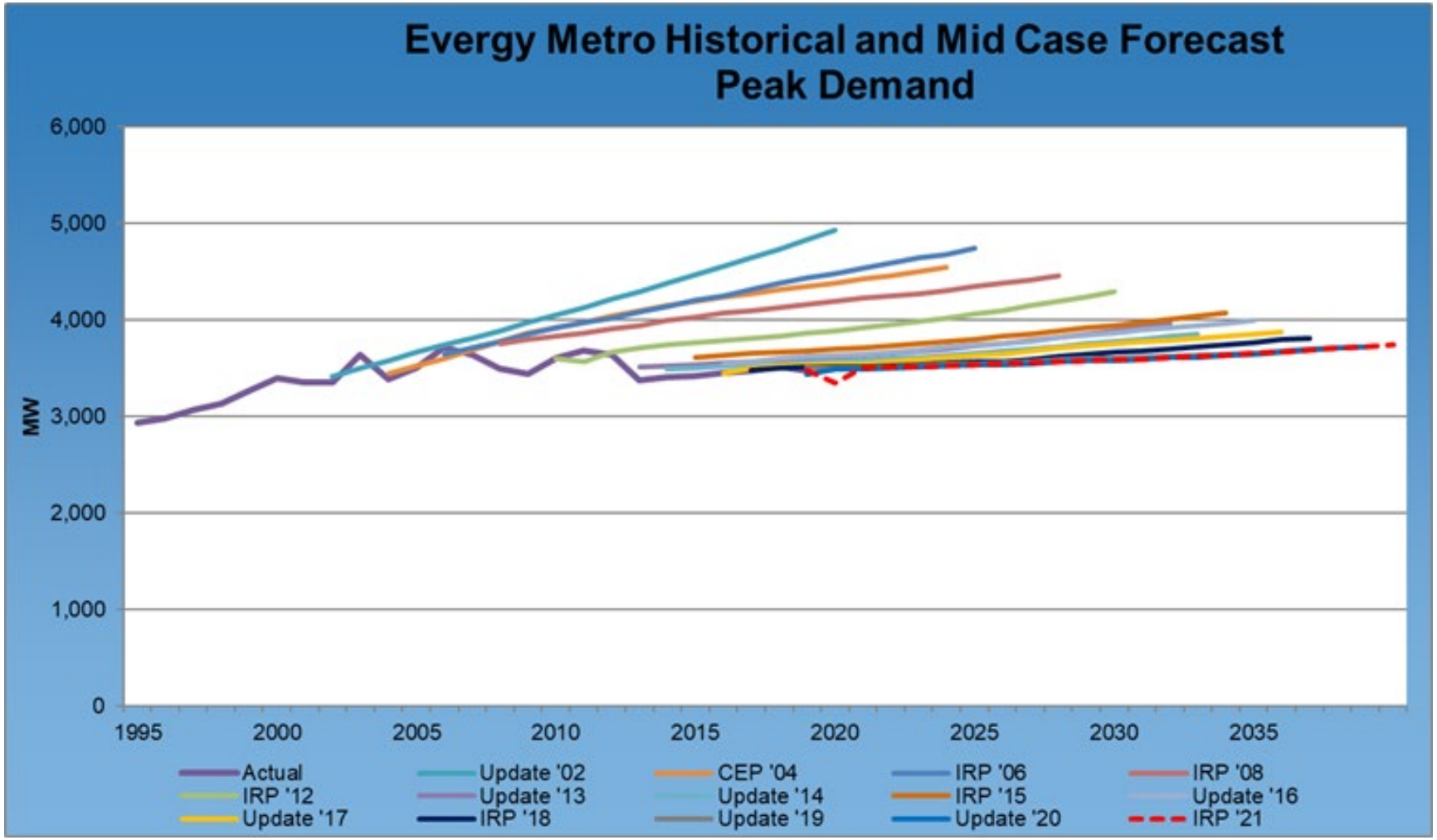
Gross NSI (MWh) - Forecast		
Forecast Year	2021 IRP	2018 IRP
5 Yrs	1.07%	0.20%
10 Yrs	0.74%	0.37%
15 Yrs	0.65%	0.50%
20 Yrs	0.65%	0.57%

