



FUELING THE FUTURE: PLUG POWER’S GREEN HYDROGEN FLYWHEEL GAINS STRATEGIC SCALE

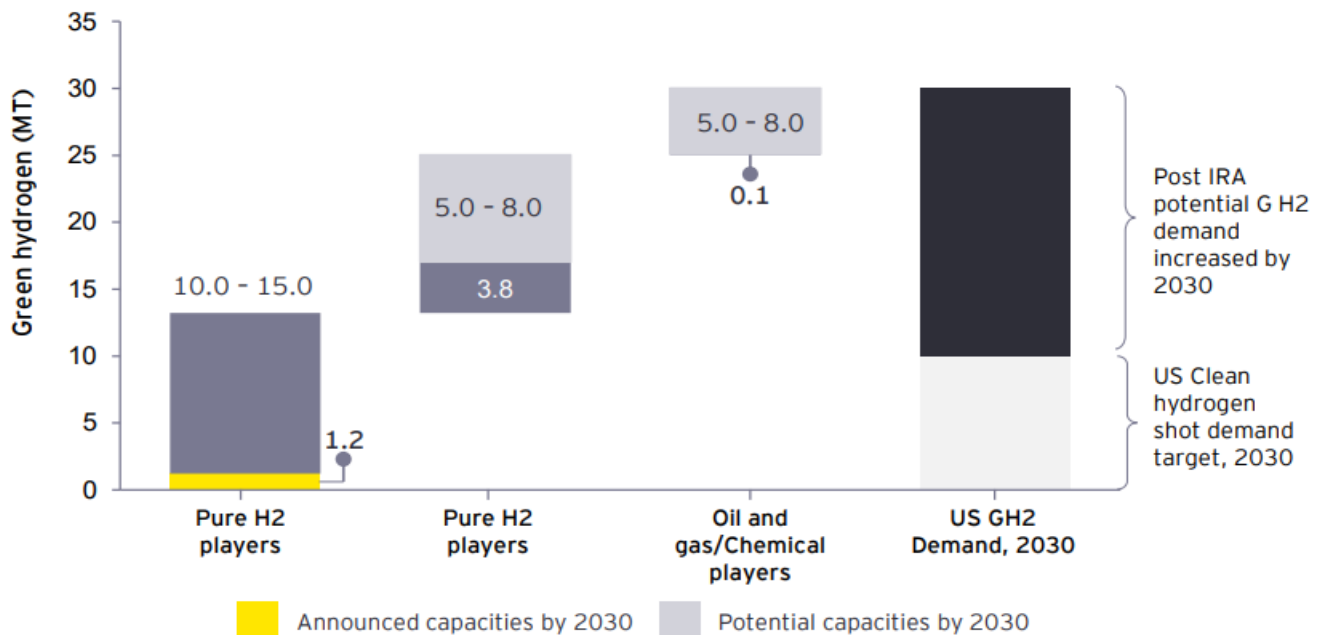
Executive Summary

Plug Power (NASDAQ: PLUG) is at an inflection point, with its shares gaining ~50% in the past month coupled with its strategic momentum in the green hydrogen economy through scale, policy tailwinds, and global project execution. The company’s recent \$1.66 billion DOE (Department of Energy) loan guarantee de-risks capex and fast-tracks its U.S. hydrogen buildout, with six plants planned—including in Texas, California, and Louisiana. This backing, coupled with \$3/kg federal hydrogen tax credits, enables Plug to lower its cost of capital and strengthen its path to profitability.

Notably, Plug aims to produce 500 tons per day (TPD) of green hydrogen in North America by 2025, with a global target of 1,000 TPD by 2028. Key customers such as Amazon and Walmart are expected to drive initial demand. On the global front, Plug’s \$5.5 billion project in Uzbekistan and its electrolyzer deployments spanning five continents underscore its growing international footprint. Additionally, a recent insider share purchase by CFO Paul Middleton signals strong executive confidence in the company’s strategic direction.

