Transition Trackers

Oil & Gas Metrics that Matter

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11:00 AM - 12:00 PM EST, 4:00 - 5:00 PM UTC

Chris Ito

CEO
FFI Solutions

David Root

Head of Product Management
FFI Solutions

Drew Haluska

Senior Energy Transition Analyst
FFI Solutions

FFI SOLUTIONS

The Transition Away From Fossil Fuels is Beginning

Oil & gas companies are being scrutinized by capital allocators

Divergent Transition Strategies

Fossil fuel companies are responding to the energy transition in different ways

“Unbiased” Data & Ratings

Investors need industry specific information on companies to make informed decisions.

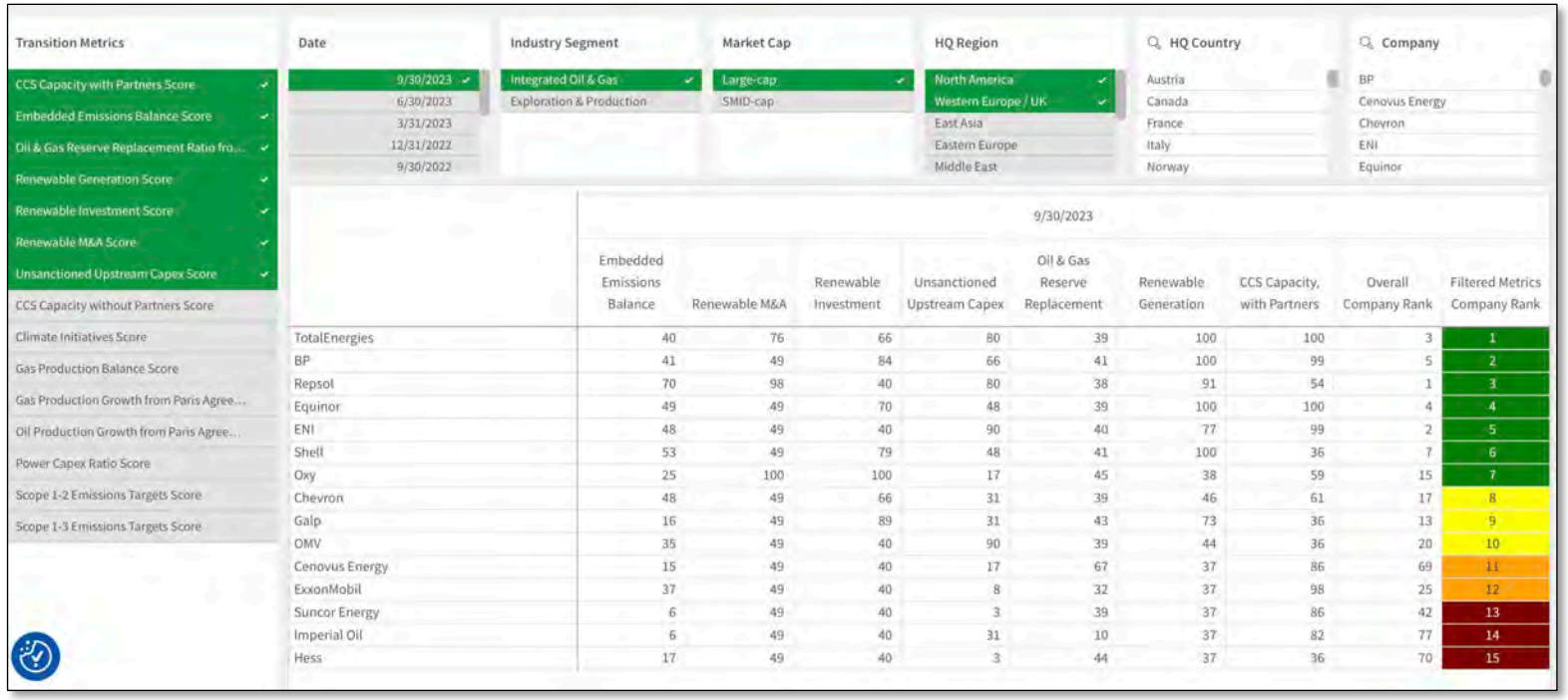
COP28 “Transition Away”

COP28 signaled the global acknowledgement of the need to transition.

Institutional investors are taking stock of energy companies’ transition activities and considering non-binary approaches to addressing fossil fuel exposure in their portfolios

Transition Intelligence

Create Custom Transition Assessments using Data + Analytics



Transition Metrics
- CCS Capacity with Partners Score
- Embedded Emissions Balance Score
- Oil & Gas Reserve Replacement Ratio fro...
- Renewable Generation Score
- Renewable Investment Score
- Renewable M&A Score
- Unsanctioned Upstream Capex Score
- CCS Capacity without Partners Score
- Climate Initiatives Score
- Gas Production Balance Score
- Gas Production Growth from Paris Agree...
- Oil Production Growth from Paris Agree...
- Power Capex Ratio Score
- Scope 1-2 Emissions Targets Score
- Scope 1-3 Emissions Targets Score

Date: 9/30/2023 | 6/30/2023 | 3/31/2023 | 12/31/2022 | 9/30/2022

Industry Segment: Integrated Oil & Gas | Exploration & Production

Market Cap: Large-cap | SMID-cap

HQ Region: North America | Western Europe / UK | East Asia | Eastern Europe | Middle East

HQ Country: Austria | Canada | France | Italy | Norway

Company: BP | Cenovus Energy | Chevron | ENI | Equinor

	9/30/2023								
	Embedded Emissions Balance	Renewable M&A	Renewable Investment	Unsanctioned Upstream Capex	Oil & Gas Reserve Replacement	Renewable Generation	CCS Capacity, with Partners	Overall Company Rank	Filtered Metrics Company Rank
TotalEnergies	40	76	66	80	39	100	100	3	1
BP	41	49	84	66	41	100	99	5	2
Repsol	70	98	40	80	38	91	54	1	3
Equinor	49	49	70	48	39	100	100	4	4
ENI	48	49	40	90	40	77	99	2	5
Shell	53	49	79	48	41	100	36	7	6
Oxy	25	100	100	17	45	38	59	15	7
Chevron	48	49	66	31	39	46	61	17	8
Galp	16	49	89	31	43	73	36	13	9
OMV	35	49	40	90	39	44	36	20	10
Cenovus Energy	15	49	40	17	67	37	86	69	11
ExxonMobil	37	49	40	8	32	37	98	25	12
Suncor Energy	6	49	40	3	39	37	86	42	13
Imperial Oil	6	49	40	31	10	37	82	77	14
Hess	17	49	40	3	44	37	36	70	15

- Analyze companies based on your view of specific technologies and speed of the transition
- Create baskets to track holdings and evaluate investment opportunities.

Source: https://www.ffisolutions.com/the-carbon-underground-transition-intelligence

Investors should track the relationship between transition activities and financial performance

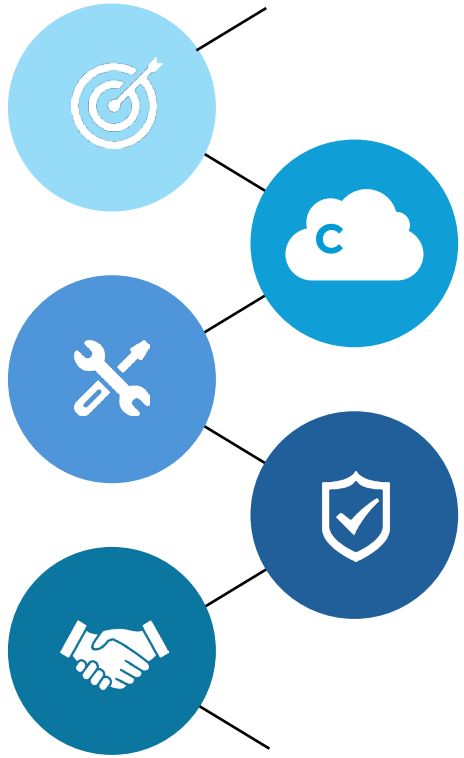
Industry-Specific Data & Analytics

Factors to identify credible transition plans and meaningful actions

***Emissions reduction commitments**, including timeframe, GhG Protocol coverage, baseline year, and target basis*

*Operating and planned **generation mix** and **CCS capacity**, fossil fuel and power **capex** trends and IEA scenario alignment*

*Fossil fuel, clean energy and cleantech **M&A** and **Investments***



*Fossil fuel **production and reserves trends***

***Sustainability initiatives** membership*

Developing the Transition Trackers

Distinguishing oil & gas companies by reserves, financial market, and industry segment

Oil & Gas 100

Top 100 global publicly-listed oil & gas reserves owners.

