Preferred Portfolio

Portfolio ID: P17aL1M1E1
Date: 6/1/2020 4:08:30 PM

Portfolio Description
- Springerville coal supply terminates in 2030
- Inventory stockpile allows operation through 2032 (summer only)
- Seasonal shutdowns begin 2023

Base Assumptions

<table>
<thead>
<tr>
<th>Plant/Unit</th>
<th>Plant/Technology</th>
<th>MW</th>
<th>Year</th>
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<tr>
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<td>Four Corners Units 4 and 5</td>
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</tr>
<tr>
<td>Sundt Steam Unit 3</td>
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<td>2032</td>
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Additions

<table>
<thead>
<tr>
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<td>2021</td>
</tr>
<tr>
<td>Borderlands Wind</td>
<td>90</td>
<td>2021</td>
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Energy Efficiency Savings
- 716 GWh by 2035

Renewable Energy as a % of Retail Sales

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<th>Utility Scale and DG</th>
<th>Non-Fuel</th>
<th>Fuel</th>
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<td>2025</td>
<td>36%</td>
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<td>2026</td>
<td>38%</td>
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<tr>
<td>2027</td>
<td>44%</td>
<td></td>
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</tr>
<tr>
<td>2028</td>
<td>44%</td>
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</tr>
<tr>
<td>2029</td>
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<tr>
<td>2030</td>
<td>49%</td>
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<tr>
<td>2031</td>
<td>67%</td>
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<tr>
<td>2032</td>
<td>67%</td>
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</tr>
<tr>
<td>2033</td>
<td>71%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environmental Summary

Cumulative GHG (000 Tons) 2021 -2035: 72,643
Societal Cost of Carbon ($000): $3,051,003

Cumulative Tons of CO2 Emissions For P17aL1M1E1 Through 2035
- 13,200,000 in 2020
- 13,400,000 in 2021
- 13,600,000 in 2022
- 13,800,000 in 2023
- 14,000,000 in 2024

NPV of Revenue Requirements ($000) For P17aL1M1E1 Through 2035
- Total NPV: $13,334

This Portfolio ~ Other Portfolios

Portfolio Description:
- Springerville coal supply terminates in 2030
- Inventory stockpile allows operation through 2032 (summer only)
- Seasonal shutdowns begin 2023
**Base Assumptions**

<table>
<thead>
<tr>
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<td>2027</td>
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<td>50</td>
<td>2027</td>
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<tr>
<td>Four Corners Units 4 and 5</td>
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<td>2031</td>
</tr>
<tr>
<td>Sundt Steam Unit 3</td>
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<td>2032</td>
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**Additions**

<table>
<thead>
<tr>
<th>Plant/Technology</th>
<th>MW</th>
<th>Year</th>
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<tbody>
<tr>
<td>Oso Grande Wind</td>
<td>247</td>
<td>2020</td>
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<tr>
<td>Wilmot Solar</td>
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<td>2021</td>
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<tr>
<td>Wilmot 4-Hr Battery Storage</td>
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<td>Borderlands Wind</td>
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<tr>
<td>Distributed Generation Solar</td>
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<td>by 2035</td>
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<td>Energy Efficiency Savings</td>
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<td>GWh by 2035</td>
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* Commercial operation December 2020

**Renewable Energy as a % of Retail Sales**

- **Utility Scale and DG**
  - 2020: 14%
  - 2021: 28%
  - 2022: 31%
  - 2023: 31%
  - 2024: 31%
  - 2025: 32%
  - 2026: 32%
  - 2027: 31%
  - 2028: 30%
  - 2029: 30%
  - 2030: 46%
  - 2031: 43%
  - 2032: 43%
  - 2033: 40%

**Resource Capacity (MW)**

- **Utility Scale and DG**
  - 2020: 1,073 MW
  - 2021: 1,073 MW
  - 2022: 903 MW
  - 2023: 903 MW
  - 2024: 903 MW
  - 2025: 903 MW
  - 2026: 903 MW
  - 2027: 903 MW
  - 2028: 903 MW
  - 2029: 903 MW
  - 2030: 903 MW
  - 2031: 903 MW
  - 2032: 793 MW
  - 2033: 793 MW
  - 2034: 793 MW
  - 2035: 793 MW

