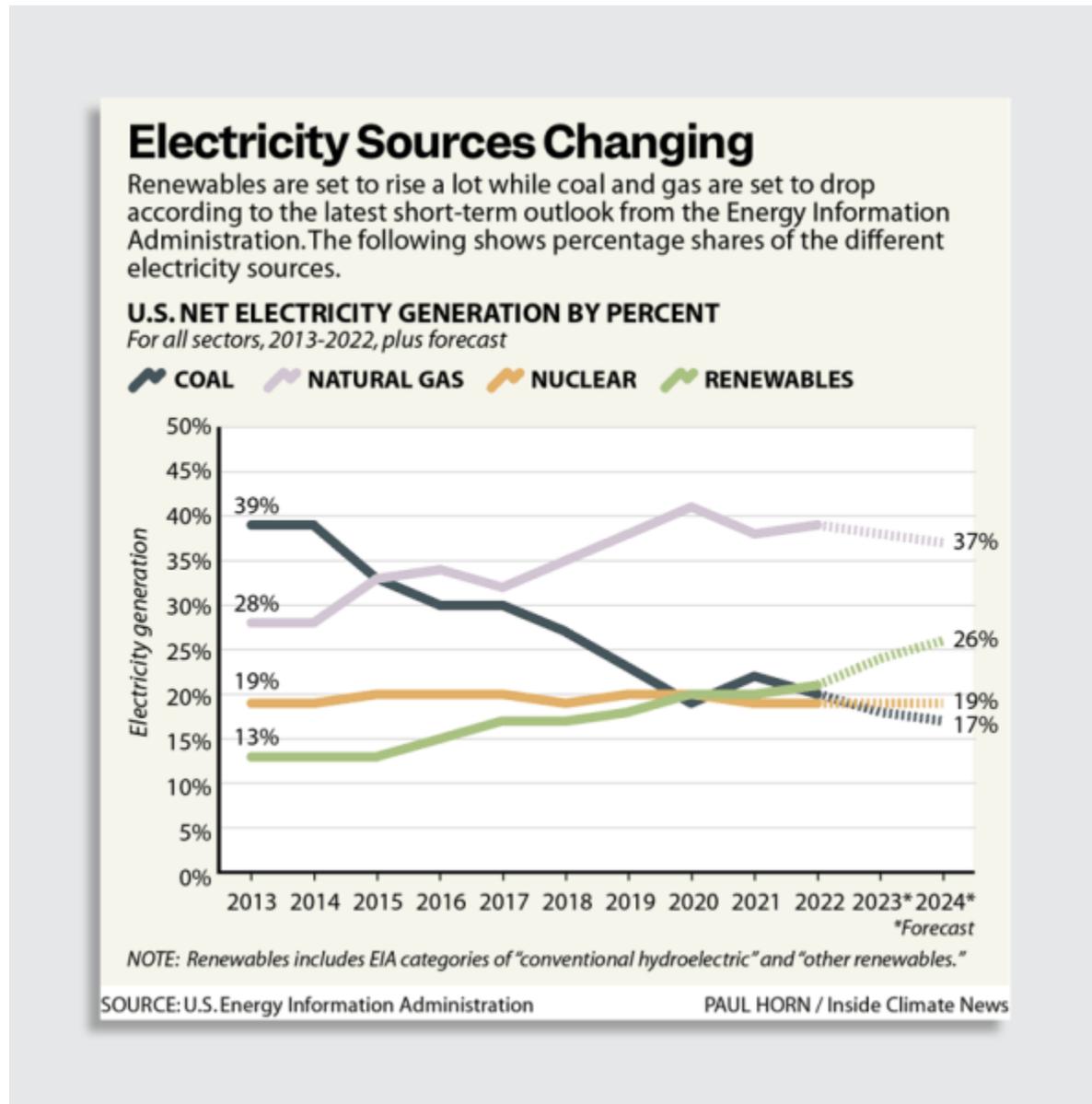


GREEN INVESTING March 2023

1. Why..... follow the money
 - a. A primary rule of investing, follow the money, if governments and business are leading investments into some area, don't let your beliefs get in the way of your profit potential
2. US utilities are moving away from coal, towards more "green" sources of supply



EVEN the **Texas** Utility commission is transitioning to Cleaner energy

Texas is the nation's leader in wind-powered electricity generation, producing almost 30 percent of the U.S. total. According to the American Wind Energy Association, only four nations have more wind capacity than Texas. The Solar Energy Industries Association ranks Texas second nationally for projected growth during the next five years.

