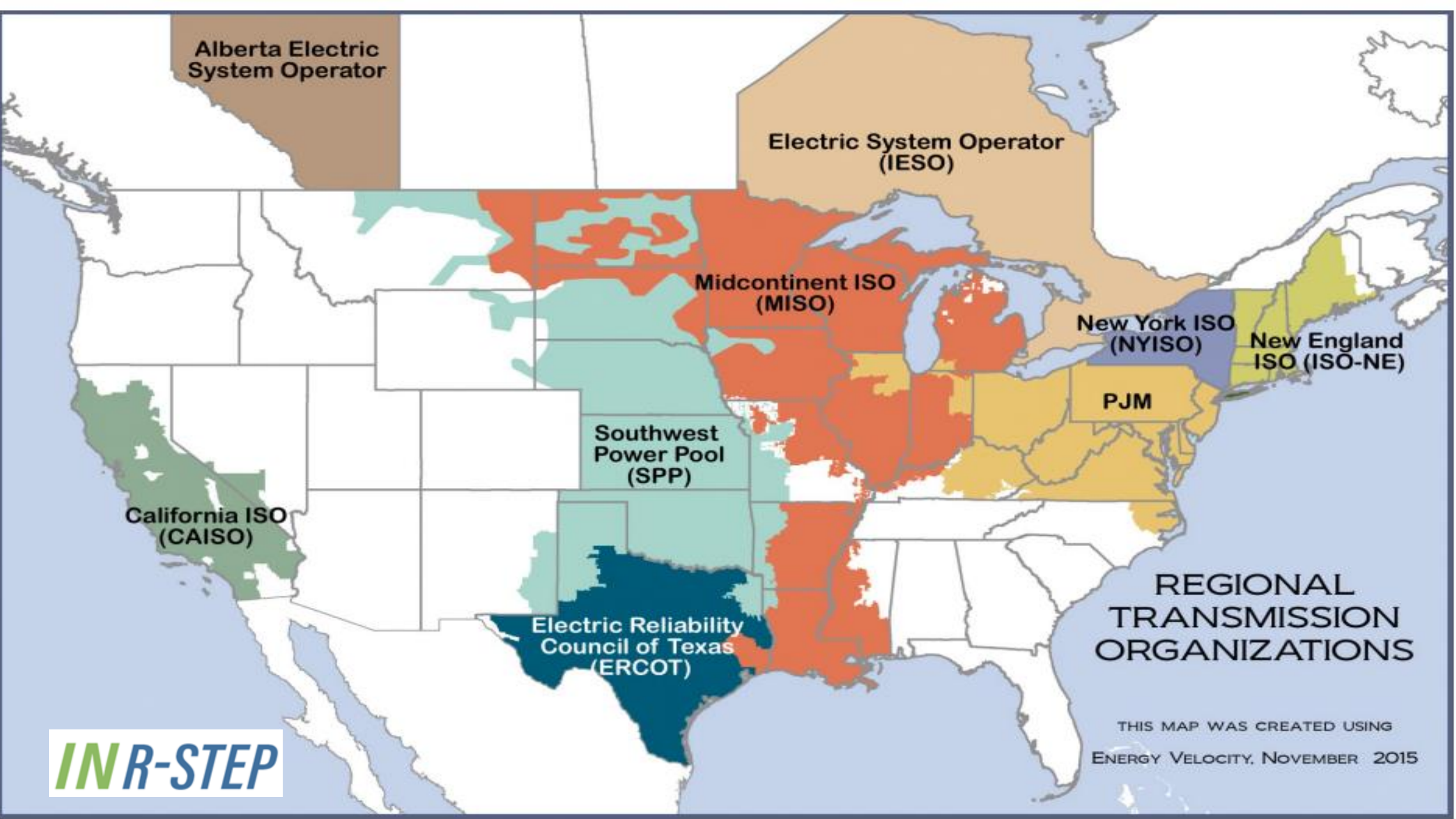


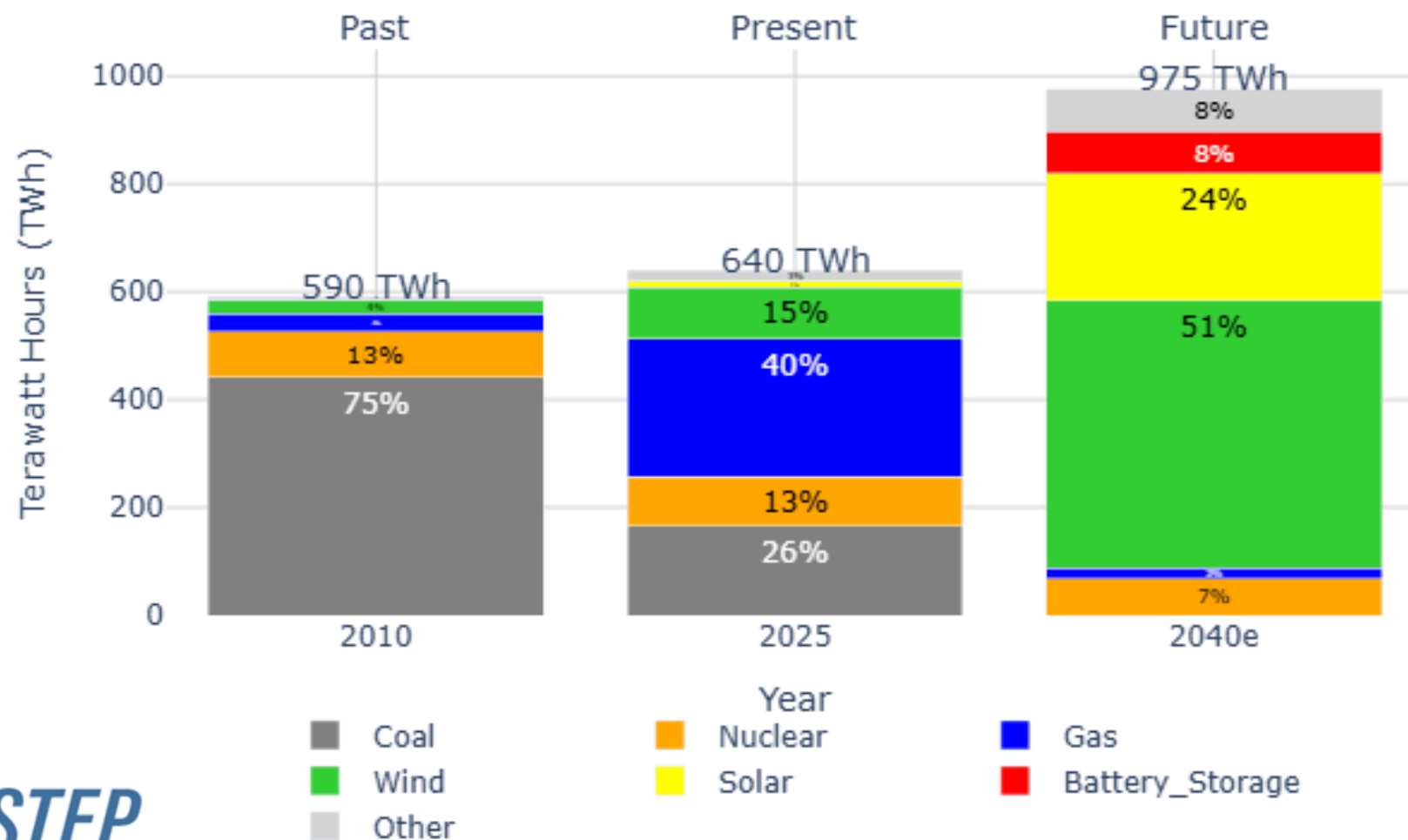
# *INDIANA RENEWABLE ENERGY*

*Siting through Technical Engagement and Planning (R-STEP™)*

## State of the Energy Industry

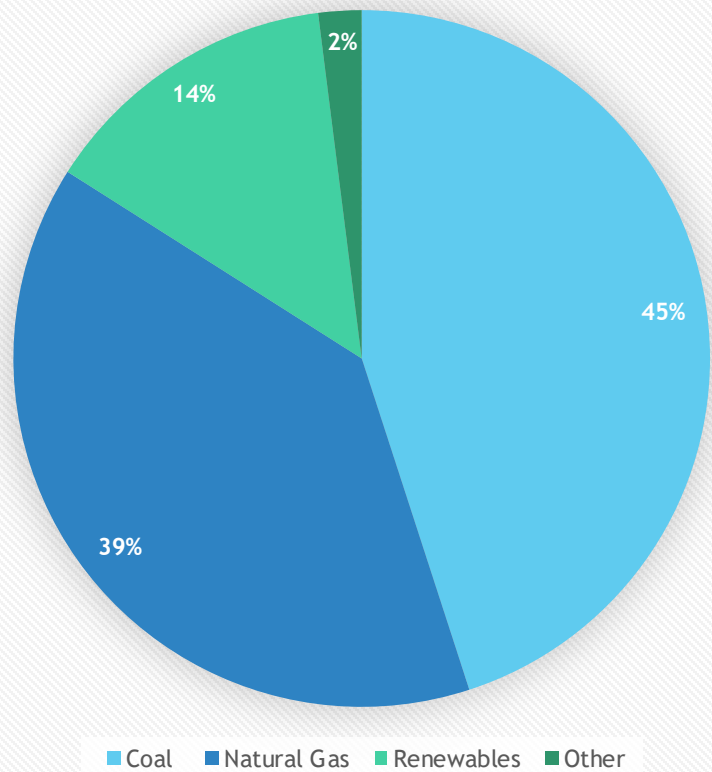


## Electricity Production in MISO Service Territory



# Energy Generation in Indiana

Indiana's Energy Mix 2023\*



Indiana is 10<sup>th</sup> in the US in total energy use per capita (2023).

Indiana has used more electricity than we produce since 2012.

Indiana consumes approximately 3x more energy than the state produces.

Approximately 5,000 megawatts of coal-fired capacity in Indiana have retired since 2013, and another almost 3,900 megawatts of coal-fired capacity are scheduled for retirement by the end of 2028.

