

Colorado Energy Plan



Photo courtesy of the University of Colorado.

October 13, 2019



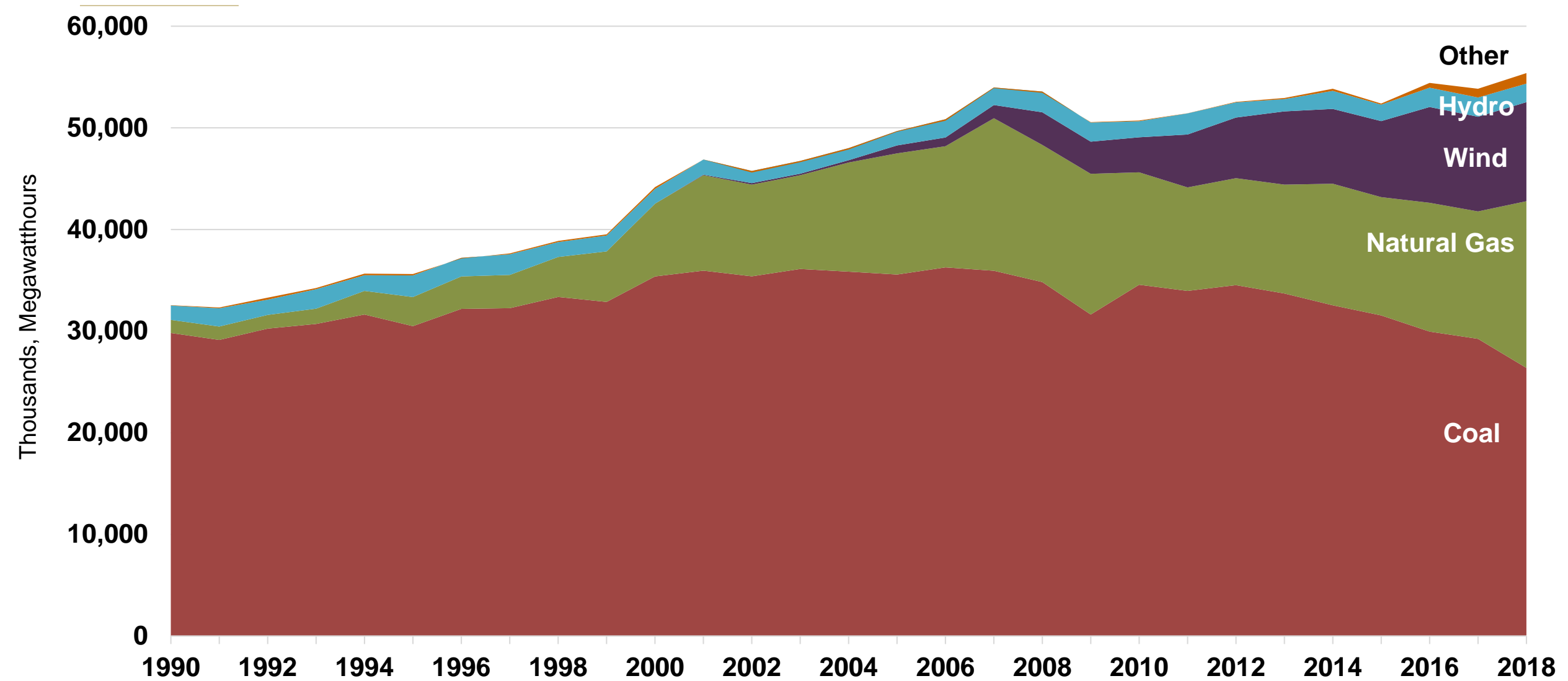
Energy State

Ranking

- Crude Oil Production: 5th
- Natural Gas Production: 6th
- Coal Production: 10th
- Total Energy: 7th
- Natural Gas Prices: 43rd
- Electricity Prices: 23rd
- Wind Capacity: 7th

