

# The Outlook for Energy Industries in Montana

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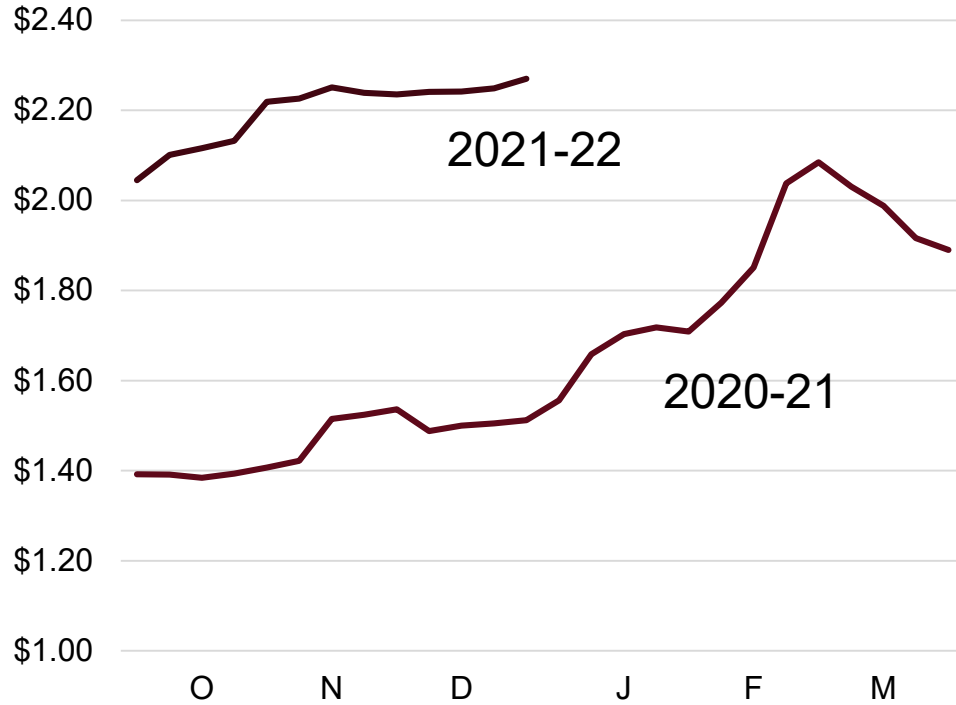
# An Eventful Year for Energy

- The story in the news: energy prices roared ahead in 2021
- The story not in the news: coal experienced a mild, but surprising, rebound in 2021
- The story that should be in the news: is Montana electricity prepared for the new decade?