Gross Peak (MW) - Forecast		
Forecast Year	2021 IRP	2018 IRP
5 Yrs	1.10%	0.22%
10 Yrs	0.69%	0.31%
15 Yrs	0.58%	0.40%
20 Yrs	0.56%	0.45%

Evergy Metro Historical and Comparison of Mid-Case Forecasts of Net System Input, Excluding DSM Forecasted Impact



Evergy Metro Historical and Comparison of Mid-Case Forecasts of Demand, Excluding DSM Forecasted Impact



Net System Input and Peak Forecast – Evergy MO West

Net System Input (NSI) and Peak Forecast

Date	Gross NSI (MWh)		DSM	Net NSI (MWh)		Gross Peak (MW)		DSM	DVC	Net Peak (MW)		Gross LF
2002	7,472,196			7,472,196		1,680				1,680		0.5077
2003	7,621,565	2.0%		7,621,565	2.0%	1,716	2.1%			1,716	2.1%	0.5070
2004	7,881,521	3.4%		7,881,521	3.4%	1,828	6.5%			1,828	6.5%	0.4922
2005	8,049,913	2.1%		8,049,913	2.1%	1,812	-0.9%			1,812	-0.9%	0.5071
2006	8,271,620	2.8%		8,271,620	2.8%	1,842	1.7%			1,842	1.7%	0.5126
2007	8,552,828	3.4%		8,552,828	3.4%	1,926	4.6%			1,926	4.6%	0.5069
2008	8,708,764	1.8%		8,708,764	1.8%	1,958	1.7%			1,958	1.7%	0.5077
2009	8,650,524	-0.7%		8,650,524	-0.7%	1,896	-3.2%			1,896	-3.2%	0.5208
2010	8,754,972	1.2%		8,754,972	1.2%	1,890	-0.3%			1,890	-0.3%	0.5288
2011	8,732,993	-0.3%		8,732,993	-0.3%	1,914	1.3%			1,914	1.3%	0.5209
2012	8,640,687	-1.1%		8,640,687	-1.1%	1,945	1.6%			1,945	1.6%	0.5072
2013	8,694,450	0.6%		8,694,450	0.6%	1,861	-4.3%			1,861	-4.3%	0.5333
2014	8,737,596	0.5%		8,737,596	0.5%	1,870	0.5%			1,870	0.5%	0.5335
2015	8,717,003	-0.2%		8,717,003	-0.2%	1,869	0.0%			1,869	0.0%	0.5193
2016	8,623,847	-1.1%		8,623,847	-1.1%	1,873	0.2%			1,873	0.2%	0.5257
2017	8,743,444	1.4%		8,743,444	1.4%	1,923	2.7%			1,923	2.7%	0.5190
2018	8,709,034	-0.4%		8,709,034	-0.4%	1,926	0.2%			1,926	0.2%	0.5162
2019	8,718,677	0.1%		8,718,677	0.1%	1,930	0.2%			1,930	0.2%	0.5157