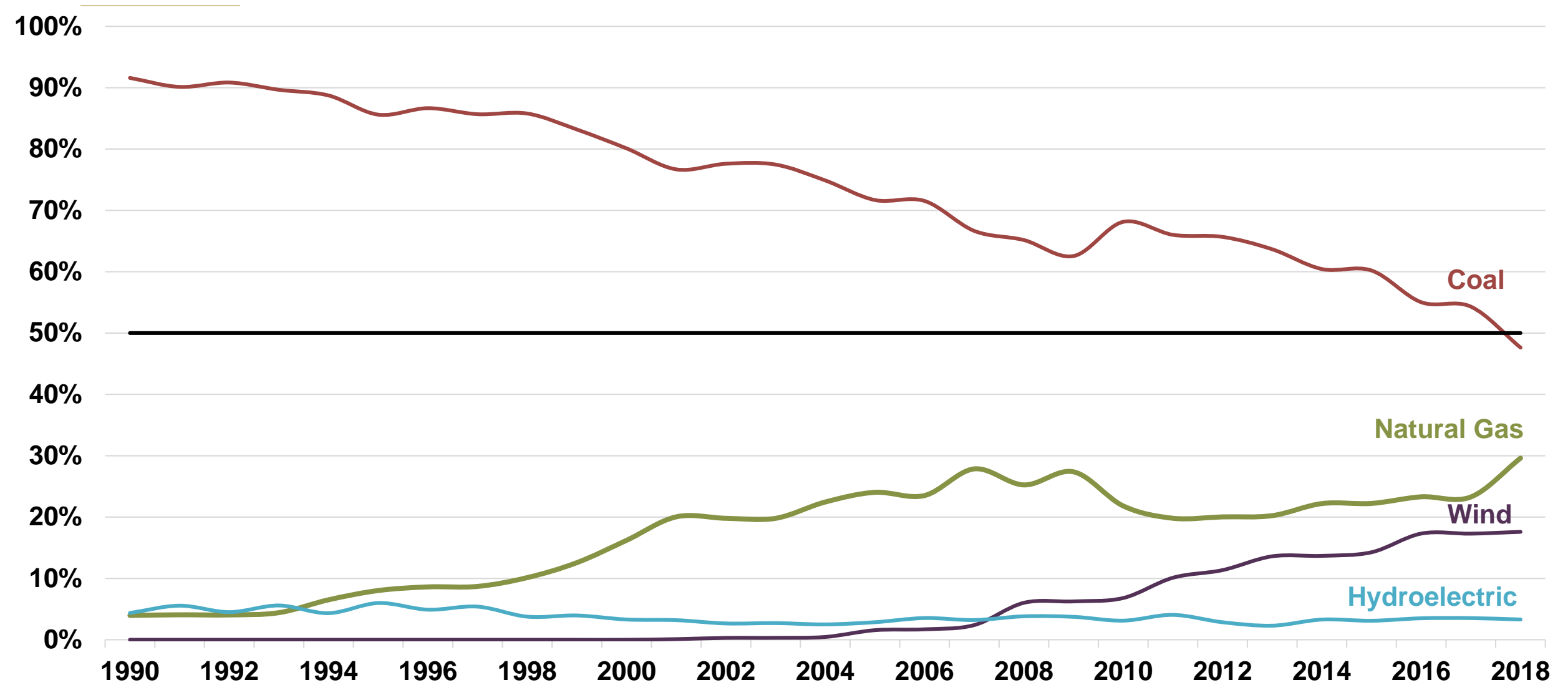


Colorado Net Electricity Generation



Source: Energy Information Administration, Net Generation by State by Type of Producer by Energy Source.

Colorado Net Electricity Generation



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Colorado's Renewable Portfolio Standard

- 2004: Colorado voters passed renewable portfolio standard (RPS)
Required utilities serving 40,000 or more customers to generate or purchase 10% of their retail electric sales using renewable energy sources by 2015
- 2007: 20% by 2020 (HB1281).
- 2010: 30% by 2020 (HB1001)
- 2013: 20% for rural cooperatives (SB252)
- Xcel Energy:
 - Clean Air Clean Jobs
 - Rush Creek Wind Project
 - Clean Energy Plan
- 100% carbon free by 2050 and 80% less carbon by 2030



Xcel Energy, Colorado's largest utility, aims to have zero carbon emissions by 2050 in industry-first plan

Xcel Energy says it's responding in large part to climate change and its goals will affect eight states where the company operates

Wind turbines near Matheson, Colo., are part of Xcel Energy's new 600 megawatt Rush Creek Wind Project. Rush Creek, which became operational in October 2018, uses 300 turbines to generate enough electricity to power 325,000 homes. Xcel estimates the project will cut 1 million tons of carbon emissions each year from its system. (John Leyba, Special to The Colorado Sun)

