

New Mexico Integrated Resource Plan

SEPTEMBER 2, 2021

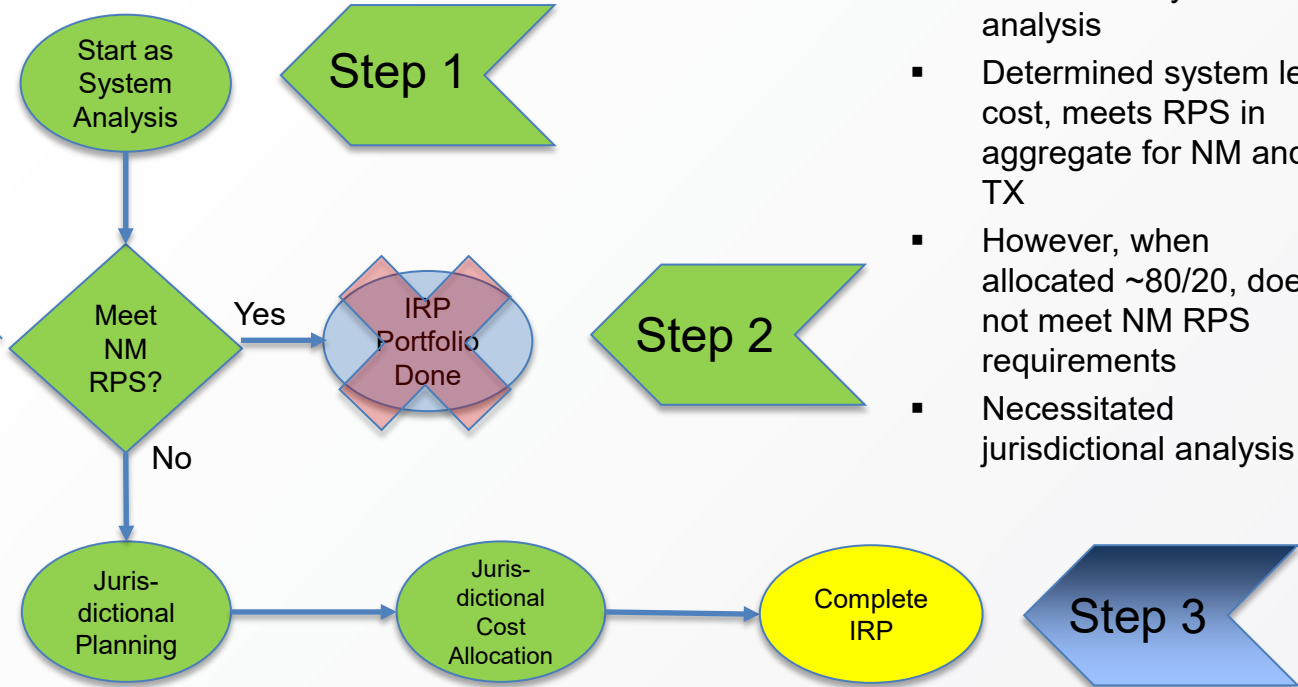


Agenda

- NM IRP Analysis Sequence
- System Loads and Resources Table
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- Four Year Action Plan
- Discussion of Draft IRP Report

NM IRP Analysis Sequence

If System optimal resource portfolio from Step 1 doesn't satisfy the NM RPS target in Step 2, then IRP Analysis will move forward with Step 3 for Jurisdictional Planning and Cost Allocation. If Step 1 satisfies NM RPS target in Step 2, then Step 3 is not necessary.



- Initiated as system analysis
- Determined system least cost, meets RPS in aggregate for NM and TX
- However, when allocated ~80/20, does not meet NM RPS requirements
- Necessitated jurisdictional analysis

