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Commodity Insights

Gas & Power Analytics Webinar

Implications of the US Inflation Reduction Act on Electric Power

August 24, 2022

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Speakers

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Inflation Reduction Act will spark a new era for clean energy technology in the United States

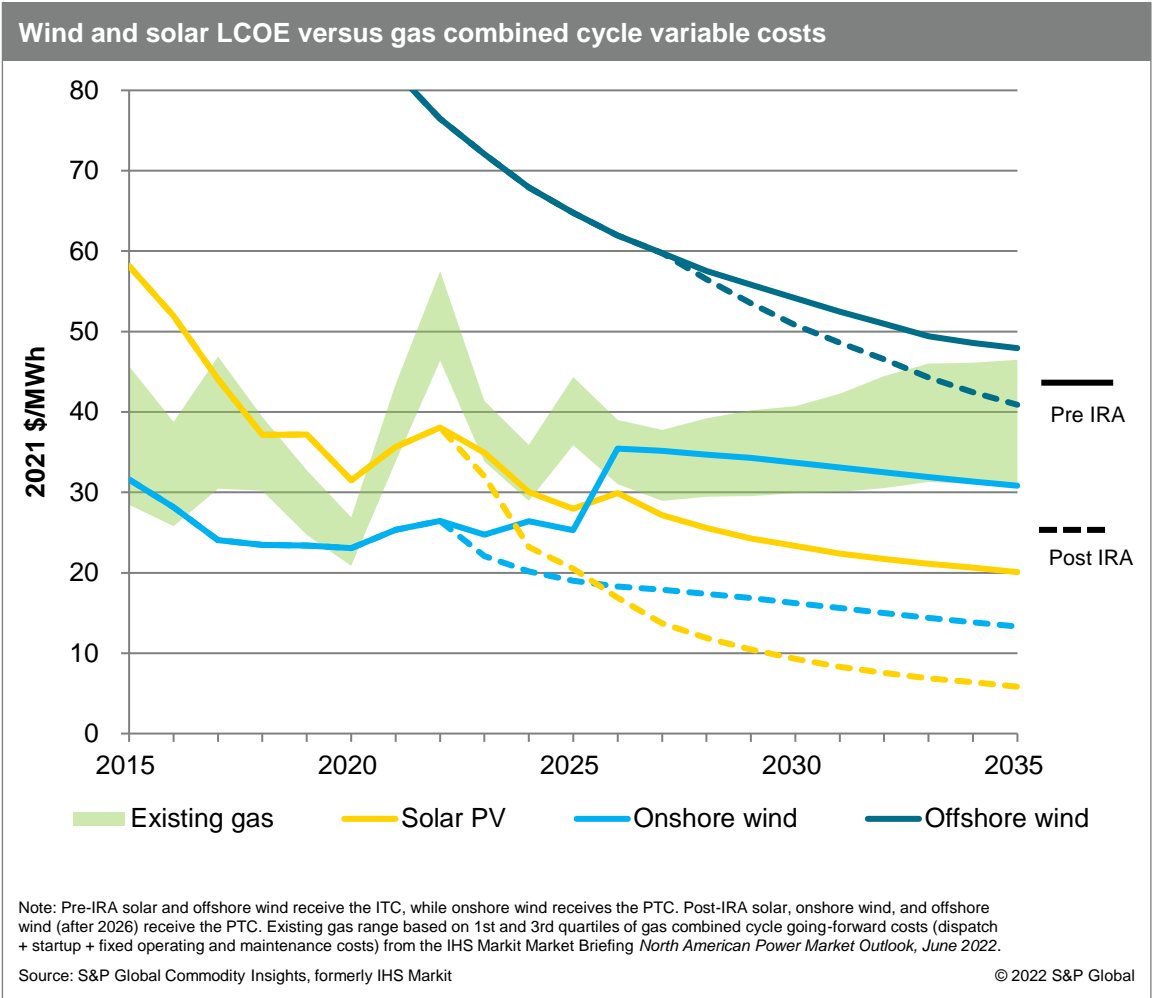
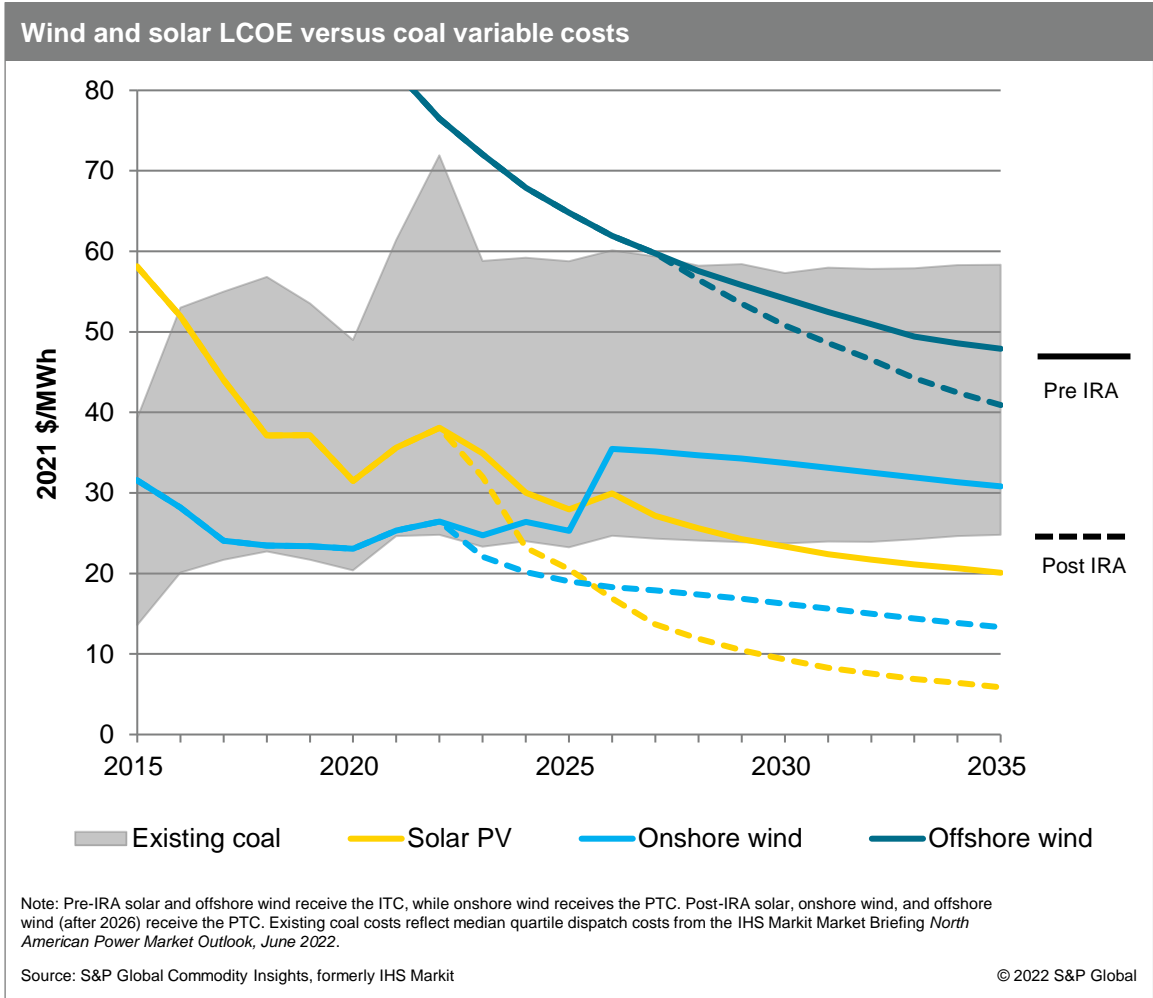
On 16 August 2022, President Joe Biden signed the Inflation Reduction Act (IRA). The bill represents the first multidecade greenhouse gas legislation passed by Congress. The major clean energy components of the legislation that impact the electric power sector directly include:

- **Long-term tax credit extensions for wind and solar**, as well as other clean energy technologies. These credits remain available until power sector greenhouse gas emissions reach 75% below 2022 levels. If developers meet prevailing wage requirements, as expected, credits are at their “full” historical value of \$26/MWh for the production tax credit (PTC) and 30% for the investment tax credit (ITC).
- Qualification of **stand-alone battery storage** for the ITC.
- Eligibility of **existing nuclear** for a new zero-emission nuclear power PTC of up to \$15/MWh, tied to market electricity prices.

Beyond the above, substantial tax credits and grants will now become available to emerging clean energy technologies, including new nuclear, carbon capture and storage (CCS), and hydrogen. A significant expansion of the electric vehicle (EV) tax credit was also negotiated, although new critical mineral and battery country-of-origin requirements could limit the number of EV models that are eligible. Many other end-use electrification technologies are eligible for enhanced tax credits, residential energy efficiency, heat pumps, and heat pump water heaters.

Together, these many components represent a concrete and meaningful legislative effort to address greenhouse gas emissions across the US economy.

The IRA will reduce levelized costs for wind and solar dramatically



Tax credit extensions will likely accelerate the cycle of expanding clean energy ambitions

The policy-cost cycle at work in the US

States, like many global markets (e.g., Europe, China, Japan), set policies requiring renewable power supply. Utilities, grid operators, and developers respond.

Low power purchase agreement prices and improving competitiveness, coupled with a societal desire to lower GHG emissions, **encourage states to ratchet-up policy ambitions.**

Utility and corporate ambitions also expand.

Demand increases

Industry scale grows

Global manufacturing responds to the policy signal and the growing demand for renewable power equipment. Global manufacturing scales up (e.g., solar PV module manufacturing in China).

Economies of scale drive down manufacturing costs and competition squeezes margins in the upstream industry. Research and development investments also yield technology cost improvements.

Costs decline

Large project pipelines are developed and companies compete for available tenders. Power purchase agreement prices tumble and become competitive with prevailing wholesale power prices.