Market Screen

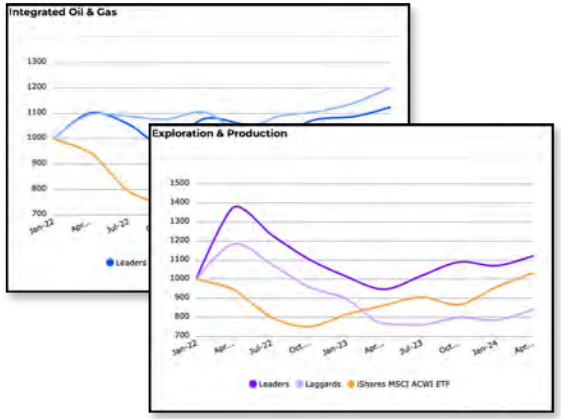
Remove companies in countries lacking sufficient shareholder rights, capital controls, or market access.

Industry Segment

Create two sub-categories: (1) ***Integrated*** *and (2)* ***Exploration & Production***

Leaders & Laggards

*Utilize Transition Intelligence to identify transition "**Leaders**" and "**Laggards**"*

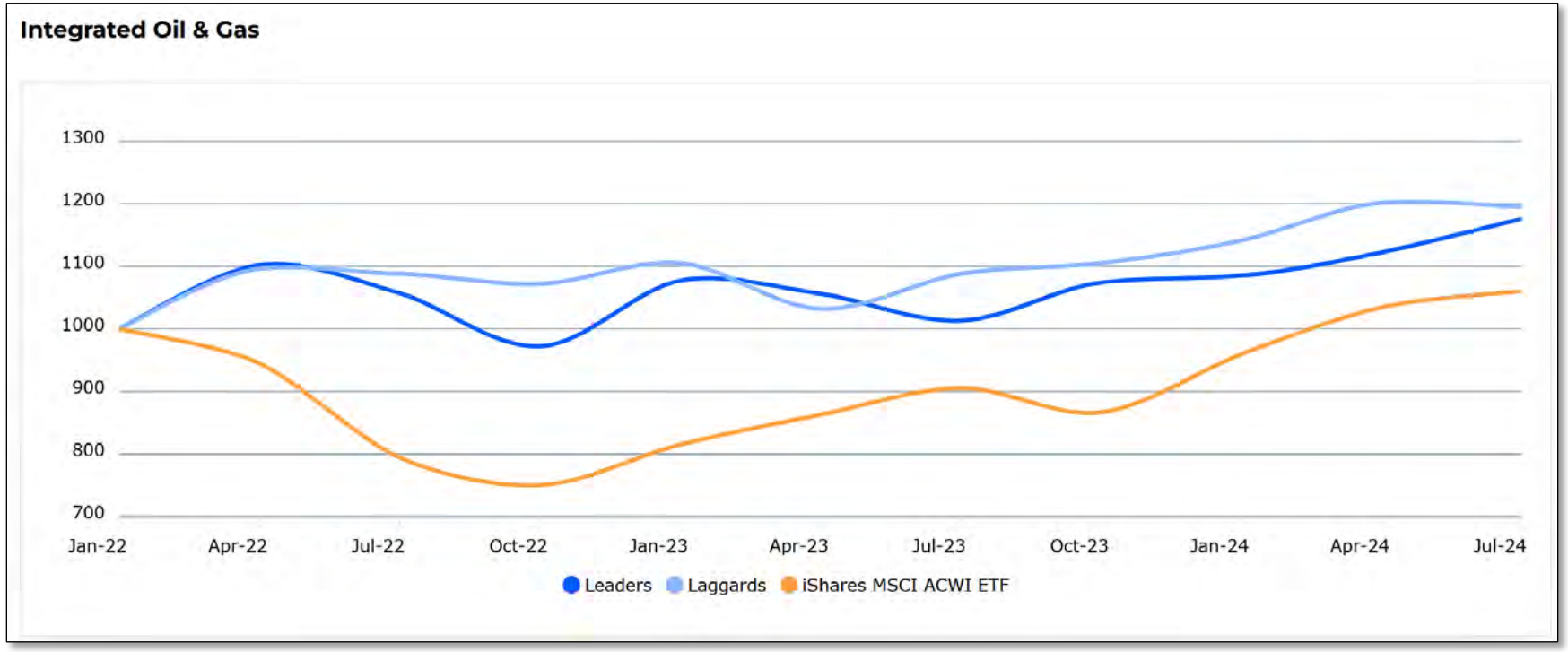


Transition Trackers Highlights

- **Integrated**
  - "Leaders"
    - 9 companies, mostly in Europe, that are active in renewable generation (e.g., *Equinor*, *ENI*, *TotalEnergies*, *Origin*)
  - "Laggards"
    - 9 companies, mostly North American, some operating in Canadian oil sands (e.g., *Cenovus*, *Imperial*, *Suncor*)

- **Exploration & Production**
  - "Leaders"
    - 18 companies, mostly US-based shale companies with production balance heavily weighted toward natural gas (e.g., *Chesapeake Energy*, *EQT*)
  - "Laggards"
    - 18 companies, mostly US-based companies with a production balance more heavily weighted toward oil (e.g., *Meg Energy*, *Permian Resources*)

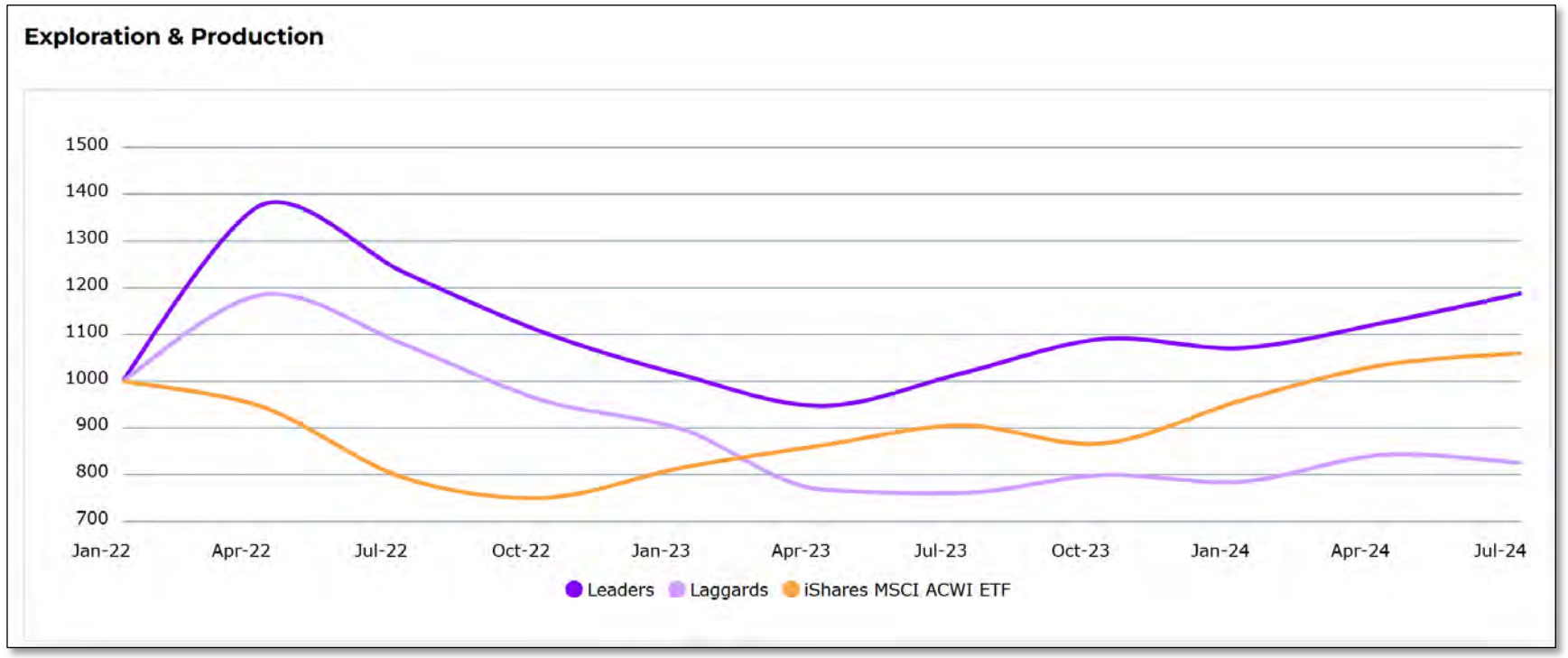
Q2 2024 Performance: Integrated Oil & Gas