System Loads and Resources Table

System	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1.0 GENERATION RESOURCES¹										
1.1 RIO GRANDE	244	202	202	202	202	202	202	202	202	202
1.2 NEWMAN	654	801	801	801	801	801	733	733	733	733
1.3 COPPER	65	65	65	65	65	65	65	65	65	0
1.4 MONTANA	331	331	331	331	331	331	331	331	331	331
1.5 PALO VERDE	585	585	585	585	585	585	585	585	585	585
1.6 RENEWABLES ²	4	4	4	3	3	3	3	3	3	3
1.7 STORAGE	0	0	0	0	0	0	0	0	0	0
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION ³	0	0	0	0	0	0	0	0	0	0
1.9 INTERRUPTIBLE ⁴	52	52	52	52	52	55	55	55	55	62
1.10 LINE LOSSES FROM OTHERS ⁵	8	8	8	8	8	8	8	8	8	8
1.0 TOTAL GENERATION RESOURCES	1943	2048	2047	2046	2046	2050	1982	1982	1982	1924
2.0 RESOURCE PURCHASES										
2.1 RENEWABLE PURCHASE ⁶	58	53	52	45	44	44	44	44	38	38
2.2 NEW RENEWABLE PURCHASE ⁷	11	85	83	72	71	71	70	70	62	61
2.3 NEW RENEWABLE/ BATTERY PURCHASE ⁸	54	49	49	42	42	41	41	41	36	36
2.4 NEW BATTERY PURCHASE ⁹	50	50	50	50	50	50	50	50	46	46
2.5 EDDY TIE PURCHASE ¹⁰	35	35	35	35	35	35	35	35	35	35
2.6 MARKET RESOURCE PURCHASE ¹¹	225	85	110	0	0	0	85	135	0	25
2.0 TOTAL RESOURCE PURCHASES	433	357	379	243	242	241	325	374	217	241
3.0 FUTURE RESOURCES¹²										
3.1 RENEWABLE	0	0	0	120	119	120	119	119	207	206
3.2 RENEWABLE/STORAGE	0	0	0	126	126	126	126	126	378	378
3.3 GAS GENERATION	0	0	0	0	0	0	0	0	0	0
3.0 TOTAL RESOURCE PURCHASES	0	0	0	246	246	246	246	245	584	584
4.0 TOTAL NET RESOURCES (1.0 + 2.0 + 3.0)	2376	2404	2426	2535	2534	2537	2553	2602	2783	2748
5.0 SYSTEM DEMAND¹³										
5.1 NATIVE SYSTEM DEMAND	2188	2225	2252	2293	2331	2372	2408	2459	2506	2553
5.2 DISTRIBUTED GENERATION	-19	-22	-22	-24	-24	-33	-33	-33	-33	-42
5.3 ENERGY EFFICIENCY	-15	-23	-31	-38	-46	-54	-62	-69	-77	-85
6.0 TOTAL SYSTEM DEMAND (5.1 - (5.2+5.3))	2154	2180	2200	2230	2261	2285	2313	2357	2396	2426
7.0 MARGIN OVER TOTAL DEMAND (4.0 - 6.0)	222	224	227	305	274	252	240	245	387	322
8.0 PLANNING RESERVE 10.1% thru 2029 then 12.9%	219	222	224	228	231	234	237	241	313	318
9.0 MARGIN OVER RESERVE (7.0 - 8.0)	2	2	2	78	43	18	3	4	74	4

Please reference full NM IRP report for footnotes.

System Loads and Resources Table (continued)

System	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1.0 GENERATION RESOURCES¹										
1.1 RIO GRANDE	202	202	74	74	74	74	74	74	74	74
1.2 NEWMAN	452	452	452	452	452	452	452	452	452	452
1.3 COPPER	0	0	0	0	0	0	0	0	0	0
1.4 MONTANA	331	331	331	331	331	331	331	331	331	331
1.5 PALO VERDE	585	585	585	585	585	585	585	585	585	585
1.6 RENEWABLES ²	2	2	2	2	2	2	2	2	2	2
1.7 STORAGE	0	0	0	0	0	0	0	0	0	0
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION ³	0	0	0	0	0	0	0	0	0	0
1.9 INTERRUPTIBLE ⁴	62	62	62	69	69	69	69	69	78	78
1.10 LINE LOSSES FROM OTHERS ⁵	8	8	8	8	8	8	8	8	8	8
1.0 TOTAL GENERATION RE SOURCE S	1642	1642	1514	1521	1521	1521	1520	1520	1529	1529
2.0 RE SOURCE PURCHASES										
2.1 RENEWABLE PURCHASE ⁶	24	24	24	10	10	9	2	2	2	2
2.2 NEW RENEWABLE PURCHASE ⁷	48	48	48	48	47	47	42	42	42	42
2.3 NEW RENEWABLE/ BATTERY PURCHASE ⁸	28	28	28	28	28	28	25	25	25	25
2.4 NEW BATTERY PURCHASE ²	36	36	36	36	36	36	35	35	35	35
2.5 EDDY TIE PURCHASE ¹⁰	35	35	35	35	35	35	35	35	35	35
2.6 MARKET RESOURCE PURCHASE ¹¹	15	75	0	25	70	140	50	120	30	85
2.0 TOTAL RESOURCE PURCHASE S	187	247	171	182	226	294	190	260	170	224
3.0 FUTURE RESOURCES¹²										
3.1 RENEWABLE	304	303	378	376	374	373	394	393	427	425
3.2 RENEWABLE/STORAGE	567	567	729	729	729	729	796	796	847	847
3.3 GAS GENERATION	82	82	130	130	130	130	205	205	255	255
3.0 TOTAL RE SOURCE PURCHASE S	952	951	1237	1235	1233	1232	1395	1393	1529	1527
4.0 TOTAL NET RESOURCES (1.0 + 2.0 + 3.0)	2781	2840	2921	2937	2980	3047	3106	3174	3228	3281
5.0 SYSTEM DEMAND¹³										
5.1 NATIVE SYSTEM DEMAND	2593	2650	2702	2756	2804	2869	2931	2996	3060	3125
5.2 DISTRIBUTED GENERATION	-42	-42	-42	-48	-48	-48	-48	-48	-57	-68
5.3 ENERGY EFFICIENCY	-92	-100	-108	-115	-123	-131	-138	-146	-154	-162
6.0 TOTAL SYSTEM DEMAND (5.1 - (5.2+5.3))	2458	2507	2552	2593	2633	2691	2745	2802	2849	2896
7.0 MARGIN OVER TOTAL DEMAND (4.0 - 6.0)	323	332	369	344	347	356	361	372	379	385
8.0 PLANNING RE SERVE 10.1% thru 2029 then 12.9%	323	329	335	341	346	353	360	368	375	382
9.0 MARGIN OVER RE SERVE (7.0 - 8.0)	0	3	35	4	1	2	1	4	4	3