2020	8,850,511	1.5%	(13,397)	8,837,114	1.4%	1,896	-1.8%	(55)	0	1,841	-4.6%	0.5329
2021	9,111,225	2.9%	(65,142)	9,046,083	2.4%	1,939	2.3%	(76)	0	1,863	1.2%	0.5364
2022	9,188,955	0.9%	(108,641)	9,080,314	0.4%	1,951	0.6%	(98)	0	1,853	-0.5%	0.5377
2023	9,241,342	0.6%	(110,786)	9,130,556	0.6%	1,958	0.4%	(47)	0	1,911	3.1%	0.5388
2024	9,308,310	0.7%	(129,229)	9,179,081	0.5%	1,969	0.6%	(49)	0	1,920	0.5%	0.5397
2025	9,359,995	0.6%	(123,135)	9,236,860	0.6%	1,976	0.4%	(49)	0	1,927	0.4%	0.5407
2026	9,417,841	0.6%	(117,354)	9,300,487	0.7%	1,985	0.5%	(48)	0	1,937	0.5%	0.5416
2027	9,476,876	0.6%	(113,189)	9,363,687	0.7%	1,995	0.5%	(47)	0	1,948	0.6%	0.5423
2028	9,547,937	0.7%	(110,514)	9,437,423	0.8%	2,007	0.6%	(46)	0	1,961	0.7%	0.5431
2029	9,601,178	0.6%	(112,429)	9,488,749	0.5%	2,016	0.4%	(47)	0	1,969	0.4%	0.5437
2030	9,655,506	0.6%	(110,667)	9,544,839	0.6%	2,024	0.4%	(45)	0	1,979	0.5%	0.5446
2031	9,713,905	0.6%	(99,139)	9,614,766	0.7%	2,034	0.5%	(35)	0	1,999	1.0%	0.5452
2032	9,784,585	0.7%	(80,289)	9,704,296	0.9%	2,046	0.6%	(22)	0	2,024	1.3%	0.5459
2033	9,841,557	0.6%	(61,894)	9,779,663	0.8%	2,055	0.4%	(14)	0	2,041	0.8%	0.5467
2034	9,908,905	0.7%	(46,492)	9,862,413	0.8%	2,067	0.6%	(12)	0	2,055	0.7%	0.5472
2035	9,981,560	0.7%	(36,191)	9,945,369	0.8%	2,080	0.6%	(11)	0	2,069	0.7%	0.5478
2036	10,065,314	0.8%	(29,026)	10,036,288	0.9%	2,094	0.7%	(10)	0	2,084	0.7%	0.5487
2037	10,133,554	0.7%	(21,940)	10,111,614	0.8%	2,106	0.6%	(9)	0	2,097	0.6%	0.5493
2038	10,210,941	0.8%	(17,246)	10,193,695	0.8%	2,120	0.7%	(8)	0	2,112	0.7%	0.5498
2039	10,288,256	0.8%	(11,996)	10,276,260	0.8%	2,134	0.7%	(6)	0	2,128	0.8%	0.5504
2040	10,368,244	0.8%	(4,696)	10,363,548	0.8%	2,147	0.6%	(2)	0	2,145	0.8%	0.5513