<https://comptroller.texas.gov/economy/fiscal-notes/2020/august/ercot.php>

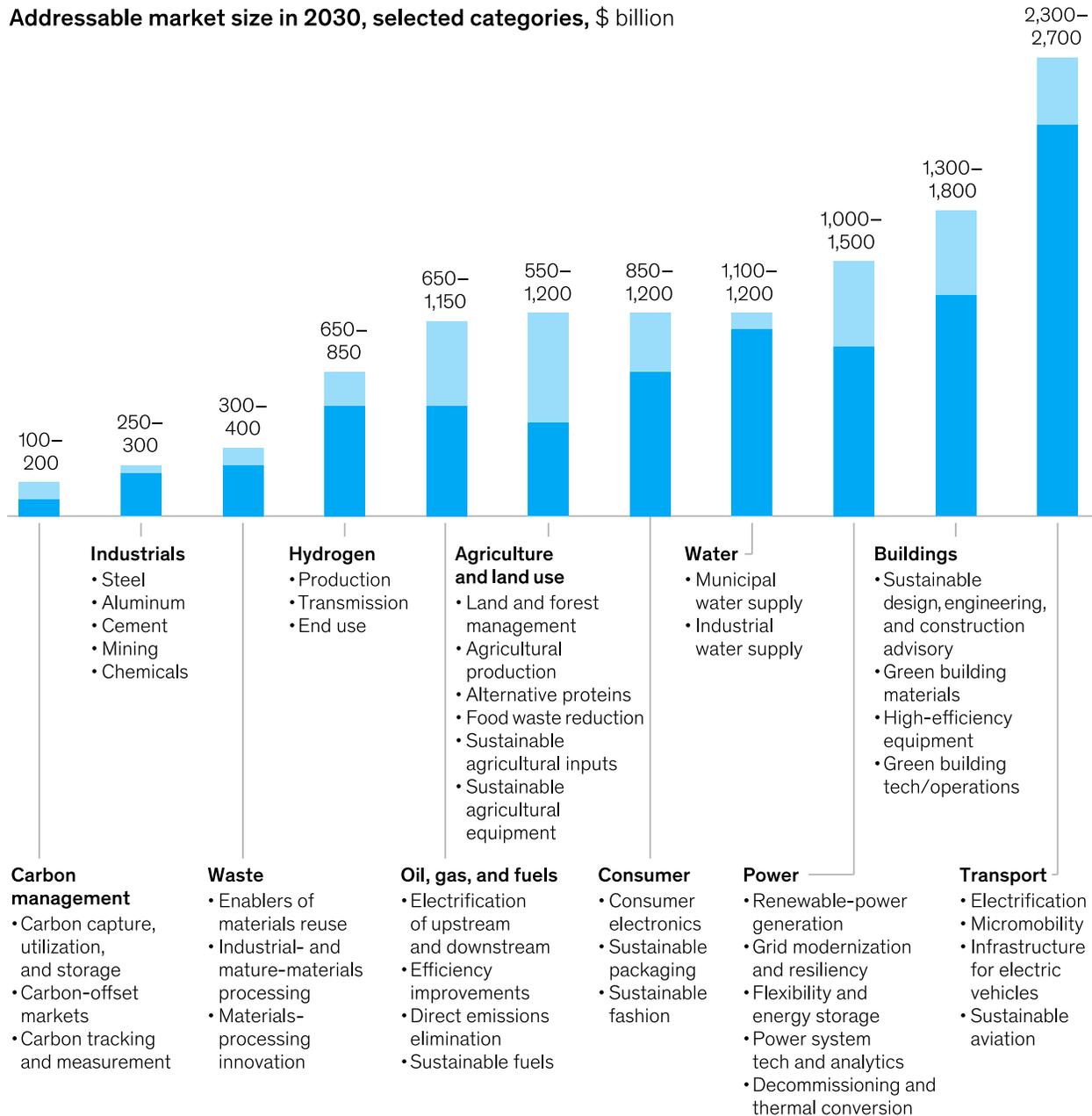
Renewables Projected to Soon Be One-Fourth of US Electricity Generation.

- a. A new forecast from International Data Corporation ([IDC](#)) estimates that ESG business services spending will grow to \$158 billion in 2025 with a five-year compound annual growth rate (CAGR) of 32.3%.

