

Control Number: 50277

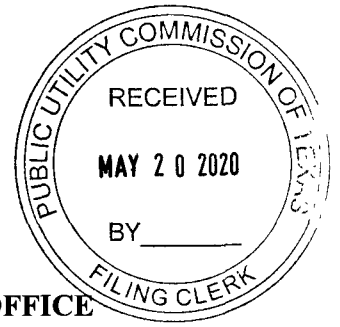


Item Number: 81

Addendum StartPage: 0

**SOAH DOCKET NO. 473-20-2278**

**DOCKET NO. 50277**



**APPLICATION OF EL PASO  
ELECTRIC COMPANY TO AMEND  
ITS CERTIFICATE OF  
CONVENIENCE AND NECESSITY  
FOR AN ADDITIONAL GENERATING  
UNIT AT THE NEWMAN  
GENERATING STATION IN EL PASO  
COUNTY AND THE CITY OF  
EL PASO**

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**BEFORE THE STATE OFFICE  
  
OF  
  
ADMINISTRATIVE HEARINGS**

**WORKPAPERS  
  
OF  
  
OMAR GALLEGOS  
  
FOR  
  
EL PASO ELECTRIC COMPANY**

**MAY 2020**

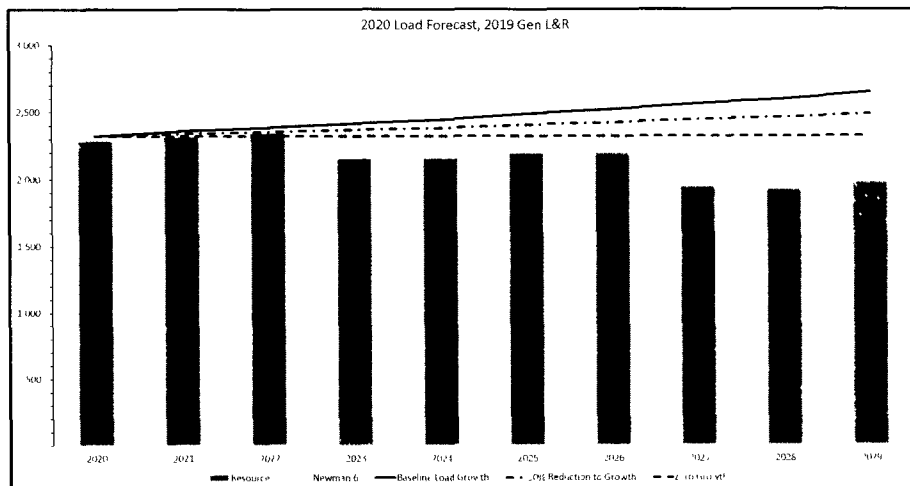
**El Paso Electric Company  
Loads & Resources 2019-2028  
May 13, 2019**