Please reference full NM IRP report for footnotes.

NM Loads and Resources Table

New Mexico	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1.0 GENERATION RESOURCES										
1.1 RIO GRANDE	49	40	40	40	40	40	40	40	40	40
1.2 NEWMAN	130	118	118	118	118	118	104	104	104	104
1.3 COPPER	13	13	13	13	13	13	13	13	13	0
1.4 MONTANA	66	66	66	66	66	66	66	66	66	66
1.5 PALO VERDE	78	78	78	78	78	78	78	78	78	78
1.6 RENEWABLES	3	2	2	2	2	2	2	2	2	2
1.7 STORAGE	0	0	0	0	0	0	0	0	0	0
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION	0	0	0	0	0	0	0	0	0	0
1.9 INTERRUPTIBLE	10	10	10	10	10	11	11	11	11	12
1.10 LINE LOSSES FROM OTHERS	2	2	2	2	2	2	2	2	2	2
1.0 TOTAL GENERATION RESOURCES	350	329	329	329	329	329	316	316	316	304
2.0 RESOURCE PURCHASES										
2.1 RENEWABLE PURCHASE	31	28	28	24	24	23	23	23	20	20
2.2 NEW RENEWABLE PURCHASE	11	45	44	38	38	37	37	37	33	32
2.3 NEW RENEWABLE/ BATTERY PURCHASE	11	10	10	8	8	8	8	8	7	7
2.4 NEW BATTERY PURCHASE	10	10	10	10	10	10	10	10	9	9
2.5 EDDY TIE PURCHASE	7	7	7	7	7	7	7	7	7	7
2.6 MARKET RESOURCE PURCHASE	55	50	60	0	0	0	0	0	0	0
2.0 TOTAL RESOURCE PURCHASES	124	150	158	87	86	86	85	85	76	76
3.0 FUTURE RESOURCES										
3.1 RENEWABLE	0	0	0	31	31	32	32	32	55	55
3.2 RENEWABLE/STORAGE	0	0	0	95	95	95	95	95	134	134
3.3 GAS GENERATION	0	0	0	0	0	0	0	0	0	0
3.0 TOTAL RESOURCE PURCHASES	0	0	0	126	126	126	126	126	188	188
4.0 TOTAL NET RESOURCES (1.0 + 2.0 + 3.0)	475	479	487	541	541	542	528	527	580	568
5.0 SYSTEM DEMAND										
5.1 NATIVE SYSTEM DEMAND	437	444	450	458	465	474	481	491	500	510
5.2 DISTRIBUTED GENERATION	-4	-4	-4	-5	-5	-7	-7	-7	-7	-8
5.3 ENERGY EFFICIENCY	-3	-5	-6	-8	-9	-11	-12	-14	-15	-17
6.0 TOTAL SYSTEM DEMAND (5.1 - (5.2+5.3))	430	435	439	445	451	456	462	471	478	484
7.0 MARGIN OVER TOTAL DEMAND (4.0 - 6.0)	45	44	48	96	90	85	66	57	102	84
8.0 PLANNING RESERVE 10.1% thru 2029 then 12.9%	44	44	45	45	46	47	47	48	63	64
9.0 MARGIN OVER RESERVE (7.0 - 8.0)	1	-1	3	51	44	39	18	8	39	20

Please reference full NM IRP report for footnotes.