- **Natural Gas**
  - 2020: 1,800 MW
  - 2021: 1,800 MW
  - 2022: 1,800 MW
  - 2023: 1,800 MW
  - 2024: 1,800 MW
  - 2025: 1,800 MW
  - 2026: 1,800 MW
  - 2027: 1,679 MW
  - 2028: 1,679 MW
  - 2029: 1,679 MW
  - 2030: 1,679 MW
  - 2031: 1,679 MW
  - 2032: 1,679 MW
  - 2033: 1,679 MW
  - 2034: 1,679 MW
  - 2035: 1,679 MW

- **Renewables (Ex. DG)**
  - 2020: 288 MW
  - 2021: 634 MW
  - 2022: 741 MW
  - 2023: 740 MW
  - 2024: 738 MW
  - 2025: 782 MW
  - 2026: 795 MW
  - 2027: 842 MW
  - 2028: 856 MW
  - 2029: 904 MW
  - 2030: 918 MW
  - 2031: 915 MW
  - 2032: 1,559 MW
  - 2033: 1,493 MW
  - 2034: 1,491 MW
  - 2035: 1,439 MW

- **Storage**
  - 2020: 20 MW
  - 2021: 50 MW
  - 2022: 50 MW
  - 2023: 50 MW
  - 2024: 50 MW
  - 2025: 100 MW
  - 2026: 100 MW
  - 2027: 100 MW
  - 2028: 100 MW
  - 2029: 100 MW
  - 2030: 100 MW
  - 2031: 375 MW
  - 2032: 375 MW
  - 2033: 375 MW
  - 2034: 375 MW
  - 2035: 375 MW

**Environmental Summary**

- **Cumulative GHG (000 Tons) 2021 -2035:** 96,879
- **Societal Cost of Carbon ($000):** $4,068,933
- **Local NOx Emissions are those from Tucson Area Plants**

**CO2 Emissions - Percent Reduction from 2005 Levels**

- 2020: 26%
- 2021: 37%
- 2022: 41%
- 2023: 45%
- 2024: 46%
- 2025: 47%
- 2026: 47%
- 2027: 46%
- 2028: 46%
- 2029: 47%
- 2030: 47%
- 2031: 54%
- 2032: 53%
- 2033: 51%
- 2034: 51%
- 2035: 51%

**Revenue Requirements NPV ($millions)**

- Non-Fuel: $9,097
- Fuel: $4,240
- Total: $13,338

**NPV of Revenue Requirements ($000) For P01aL1M1E1 Through 2035**

- 2020: $13,200,000
- 2021: $13,400,000
- 2022: $13,600,000
- 2023: $13,800,000
- 2024: $14,000,000

**Cumulative Tons of CO2 Emissions For P01aL1M1E1 Through 2035**

- 2020: 65,000,000
- 2021: 70,000,000
- 2022: 75,000,000
- 2023: 80,000,000
- 2024: 85,000,000
- 2025: 90,000,000
- 2026: 95,000,000
- 2027: 100,000,000
- 2028: 105,000,000

**Portfolio ID:** P01aL1M1E1

**Date:** 5/28/2020 9:01:43 AM
### Portfolio Description
- 30% of sales from renewables by 2030
- 100% clean by 2050

### Base Assumptions
<table>
<thead>
<tr>
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<th>Year</th>
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<tr>
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### Environmental Summary
- Cumulative GHG (000 Tons) 2021 - 2035: 100,872
- Societal Cost of Carbon ($000): $4,236,627
- Local NOx Emissions are those from Tucson Area Plants
- CO2 Emissions - Percent Reduction from 2005 Levels
  - 2020: 23%
  - 2021: 36%
  - 2022: 40%
  - 2023: 44%
  - 2024: 44%
  - 2025: 45%
  - 2026: 45%
  - 2027: 42%
  - 2028: 43%
  - 2029: 43%
  - 2030: 43%
  - 2031: 51%
  - 2032: 49%
  - 2033: 48%
  - 2034: 48%
  - 2035: 52%