Q1 2025 revenue hit \$133.7M (+11% YoY), while losses narrowed and the company commissioned its Louisiana liquefaction facility. With over 72,000 fuel cell units and 275 fueling stations deployed, Plug is evolving into a vertically integrated hydrogen major. We believe Plug’s unique position across electrolyzers, liquefaction, logistics, and end-use sets the stage for durable leadership in the decarbonized industrial value chain.

Chart 1: Renewable Energy Players to Dominate U.S. Green Hydrogen Market by 2030; Foreign Participation Gaining Traction Through 2025 on Policy and Demand Tailwinds



Source: EY - The Inflation Reduction Act – a turning point for the global green hydrogen market

Plug's Strategic Leap: Leveraging DOE Funding for Green Hydrogen Dominance

Plug Power's recent stock surge, backed by strong trading volume, is a testament to the company's potential in the clean hydrogen space. The \$1.66 billion conditional loan guarantee from the DOE at the start of 2025 has significantly lowered Plug Power's financial risk, enabling it to scale operations in the capital-intensive green hydrogen market. We believe this funding will be a game-changer for Plug Power, allowing it to accelerate its green hydrogen network at a lower cost of capital and emerge as a key player in the clean energy shift. The DOE's backing will support the development of up to six green hydrogen production plants across the United States, with the first project already underway in Graham, Texas, and others planned in California, Louisiana, Tennessee, and New York.

The company's ambitious goals for hydrogen production, including producing 500 (TPD) of green hydrogen in North America by 2025 and reaching 1,000 TPD globally by 2028, are well-supported by the DOE loan and the new guidance from the U.S. Treasury on clean hydrogen tax credits. We expect these tax credits, which provide up to \$3 per kg of clean hydrogen produced, to give Plug Power more flexibility in sourcing power for hydrogen production and reduce risks related to compliance and eligibility. With its expanding production network and partnerships with major companies like Amazon, Walmart, and Home Depot, Plug Power is well-positioned to help decarbonize logistics, transportation, and industrial sectors. At full scale, these hydrogen volumes can replace large amounts of fossil fuels, potentially avoiding around 2 million metric tons of carbon dioxide (CO₂) emissions each year.

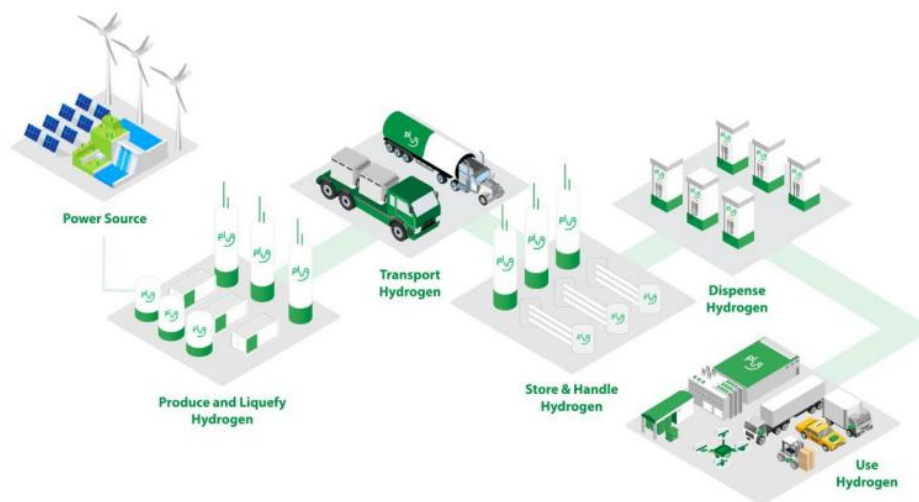
We believe Plug Power's commitment to sustainability and ESG efforts, as evident in its 2023 ESG report, is a significant positive factor. The company's efforts to track and reduce its carbon footprint, use renewable energy to power hydrogen plants, and design fuel cells and systems with circular economy principles, demonstrate its dedication to broader climate and policy goals. While risks remain, including policy risks and costs associated with green hydrogen production, we expect Plug Power's vertical integration, from electrolyzer manufacturing to hydrogen delivery, to give it more control over quality, pricing, and reliability. As clean energy policies roll out and demand for low-carbon fuels rises, Plug Power could gain an advantage as an early mover in green hydrogen.