# Energy Price Increases Have Hurt Montanans

## Montana Retail Propane Prices

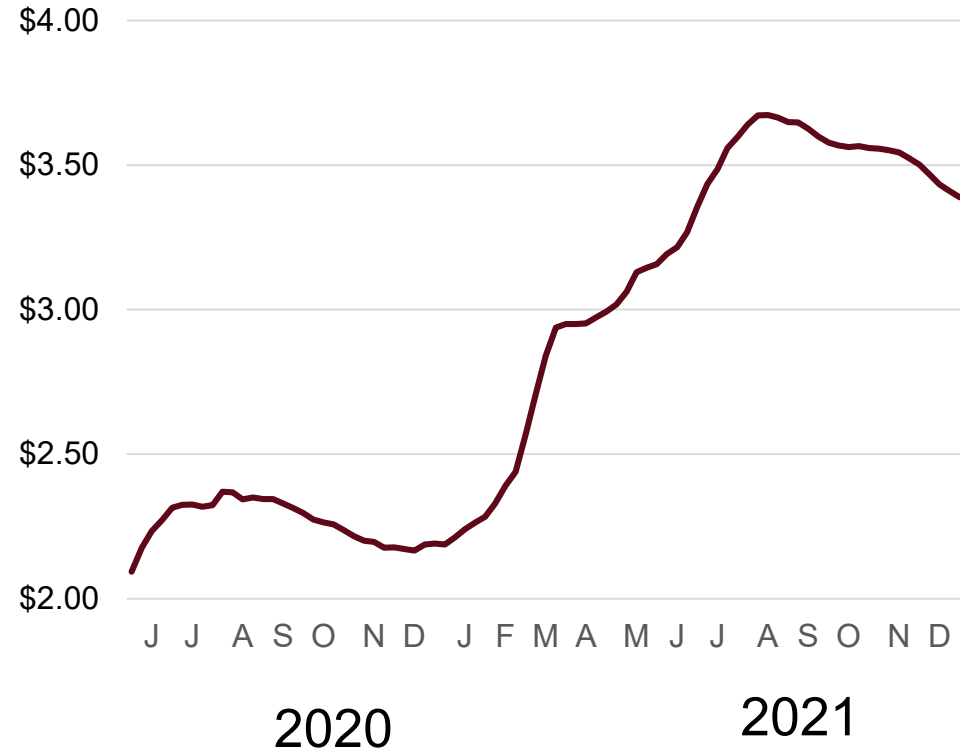
Dollars per Gallon



Source: Energy Information Administration

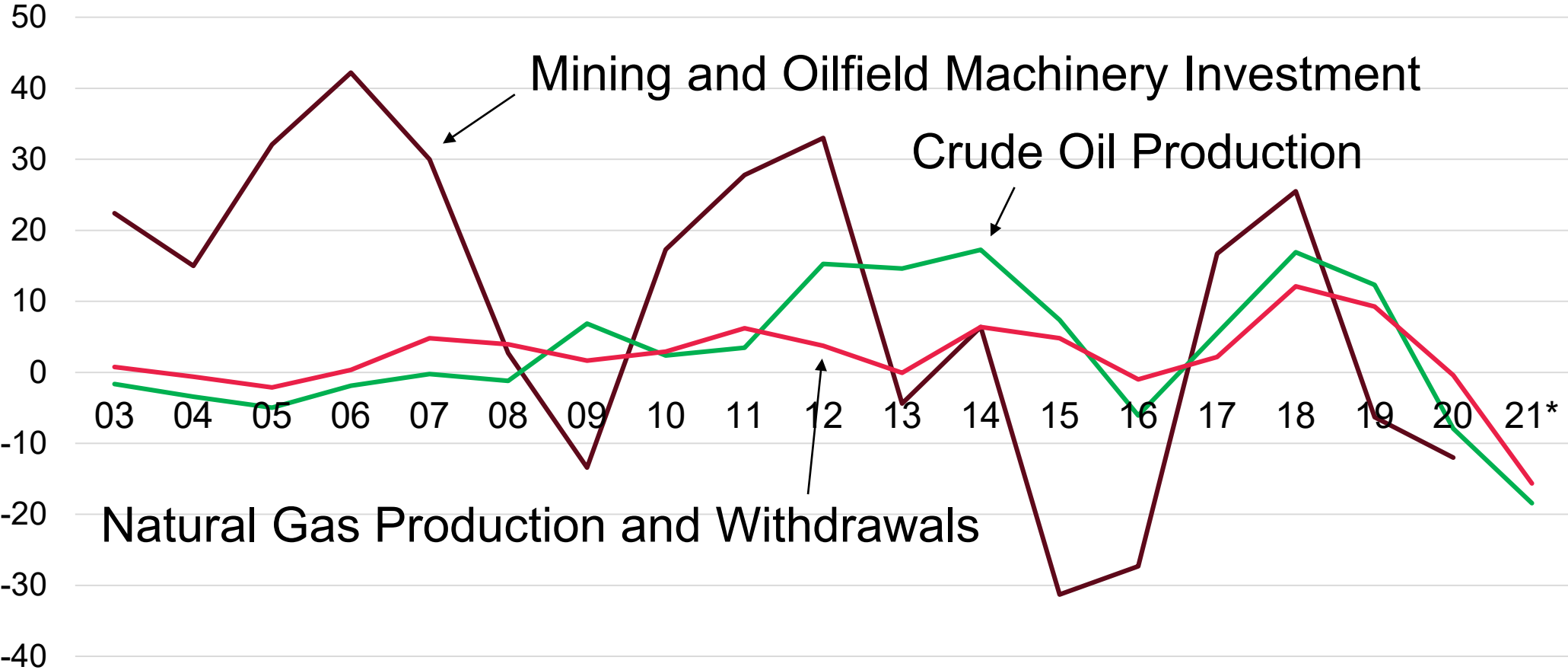
## Montana Retail Gasoline Prices

Dollars per Gallon



# Climate for Oil and Gas Investment has Worsened

Percent Growth in Investment in Mining and Oil Equipment, Crude Oil Production and Natural Gas Withdrawals, U.S., 2003-2021