125 SOLAR  
RECIP

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>1.0 GENERATION RESOURCES</b>										
1.1 RIO GRANDE	278	278	278	232	232	232	232	232	232	232
1.2 NEWMAN	736	736	736	584	584	584	584	584	584	584
1.3 COPPER	63	63	63	63	63	63	63	63	63	63
1.4 MONTANA	352	352	352	352	352	352	352	352	352	352
1.5 PALO VERDE	633	633	633	633	633	633	633	633	633	633
1.6 RENEWABLES	6	6	6	6	6	6	6	6	6	6
1.7 STORAGE	-	-	-	50	50	50	50	50	50	50
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION <sup>(1)</sup>	-	-	-	-	-	40	40	40	40	40
1.9 NEW BUILD (See)	-	-	-	228	228	228	228	228	228	228
<b>2.0 TOTAL GENERATION RESOURCES<sup>(2)</sup></b>	<b>2,068</b>	<b>2,068</b>	<b>2,068</b>	<b>2,146</b>	<b>2,146</b>	<b>2,188</b>	<b>2,188</b>	<b>2,188</b>	<b>2,188</b>	<b>2,188</b>
<b>2.0 RESOURCE PURCHASES</b>										
2.1 RENEWABLE PURCHASE (SunEdison & NRG)	29	29	28	28	28	27	27	27	27	27
2.2 RENEWABLE PURCHASE (Hatch)	3	3	3	3	3	3	3	3	3	3
2.3 RENEWABLE PURCHASE (Macho Springs)	34	34	34	34	34	34	34	34	34	34
2.4 RENEWABLE PURCHASE (Joni)	7	7	7	7	7	7	7	7	7	7
2.5 NEW RENEWABLE/ BATTERY PURCHASE	-	-	100	100	100	100	100	100	131	131
2.6 RESOURCE PURCHASE	80	110	35	-	-	-	-	70	20	70
<b>2.0 TOTAL RESOURCE PURCHASES<sup>(4)</sup></b>	<b>163</b>	<b>183</b>	<b>207</b>	<b>172</b>	<b>171</b>	<b>171</b>	<b>171</b>	<b>240</b>	<b>221</b>	<b>271</b>
<b>3.0 TOTAL NET RESOURCES (1.0 - 2.0)</b>	<b>2,221</b>	<b>2,261</b>	<b>2,276</b>	<b>2,318</b>	<b>2,317</b>	<b>2,367</b>	<b>2,367</b>	<b>2,104</b>	<b>2,066</b>	<b>2,136</b>
<b>4.0 SYSTEM DEMAND</b>										
4.1 NATIVE SYSTEM DEMAND	2,032	2,079	2,113	2,146	2,174	2,217	2,267	2,298	2,333	2,386
4.2 DISTRIBUTED GENERATION <sup>(5)</sup>	(6)	(16)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)
4.3 ENERGY EFFICIENCY	(6)	(12)	(19)	(25)	(31)	(37)	(43)	(49)	(56)	(62)
4.4 LINE LOSSES	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
4.5 INTERRUPTIBLE SALES	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)
<b>5.0 TOTAL SYSTEM DEMAND (4.1 - 4.2 - 4.3 - 4.4 - 4.5)<sup>(6)</sup></b>	<b>1,962</b>	<b>1,984</b>	<b>2,006</b>	<b>2,032</b>	<b>2,066</b>	<b>2,093</b>	<b>2,126</b>	<b>2,190</b>	<b>2,190</b>	<b>2,236</b>
<b>6.0 MARGIN OVER TOTAL DEMAND (3.0 - 5.0)</b>	<b>259</b>	<b>266</b>	<b>269</b>	<b>286</b>	<b>282</b>	<b>284</b>	<b>231</b>	<b>(86)</b>	<b>(106)</b>	<b>(100)</b>
<b>7.0 PLANNING RESERVE 16% OF TOTAL SYSTEM DEMAND</b>	<b>293</b>	<b>298</b>	<b>301</b>	<b>306</b>	<b>308</b>	<b>314</b>	<b>319</b>	<b>324</b>	<b>328</b>	<b>335</b>
<b>8.0 MARGIN OVER RESERVE (6.0 - 7.0)</b>	<b>-24</b>	<b>(31)</b>	<b>-32</b>	<b>(19)</b>	<b>(46)</b>	<b>(50)</b>	<b>(86)</b>	<b>(380)</b>	<b>(434)</b>	<b>(436)</b>

- Emerging technologies may include customer or other distributed resources as well as additional community solar
- Generation unit retirements are consistent with the 2018 IRP
- Rio Grande 6 is classified as inactive reserve
- Purchases based on existing and estimated future purchases including renewable purchases. The recently passed NM Energy Transition Act is pending Commission rulemaking. Future resource additions for NM RPS may modify this L&R
- Forecasted Distributed Generation incremental growth is denoted in line 4.2. These values are in addition to the existing 45 MW online at the end of 2018. DG resources added through 2025 reflect 18.9% availability at peak
- System Demand based on 2019 Long-term Forecast dated April 9, 2019
- Includes state-required targets for Energy Efficiency
- Interruptible load reflects current contracts
- Long-term resource needs will be evaluated based on system needs and are subject to change
- The resource expansions in 2022 & 2023 are a result of the 2017-2018 RFP process
- The resource expansions in 2027 & 2028 are subject to RFP results and may be in combination with renewables and/or other resources
- Additional small renewable projects being pursued and if implemented, will reduce the capacity need in future years
- EPE is exploring additional renewable resources to satisfy RPS requirements and if acquired those resources may impact the L&R as well as planned additions

Baseline Load Growth	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131
50% Reduction to Growth	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131
Zero Growth	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131	2,131
<b>Newman 6</b>										
Resources	2,287	2,316	2,341	2,358	2,375	2,392	2,409	2,426	2,443	2,460
Baseline Load Growth	2,320	2,357	2,392	2,427	2,462	2,497	2,532	2,567	2,602	2,637
50% Reduction to Growth	2,320	2,357	2,392	2,427	2,462	2,497	2,532	2,567	2,602	2,637
Zero Growth	2,320	2,357	2,392	2,427	2,462	2,497	2,532	2,567	2,602	2,637



**Generation Additions**  
 100 MW Solar (25 MW at Peak) in 2022  
 Solar/Batt Combo (100/50 MW) in 2022  
 (75 MW at Peak)  
 Stand-alone Battery (50 MW) in 2023  
 Newman 6 GTTS (226 MW) in 2023  
 Drop In 1x1 CC (320 MW Total) in 2027  
 125 MW Solar (31 MW at Peak) in 2028  
 Recip Engines (50 MW) in 2028