Source: https://www.ffisolutions.com/insights/energy-transition-trackers

- Portfolio constituents unchanged from Q1.
- Market continuing to reward capital discipline, dividends and buybacks.
- The two portfolios looks to be coming to a convergence point soon.

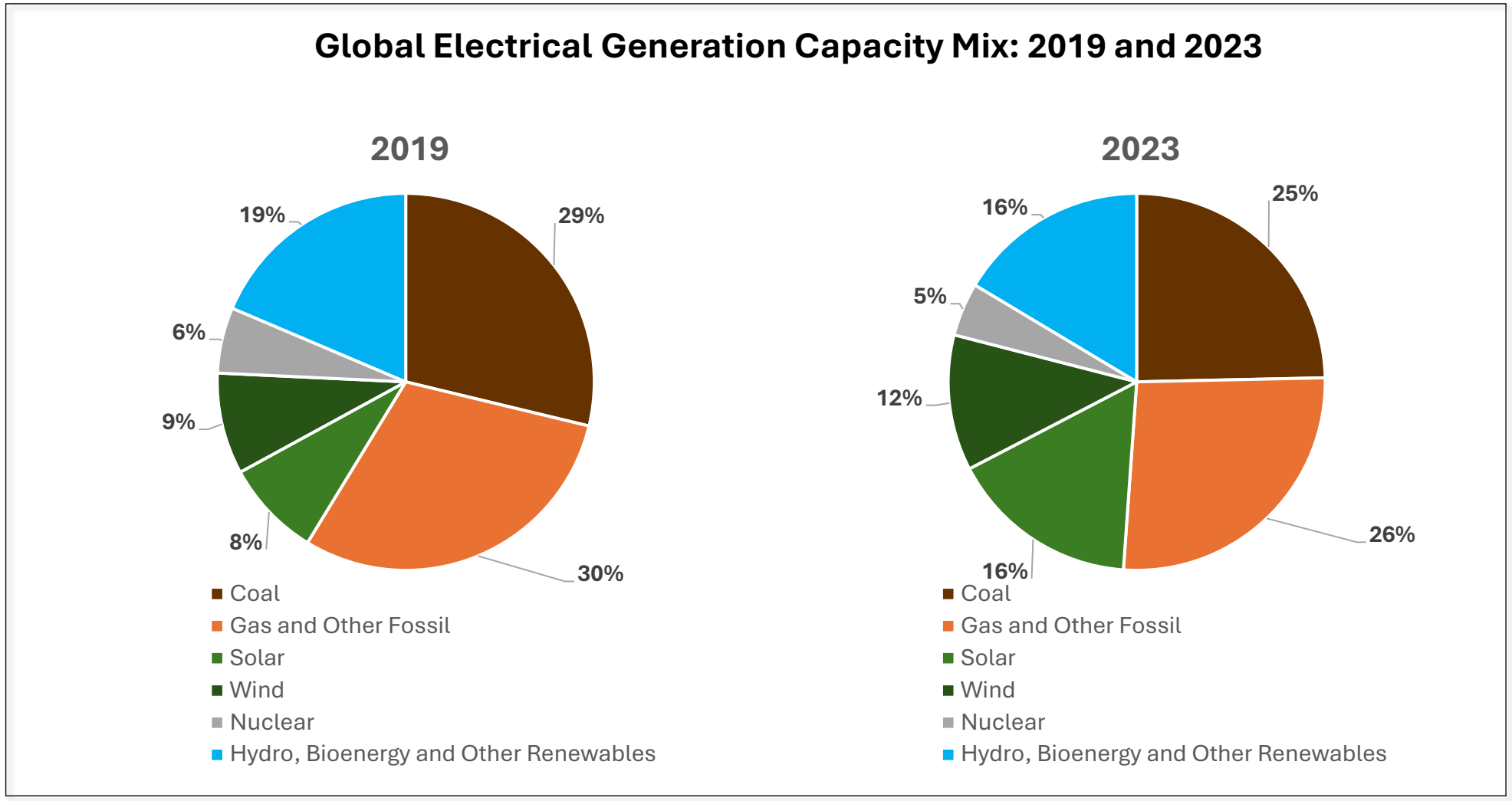
Q2 2024 Performance: Exploration & Production



Source: https://www.ffisolutions.com/insights/energy-transition-trackers

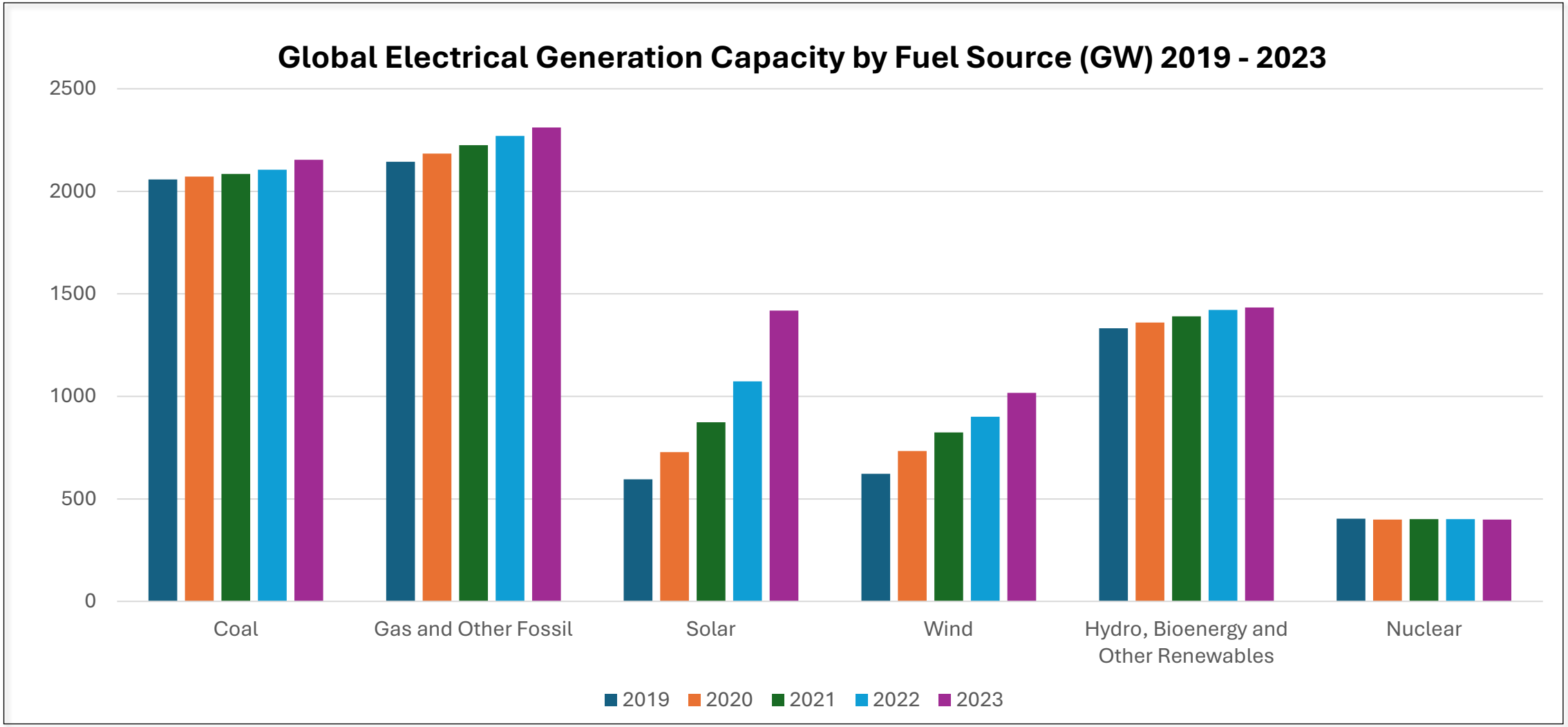
- *Callon Petroleum* and *Pioneer Natural Resources* (removed), *Civitas Resources* and *Ovintiv* (added).
- Leaders' widening outperformance could be explained by continued LNG expansion.