# Surge in Natural Gas Prices Has Eased Recently

\$ per mcf

\$6.00

\$5.00

\$4.00

\$3.00

\$2.00

\$1.00

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Source: U.S. Energy Information Administration

2020

2021

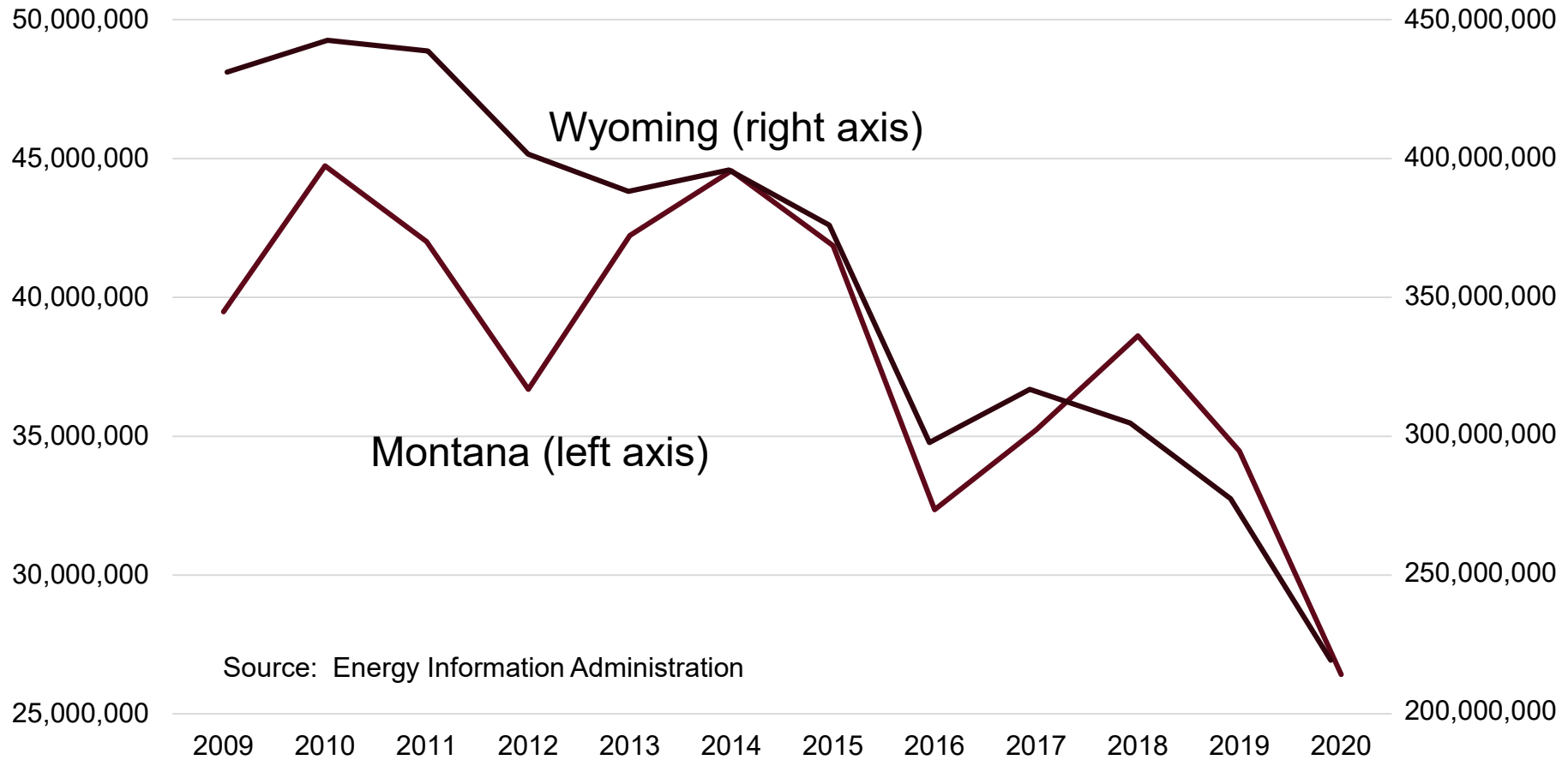


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Energy Outlook

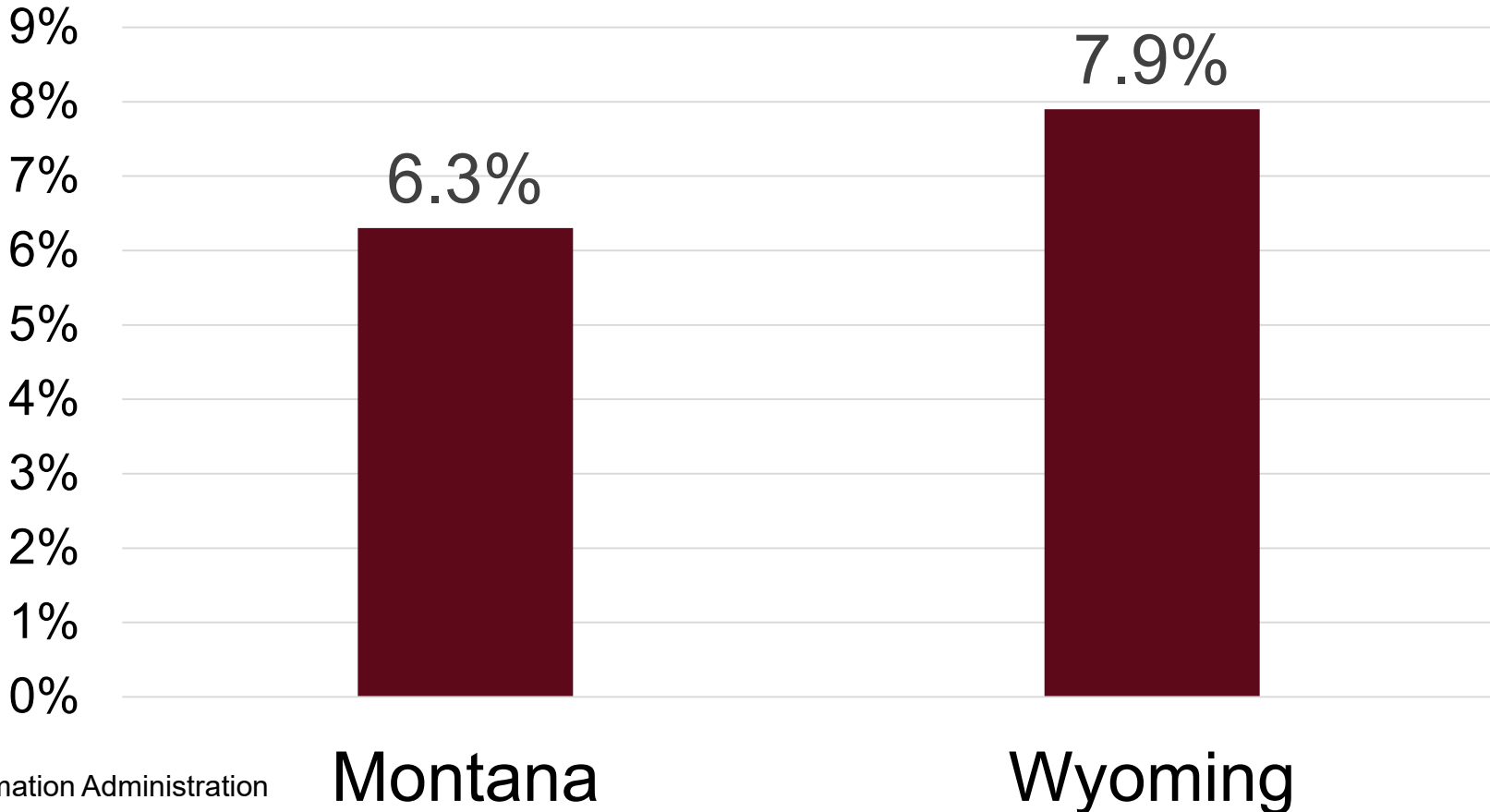
# Powder River Basin Coal's Decline Accelerated in 2020