### Revenue Requirements NPV ($millions)
- Non-Fuel: $9,233
- Fuel: $4,223
- Total: $13,456

### Cumulative Tons of CO2 Emissions For P01bL1M1E1 Through 2035
- Cumulative Tons of CO2 Emissions: 110,000,000
- NPV of Revenue Requirements ($000) For P01bL1M1E1 Through 2035
- NPV: $13,456,000

* Commercial operation December 2020
## Portfolio Description
- 50% of sales from renewables by 2028
- 80% clean by 2050

### Base Assumptions

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<tr>
<td>Distributed Generation</td>
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### Energy Efficiency Savings
- 716 GWh by 2035

### Renewable Energy as a % of Retail Sales

<table>
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<tr>
<th>Year</th>
<th>Utility Scale and DG</th>
<th>Coal</th>
<th>Natural Gas</th>
<th>Renewables (Ex. DG)</th>
<th>Storage</th>
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<tbody>
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<td>2020</td>
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<td>1,073</td>
<td>1,800</td>
<td>288</td>
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<td>2024</td>
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<td>67%</td>
<td>903</td>
<td>1,800</td>
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### Environmental Summary

- Cumulative GHG (000 Tons) 2021-2035: 81,398
- Societal Cost of Carbon ($000): $3,418,727
- Local NOx Emissions are those from Tucson Area Plants

### Revenue Requirements NPV ($millions)

- Non-Fuel: $9,648
- Fuel: $3,802
- Total: $13,450

### Water Consumption (million gallons)

- Cumulative Tons of CO2 Emissions For P02aL1M1E1 Through 2035
- NPV of Revenue Requirements ($000) For P02aL1M1E1 Through 2035

---

* Commercial operation December 2020
**Portfolio Description**
- 50% of sales from renewables by 2030
- 100% clean by 2050

**Revenue Requirements NPV ($millions)**
- Non-Fuel: $9,681
- Fuel: $3,896
- Total: $13,577

**Base Assumptions**

---

**Retirements**

- San Juan Unit 1: 170 MW, 2022
- North Loop Units 1-3: 71 MW, 2027
- Sundt Combustion Turbines 1-2: 50 MW, 2027
- Four Corners Units 4 and 5: 110 MW, 2031
- Sundt Steam Unit 3: 104 MW, 2032

**Additions**

<table>
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<th>Year</th>
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<tr>
<td>Distributed Generation Solar</td>
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**Energy Efficiency Savings**

- 716 GWh by 2035

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**Renewable Energy as a % of Retail Sales**

<table>
<thead>
<tr>
<th>Years</th>
<th>Utility Scale and DG</th>
<th>Coal</th>
<th>Natural Gas</th>
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<th>Storage</th>
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<tbody>
<tr>
<td>2020</td>
<td>14%</td>
<td>1,073</td>
<td>1,073</td>
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<tr>
<td>2021</td>
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<td>31%</td>
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<td>1,073</td>
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<td>903</td>
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<td>2023</td>
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<td>903</td>
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<tr>
<td>2024</td>
<td>36%</td>
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<td>903</td>
<td>903</td>
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<tr>
<td>2025</td>
<td>37%</td>
<td>1,073</td>
<td>1,073</td>
<td>903</td>
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<td>2026</td>
<td>46%</td>
<td>1,073</td>
<td>1,073</td>
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<td>903</td>
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<td>49%</td>
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<td>903</td>
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<tr>
<td>2030</td>
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<td>903</td>
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<tr>
<td>2032</td>
<td>58%</td>
<td>1,073</td>
<td>1,073</td>
<td>903</td>
<td>903</td>
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<tr>
<td>2033</td>
<td>58%</td>
<td>1,073</td>
<td>1,073</td>
<td>903</td>
<td>903</td>
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<tr>
<td>2034</td>
<td>66%</td>
<td>1,073</td>
<td>1,073</td>
<td>903</td>
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---