Source: U.S. Energy Information Administration (eia) Indiana State Profile and Energy Estimates Oct 17, 2024

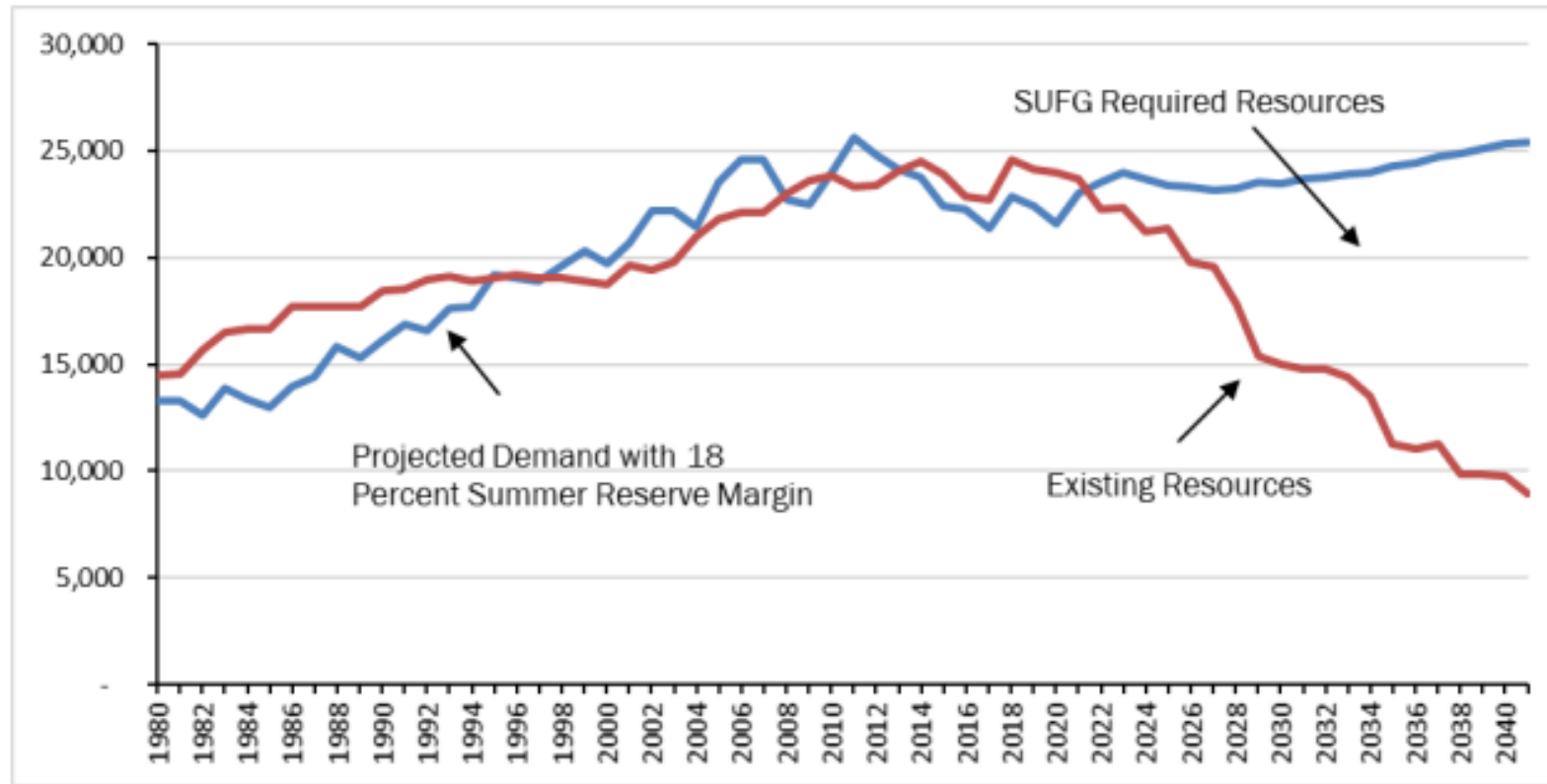
# Growing Demand for Renewable Energy

## Key Drivers

- Demand for Energy
- Cost competitiveness
- Federal & state policies
- Utility decarbonization
- Corporate renewable procurement