Montana and Wyoming Coal Production, short tons, 2009-20



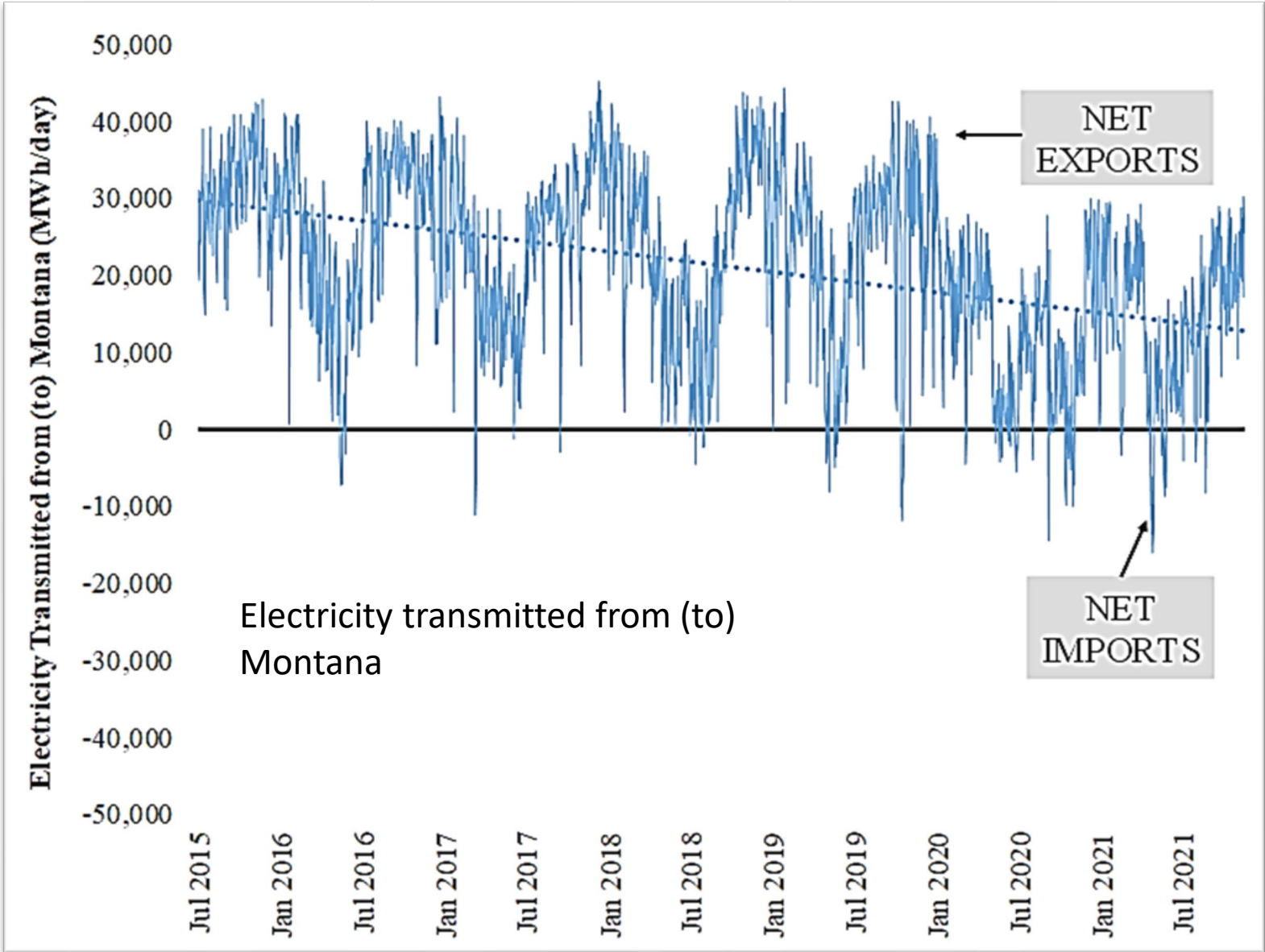
# 2021 Has Seen a Mild Rebound in Coal Production