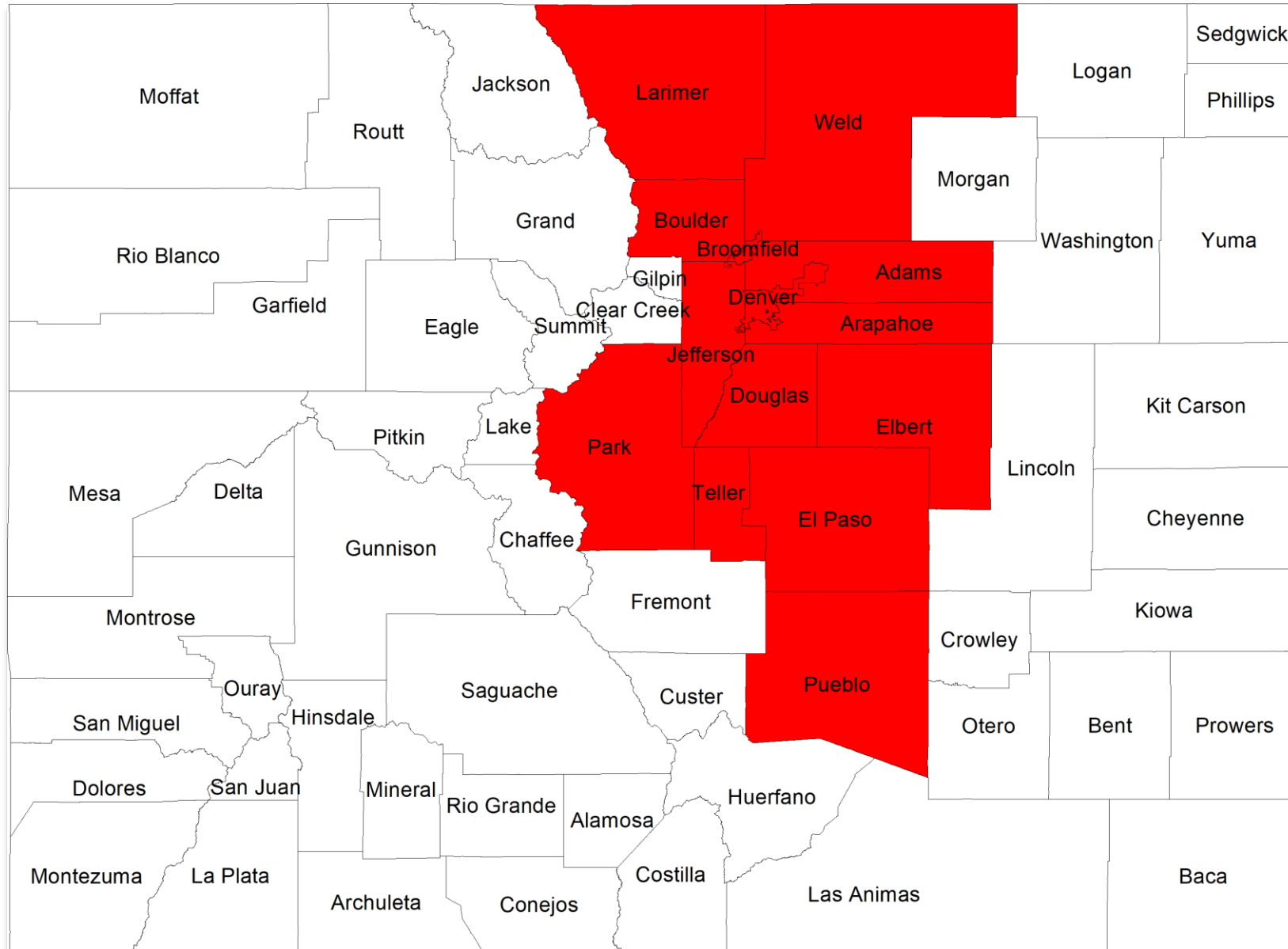
Public Utilities Commission - Mission

“The Colorado Public Utilities Commission (PUC) serves the public interest by effectively regulating utilities and facilities so that the people of Colorado receive safe, reliable, and reasonably-priced services consistent with the economic, environmental and social values of our state.”