The Strategic Uzbekistan Project: A Game-Changer for Green Hydrogen and Decarbonization

Plug Power's recent agreement with Allied Green Ammonia to supply 2 gigawatts of electrolyzer capacity for a \$5.5 billion green fuels facility in Uzbekistan marks a significant milestone in the company's pursuit of large-scale decarbonization projects. We believe this deal not only underscores Plug Power's capabilities in the green hydrogen space but also highlights the company's potential for growth in emerging markets. The facility, which will produce sustainable aviation fuel, ammonia for fertilizer, and green diesel, aligns with the Uzbek government's efforts to modernize its energy infrastructure and attract international investment. This project has the potential to cement Uzbekistan's position as a regional leader in clean energy, and we expect it to serve as a model for similar initiatives in other countries.

The Uzbekistan project is a strategic fit for Plug Power, given its expertise in electrolyzers and hydrogen production. With over 72,000 fuel cell systems and 275 fueling stations deployed globally, the company has established itself as a leader in the hydrogen fuel cell industry. We expect this project to contribute to Plug Power's revenue growth, with management projecting revenue between \$140 million and \$180 million for Q2. Moreover, the potential preservation of hydrogen tax credits, as indicated by Republican Senator John Cornyn, could provide important financial support for hydrogen producers like Plug Power, enabling the company to scale operations and improve profitability. As Plug Power continues to advance its hydrogen ecosystem, we believe this project, along with its growing pipeline of electrolyzer deployments across five continents, positions the company for long-term success in the clean energy sector.

Chart 2: Plug Builds Full-Stack Hydrogen Ecosystem to Drive Decarbonization



Source: Plug Power Investor Presentation

Executive Confidence and Strategic Growth: Plug Power's Momentum Continues

The recent purchase of 650,000 shares by Plug Power's CFO, Paul Middleton, underscores his continued confidence in the company's long-term strategy and growth prospects. This investment follows a previous purchase earlier in the month, reinforcing Middleton's belief in Plug's leadership in building a vertically integrated hydrogen ecosystem. With a strong financial trajectory and operational progress, Plug is well-positioned to capitalize on the growing demand for hydrogen solutions. The company's focus on electrolyzers, hydrogen generation, and fuel cell businesses is driving growth, with revenue increasing to \$133.7 million in Q1 2025, representing a 11% year-over-year growth. We believe that Middleton's investment is a testament to the company's potential for long-term value creation, and we expect this momentum to continue as Plug executes on its strategic growth plans.

Plug's hydrogen generation network is a key driver of its growth, with the commissioning of its 15-ton-per-day hydrogen liquefaction plant in St. Gabriel, Louisiana, increasing its U.S. hydrogen production capacity to approximately 40 tons per day. The company's GenEco electrolyzer business is also scaling rapidly, with revenue increasing 575% year over year. With over 72,000 fuel cell systems deployed and 275 fueling stations, Plug is the largest user of liquid hydrogen and a leader in the industry. We expect the company's electrolyzer technology to continue to play a critical role in the global transition to low-carbon hydrogen, with Plug well-positioned to support ambitious decarbonization goals. The company's partnership with Allied Green Ammonia, including a 3 GW supply agreement for a green hydrogen-to-ammonia project in Australia and a new 2 GW electrolyzer opportunity in Uzbekistan, demonstrates its ability to deliver large-scale projects.