Percentage change in coal production, 2020-21 through Dec 25



Source: Energy Information Administration

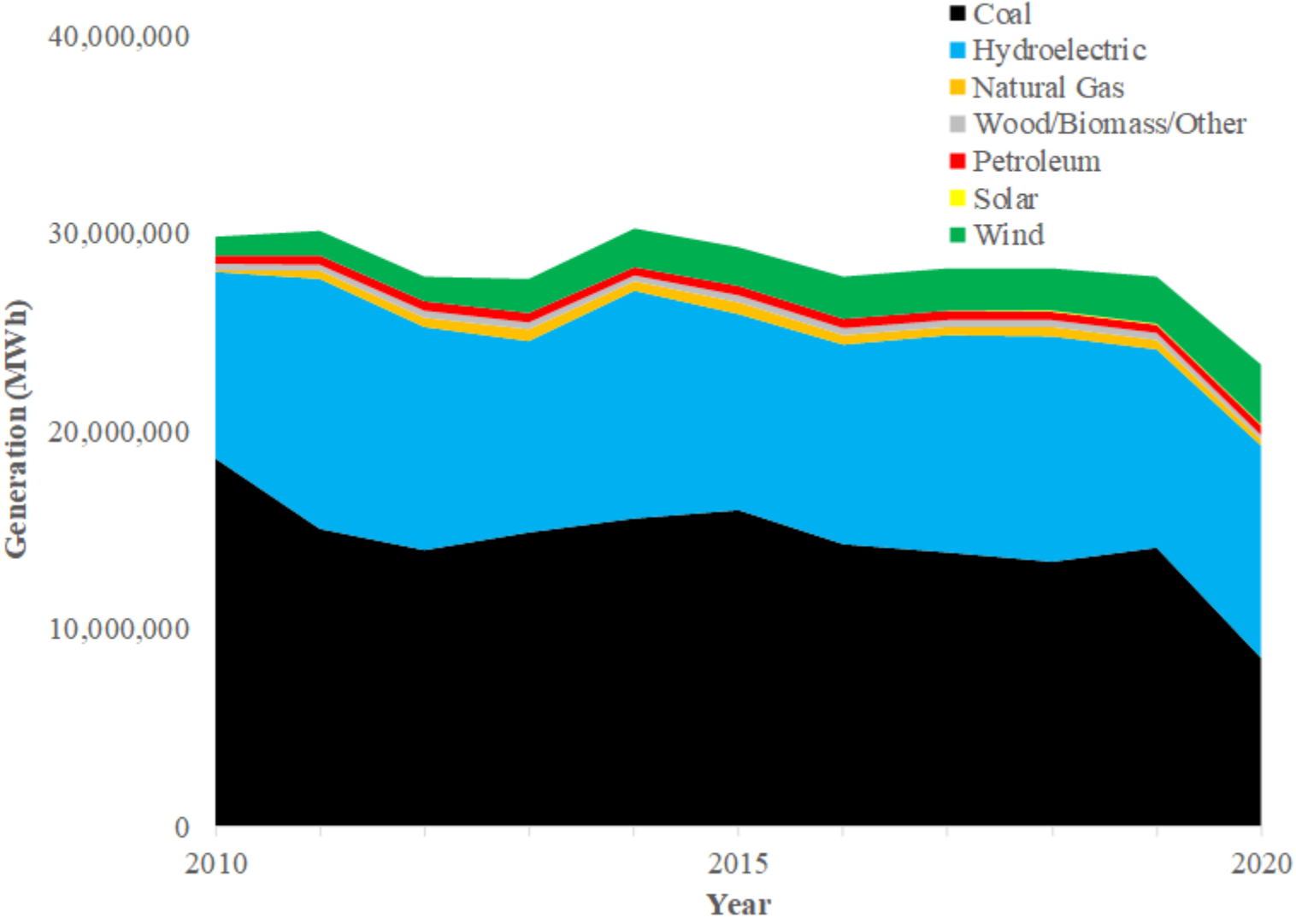
# Montana Imports Electricity More Often