How is the Transition Proceeding?



Source: https://ember-climate.org/data-catalogue/yearly-electricity-data

How is the Transition Proceeding?



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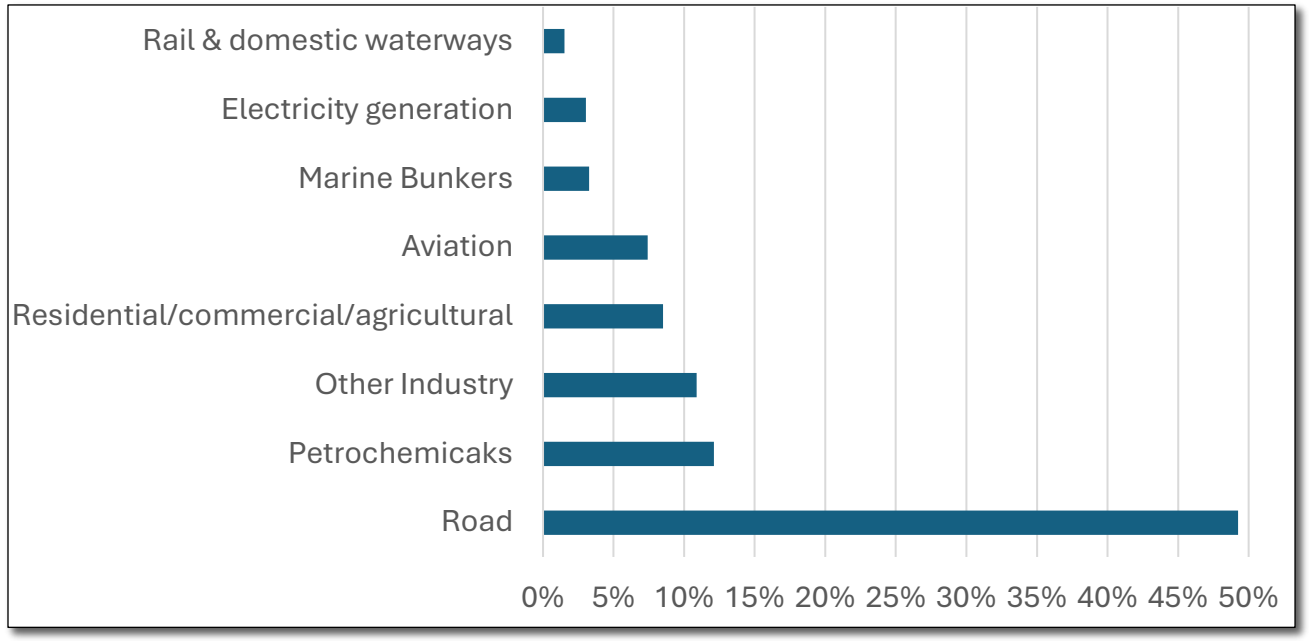
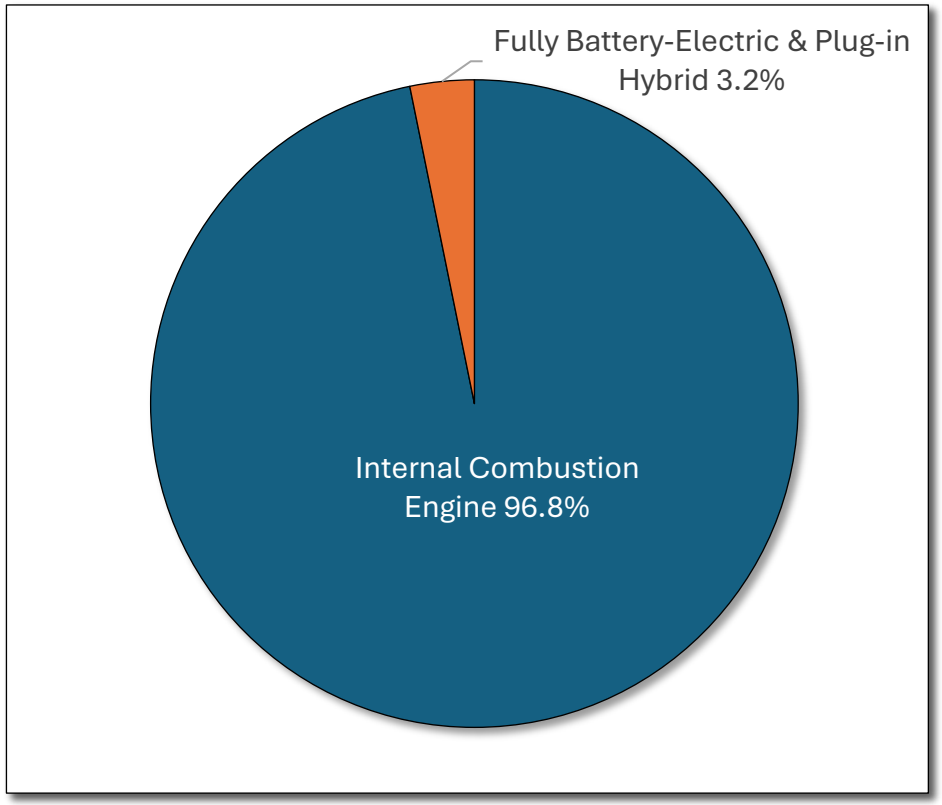
Transition to EVs at Early Stages