The company's financial performance is also improving, with a gross margin loss of -55% in Q1 2025, representing a significant improvement from -132% in Q1 2024. Plug's cash flow is also expected to improve, with the launch of Project Quantum Leap targeting over \$200 million in annualized savings. The companies recently completed infrastructure, including the Louisiana hydrogen plant, is expected to enhance margin performance and reduce third-party fuel costs. With a strong leadership team, a solid financial foundation, and a growing pipeline of opportunities, we believe Plug Power is poised for continued growth and success in the hydrogen economy. The

company's focus on material handling, electrolyzers, and hydrogen supply is driving growth, and we expect Plug to remain a leader in the industry, delivering real progress toward profitability and scaling its hydrogen ecosystem to meet growing global demand for clean energy.

Chart 3: PLUG v/s S&P 500 (1-Year Performance)



Source: Trading View, Data as on July 06, 2025

CLEANTECH NEWS

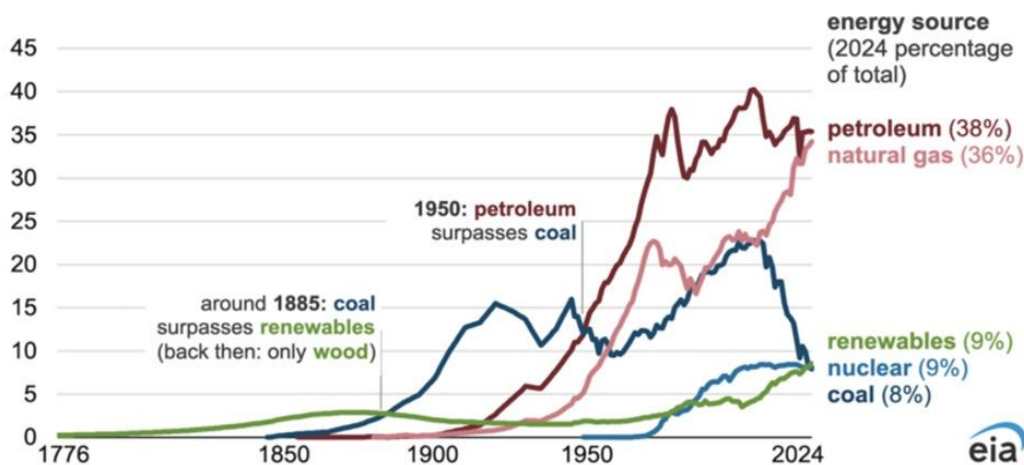
Industry Trends

Energy independence from the U.S.A is coming for much of the world. Energy independence is not just a concept for the US, but also a goal for many countries seeking to reduce their dependence on foreign oil, particularly from the US. Countries like Ethiopia have already taken steps towards energy independence by banning gas/diesel-powered vehicles, inspiring other nations to follow suit. As the world shifts away from fossil fuels, petro-state dominance will be challenged, leading to significant economic and political changes in the next 100 years. [Read more.](#) (Clean Technica)

Massive green hydrogen project to produce low-carbon fertilizer. ATOME, a UK-listed firm, plans to construct a \$630 million fertilizer facility in Paraguay using green hydrogen to produce low-carbon ammonia-based fertilizer. The project will deploy hydropower electricity for electrolysis, reducing CO2 emissions by up to 12.5 million tonnes annually. ATOME has secured funding from several partners and the Green Climate Fund, which will provide concessional financing of \$50 million. This marks a significant milestone in the green hydrogen industry's shift towards cost competitiveness with traditional fossil fuel-based fertilizers. [Read more.](#) (Clean Technica)

How has U.S. energy use changed since 1776? The United States' energy consumption patterns have undergone significant changes since 1776. Initially, wood was the largest energy source, followed by coal from 1885 to 1950. Petroleum has been the most-consumed fuel for over 70 years, with natural gas being the second-largest source. Renewable energy sources, including nuclear, wind, and solar, have gained prominence in recent years, surpassing coal consumption in 2023 and nuclear energy in 2022. Fossil fuels still account for 82% of total U.S. energy consumption, while non-fossil fuel energy accounts for 18%. [Read more.](#) (Clean Technica)