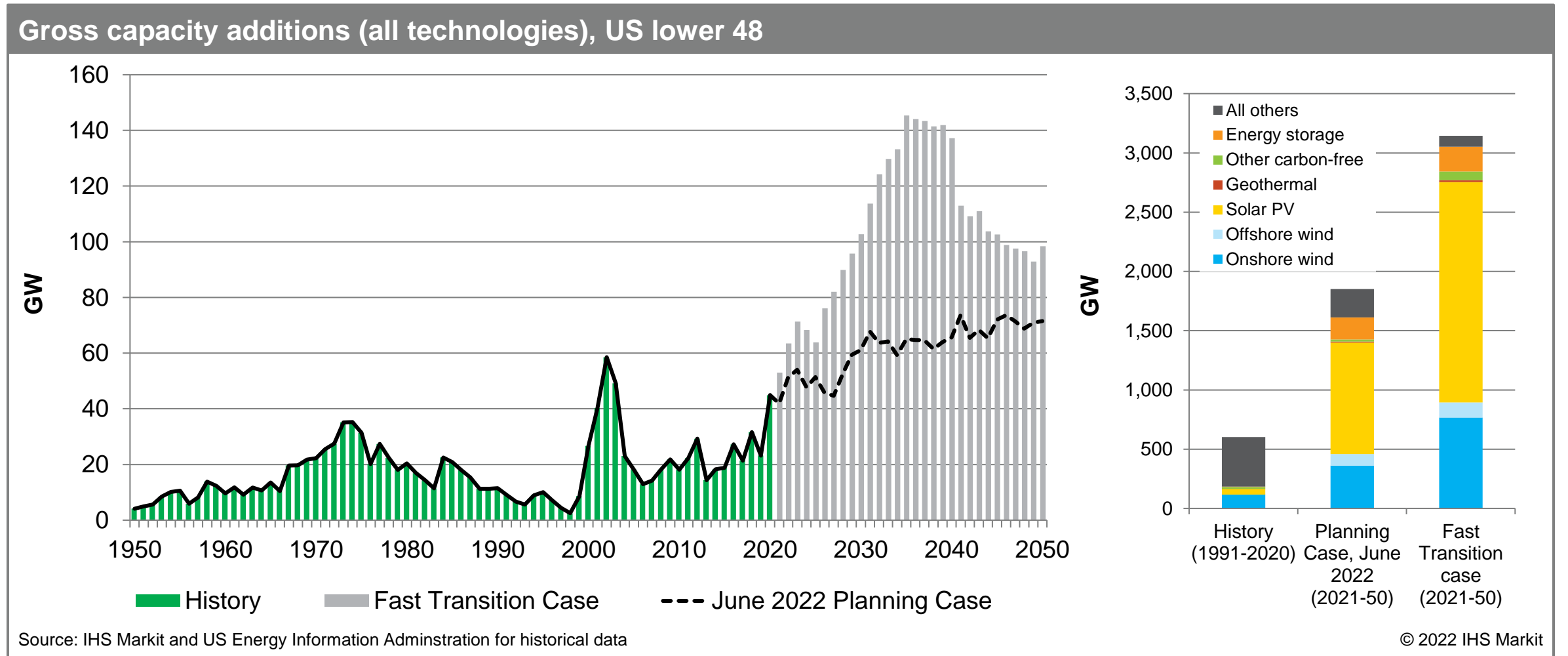
Policy

Deployment

Source: IHS Markit

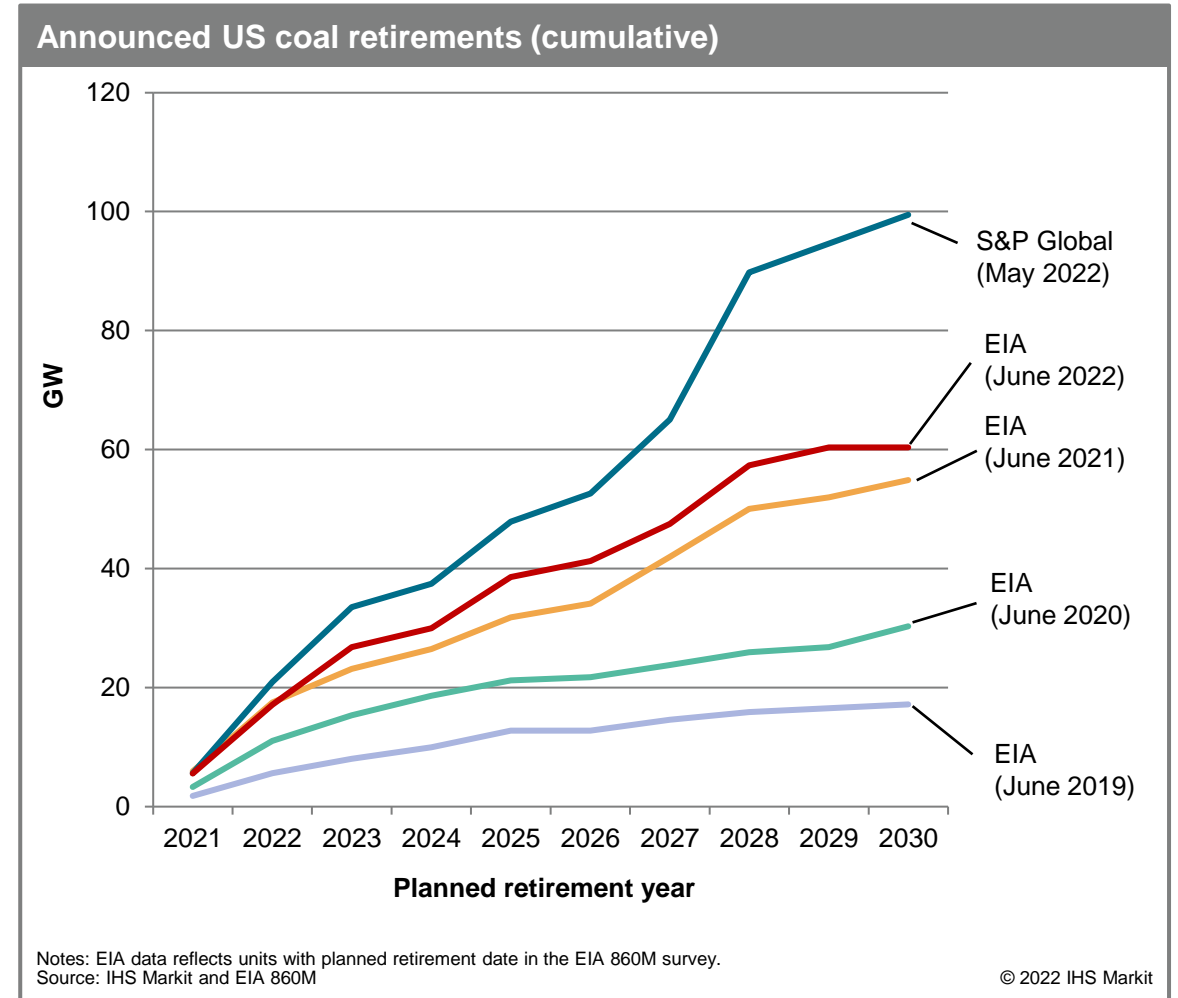
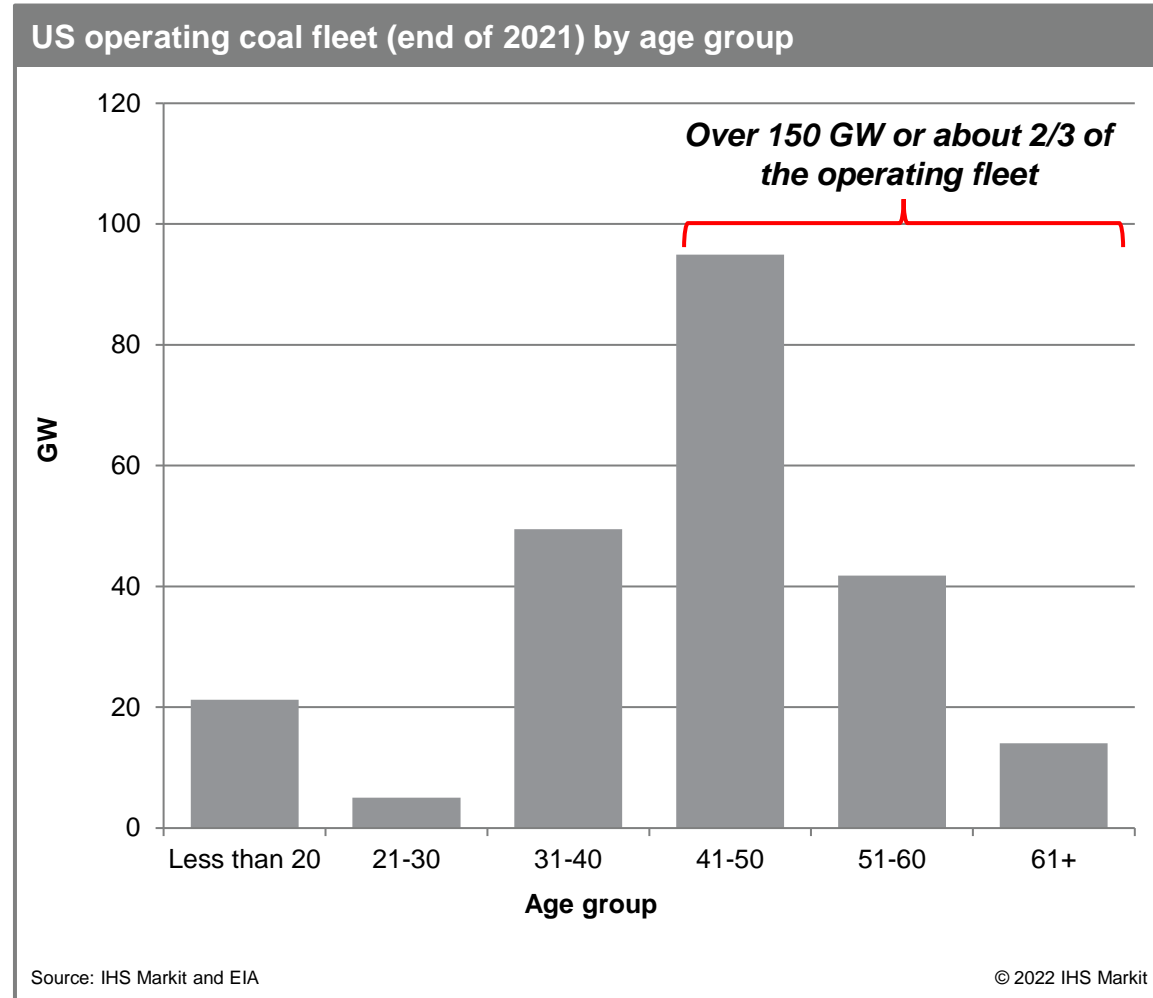
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Electrification and power decarbonization will drive a development boom