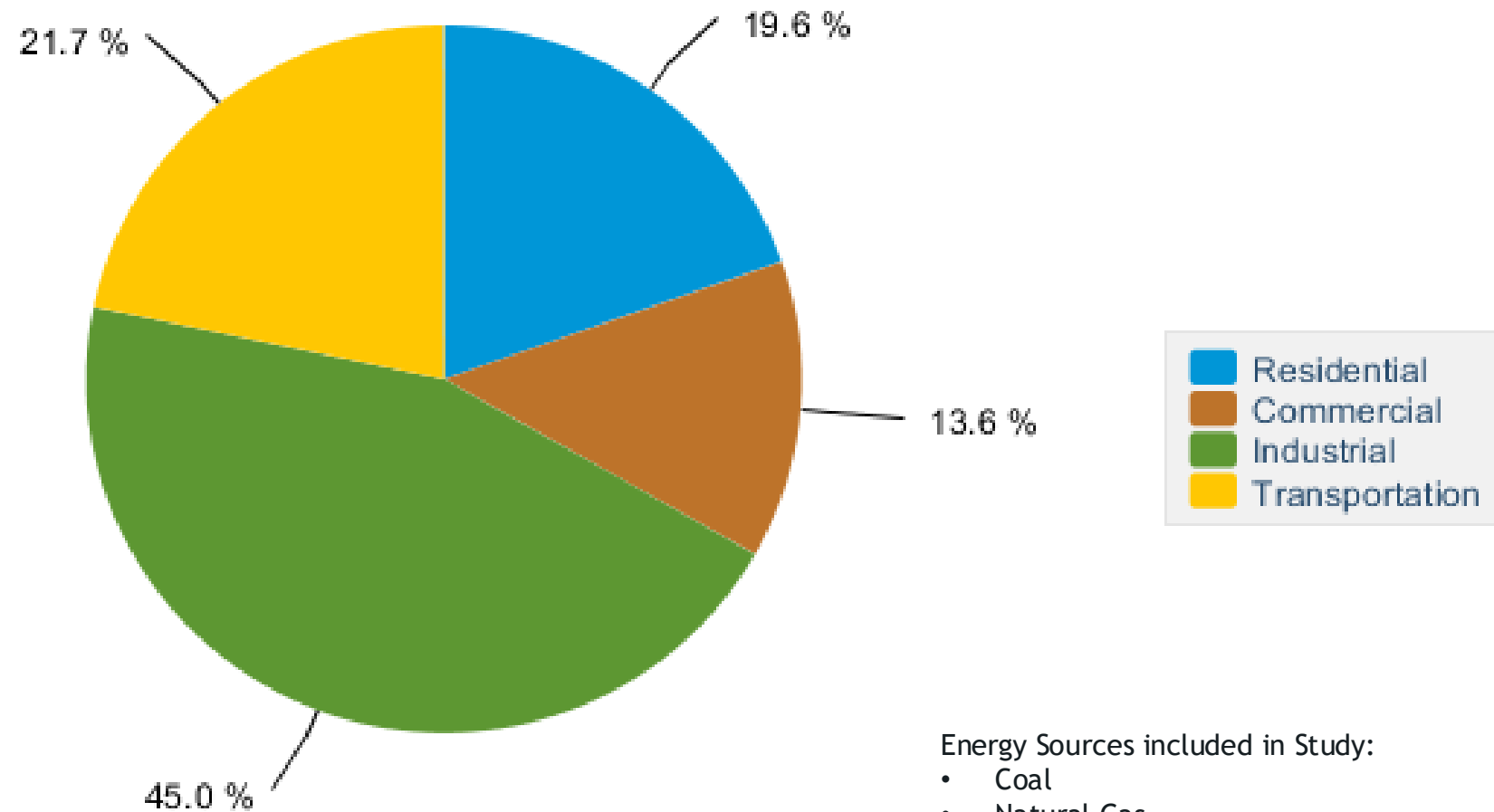
# Energy Demand and Supply

Figure 1-3. Indiana Total Demand and Supply in MW (Summer Season) (SUFG Base)



Due to data availability restrictions at the time that SUFG prepared the modeling system to produce this forecast, the most current year with a complete set of actual historical data was 2021. Therefore, 2022 and 2023 numbers represent projections.

# Energy Demand



Energy Sources included in Study:

- Coal
- Natural Gas
- Petroleum
- Renewable Energy (variable)



Source: Energy Information Administration, State Energy Data System

# Energy Demand

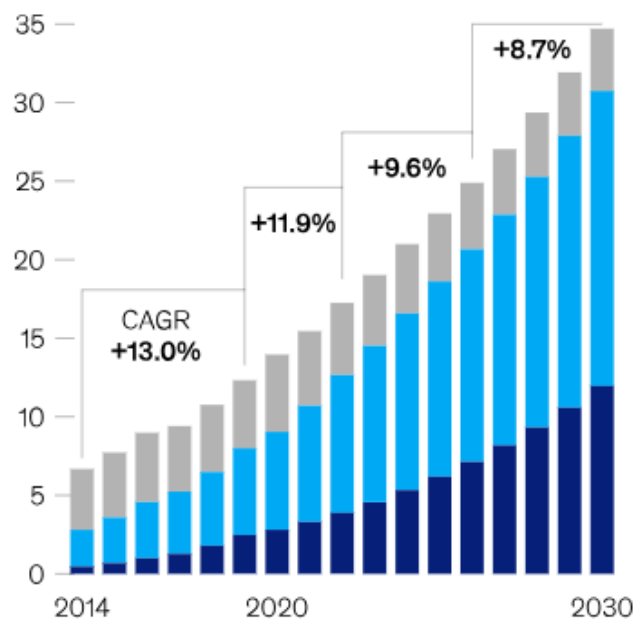
According to a report by Goldman Sachs, a ChatGPT query needs nearly 10 times as much electricity as a Google search query.

“One query to ChatGPT uses approximately as much electricity as could light one light bulb for about 20 minutes,” he says. “So, you can imagine with millions of people using something like that every day, that adds up to a really large amount of electricity.” senior research analyst at the Allen Institute for AI.