Chart 4: U.S. Energy Consumption (1776-2024) (in Quadrillion British Thermal Units)



Source: U.S. Energy Information Administration, Monthly Energy Review
Primary Energy Consumption by Source and Estimated primary energy consumption in the United States, selected years, 1635–1945

Maga mind games will make America last in auto & solar industries. The US is at risk of falling behind in auto and solar industries due to the current administration's policies, which aim to tear up clean energy and transportation laws. The country's automakers are losing market share globally as electric cars become increasingly popular, and revoking incentives for EVs will jeopardize a \$200 billion investment in the US supply chain. Meanwhile, BRICS countries are leading the world in solar power adoption, with 51% of global electricity generation from solar coming from these nations in 2024. [Read more.](#) (Clean Technica)

High-performance computing advanced more than 425 energy research projects in 2024. The US Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy has a new high-performance computing system, Kestrel, which boasts 56 petaflops of computing power. In 2024, Kestrel powered over 425 energy innovation projects across 13 funding areas, leveraging AI and machine learning to accelerate progress in energy research, materials science, and forecasting. The Advanced Computing Annual Report highlights two key projects: Questaal software resolving complex physics equations and a study on breaking down plant cell walls for biomass conversion. [Read more.](#) *(Clean Technica)*

US Space force to test new tough-as-nails solar array. The US Space Force has awarded \$2 million to Atomic-6 to test its new LightWing orbiting solar array, which claims four times more power per kilogram than conventional arrays. The grant is part of the Space Force's efforts to develop advanced space-based solar technology, including next-generation solar cells and perovskite materials. The LightWing array will be tested for commercial and defense applications, with potential uses in orbital compute, high-bandwidth communications, and human habitation space stations. [Read more.](#) *(Clean Technica)*

Solar installations make good neighbors. Research published in *Frontiers - Sustainable Energy Policy* finds that 82% of people living within a mile of large-scale solar installations support or feel neutral about them, while 18% oppose. The study analyzed surveys from 979 residents near 379 solar projects and found that subjective variables like community quality of life and aesthetics influenced support more than objective factors like project size. Developers can improve acceptance by communicating benefits such as tax revenue, lower utility rates, and job training programs. [Read more.](#) *(Clean Technica)*

Solar projects that make us smile. Solar projects are transforming communities worldwide by harnessing clean power from the sun. In Ecuador's Amazon region, Kara Solar has developed a network of solar-powered boats that transport people, goods, and services, replacing traditional diesel-powered vessels. Meanwhile, in Florida, the Manatee School for the Arts is installing a 2 MW rooftop solar system expected to save \$900,000 annually and power educational programs. The Electrek Formula Sun Grand Prix 2025 also highlights innovative solar technology and engineering. [Read more.](#) *(Clean Technica)*

New long duration energy storage system deploys underground hydropower. A new long-duration energy storage system called Geomechanical Energy Storage (GES) has been developed by Quidnet, a Texas-based firm. GES uses underground hydropower to store excess energy for up to 10 hours or more, providing a robust solution for the grid of the future. The system has successfully stored energy for six months without power loss and can recharge from excess wind and solar energy. This technology is poised to compete with new gas power plants and meet the growing demand for firm power in data centers. [Read more.](#) *(Clean Technica)*