**Unit Retirements**  
 Rio Grande 6 (45MW) -  
 Rio Grande 7 (46MW) - December 2022  
 Newman 1 (76MW) - December 2022  
 Newman 2 (76MW) - December 2022  
 Newman 3 (55MW) - December 2026  
 Newman 4 CC (227MW) - December 2026  
 Copper (63MW) - December 2030  
 Rio Grande 8 (144MW) - December 2033

**Renewable Purchases**  
 SunEdison, NRG, Macho Springs, Joni, and Hatch solar purchases reflect 70% availability at Peak

**Company Owned Renewables**  
 Renewable Resources shown in line item 1.6 consists of EPE Community Solar, Holman Solar, EPCC, Stanton, Wrangler, Rio Grande & Newman Carports and Van Horn

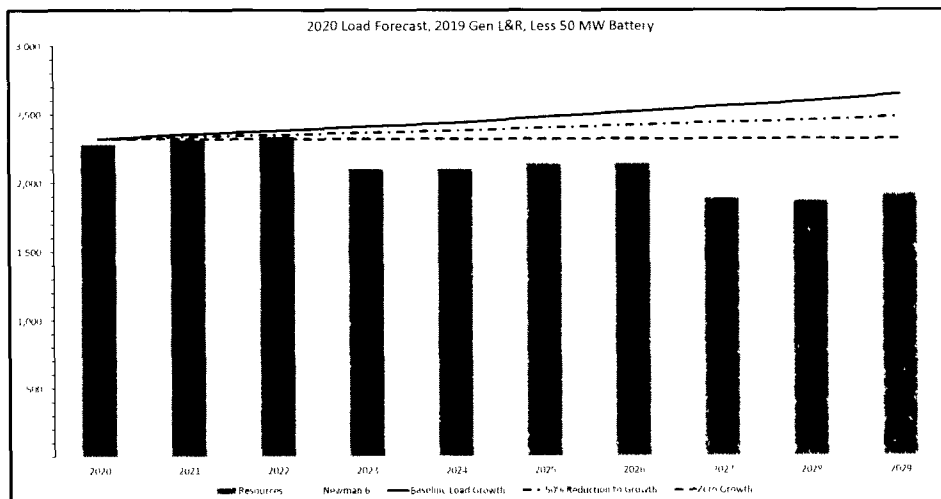
**Resource Purchase**  
 This purchase is supported by firm transmission through (i) simultaneous buy/sell with Freeport McMoran (formerly Phelps Dodge) (ii) Four Corners switchyard after Four Corners retired, and (iii) SPS via the Eddy Tie