A recent [McKinsey report](#) found that reaching net zero by 2050 could entail a 60 percent increase in capital spending on physical assets, compared with current levels. The required investments amount to \$9.2 trillion per year until 2050, of which \$6.5 trillion annually would go into low-emissions assets and enabling infrastructure. [Our analysis](#) also shows that growing demand for net-zero offerings could generate more than \$12 trillion of annual sales by 2030 across 11 value pools, including transport (\$2.3 trillion to \$2.7 trillion per year), power (\$1.0 trillion to \$1.5 trillion), and hydrogen (\$650 billion to \$850 billion) (Exhibit 1). Such a transformation of the global economy could create significant growth potential for climate technologies and solutions.

Eleven high-potential value pools could be worth more than \$12 trillion of yearly revenues by 2030 as the net-zero transition advances.

Addressable market size in 2030, selected categories, \$ billion



Note: Preliminary, not exhaustive.

EUROPE

The EU plans to become the world's first carbon-neutral bloc by 2050. Its Green Deal pledges a spend of one trillion euros in 'sustainable investments' by 2030 as well as a series of actions for sectors including construction, biodiversity, energy, transport and food production. Dec 2, 2022

ESG?

Environmental, social and governance criteria, or ESG, is a framework companies use to evaluate their sustainability. Environmental factors look at the conservation of the natural world, social factors examine how a company treats people both inside and outside the company and governance factors consider how a company is run. Here are some examples of what each ESG category covers:

Environmental

- Carbon emissions
- Air and water pollution
- Deforestation
- Green energy initiatives
- Waste management
- Water usage

Social

- Employee gender and diversity
- Data security
- Customer satisfaction
- Company sexual harassment policies
- Human rights at home and abroad

Governance

- Diversity of board members
- Political contributions
- Executive pay
- Large-scale lawsuits
- Internal corruption
- Lobbying

GREEN INVESTING: HOW

Broad Clean Energy ETFs

Broad clean energy exchange-traded funds are involved in the alternative, renewable, and clean energy sectors. ETFs based on broad clean energy include:

- **The Invesco WilderHill Clean Energy ETF (PBW):** This fund is based on the WilderHill Clean Energy Index. The fund has a large focus on holding [small-cap](#) firms and implements a growth strategy investment approach.¹
- **The iShares Global Clean Energy Fund (ICLN):** This fund allocates its holdings to alternative energy, including solar and wind, and companies involved in biomass, ethanol, and geothermal electricity production. Its top sector is semiconductors and semiconductor equipment with additional exposure to [the utility sector](#).²

Wind Power ETFs

Wind power converts wind energy into other forms of useful energy. Energy production of wind power has increased, and as of 2019 over 100 countries have some level of commercial wind power capacity.³ ETFs based on wind power include:

- **The First Trust Global Wind Energy ETF (FAN):** This ETF is based on the ISE Global Wind Energy Index. A security component must be actively engaged in some aspects of the wind energy industry. Many of the holdings in this ETF are non-U.S. companies and, as a result, this ETF contains [ADRs, GDRs, and EDRs](#).⁴

Solar Power ETFs

Germany, China, and Japan are among the world leaders in solar innovation.⁵ The price drivers for solar ETFs include oil prices (which are generally positively correlated), government [subsidies](#) and incentives, and technological developments. ETFs based on solar power include:

- **The Invesco Solar ETF (TAN):** This ETF is based on an index (the MAC Global Solar Energy Index) that tracks companies involved in the production of solar power equipment, the production of

fabrication products or services, and companies that supply the raw materials used by the solar power equipment producers.⁶

Nuclear Energy ETFs

Nuclear power accounts for a rapidly growing percentage of global electricity. Utilities and miners have begun to focus their resources on uranium and nuclear energy. ETFs based on nuclear energy include:

- **The Global X Uranium ETF (URA):** This fund has a focus to replicate the performance, before fees and expenses, of the Solactive Global Uranium & Nuclear Components Total Return Index. The fund's focus is on uranium mining, with heavy weight on Canadian companies and capitalizing on the demand for nuclear material.⁷

INVESCO GLOBAL CLEAN ENERGY PBD

VANECK VECTORS LOW CARBON ENERGY SMOG

FIRST TRUST NASDAQ CLEAN EDGE GREEN ENERGY QCLN

VANGUARD ESG US ESGV

ISHARES ESG AWARE USA ESGU

MUTUAL FUNDS ESG

- 1919 Socially Responsive Balanced A (SSIAX)
- Pax Large Cap Fund Institutional (PXLIX)
- Thornburg Better World International I (TBWIX)
- Parnassus Core Equity Investor (PRBLX)
- iShares MSCI USA ESG Select ETF (SUSA)