**Revenue Requirements NPV ($millions)**

- Total: $13,577

---

**Cumulative GHG (000 Tons) 2021-2035: 86,779**

---

**Societal Cost of Carbon ($000): $3,644,708**

---

**Environmental Summary**

- Cumulative NOx Emissions are those from Tucson Area Plants

---

**Cumulative Tons of CO2 Emissions For P02bL1M1E1 Through 2035**

<table>
<thead>
<tr>
<th>Years</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
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<th>2035</th>
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<tbody>
<tr>
<td></td>
<td>23%</td>
<td>36%</td>
<td>40%</td>
<td>44%</td>
<td>46%</td>
<td>46%</td>
<td>51%</td>
<td>50%</td>
<td>48%</td>
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<td>60%</td>
<td>60%</td>
<td>65%</td>
<td>64%</td>
<td>63%</td>
<td>67%</td>
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**NPV of Revenue Requirements ($000) For P02bL1M1E1 Through 2035**

<table>
<thead>
<tr>
<th>Years</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<th>2034</th>
<th>2035</th>
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<tr>
<td></td>
<td>$13,200,000</td>
<td>$13,400,000</td>
<td>$13,600,000</td>
<td>$13,800,000</td>
<td>$14,000,000</td>
<td></td>
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</tbody>
</table>

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* Commercial operation December 2020
**Base Assumptions**

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</tr>
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<td>2031</td>
</tr>
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<td>104</td>
<td>2032</td>
</tr>
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</table>

**Additions**

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<tr>
<th>Plant/Technology</th>
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<tr>
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<td>Wilmot 4-Hr Battery Storage</td>
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<tr>
<td>Borderlands Wind</td>
<td>98</td>
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</table>

**Energy Efficiency Savings**

- 716 GWh by 2035

* Commercial operation December 2020

**Environmental Summary**

- Cumulative GHG (000 Tons) 2021 - 2035: 84,097
- Societal Cost of Carbon ($000): $3,532,064
- Local NOx Emissions are those from Tucson Area Plants

**CO2 Emissions - Percent Reduction from 2005 Levels**

- 23% in 2020
- 36% in 2021
- 40% in 2022
- 44% in 2023
- 47% in 2024
- 47% in 2025
- 52% in 2026
- 51% in 2027
- 49% in 2028
- 49% in 2029
- 62% in 2030
- 62% in 2031
- 67% in 2032
- 66% in 2033
- 66% in 2034
- 69% in 2035

**Water Consumption (million gallons)**

- Surface Water
- Ground Water

**Portfolio Description**

- 50% of sales from renewables by 2030
- 100% clean by 2050
- 35% of sales from energy efficiency by 2030 (low cost measures)

**Portfolio ID:** P02cL1M1E1

**Date:** 6/1/2020 10:58:46 AM

**Revenue Requirements NPV ($millions)**

- Non-Fuel: $9,554
- Fuel: $3,939
- Total: $13,494
### Base Assumptions

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<td>90 by 2035</td>
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</tr>
<tr>
<td>Energy Efficiency Savings</td>
<td>716 GWh by 2035</td>
<td></td>
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</tbody>
</table>

* Commercial operation December 2020

### Retirements

- **San Juan Unit 1**: 170 MW, 2022
- **North Loop Units 1-3**: 71 MW, 2027
- **Sundt Combustion Turbines 1-2**: 50 MW, 2027
- **Four Corners Units 4 and 5**: 110 MW, 2031
- **Sundt Steam Unit 3**: 104 MW, 2032

### Portfolio Description

- **50% of sales from renewables by 2030**
- **100% clean by 2050**
- **35% of sales from energy efficiency by 2030 (high cost measures)**

### Renewable Energy as a % of Retail Sales

#### Utility Scale and DG

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<tr>
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<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<th>2026</th>
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<th>2032</th>
<th>2033</th>
<th>2034</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>14%</td>
<td>28%</td>
<td>31%</td>
<td>31%</td>
<td>37%</td>
<td>37%</td>
<td>46%</td>
<td>45%</td>
<td>43%</td>
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<td>50%</td>
<td>49%</td>
<td>61%</td>
<td>59%</td>
<td>59%</td>
<td>69%</td>
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</table>