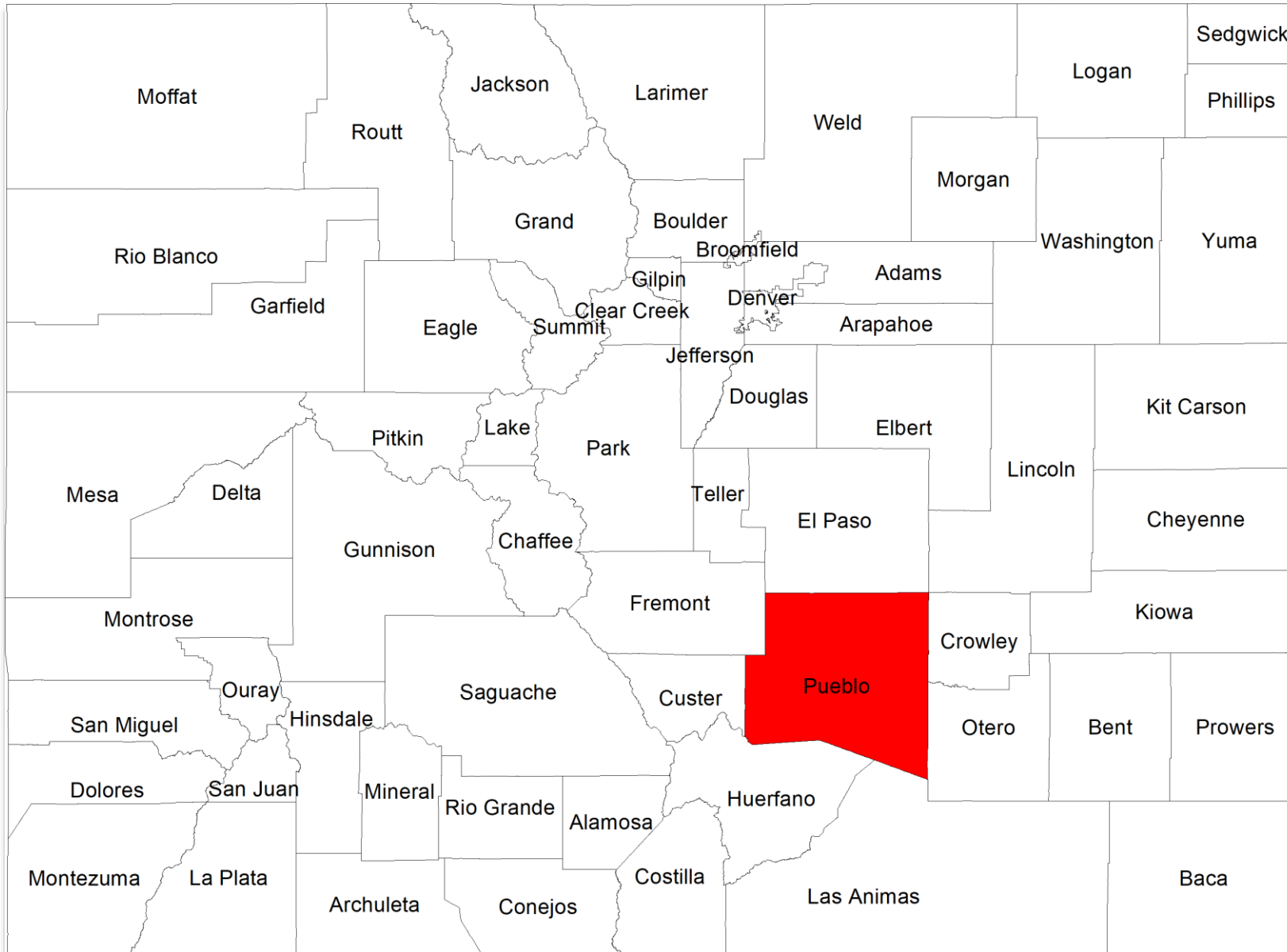
Colorado Energy Plan

- Retire 660 MW of coal-fired generation early
- Reduce carbon emissions 60% by late 2025 (from 2005 levels)
- Cleaner Energy Mix
 - 1,100 MW of new wind
 - 700 MW of new solar
 - 380 MW of existing natural gas
 - 275 MW of battery storage
- Creation access roads, foundations, transmission lines, substations
- Low clean energy prices and tax incentives, save customers ~\$200 million