2023 Petroleum Use in the OECD by Area

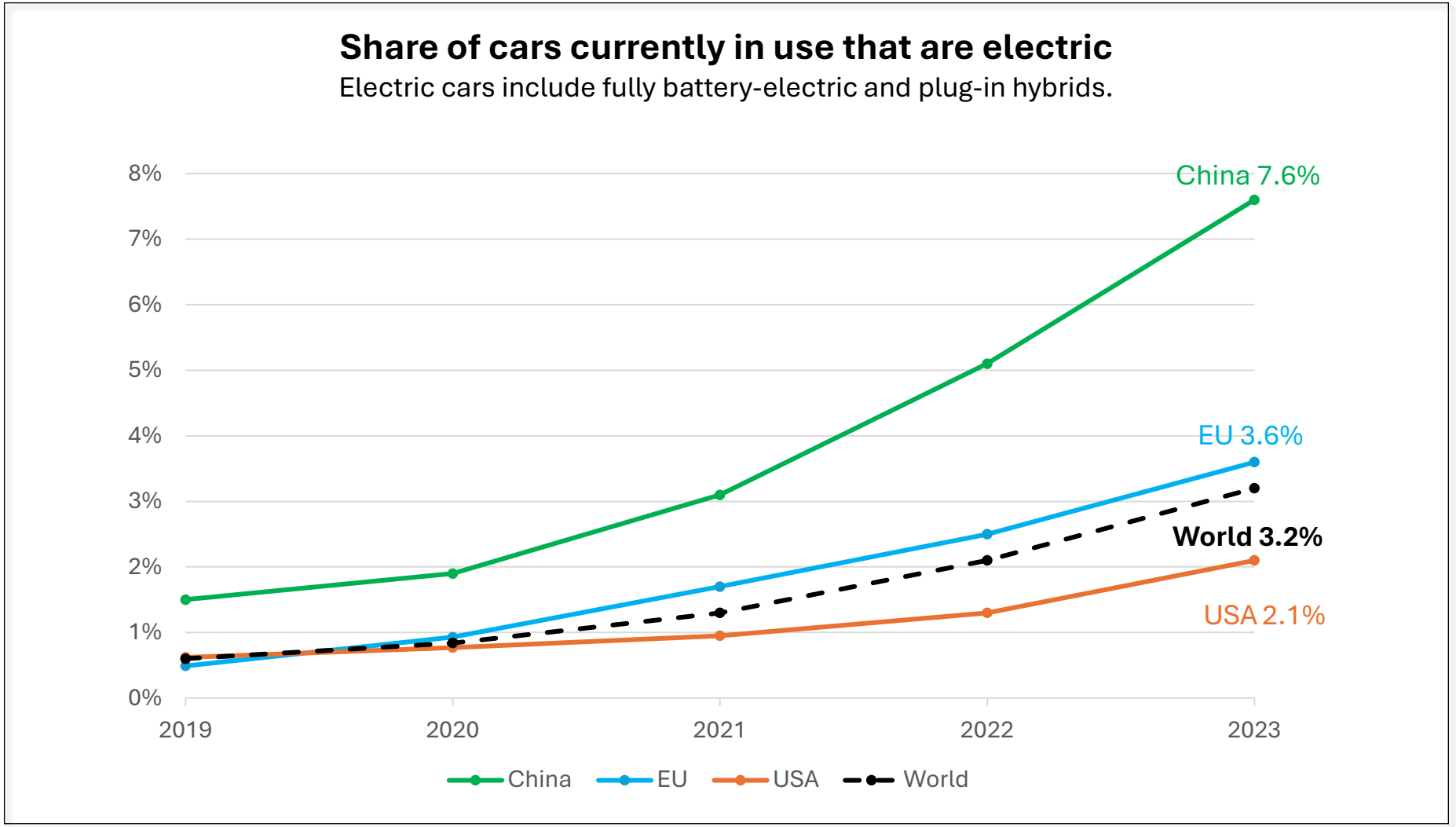


2023 Cars in Use Globally



https://www.iea.org/reports/global-ev-outlook-2024

China Leading the Way on EV Adoption



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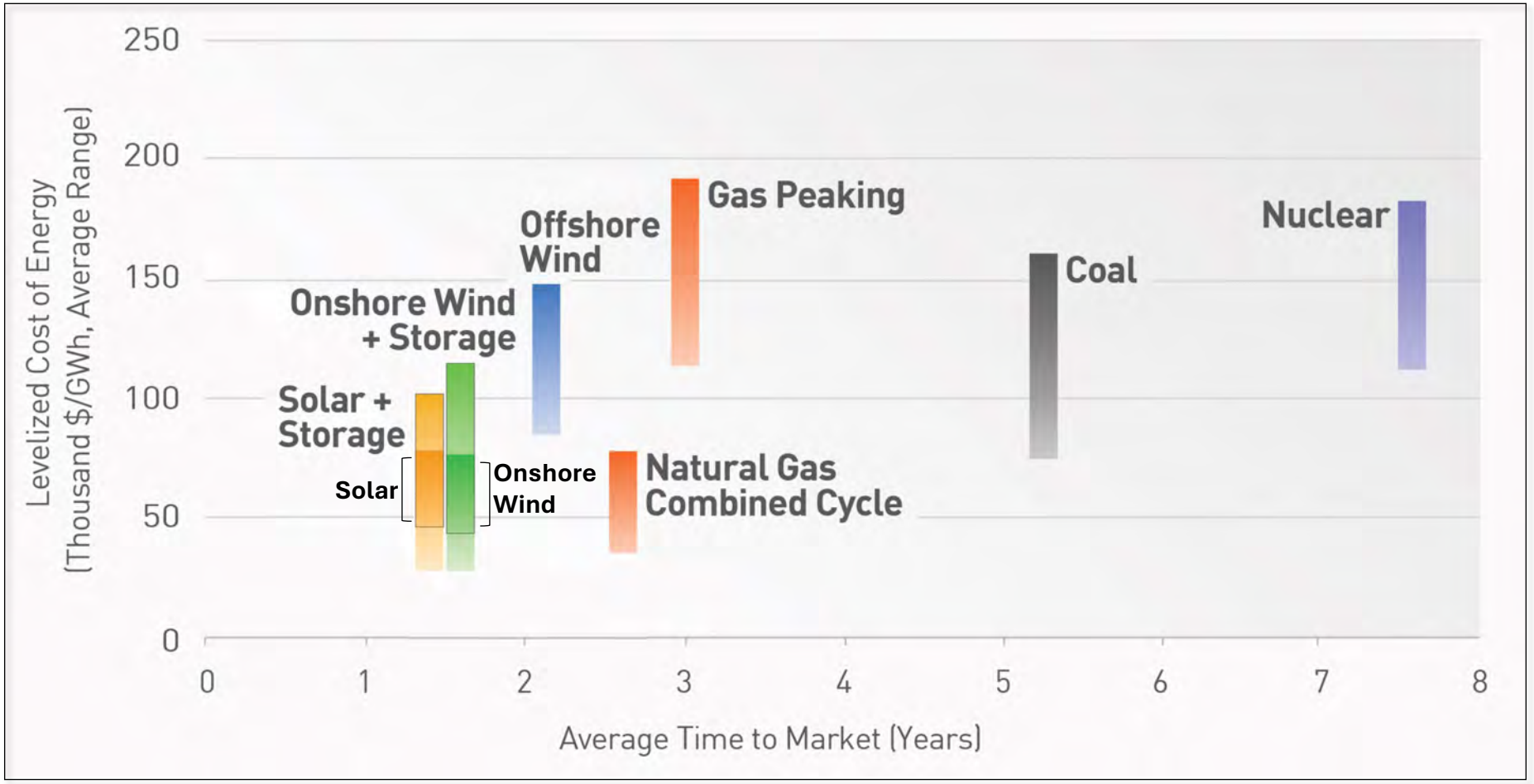
Average Costs & Time-to-Market

Utility-Scale Power Sources

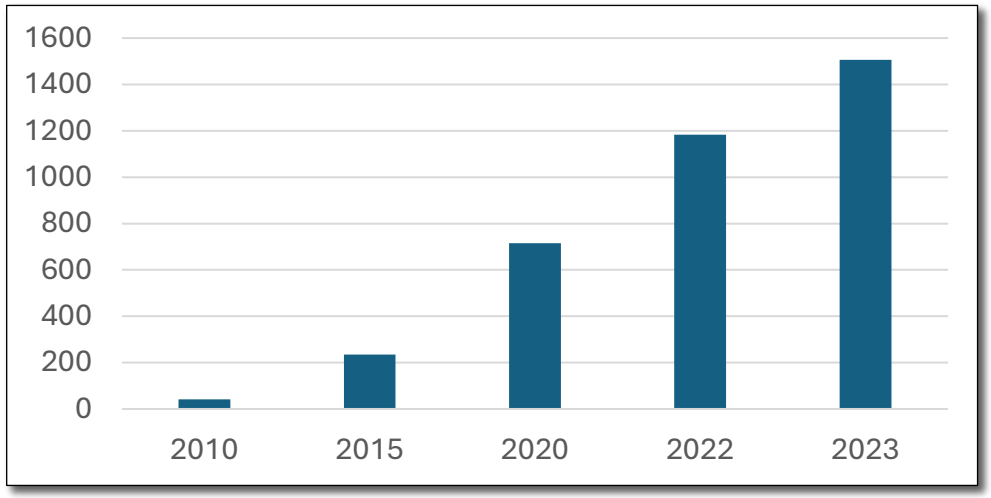


Source: https://cleanedge.com/data-dive-charts/Average-Cost-and-Time-to-Market-for-Utility-Scale-Energy-Sources-0