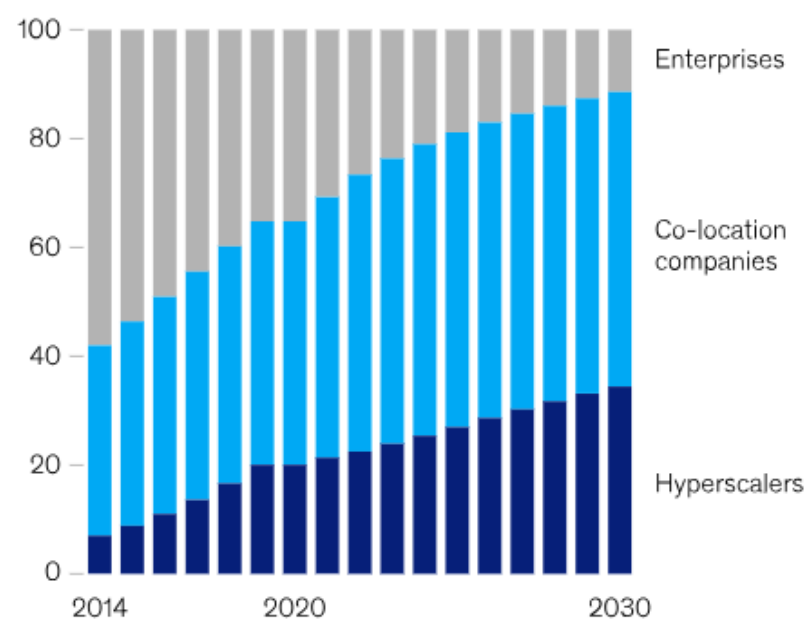
Exhibit 1

**US data center demand is forecast to grow by some 10 percent a year until 2030.**

**Data center power consumption, by providers/enterprises,<sup>1</sup> gigawatts**



**Data center power consumption, by providers/enterprises,<sup>1</sup> % share**



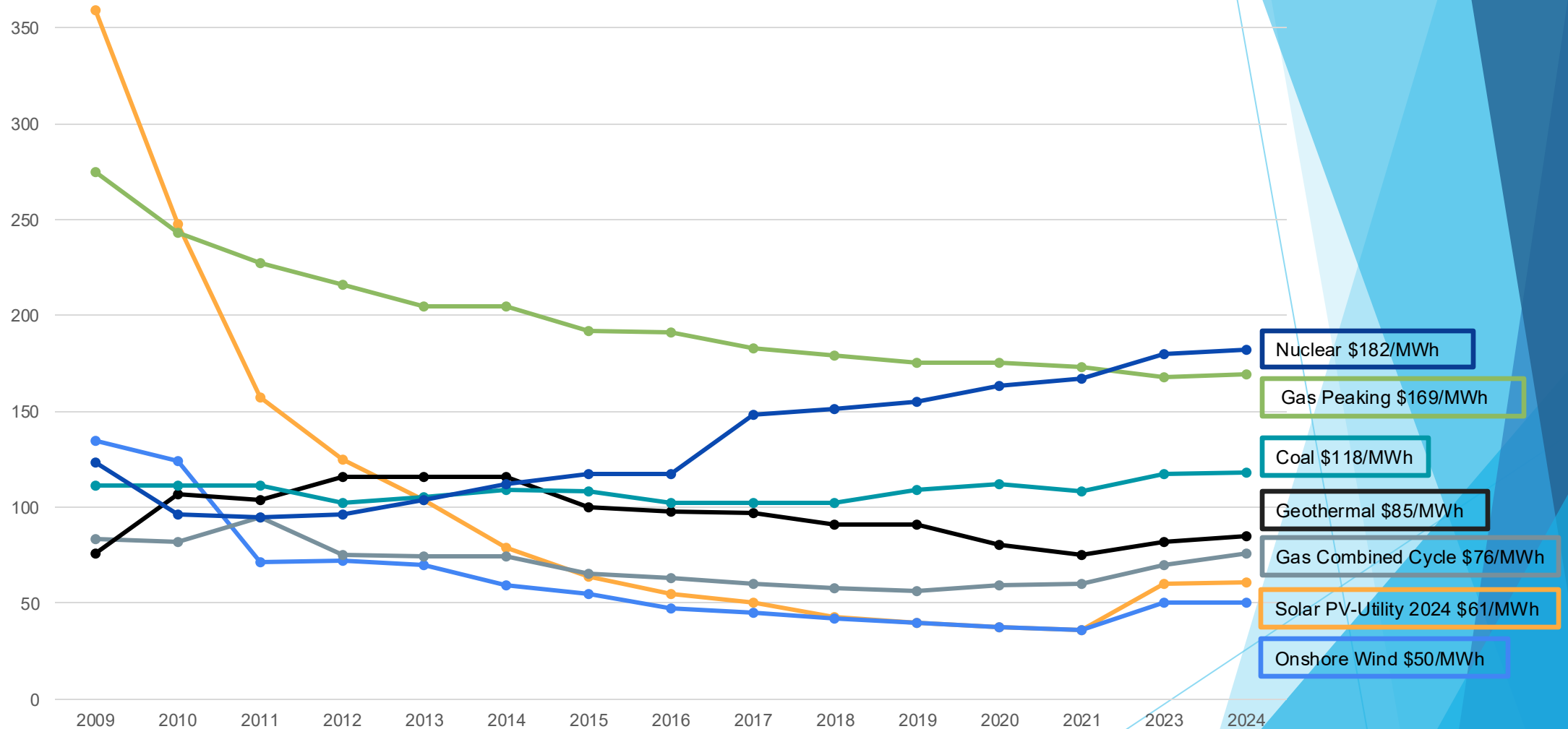
<sup>1</sup>Demand is measured by power consumption to reflect the number of servers a data center can house. Demand includes megawatts for storage, servers, and networks.