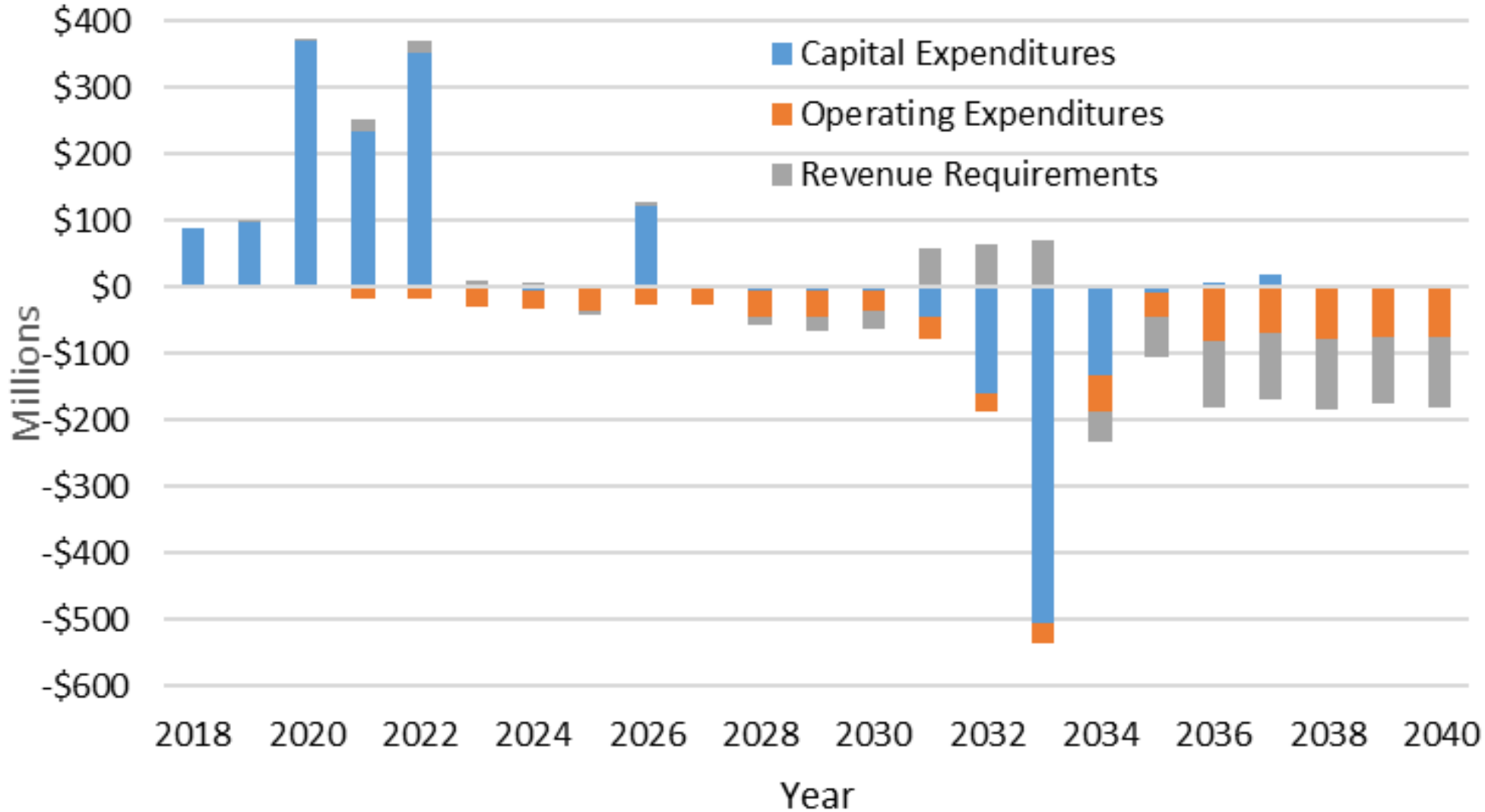
Metropolitan Front Range



Pueblo MSA



Net Expenditures and Revenue Requirements by Year

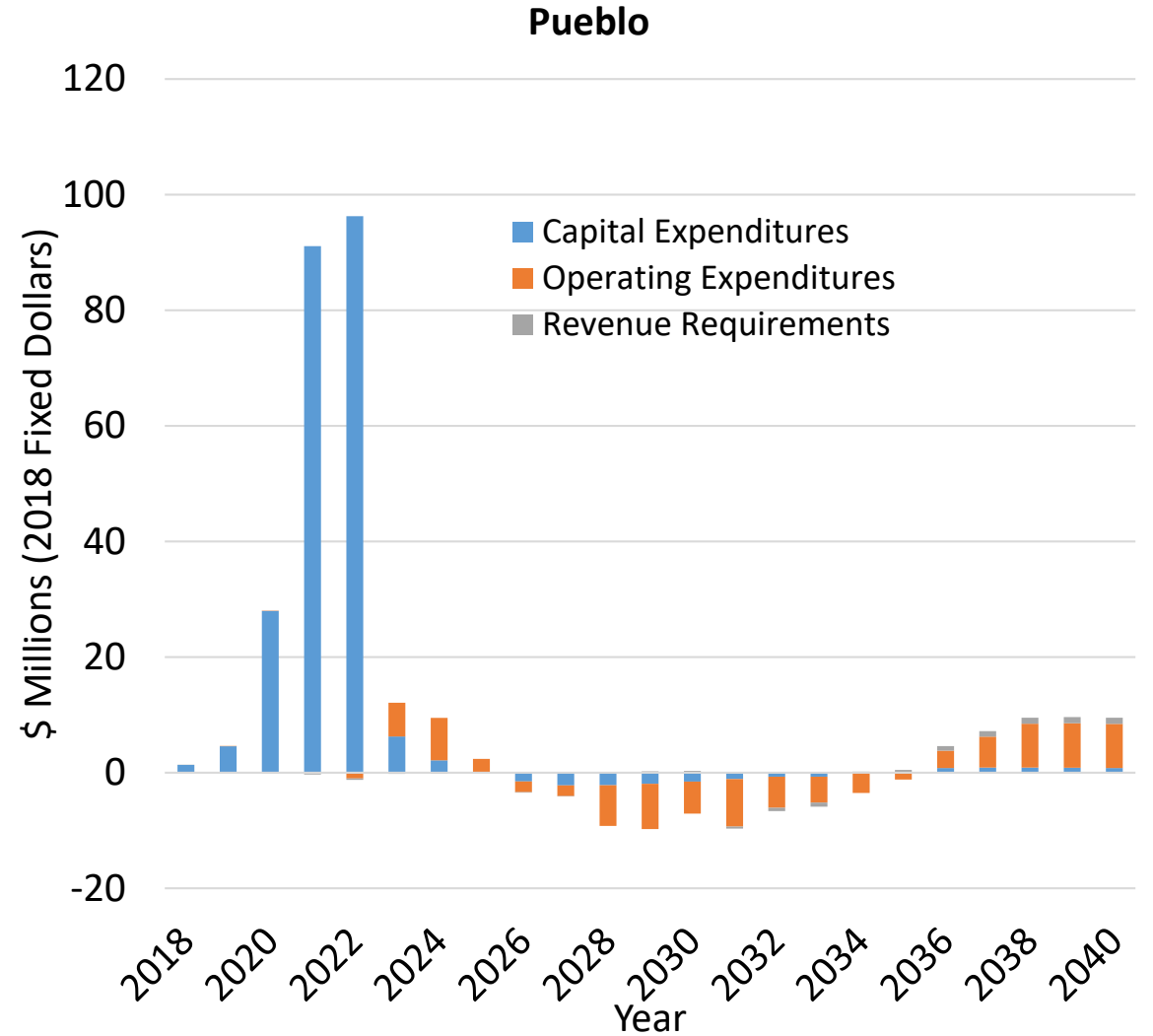
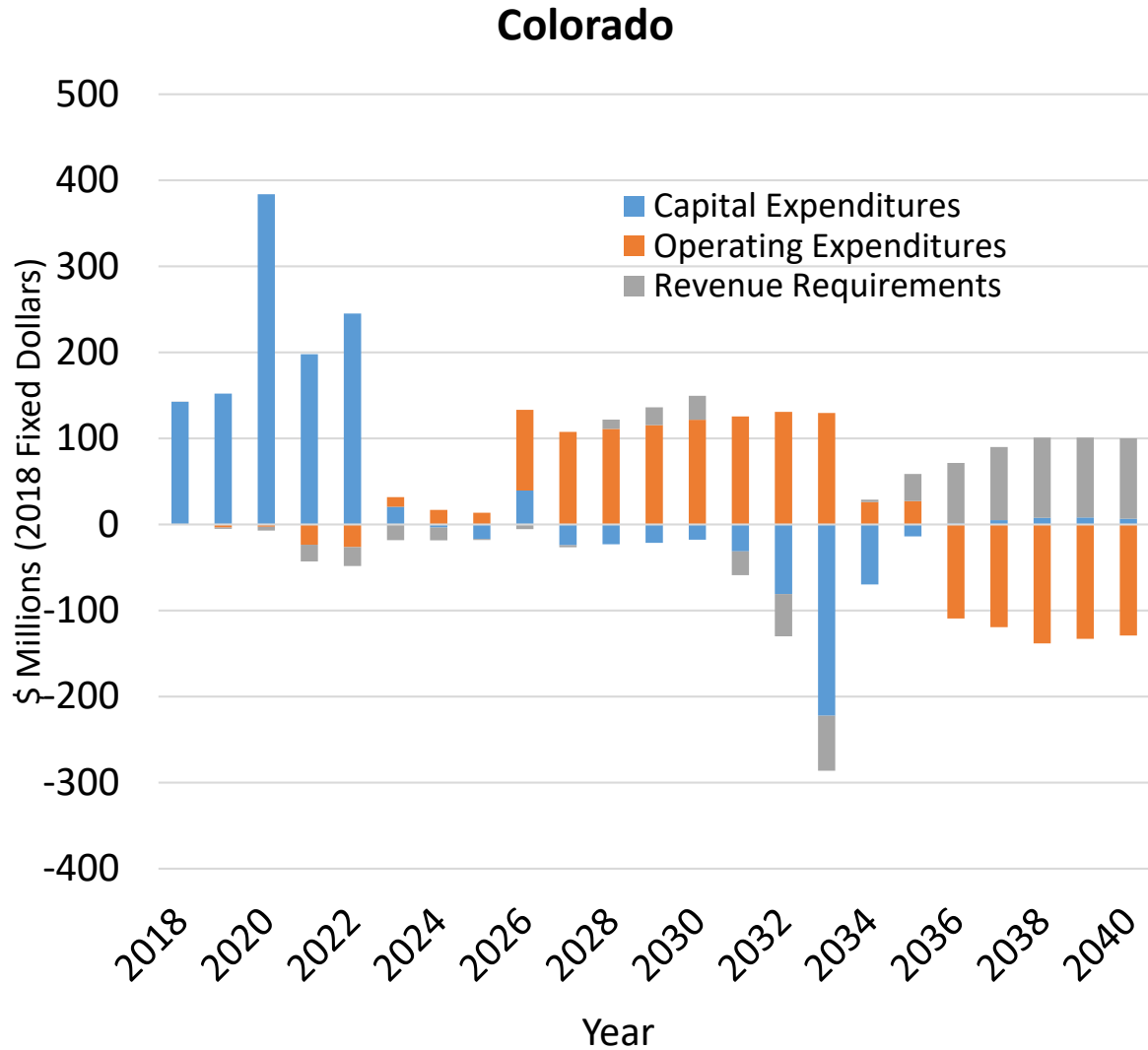


Decrease in;

- Capex
- Opex
- Revenue Requirements

Source: Public Service Company of Colorado, Economic Impacts of the Preferred Colorado Energy Plan.

Net Economic Impact



Source: Public Service Company of Colorado, Economic Impacts of the Preferred Colorado Energy Plan.

What Happened?

BUSINESS

Xcel Energy opens huge, billion-dollar wind farm on Colorado's Eastern Plains

Rush Creek, state's largest wind farm, has 300 turbines and spans five counties. It will start commercial operation Oct. 31.

Colorado regulators green-light Xcel's plan boosting renewables, cutting coal

Critics say plan to retire coal-fired plants early will cost ratepayers millions

Xcel Energy, partners announce deal for large solar facility at Pueblo steel mill

Agreement is key to keeping EVRAZ in Pueblo, implementing Xcel Energy's clean-energy goals



More Colorado coal-fired power plants could be closing, but the timing depends on some complex deals

The utility PacifiCorp hopes to retire its Colorado properties, though co-ownership with power-providers Xcel and Tri-State complicates the process

The Queen Anne dragline, with the Tri State Craig Station power plant in the background, is shown operating at the Trapper Mine in Craig, Colo., Sept. 27, 2006. (AP Photo/Denver Post, Brian Brainerd)