Solar Power

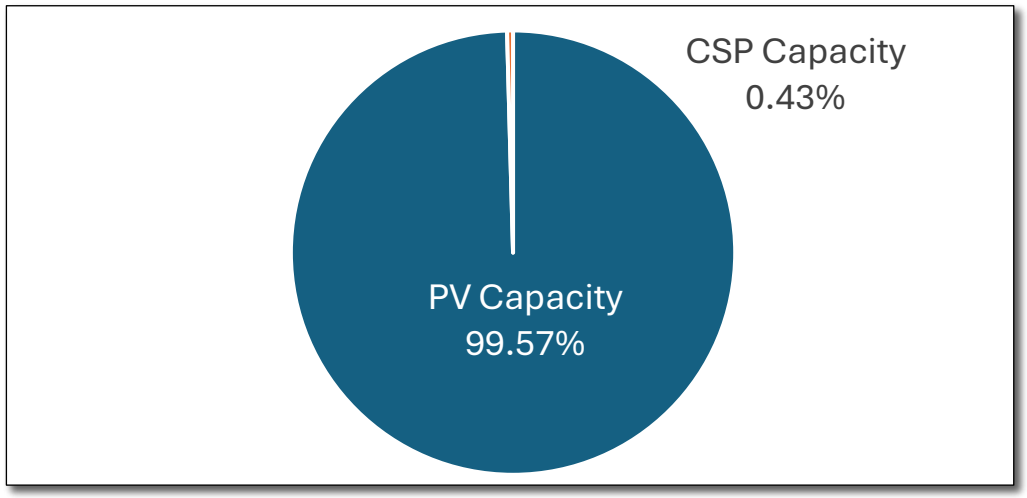
- Primary Solar Technologies
  - Photovoltaic (PV) most widely installed
  - Concentrated Solar Power
  - Developing technologies pursuing higher efficiencies
  - Most common technology applied is based on polysilicon

Total Global Solar Capacity (GW)



Sources: IRENA; NREL

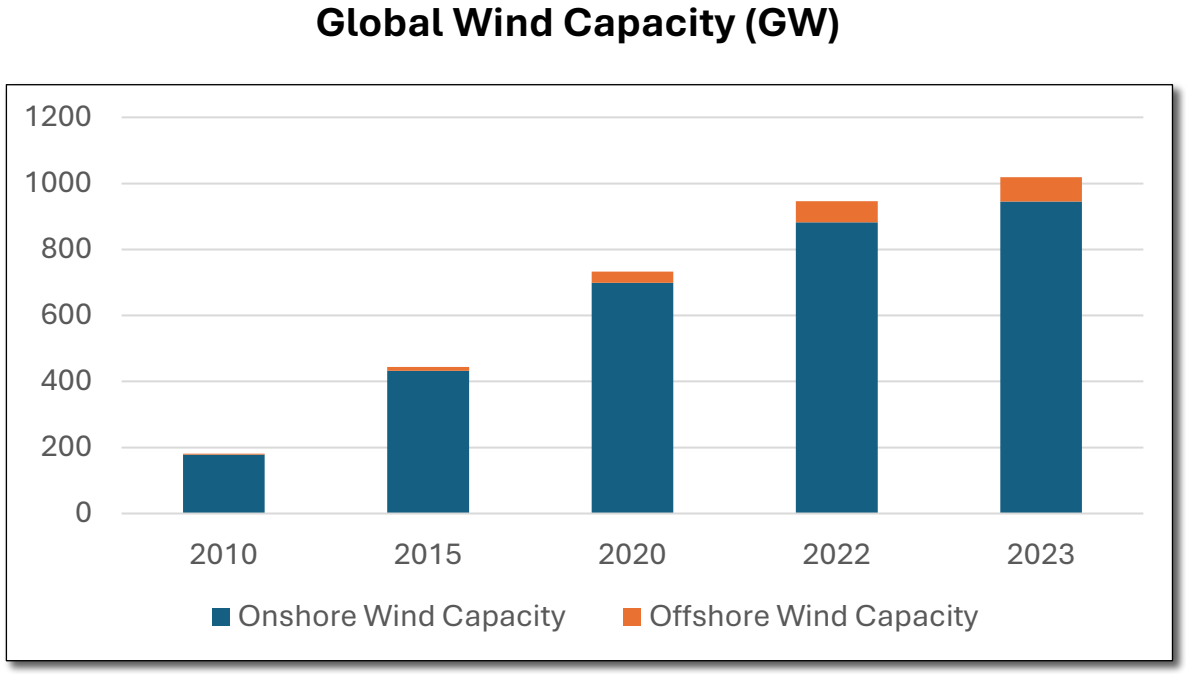
Global Solar Capacity 2023



Sources: IRENA; NREL

Wind Power

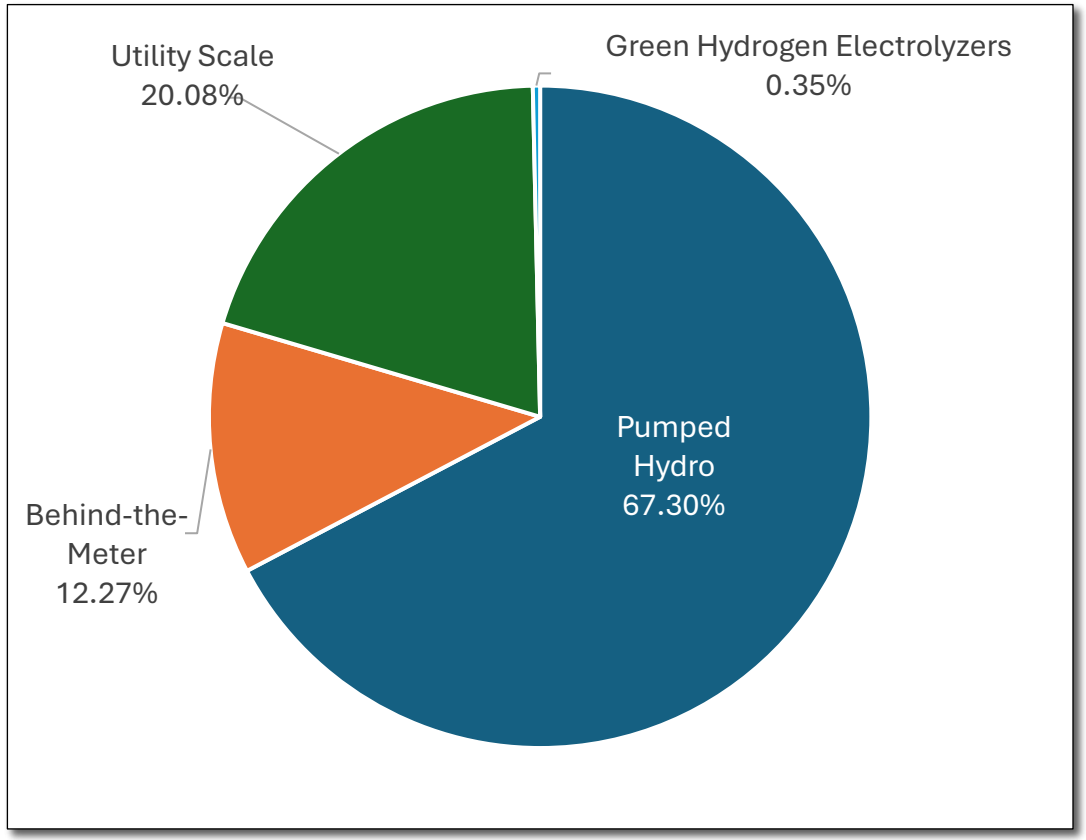
- Wind Technologies
  - Wind installed globally about 72% of installed solar capacity
  - Average turbine capacity and efficiency has improved significantly over past 25 years
  - Turbine manufacturing still dominated by a small group of companies
- Developing Areas
  - Offshore wind: Fixed (widespread in Europe); Floating (under development)