**El Paso Electric Company**  
**Loads & Resources 2019-2028**  
 May 13, 2019

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>1.0 GENERATION RESOURCES</b>										
1.1 RIO GRANDE	278	278	278	232	232	232	232	232	232	232
1.2 NEWMAN	736	736	736	584	584	584	584	262	262	262
1.3 COPPER	63	63	63	63	63	63	63	63	63	63
1.4 MONTANA	352	352	352	352	352	352	352	352	352	352
1.5 PALO VERDE	633	633	633	633	633	633	633	633	633	633
1.6 RENEWABLES	6	6	6	6	6	6	6	6	6	6
1.7 STORAGE	-	-	-	-	-	-	-	-	-	-
1.8 POSSIBLE EMERGING TECHNOLOGY EXPANSION <sup>(1)</sup>	-	-	-	-	-	40	40	40	40	40
1.9 NEW BUILD (local)	-	-	-	226	226	226	226	226	226	226
<b>1.0 TOTAL GENERATION RESOURCES<sup>(2)</sup></b>	<b>2,068</b>	<b>2,068</b>	<b>2,068</b>	<b>2,086</b>	<b>2,086</b>	<b>2,156</b>	<b>2,156</b>	<b>1,814</b>	<b>1,814</b>	<b>1,814</b>
<b>2.0 RESOURCE PURCHASES</b>										
2.1 RENEWABLE PURCHASE (SunEdison & NRG)	29	29	28	28	28	27	27	27	27	27
2.2 RENEWABLE PURCHASE (Hatch)	3	3	3	3	3	3	3	3	3	3
2.3 RENEWABLE PURCHASE (Macho Springs)	34	34	34	34	34	34	33	33	33	33
2.4 RENEWABLE PURCHASE (Juni)	7	7	7	7	7	7	7	7	7	7
2.5 NEW RENEWABLE/BATTERY PURCHASE	-	-	100	100	100	100	100	131	131	131
2.6 RESOURCE PURCHASE	80	80	35	172	171	171	171	240	221	221
<b>2.0 TOTAL RESOURCE PURCHASES<sup>(4)</sup></b>	<b>153</b>	<b>153</b>	<b>207</b>	<b>172</b>	<b>171</b>	<b>171</b>	<b>171</b>	<b>240</b>	<b>221</b>	<b>221</b>
<b>3.0 TOTAL NET RESOURCES (1.0 + 2.0)</b>	<b>2,221</b>	<b>2,251</b>	<b>2,275</b>	<b>2,258</b>	<b>2,267</b>	<b>2,307</b>	<b>2,307</b>	<b>2,054</b>	<b>2,035</b>	<b>2,085</b>
<b>4.0 SYSTEM DEMAND</b>										
4.1 NATIVE SYSTEM DEMAND	2,032	2,078	2,113	2,146	2,174	2,217	2,257	2,298	2,333	2,385
4.2 DISTRIBUTED GENERATION <sup>(5)</sup>	(8)	(16)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)
4.3 ENERGY EFFICIENCY	(6)	(12)	(19)	(25)	(31)	(37)	(43)	(49)	(56)	(62)
4.4 LINE LOSSES	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)	(7)
4.5 INTERRUPTIBLE SALES	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)	(59)
<b>5.0 TOTAL SYSTEM DEMAND (4.1+4.2+4.3+4.4+4.5)<sup>(6)</sup></b>	<b>1,952</b>	<b>1,984</b>	<b>2,006</b>	<b>2,032</b>	<b>2,055</b>	<b>2,093</b>	<b>2,128</b>	<b>2,160</b>	<b>2,190</b>	<b>2,235</b>
<b>6.0 MARGIN OVER TOTAL DEMAND (3.0 - 5.0)</b>	<b>269</b>	<b>268</b>	<b>269</b>	<b>226</b>	<b>212</b>	<b>214</b>	<b>181</b>	<b>(106)</b>	<b>(155)</b>	<b>(150)</b>
<b>7.0 PLANNING RESERVE 10% OF TOTAL SYSTEM DEMAND</b>	<b>293</b>	<b>298</b>	<b>301</b>	<b>305</b>	<b>308</b>	<b>314</b>	<b>319</b>	<b>324</b>	<b>328</b>	<b>335</b>
<b>8.0 MARGIN OVER RESERVE (6.0 - 7.0)</b>	<b>-24</b>	<b>(31)</b>	<b>-32</b>	<b>(69)</b>	<b>(96)</b>	<b>(100)</b>	<b>(136)</b>	<b>(430)</b>	<b>(484)</b>	<b>(486)</b>

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- Generation unit retirements are consistent with the 2018 IRP.
- Rio Grande 6 is classified as inactive reserve.
- Purchases based on existing and estimated future purchases including renewable purchases. The recently passed NM Energy Transition Act is pending Commission rulemaking. Future resource additions for NM RPS may modify this L&R.
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- Additional small renewable projects being pursued and if implemented, will reduce the capacity need in future years.
- EPE is exploring additional renewable resources to satisfy RPS requirements and if acquired those resources may impact the L&R as well as planned additions.

Baseline Load Growth	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0206%
50% Reduction to Growth	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0206%
Zero Growth	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.0115%	0.011787%
Newman 6	-	-	-	226	226	226	226	226	226	226
Resources	2,287	2,318	2,341	2,108	2,107	2,147	2,146	1,894	1,874	1,924
Baseline Load Growth	2,320.55	2,357.70	2,382.81	2,412.79	2,438.23	2,482.15	2,520.47	2,580.09	2,594.14	2,648.01
50% Reduction to Growth	2,320.55	2,339.75	2,352.82	2,367.91	2,381.30	2,402.92	2,423.05	2,441.68	2,458.41	2,483.73
Zero Growth	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55	2,320.55



**Generation Additions**  
 100 MW Solar (25 MW at Peak) in 2022  
 Solar/Batt Combo (100/50 MW) in 2022  
 (75 MW at Peak)  
 Stand-alone Battery (50 MW) in 2023  
 Newman 6 GT5 (226 MW) in 2023  
 Drop-In 1x1 CC (320 MW Total) in 2027  
 125 MW Solar (31 MW at Peak) in 2028  
 Recip Engines (50 MW) in 2028

**Unit Retirements**  
 Rio Grande 6 (45MW)<sup>1</sup>  
 Rio Grande 7 (46MW) - December 2022  
 Newman 1 (76MW) - December 2022  
 Newman 2 (76MW) - December 2022  
 Newman 3 (95MW) - December 2026  
 Newman 4 CC (227MW) - December 2026  
 Copper (63MW) - December 2030  
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