Historical Native Load is Actual Native Load (not weather-adjusted), first 6 months of 2020 are weather normal
Historical Peak is Weather Normal, first 6 months of 2020 are weather normal

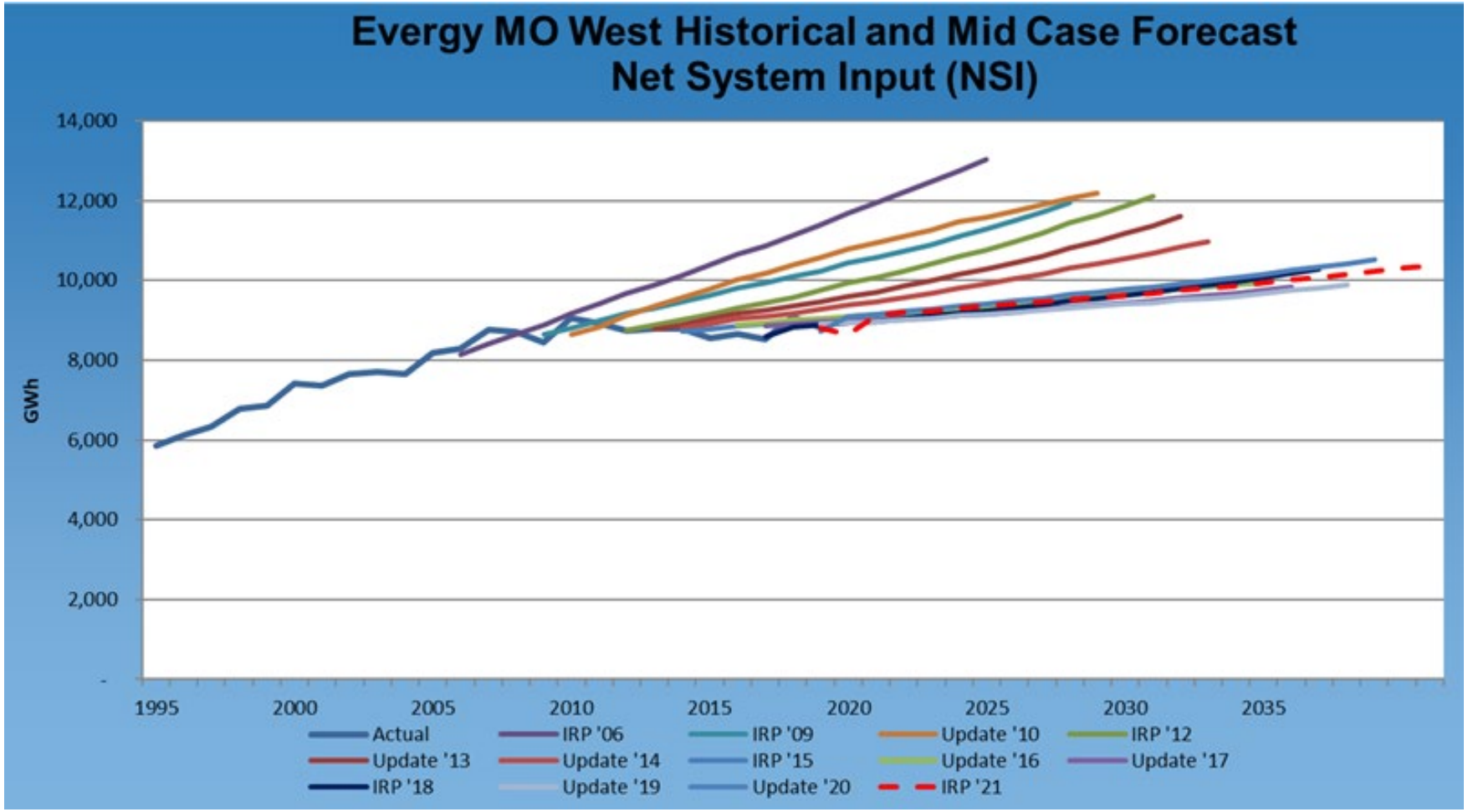
Gross NSI (MWh) - Forecast

Forecast Year	2021 IRP	2018 IRP
5 Yrs	1.13%	1.01%
10 Yrs	0.87%	0.89%
15 Yrs	0.80%	0.89%
20 Yrs	0.79%	0.90%