Sources: DOE; IRENA; GWEC

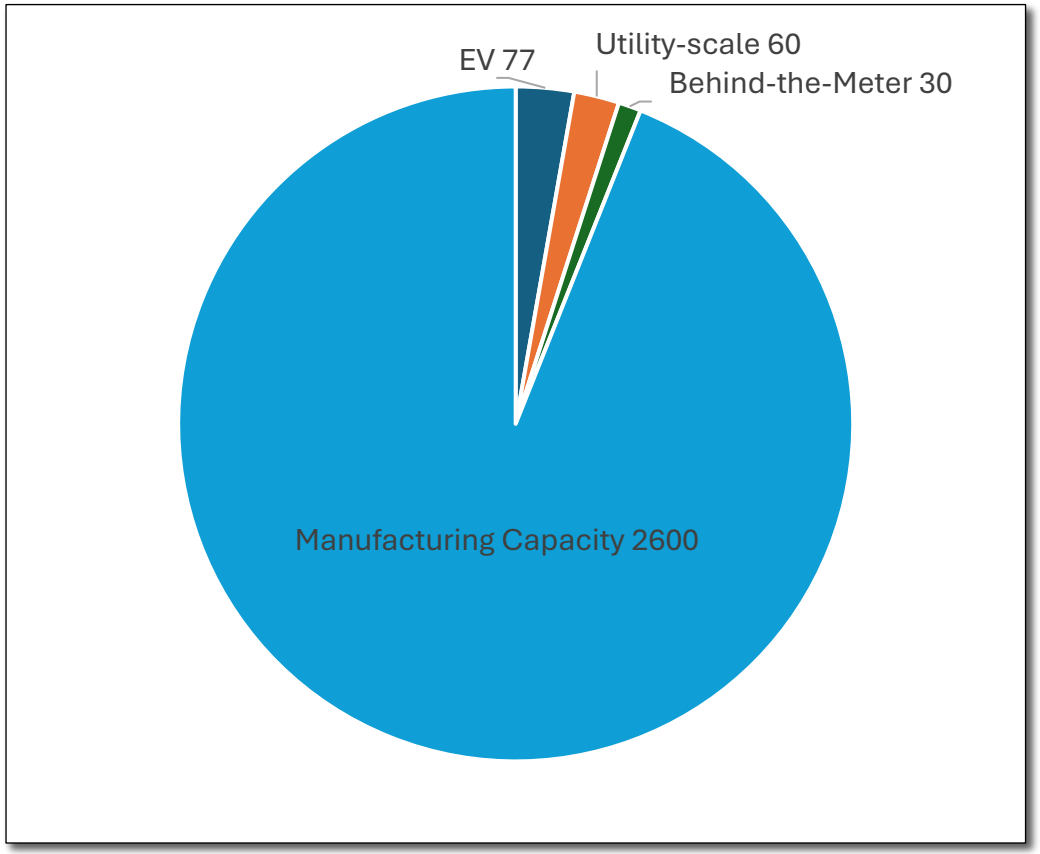
Storage Technologies

Global Storage



Source: https://www.linkedin.com/posts/mliebreich_electrolyzer-manufacturing-2024-too-many-activity-7179533884387176448--eID

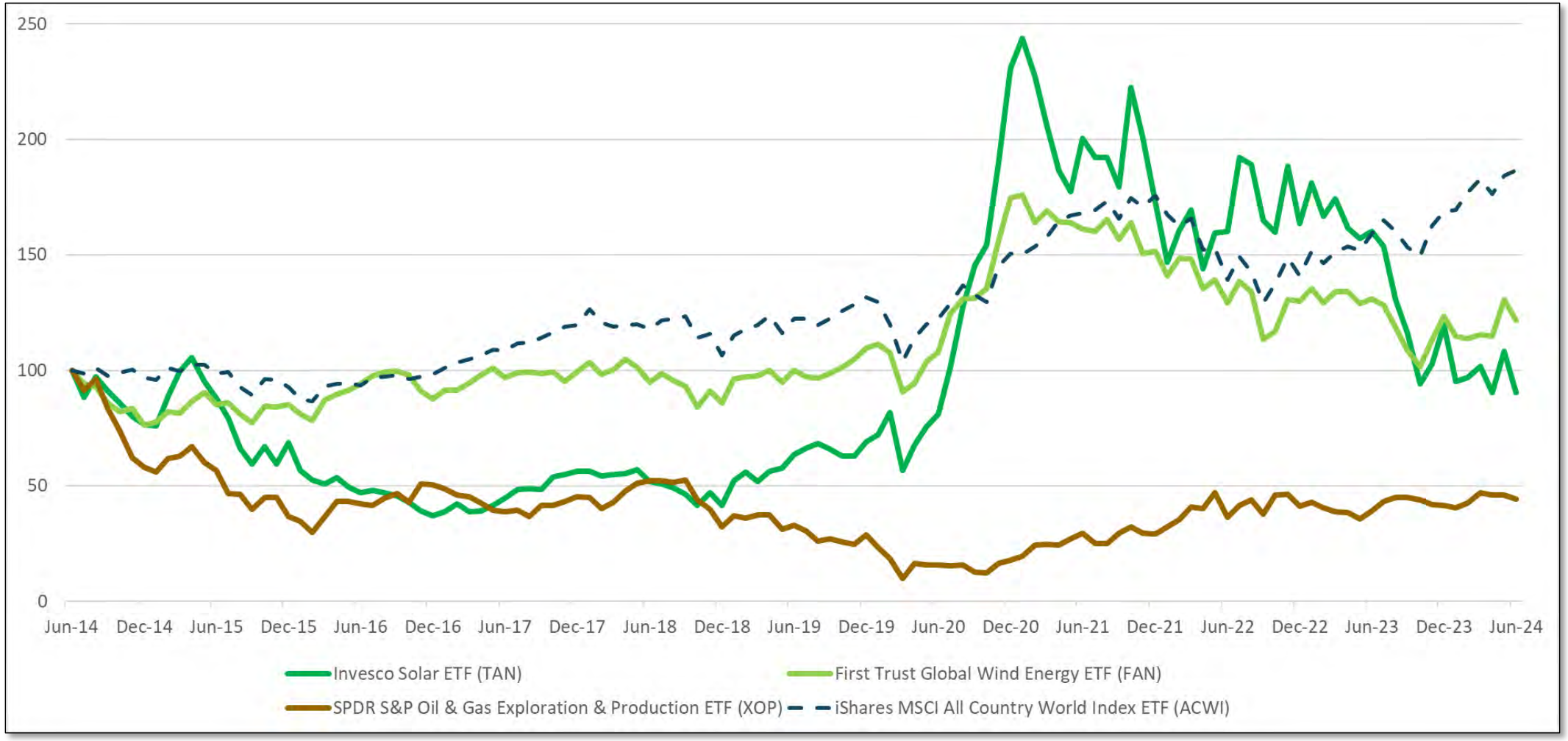
Battery Demand and Manufacturing Capacity (GWh)