Source: U.S. Energy Information Administration



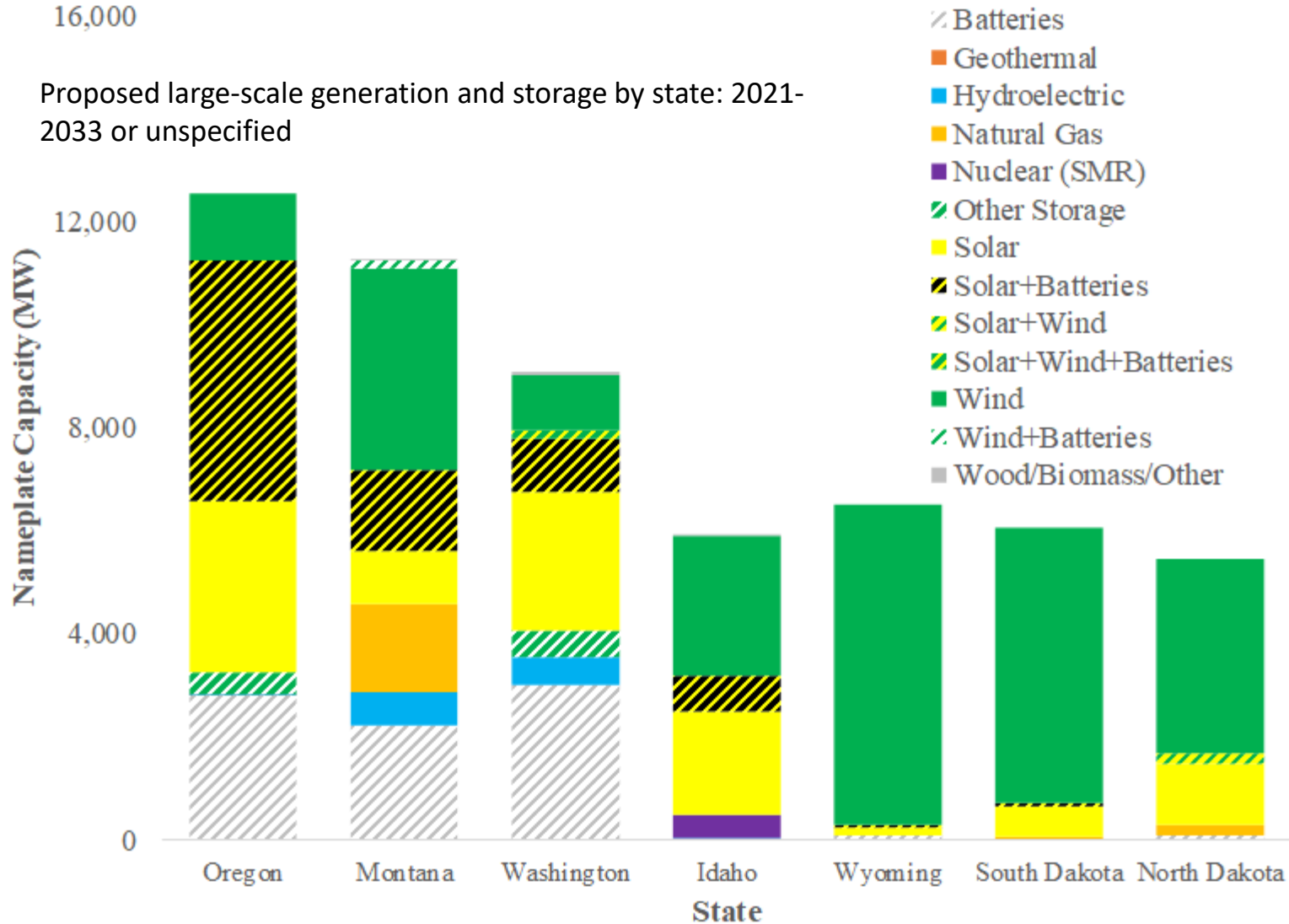
# Coal Retirements Have Reduced Montana Generation



# Plans for Replacement Generation Look Aggressive

16,000

Proposed large-scale generation and storage by state: 2021-2033 or unspecified



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93 percent of proposed capacity additions from new generation projects are eventually withdrawn

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**But ...**

Projects are dominated by technologies that are unproven at utility scale (solar and battery)