McKinsey & Company



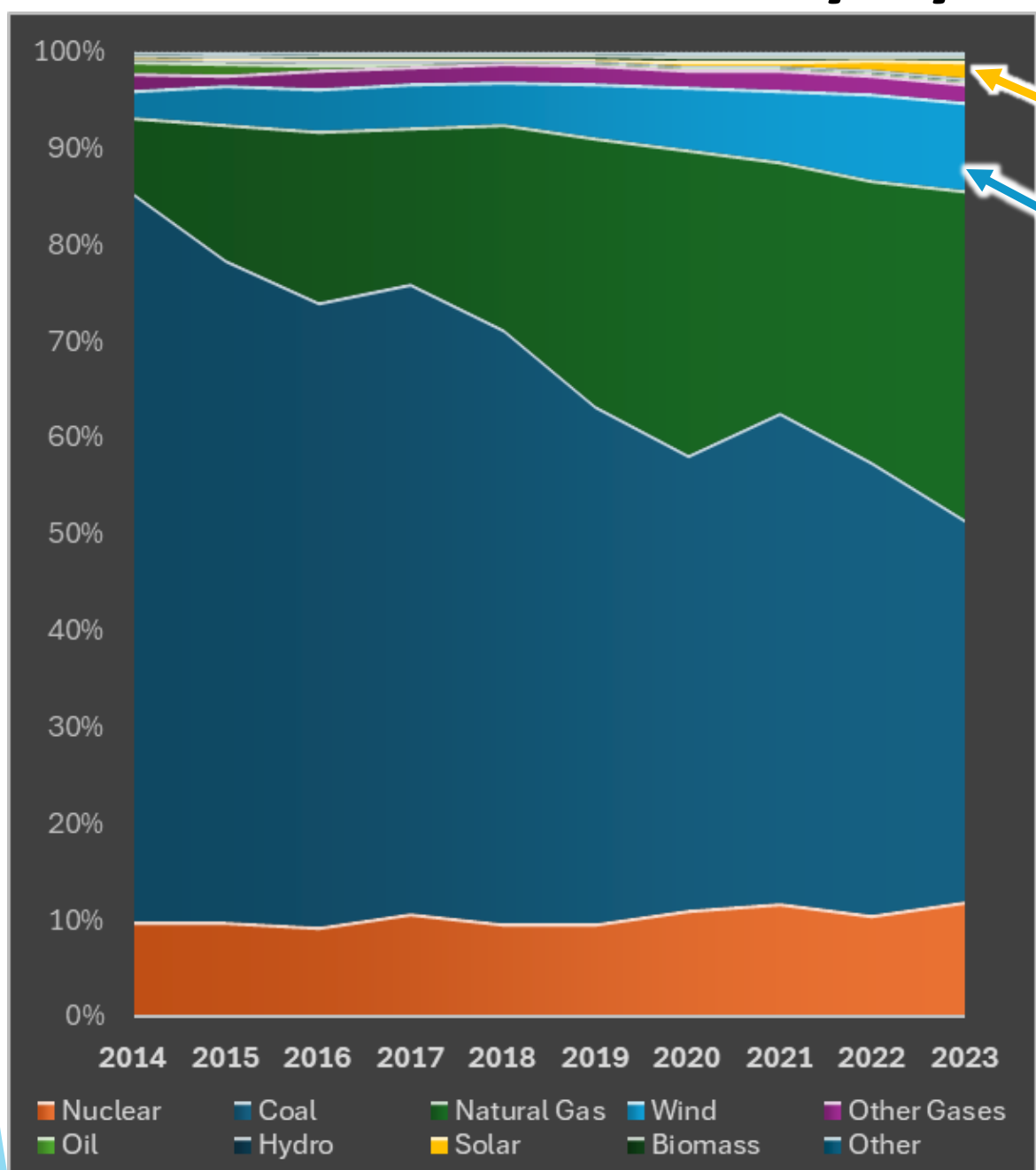
# Levelized Cost of Energy

Levelized Cost of Energy Comparison, Unsubsidized from 2009-2024



Data Source: Lazard LCOE+ 2024

# Generation of Electricity by Fuel Type for Indiana Consumers



Solar is emerging, with room to grow



Wind has more than tripled its share over the past decade; now nearly 10% of mix

# Statewide Renewable Activity

INDIANA MERCHANT RENEWABLE ENERGY PROJECTS				
	WIND		SOLAR	
	Capacity in MWac	No. of Facilities	Capacity in MWac	No. of Facilities
Operating	3,666	20	1,051	7
Under Construction	-	-	2,129	9
Order Issued, but Construction Not Started	1,003	5	6,331	34
<b>Total</b>	<b>4,669</b>	<b>25</b>	<b>9,511</b>	<b>50</b>