NM Loads and Resources Table (continued)

New Mexico										
	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
1.0 GENERATION RESOURCES										
1.1 RIO GRANDE	40	40	15	15	15	15	15	15	15	15
1.2 NEWMAN	48	48	48	48	48	48	48	48	48	48
1.3 COPPER	0	0	0	0	0	0	0	0	0	0
1.4 MONTANA	66	66	66	66	66	66	66	66	66	66
1.5 PALO VERDE	78	78	78	78	78	78	78	78	78	78
1.6 RENEWABLES	1	1	1	1	1	1	1	1	1	1
1.7 STORAGE	0	0	0	0	0	0	0	0	0	0
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION	0	0	0	0	0	0	0	0	0	0
1.9 INTERRUPTIBLE	12	12	12	14	14	14	14	14	16	16
1.10 LINE LOSSES FROM OTHERS	2	2	2	2	2	2	2	2	2	2
1.0 TOTAL GENERATION RESOURCES	248	248	222	223	223	223	223	223	225	225
2.0 RESOURCE PURCHASES										
2.1 RENEWABLE PURCHASE	10	10	10	7	7	6	0	0	0	0
2.2 NEW RENEWABLE PURCHASE	26	25	25	25	25	25	22	22	22	22
2.3 NEW RENEWABLE/ BATTERY PURCHASE	6	6	6	6	6	6	5	5	5	5
2.4 NEW BATTERY PURCHASE	7	7	7	7	7	7	7	7	7	7
2.5 EDDY TIE PURCHASE	7	7	7	7	7	7	7	7	7	7
2.6 MARKET RESOURCE PURCHASE	0	0	0	0	0	0	0	0	0	0
2.0 TOTAL RESOURCE PURCHASES	56	55	55	52	52	50	41	41	41	41
3.0 FUTURE RESOURCES										
3.1 RENEWABLE	107	107	140	140	139	139	169	168	195	194
3.2 RENEWABLE/STORAGE	190	190	241	241	241	241	281	281	310	310
3.3 GAS GENERATION	0	0	0	0	0	0	0	0	0	0
3.0 TOTAL RESOURCE PURCHASES	297	297	381	380	380	379	450	449	505	504
4.0 TOTAL NET RESOURCES (1.0 + 2.0 + 3.0)	600	600	658	656	655	653	715	714	771	770
5.0 SYSTEM DEMAND										
5.1 NATIVE SYSTEM DEMAND	518	529	539	550	560	573	585	598	611	624
5.2 DISTRIBUTED GENERATION	-8	-8	-8	-9	-9	-9	-9	-9	-11	-14
5.3 ENERGY EFFICIENCY	-18	-20	-21	-23	-25	-26	-28	-29	-31	-32
6.0 TOTAL SYSTEM DEMAND (5.1 - (5.2+5.3))	491	501	509	518	526	537	548	560	569	578
7.0 MARGIN OVER TOTAL DEMAND (4.0 - 6.0)	110	99	149	138	130	116	167	154	202	192
8.0 PLANNING RESERVE 10.1% thru 2029 then 12.9%	64	66	67	68	69	71	72	73	75	76
9.0 MARGIN OVER RESERVE (7.0 - 8.0)	45	34	82	70	61	45	95	81	128	116

Please reference full NM IRP report for footnotes.

Four Year Action Plan

- EPE will continue moving forward with the selected resources previously approved by the Commission in Case Nos. 19-00099-UT and 19-00348-UT (Hecate I and II and Buena Vista I and II). These resources have an anticipated Commercial Operation Date (“COD”) of 2022.
- EPE will complete the regulatory approval process for EPE’s 2021 Annual Renewable Energy Plan filed May 5, 2021, and file subsequent annual reports and plans in 2022, 2023, 2024, and 2025 pursuant to 17.9.572 NMAC and the New Mexico REA.
- EPE will complete the regulatory approval process for the 2022-2024 Energy Efficiency and Load Management Plan filed July 16, 2021, and will file a subsequent 3-year plan pursuant to 17.7.2 NMAC and the EUEA.
- EPE will issue a New Mexico RFP in 2021 to address current capacity needs and RPS resource needs to meet the REA 2025 target of 40 percent.
- EPE will conduct a Demand Side Management potential study.
- EPE will continue to consider voluntary customer programs for renewable energy.
- EPE will file for abandonment of units that are past their useful lives.

Discussion of 2021 IRP Report

Thank you!