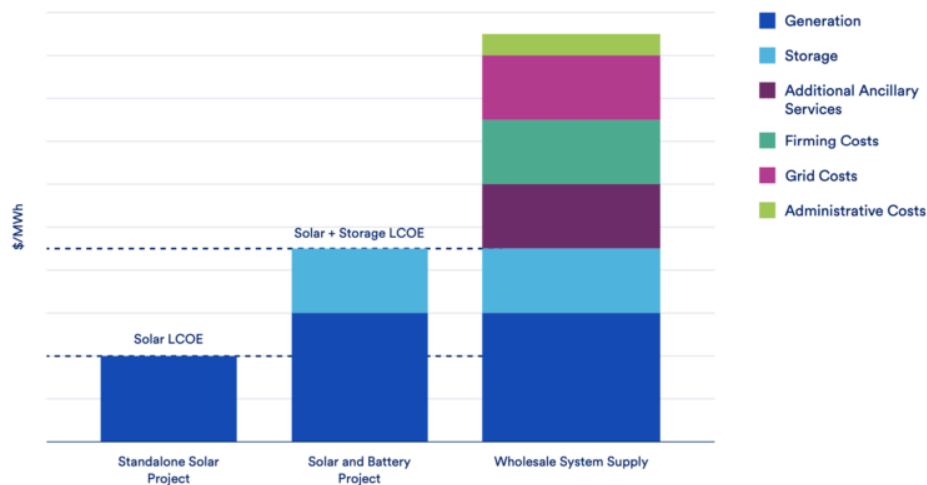
In west Texas, e-fuels are coming for your fossil fuels. Infinium's Project Roadrunner e-fuels facility in West Texas is set to replace conventional jet fuel with a green hydrogen and captured carbon concoction. The project has secured significant funding from HSBC, Brookfield Asset Management, American Airlines, and the Breakthrough Energy Catalyst Fund, totaling over \$1 billion. This development comes as the US energy landscape shifts amidst changes in federal policy, with e-fuels gaining traction as a low-carbon alternative to fossil fuels. [Read more.](#) *(Clean Technica)*

U.S. Primary energy production, consumption, and exports increased in 2024. The United States produced a record 103.3 quadrillion British thermal units (quads) of primary energy in 2024, surpassing consumption for the third consecutive year. Energy exports reached a record high of 30.9 quads, up 4% from 2023, while imports remained flat at 21.7 quads. Renewable energy consumption hit a new record of 8.6 quads, driven by growth in biofuels, wind, and solar. [Read more.](#) *(Clean Technica)*

Clean energy experts say it's time to move beyond LCOE. A growing number of energy experts urge policymakers to retire the Levelized Cost of Electricity (LCOE) metric, citing its limitations in evaluating clean energy technologies. LCOE ignores system-wide factors like reliability and grid integration costs, leading to misinformed investment decisions and delayed decarbonization. The Clean Air Task Force report advocates for new metrics, such as Value-Adjusted LCOE

and Full-System Cost Modeling, to better reflect full system costs and support long-term planning. [Read more.](#) (*Clean Technica*)

Chart 5: Illustrative Breakdown of Costs from Several Perspectives (courtesy of CATF)



Source: *Beyond LCOE report, Clean Technica*

Is there enough demand for an EV that runs on solar panels? Aptera Motors is set to unveil its solar-powered auticycle, the Aptera Launch Edition, which leverages energy-harvesting devices on its body to extend battery range. The company has partnered with Tianma, a Chinese flat panel maker, for the main touchscreen display. Aptera's business model focuses on maximizing energy efficiency from vehicle-embedded solar panels, aiming to balance added cost with potential savings on electricity. The auticycle is designed for commuting and errands, targeting the growing market for three-wheeled mobility machines. [Read more.](#) (*Clean Technica*)

The solar energy whack-a-mole continues, & coal power plants keep closing. A 750-megawatt (thermal) solar-plus-storage project is being built by GlassPoint in California's Trona to power Searles Valley Minerals' processing facility. The project will enable SVM to shut down two coal power plants, the last of their kind in California. GlassPoint's concentrating solar technology produces steam for industrial processes, offering superior unit economics and competitive domestic supply chains. The company has already deployed similar projects globally, including a 1.5-gigawatt decarbonization project in Saudi Arabia. [Read more.](#) (*Clean Technica*)

Haven energy & clean energy alliance launch free battery storage program for eligible California homeowners. Haven Energy and Clean Energy Alliance have launched a free battery storage program called Battery Bonus Connect for eligible California homeowners in San Diego County. Funded by the Residential Solar and Storage Equity fund, the initiative provides no-cost home battery systems to income-qualified households, reducing electricity bills and providing backup power protection during grid outages or peak demand periods. Homeowners must meet specific criteria, including living within the CEA service area and participating in the PeakSmart Savers program. [Read more.](#) (*Clean Technica*)