*SOURCE: Indiana Utility Regulatory Commission 2024 Annual Report*

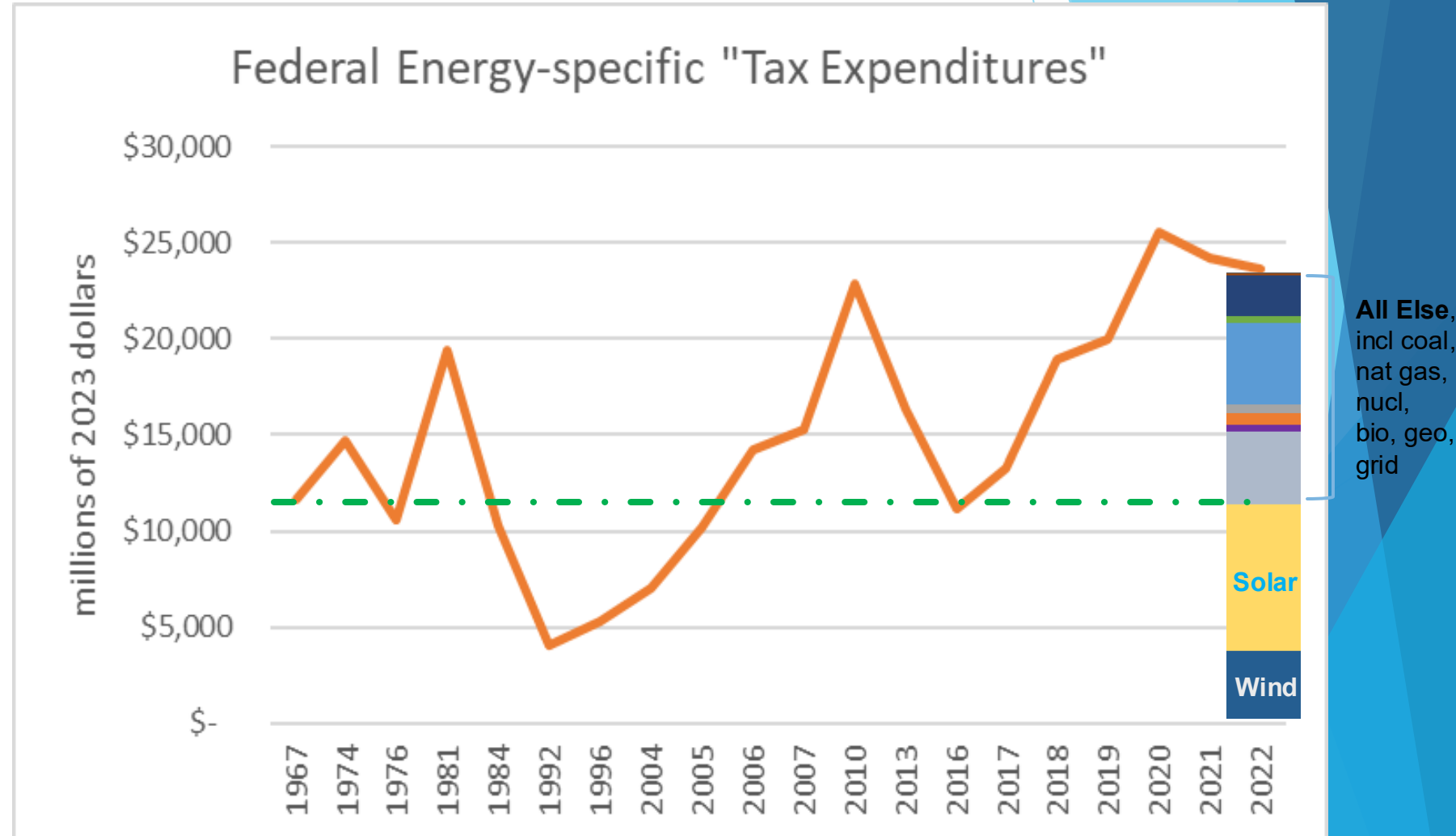
Additional projects in the RTO queues.

**INR-STEP**

Capex in Indiana to-date: \$6.8B wind + \$1.7B solar

# Federal Support for Energy

- Current level of federal support for wind & solar = level of support for coal & gas in 1967
- Wind & solar represented less than half of the total federal support in 2022
- USDA Direct Farm Payments exceeded wind & solar support by \$4.7 billion in 2022



“Our ability to access power from renewable resources through our utilities is essential to our energy strategies.”