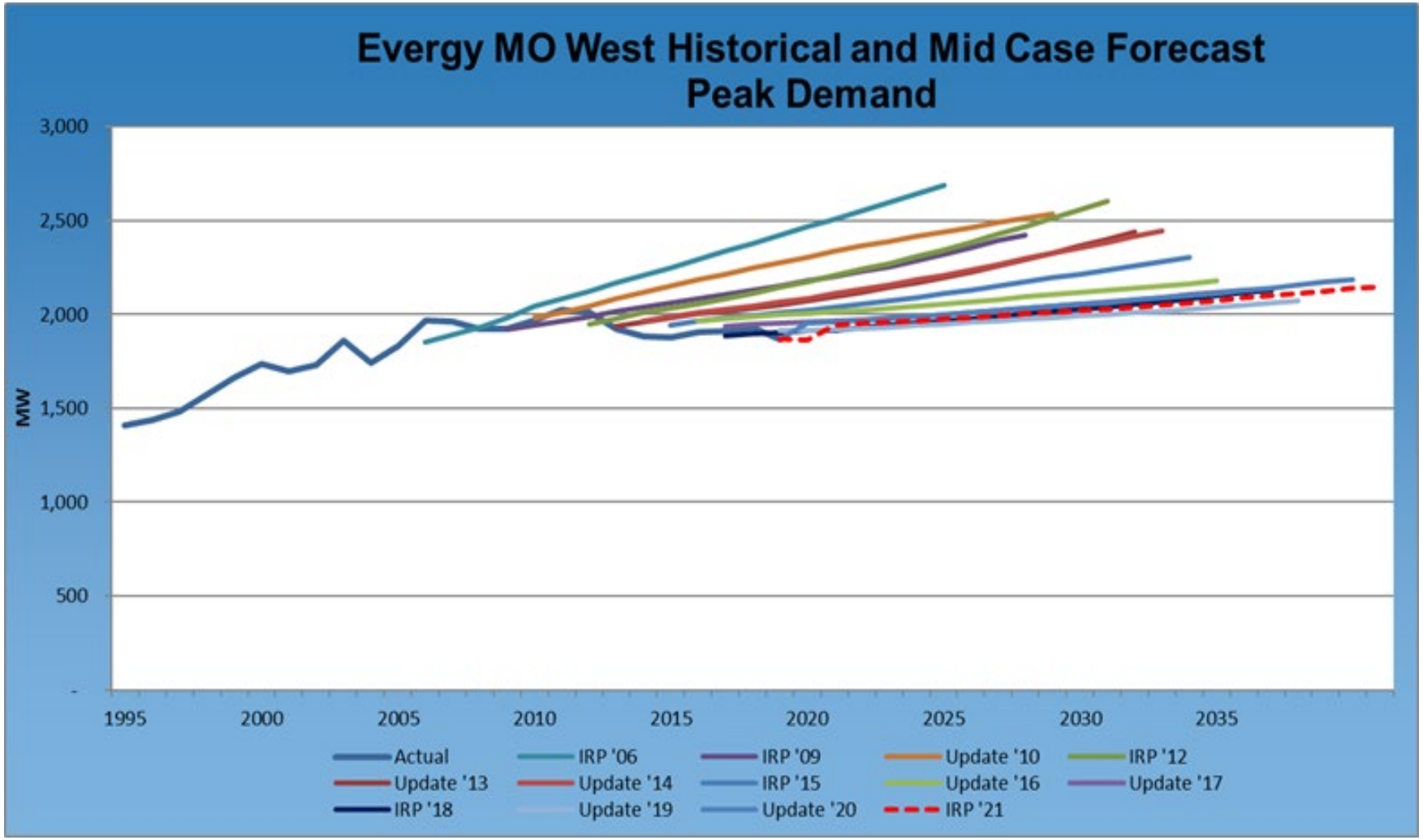
Gross Peak (MW) - Forecast

Forecast Year	2021 IRP	2018 IRP
5 Yrs	0.83%	0.45%
10 Yrs	0.66%	0.53%
15 Yrs	0.62%	0.58%
20 Yrs	0.62%	0.61%

Evergy MO West Historical and Comparison of Mid-Case Forecasts of Net System Input, Excluding DSM Forecasted Impact



Evergy MO West Historical and Comparison of Mid-Case Forecasts of Demand, Excluding DSM Forecasted Impact



RFP Outreach Update

- RFP distribution
  - Notification of RFP sent to over 800 1898 & Co. industry contacts
  - Notification of RFP sent via NAEMA email blast to over 800 recipients (NAEMA members, industry participants, and other interested parties)
- 130+ potential respondents downloaded RFP documents
- 30 companies submitted Notice of Intent (NOI)
  - 1 has retracted their NOI
- ~50 projects from 21 companies received on or before March 5th
- Project submittals currently being evaluated for potential future acquisition

Develop Alternative Resource Plans

Laura Becker

evergy™

Alternative Resource Plan Selection Methodology

- Additional Alternative Resource Plans developed since the December Stakeholder Meeting
  - 30 new Evergy ARPs, 1 new Evergy Metro and 1 new Evergy Missouri West
  - 1,700 MW of solar additions
  - 2,200 MW of solar additions
  - 3,500 MW of solar additions
  - All-Solar additions
  - Wind addition
  - Plant retirement timeline movement
  - MAP level DSM
  - See results slides for details