#### Natural Gas

<table>
<thead>
<tr>
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<th>2022</th>
<th>2023</th>
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<tr>
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<td>1,073</td>
<td>903</td>
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<td>903</td>
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<td>516</td>
<td>406</td>
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</tr>
</tbody>
</table>

### Environmental Summary

#### Cumulative Tons of CO2 Emissions For P02dL1M1E1 Through 2035

- 2020: 13,200,000
- 2021: 13,400,000
- 2022: 13,600,000
- 2023: 13,800,000
- 2024: 14,000,000

#### NPV of Revenue Requirements (000) For P02dL1M1E1 Through 2035

- $13,200,000
- $13,400,000
- $13,600,000
- $13,800,000
- $14,000,000

**This Portfolio**

---

**Portfolio ID:** P02dL1M1E1  
**Date:** 5/27/2020 11:59:29 AM

---

**Portfolio Description**

- 50% of sales from renewables by 2030
- 100% clean by 2050
- 35% of sales from energy efficiency by 2030 (high cost measures)
**Portfolio Description**

- 50% of sales from renewables by 2030
- 100% clean by 2050
- 35% of sales from energy efficiency by 2030 (SWEEP Modeling)

**Base Assumptions**

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<thead>
<tr>
<th>Plant/Unit</th>
<th>Plant/Technology</th>
<th>MW</th>
<th>Year</th>
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<tbody>
<tr>
<td>San Juan Unit 1</td>
<td>Coal</td>
<td>170</td>
<td>2022</td>
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<tr>
<td>North Loop Units 1-3</td>
<td>Natural Gas</td>
<td>71</td>
<td>2027</td>
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<tr>
<td>Sundt Combustion Turbines 1-2</td>
<td>Renewable Energy</td>
<td>50</td>
<td>2027</td>
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<td>Four Corners Units 4 and 5</td>
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<td>716 GWh</td>
<td>by 2035</td>
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</tbody>
</table>

* Commercial operation December 2020
**Portfolio Description**
- 45% of sales from renewables by 2035
- 30% clean energy during peak by 2035

**Base Assumptions**

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<td>90 by 2035</td>
<td></td>
</tr>
</tbody>
</table>

**Energy Efficiency Savings**
- 2022: 716 GWh by 2035

* Commercial operation December 2020

**Renewable Energy as a % of Retail Sales**

- Utility Scale and DG
  - 2020: 14%
  - 2021: 28%
  - 2022: 31%
  - 2023: 31%
  - 2024: 30%
  - 2025: 30%
  - 2026: 30%
  - 2027: 29%
  - 2028: 28%
  - 2029: 27%
  - 2030: 35%
  - 2031: 34%
  - 2032: 40%
  - 2033: 39%
  - 2034: 45%
  - 2035: 45%

- Distributed Generation
  - 2020: 9%
  - 2021: 17%

**Resource Capacity (MW)**

- **Coal**
  - 2020: 1,073
  - 2021: 1,073
  - 2022: 903
  - 2023: 903
  - 2024: 903
  - 2025: 903
  - 2026: 903
  - 2027: 903
  - 2028: 903
  - 2029: 903
  - 2030: 903
  - 2031: 903
  - 2032: 903
  - 2033: 793
  - 2034: 793
  - 2035: 793

- **Natural Gas**
  - 2020: 1,800
  - 2021: 1,800
  - 2022: 1,800
  - 2023: 1,800
  - 2024: 1,800
  - 2025: 1,800
  - 2026: 1,800
  - 2027: 1,679
  - 2028: 1,679
  - 2029: 1,679
  - 2030: 1,679
  - 2031: 1,679
  - 2032: 1,575
  - 2033: 1,575
  - 2034: 1,575

- **Renewables (Ex. DG)**
  - 2020: 288
  - 2021: 634
  - 2022: 741
  - 2023: 740
  - 2024: 738
  - 2025: 732
  - 2026: 730
  - 2027: 727
  - 2028: 724
  - 2029: 723
  - 2030: 724
  - 2031: 723
  - 2032: 724
  - 2033: 723
  - 2034: 724
  - 2035: 723