*December 2022*

**INR-STEP**

*Coca-Cola*

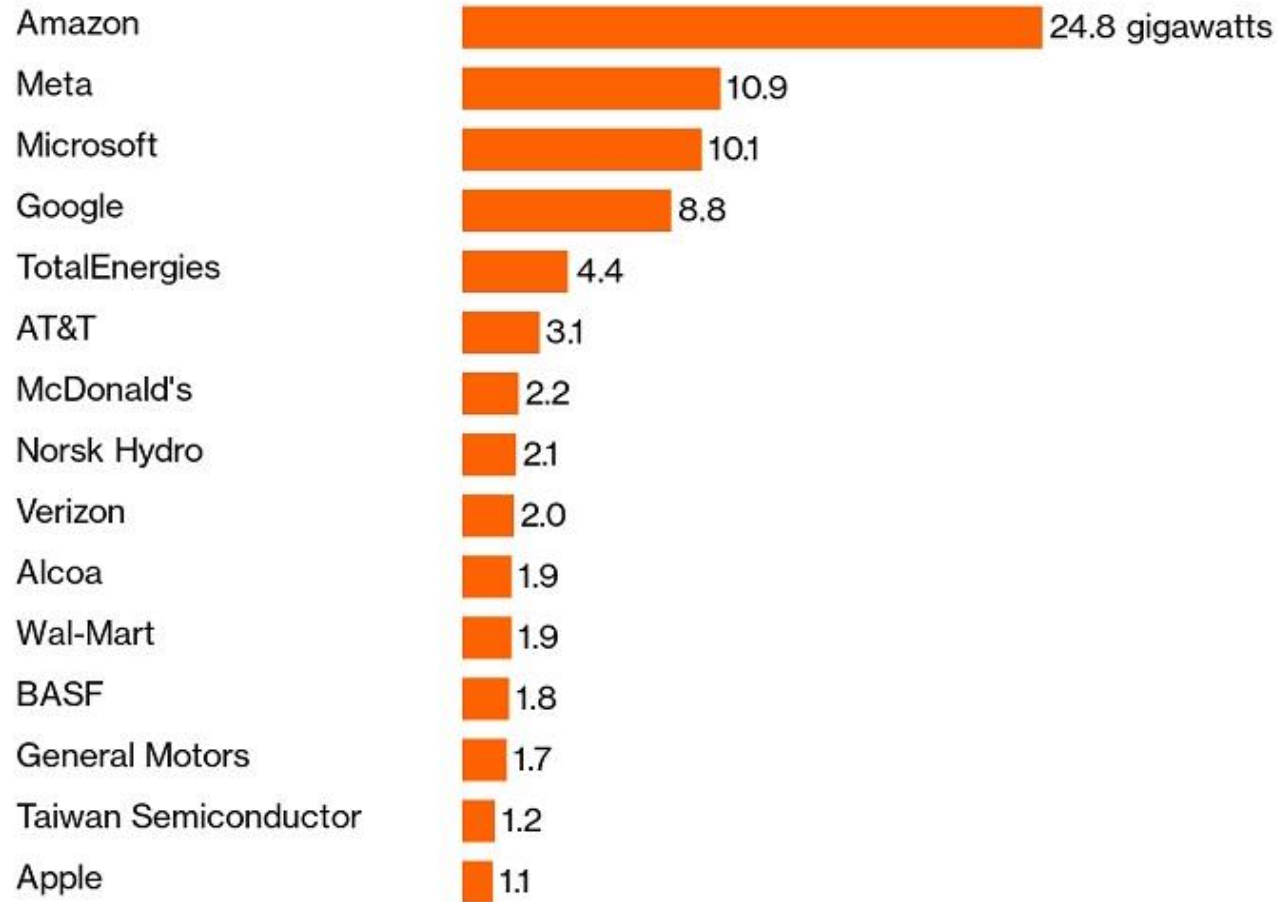


**RIVIAN**

**Walmart** 

# Energy Demand

## US Firms Are Top Buyers of Clean Energy Globally

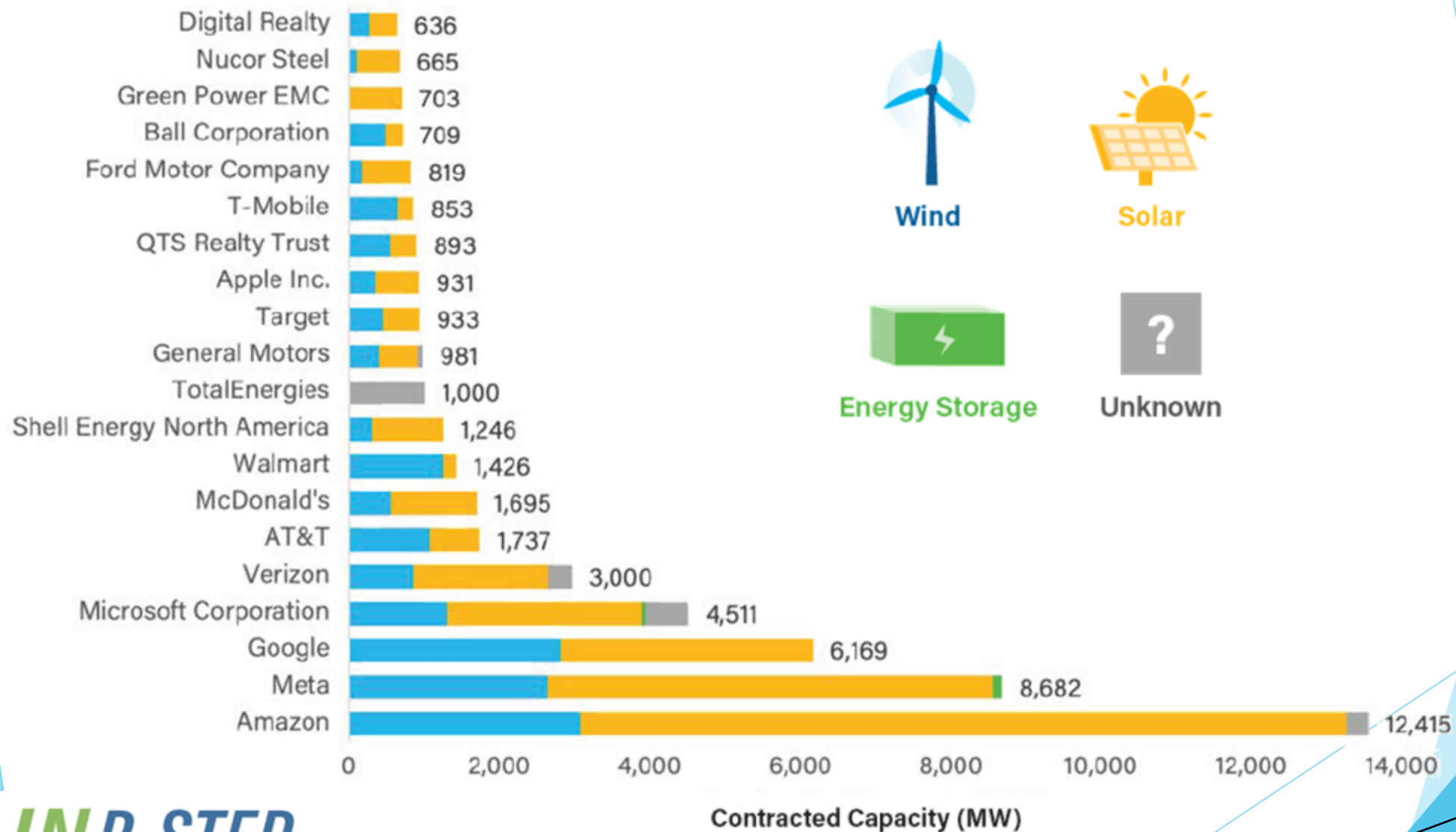


Source: BloombergNEF

Note: Cumulative purchases up to Feb. 15, 2023

BloombergNEF

## Top 20 Purchasers of U.S. Clean Energy by Technology 2022



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*Thank You!*