- Alternative Resource Plans developed since planned February Stakeholder Meeting
  - 14 new Evergy ARPs – delaying near-term coal retirements for increased availability of firm, dispatchable resources; testing mix of wind and solar additions

Test Critical Uncertain Factors & Create Scenarios

Laura Becker

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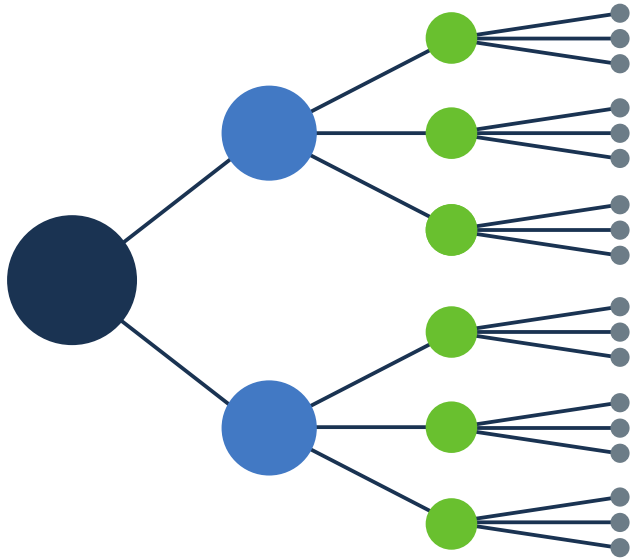
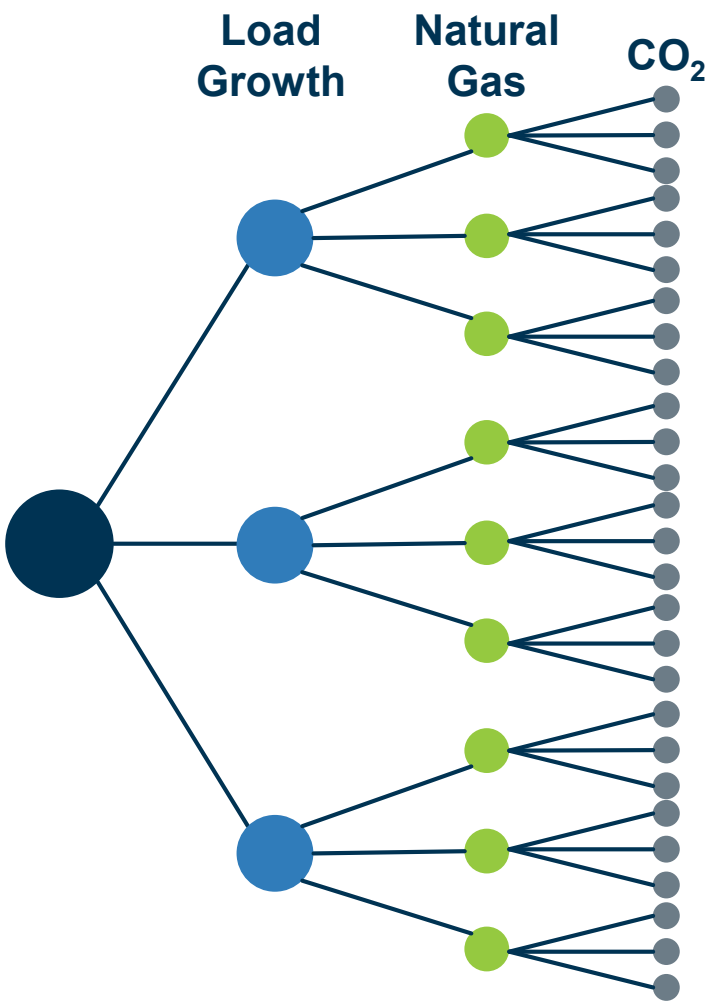
Critical Uncertain Factor Approach



Uncertain Factors
Analyzed individually to determine criticality (i.e., impact on Alternative Resource Plan ranking)

Scenarios
Constructed based on combinations of Critical Uncertain Factors (gas price, CO_2 pricing, load forecast, etc.)