- **Storage**
  - 2020: 20
  - 2021: 50
  - 2022: 50
  - 2023: 50
  - 2024: 50
  - 2025: 50
  - 2026: 50
  - 2027: 250
  - 2028: 250
  - 2029: 250
  - 2030: 250
  - 2031: 250
  - 2032: 250
  - 2033: 250
  - 2034: 250
  - 2035: 250

**Revenue Requirements NPV ($millions)**

- Non-Fuel: $9,062
- Fuel: $4,248
- Total: $13,309
**Base Assumptions**

<table>
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<tr>
<td>Distributed Generation Solar</td>
</tr>
</tbody>
</table>

| Energy Efficiency Savings | 716 GWh by 2035 |

* Commercial operation December 2020

---

**Portfolio Description**

- Retire all coal by end of 2027

---

**Environmental Summary**

**Cumulative GHG (000 Tons) 2021 - 2035:** 70,295

**Societal Cost of Carbon ($000):** $2,952,401

**Local NOx Emissions are those from Tucson Area Plants**

**CO2 Emissions - Percent Reduction from 2005 Levels**

- 2020: 23%
- 2021: 36%
- 2022: 40%
- 2023: 44%
- 2024: 45%
- 2025: 46%
- 2026: 48%
- 2027: 50%
- 2028: 76%
- 2029: 76%
- 2030: 77%
- 2031: 76%
- 2032: 77%
- 2033: 78%
- 2034: 78%

**Water Consumption (million gallons)**

**NPV of Revenue Requirements ($000) For PO8b1M1E1 Through 2035**

**Cumulative Tons of CO2 Emissions For PO8b1M1E1 Through 2035**

---

**Revenue Requirements NPV [$millions]**

- Non-Fuel: $40,082
- Fuel: $3,743
- Total: $43,825
**Retirements**

- San Juan Unit 1: 170 MW by 2022
- North Loop Units 1-3: 71 MW by 2027
- Four Corners Units 4 and 5: 110 MW by 2031
- Sundt Steam Unit 3: 104 MW by 2032

**Additions**

- Oso Grande Wind: 247 MW by 2020*
- Wilmot Solar: 100 MW by 2021
- Wilmot 4-Hr Battery Storage: 30 MW by 2021
- Borderlands Wind: 99 MW by 2021
- Distributed Generation Solar: 90 MW by 2035
- Energy Efficiency Savings: 716 GWh by 2035

* Commercial operation December 2020

---

**Portfolio Description**

- Retire Springerville Unit 1 end of 2024

---

**Revenue Requirements NPV ($millions)**

- Non-Fuel: $9,390
- Fuel: $4,061
- Total: $13,452

---

**Base Assumptions**

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---

**Generation (GWh)**

---

**Load and Resources (MW)**

---

**Renewable Energy as a % of Retail Sales**

- Utility Scale and DG: 14% in 2020, 28% in 2021, 31% in 2022, 31% in 2023, 34% in 2024, 37% in 2025, 37% in 2026, 36% in 2027, 40% in 2028, 38% in 2029, 41% in 2030, 41% in 2031, 42% in 2032, 45% in 2033, 44% in 2034, 44% in 2035

---

**Environmental Summary**

- Cumulative GHG (000 Tons) 2021-2035: 85,478
- Societal Cost of Carbon ($000): $3,590,060
- Local NOx Emissions are those from Tucson Area Plants
- CO2 Emissions - Percent Reduction from 2005 Levels: 23% in 2020, 37% in 2021, 41% in 2022, 44% in 2023, 46% in 2024, 57% in 2025, 56% in 2026, 56% in 2027, 55% in 2028, 55% in 2029, 55% in 2030, 56% in 2031, 59% in 2032, 59% in 2033, 60% in 2034, 59% in 2035
- Water Consumption (million gallons)
  - Surface Water
  - Ground Water