Source: https://www.hydropower.org/factsheets/pumped-storage

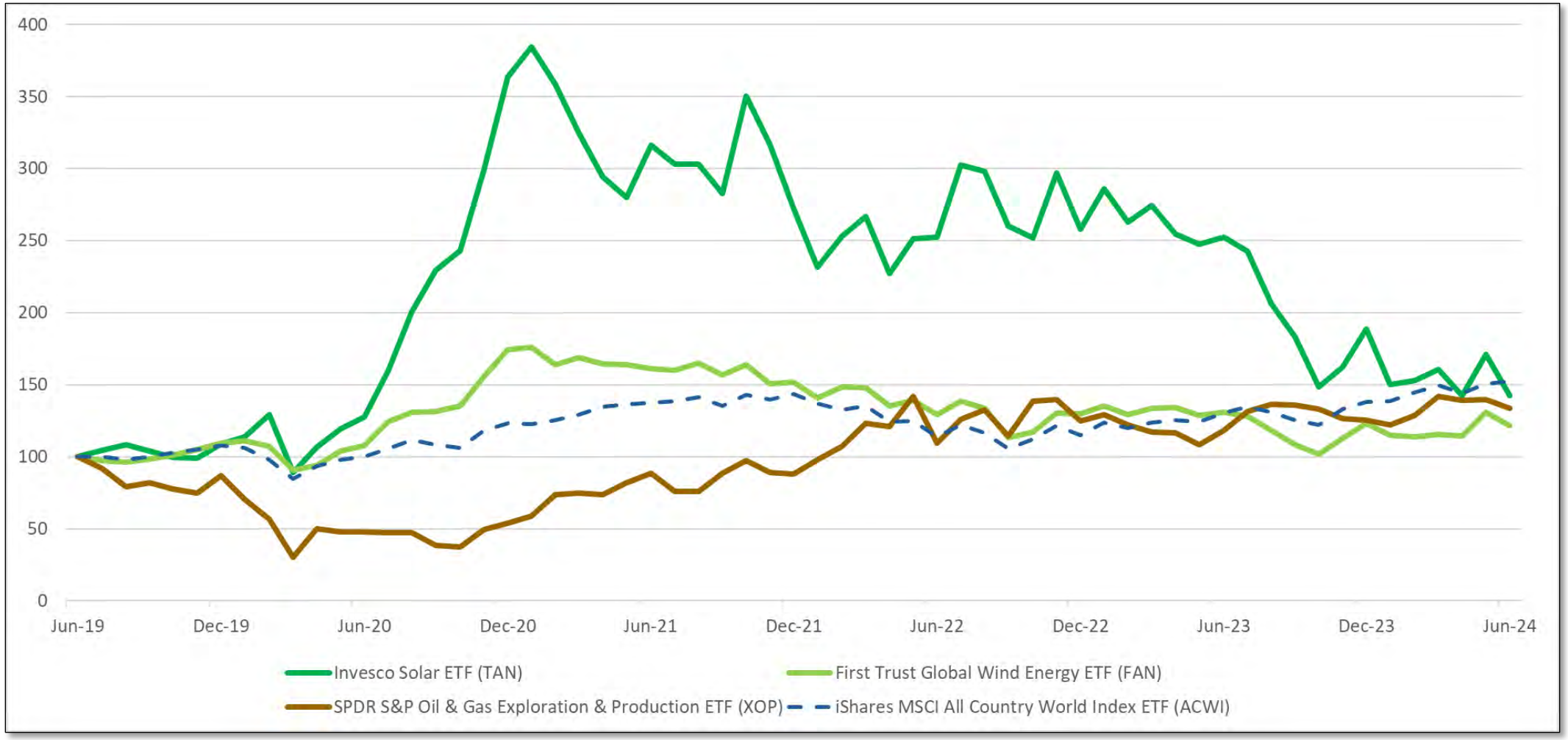
Investment Results: 10-Year

Solar vs Wind vs Exploration & Production vs All Country World



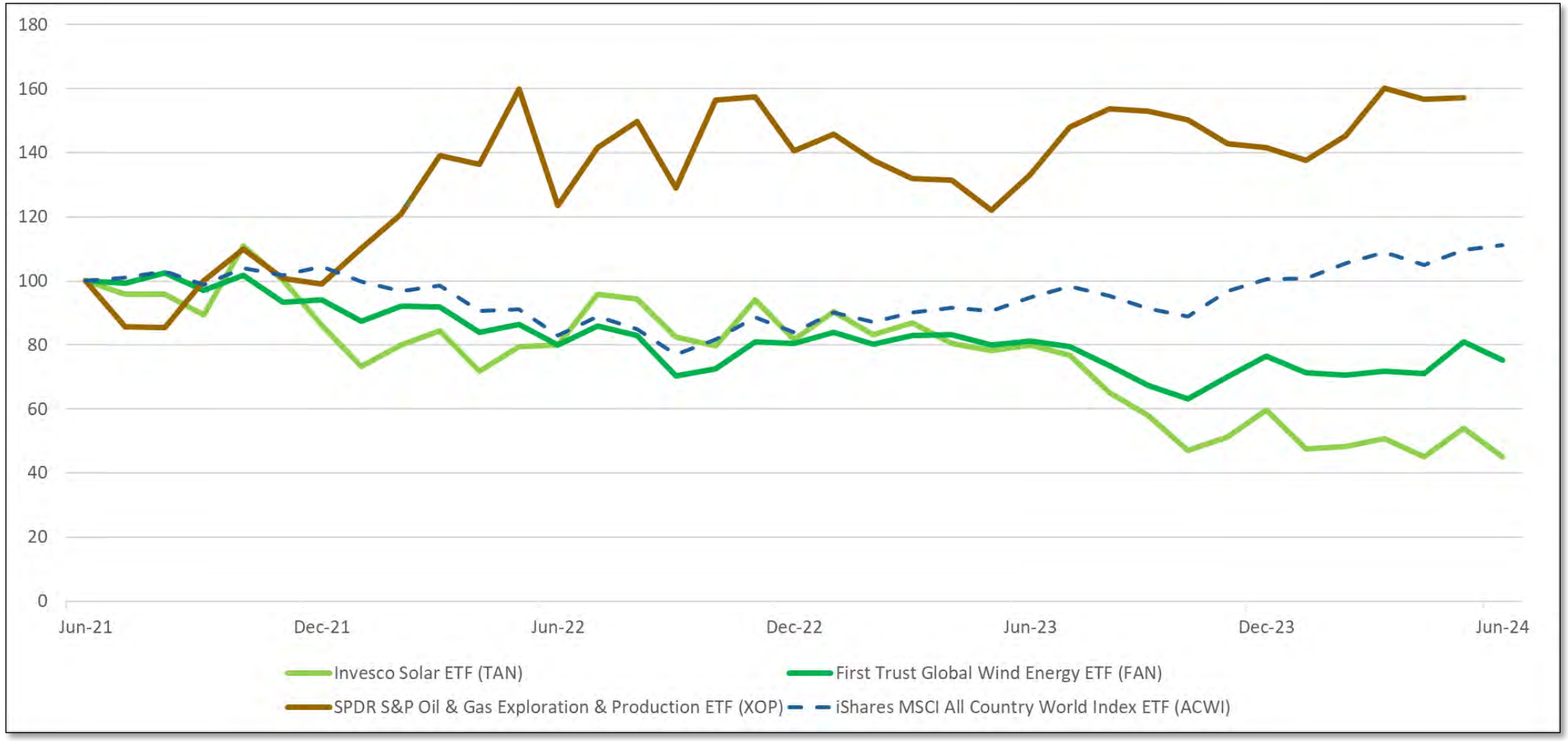
Investment Results: 5-Year

Solar vs Wind vs Exploration & Production vs All Country World



Investment Results: 3-Year

Solar vs Wind vs Exploration & Production vs All Country World



What's Next?

Arguments for a **faster** transition

- Rapid Technological Advancements
- Policy Support and Market Dynamics
- Economic Viability and Job Creation
- Environmental and Health Benefits
- Momentum and Adoption Rates

Arguments for a **slower** transition

- Historical Context and Scale
- Technical and Economic Challenges
- Material and Resource Constraints
- Intermittency and Reliability
- Global Disparities and Political Realities

Wrap Up & Questions

Contact us for additional information and to schedule a Transition Intelligence Platform demo.

Kent Costello
Head of Business Development
kcostello@ffisolutions.com
M: +1 (847) 409-0049