Scenarios & Probabilities Modeled To-Date



Updated Probability Distribution

	Low	Mid	High
Load Growth	35%	50%	15%
Natural Gas	35%	50%	15%
CO_2 Price	20%	60%	20%

Endpoint	Load Growth	Natural Gas	CO_2	Endpoint Probability
1	High	High	High	0.5%
2	High	High	Mid	1.4%
3	High	High	Low	0.5%
4	High	Mid	High	1.5%
5	High	Mid	Mid	4.5%
6	High	Mid	Low	1.5%
7	High	Low	High	1.1%
8	High	Low	Mid	3.2%
9	High	Low	Low	1.1%
10	Mid	High	High	1.5%
11	Mid	High	Mid	4.5%
12	Mid	High	Low	1.5%
13	Mid	Mid	High	5.0%
14	Mid	Mid	Mid	15.0%
15	Mid	Mid	Low	5.0%
16	Mid	Low	High	3.5%
17	Mid	Low	Mid	10.5%
18	Mid	Low	Low	3.5%
19	Low	High	High	1.1%
20	Low	High	Mid	3.2%
21	Low	High	Low	1.1%
22	Low	Mid	High	3.5%
23	Low	Mid	Mid	10.5%
24	Low	Mid	Low	3.5%
25	Low	Low	High	2.5%
26	Low	Low	Mid	7.4%
27	Low	Low	Low	2.5%

Model Revenue Requirement & Other Key Metrics

Laura Becker

evergy™

Revenue Requirement Calculations

Combinations of Resource Retirements / New Generation / DSM over 20 years

Made up of Critical Uncertain Factors (e.g., may consist of different wholesale market prices)

Net Present Value of Revenue Requirement (NPVRR) results for **Individual Scenarios**

Expected Value of NPVRR across all Scenarios

Preliminary Evergy Results – No CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – No CO_2 Restrictions (Cont.)

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – Mid CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – Mid CO_2 Restrictions (Cont.)

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – High CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – High CO_2 Restrictions (Cont.)

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – Expected Value

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Results – Expected Value (Cont.)

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) LaCygne 2 (662 MW/coal – 10/29) Lawrence 4 (112 MW/coal – 12/30) Lawrence 5 (375 MW/coal – 12/30) LaCygne 1 (746 MW/coal – 12/32) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Metro Results – No CO_2 Restrictions

**** Confidential ****

LaCygne 2 (662 MW/coal – 10/29) LaCygne 1 (746 MW/coal – 12/32) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Metro Results – Mid CO_2 Restrictions

**** Confidential ****

LaCygne 2 (662 MW/coal – 10/29) LaCygne 1 (746 MW/coal – 12/32) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Metro Results – High CO_2 Restrictions

**** Confidential ****

LaCygne 2 (662 MW/coal – 10/29) LaCygne 1 (746 MW/coal – 12/32) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Metro Results – Expected Value

**** Confidential ****

LaCygne 2 (662 MW/coal – 10/29) LaCygne 1 (746 MW/coal – 12/32) Iatan 1 (616 MW/coal – 12/39) Hawthorn 5 (564 MW/coal – 12/55)

Preliminary Evergy Missouri West Results – No CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39)
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Preliminary Evergy Missouri West Results – Mid CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39)
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Preliminary Evergy Missouri West Results – High CO_2 Restrictions

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39)
Iatan 1 (616 MW/coal – 12/39)

Preliminary Evergy Missouri West Results – Expected Value

**** Confidential ****

Lake Road 4/6 (97 MW/gas – 12/24) Jeffrey 1 (663 MW/coal – 12/39) Jeffrey 2 (672 MW/coal – 12/39) Jeffrey 3 (669 MW/coal – 12/39)
Iatan 1 (616 MW/coal – 12/39)