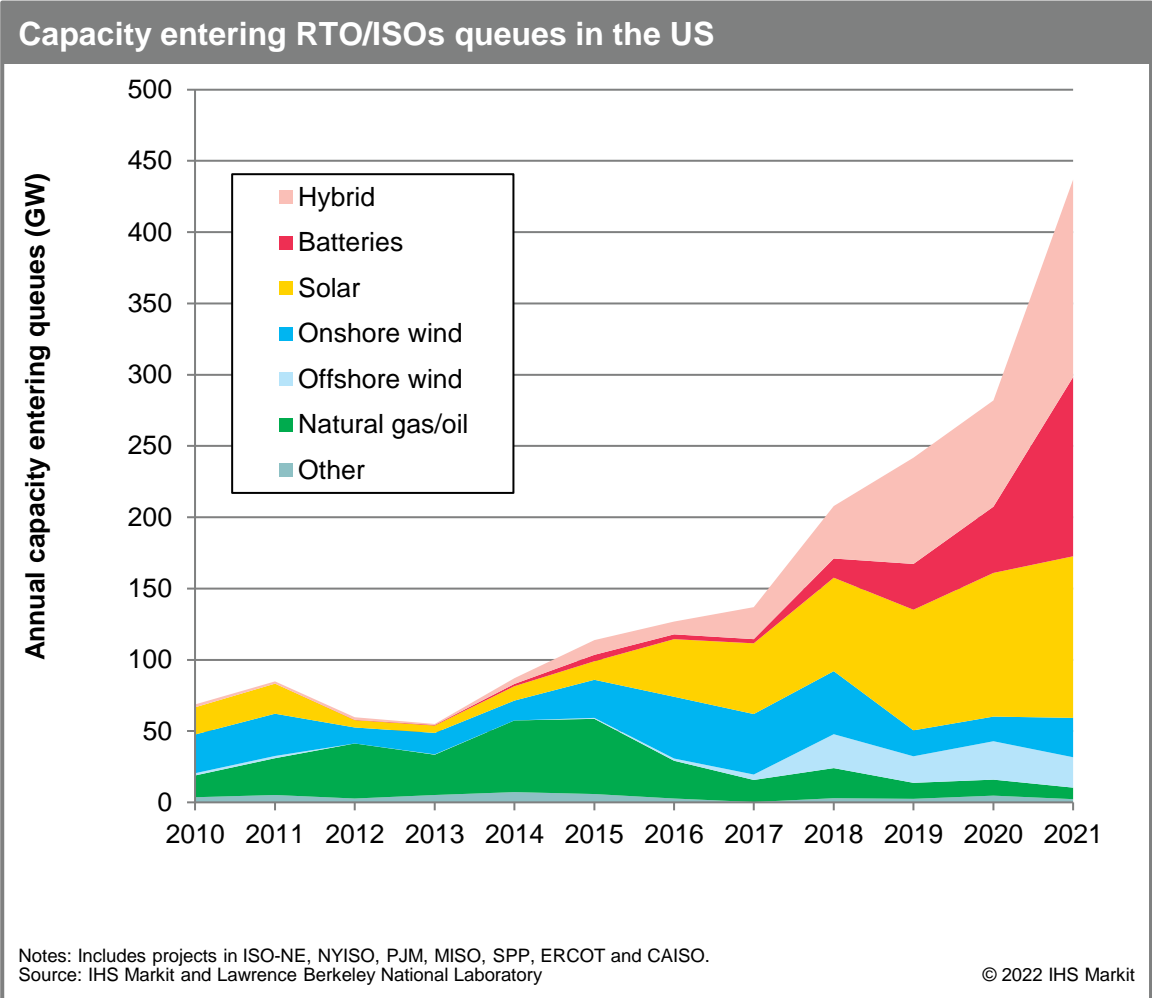
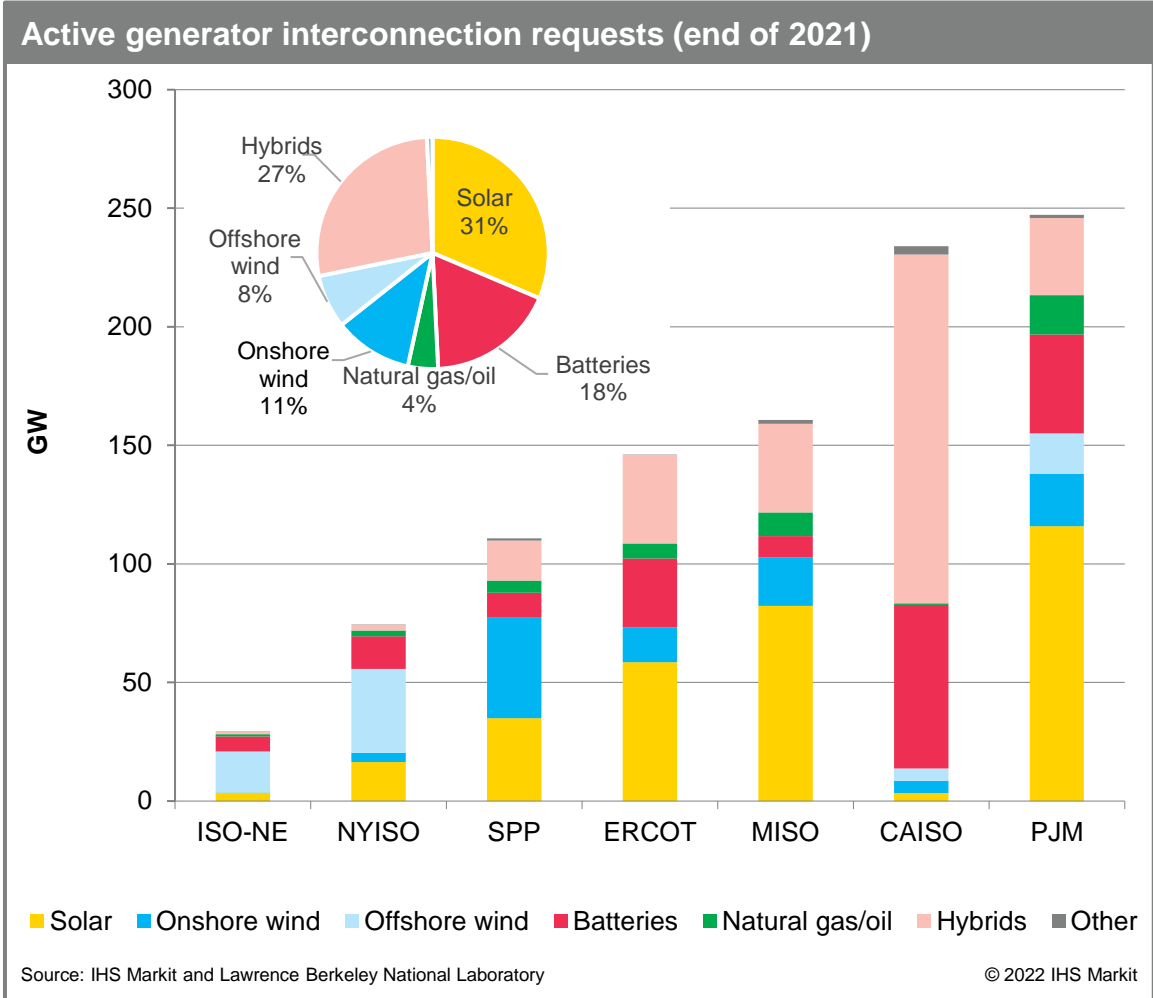


The IRA will accelerate the pace of coal retirements

Weighted average age of coal plants retired over the past decade: 49 years old



Wind, solar and batteries account for over 95% capacity in ISO/RTO interconnection queues (nameplate capacity)



Thank You! Questions?