---

**Cumulative Tons of CO2 Emissions For P08bL1M1E1 Through 2035**

- NPV of Revenue Requirements ($000) For P08bL1M1E1 Through 2035

---

**Portfolio Description**

- This Portfolio
- Other Portfolios
Portfolio Description
• Target CO2 emission reductions of 50% by 2025, 60% by 2030, 70% by 2035, from 2005

Base Assumptions

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Additions
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<tr>
<th>Plant/Technology</th>
<th>MW</th>
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<td>Distributed Generation Solar</td>
<td>90</td>
<td>by 2035</td>
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Energy Efficiency Savings 716 GWh by 2035

* Commercial operation December 2020

Renewable Energy as a % of Retail Sales

<table>
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<tr>
<th>Utility Scale and DG</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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Resource Capacity (MW)

Environmental Summary

Emissions (Tons)

Cumulative GHG (000 Tons) 2021 -2035: 82,150 Societal Cost of Carbon ($000): $3,450,296 Local NOx Emissions are those from Tucson Area Plants

CO2 Emissions - Percent Reduction from 2005 Levels

Revenue Requirements NPV ($millions)

Non-Fuel $9,402 Fuel $3,947 Total $13,348
Portfolio ID: P10aL1M1E1
Date: 5/26/2020 5:45:51 PM

Portfolio Description

- Target CO2 emission reductions of 40% by 2025, 50% by 2030, 60% by 2035, from 2005

Base Assumptions

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<thead>
<tr>
<th>Plant/Unit</th>
<th>MW</th>
<th>Year</th>
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<tr>
<td>San Juan Unit 1</td>
<td>170</td>
<td>2022</td>
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<tr>
<td>North Loop Units 1-3</td>
<td>71</td>
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<tr>
<td>Energy Efficiency Savings</td>
<td>716 GWh</td>
<td>by 2035</td>
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* Commercial operation December 2020

Renewable Energy as a % of Retail Sales

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<th>Utility Scale and DG</th>
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<tr>
<td>2020</td>
</tr>
<tr>
<td>14%</td>
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</table>

Net Revenue Requirements NPV ($millions)

| Non-Fuel | $4,347 |
| Fuel | $8,867 |
| Total | $13,214 |

Environmental Summary

Cumulative GHG (000 Tons) 2021 -2035: 98,157
Societal Cost of Carbon ($000): $4,122,588
Local NOx Emissions are those from Tucson Area Plants

Cumulative Tons of CO2 Emissions For P10aL1M1E1 Through 2035

NPV of Revenue Requirements (000) For P10aL1M1E1 Through 2035

This Portfolio © Other Portfolios
### Portfolio Description

- Springerville coal supply terminates in 2030
- Inventory stockpile allows operation through 2033 (summer only)
- Seasonal shutdowns begin 2023

### Base Assumptions

#### Retirements

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Energy Efficiency Savings: 716 GWh by 2035

* Commercial operation December 2020

### Renewable Energy as % of Retail Sales

#### Utility Scale and DG

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#### Resource Capacity (MW)

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<tr>
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<td>Renewables (Ex. DG)</td>
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<td>600</td>
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### Environmental Summary

#### Emissions (Tons)

- CO2 (left axis)
- Local NOx (right axis)
- 2016 NOx (right axis)

#### Water Consumption (million gallons)

- Surface Water
- Ground Water

### Portfolio Description

- Springerville coal supply terminates in 2030
- Inventory stockpile allows operation through 2033 (summer only)
- Seasonal shutdowns begin 2023

### Revenue Requirements NPV ($millions)

- Non-Fuel: $9,646
- Fuel: $3,909
- Total: $13,554

### This Portfolio vs Other Portfolios

- Cumulative Tons of CO2 Emissions For P16bL1M1E1 Through 2035
- Societal Cost of Carbon ($000): $3,216,463
- Local NOx Emissions are those from Tucson Area Plants
- CO2 Emissions - Percent Reduction from 2005 Levels
- Revenue Requirements NPV ($000) For P16bL1M1E1 Through 2035
- Cumulative Tons of CO2 Emissions For P16bL1M1E1 Through 2035

* Commercial operation December 2020