Findings from NPVRR Results to Date

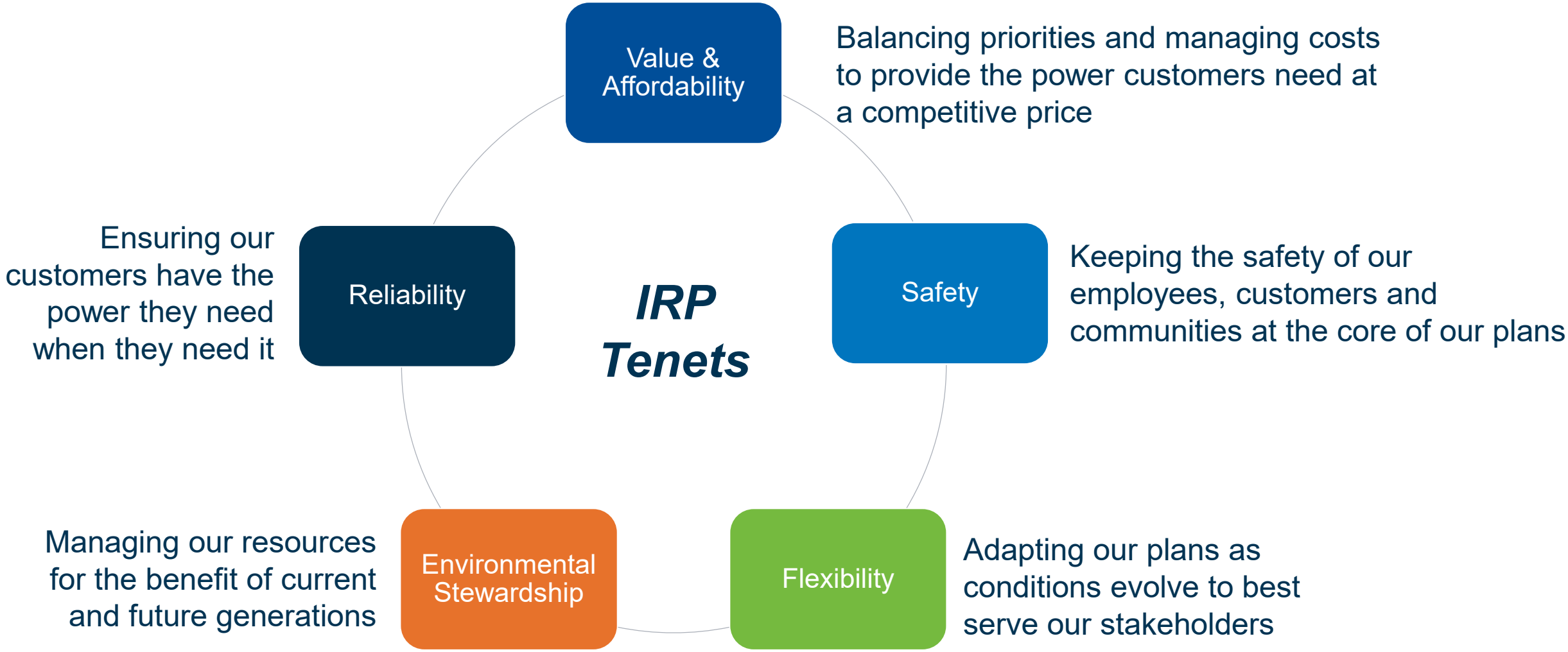
**** Confidential ****

Preferred Plan Evaluation Framework

Kayla Messamore

evergy™

Core Tenets of the IRP Process



Next Steps

Kayla Messamore

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Analytical Next Steps

- Additional Alternative Resource Plans
  - Grain Belt Express plans
  - Additional stand-alone utility plans
- Other
  - Flat to declining market price impacts
  - Behind-the-meter solar and energy storage sensitivity testing
  - Re-evaluate SPP renewable penetration scenario impacts

Next Steps

Per *20 CSR 4240-22.080 (5)(B)* submit comments to:

Evergy Missouri Metro - EO-2021-0035

Evergy Missouri West - EO-2021-0036

by April 24th