Geothermal energy has a new, 163-gigawatt message for fossil fuels. The US geothermal industry is poised for growth after being included in the National Energy Emergency declaration by President Trump. New Mexico alone has an estimated 163 gigawatts of untapped geothermal energy, with the state's unique combination of subsurface heat and technical expertise making it well-suited for expansion. The industry is also gaining momentum from data center construction and a new project announced by Meta in partnership with XGS Energy, which will increase geothermal electricity capacity in New Mexico by a factor of 10 by 2030. [Read more.](#) (*Clean Technica*)

Startup sneaks more solar energy through the back door. A Virginia-based startup, Earthrise Energy, has closed financing for a 270-megawatt solar power plant in Illinois, Gibson City Solar. The project showcases innovative financing and interconnection strategies, leveraging existing gas peaker plants' grid connections to rapidly introduce more solar energy into the grid. This model allows Earthrise to bypass lengthy permitting processes and supply chain bottlenecks, delivering clean energy faster than traditional projects. [Read more.](#) *(Clean Technica)*

Powering data: NREL partner forum puts everything on the table. More than 300 stakeholders, including utilities, companies, and government officials, gathered at NREL's Partner Forum in Golden, Colorado, to discuss powering data centers. The event highlighted the growing demand for power from US data centers, which has tripled over the past decade. Attendees explored various solutions, including renewable energy sources, grid flexibility, and efficient use of existing power, with no single "silver bullet" solution emerging. [Read more.](#) *(Clean Technica)*

Sodium batteries are coming for your fossil fuels. California startup Unigrad has received a \$3 million grant from the California Energy Commission to manufacture next-generation sodium batteries at scale for stationary energy storage and emerging EV markets. Unigrad's new anode formula provides greater energy density than conventional sodium batteries, addressing weight concerns for mobility applications. The pilot line will produce cylindrical batteries with improved safety, supply chain security, and reduced costs compared to lithium-ion batteries. [Read more.](#) *(Clean Technica)*

U.S. adds 8.6 GW of new solar module manufacturing capacity, one of its strongest quarters growth in U.S. history. The US solar industry added 8.6 GW of new manufacturing capacity in Q1 2025, with eight new or expanded factories in Texas, Ohio, and Arizona. Solar and storage accounted for 82% of new generating capacity installed, with solar dominating America's energy economy. However, new tariffs and potential tax credit changes pose significant uncertainty, threatening the industry's growth and potentially leading to energy shortages, job losses, and factory closures, especially in Trump-won states. [Read more.](#) *(Clean Technica)*

Artificial Intelligence models improve efficiency of battery diagnostics. Researchers at the National Renewable Energy Laboratory (NREL) have developed an artificial intelligence model called Physics-Informed Neural Network (PINN) to predict battery health nearly 1,000 times faster than traditional models. PINN combines physics-based modeling with deep learning to analyze complex datasets and quantify physical degradation mechanisms in batteries. This breakthrough can enhance battery diagnostics, optimize performance, and extend lifespans, paving the way for efficient energy storage management and widespread adoption of renewable energy sources. [Read more.](#) *(Clean Technica)*

The US produced more energy than ever before in 2024. The US produced a record 103 quadrillion British thermal units of energy in 2024, a 1% increase from the previous year's record. Natural gas led with 38%, followed by crude oil at 27%. Coal production declined to its lowest level since 1964, while natural gas plant liquids and biofuels set new records. Solar and wind energy also increased by 25% and 8%, respectively, contributing to a record total renewable energy production in the US. [Read more.](#) *(Clean Technica)*

World first' seabed data centre will run on offshore wind power. China has launched a world-first commercial-scale underwater data centre project powered by offshore wind. Hicloud Technology will invest \$222m in the Shanghai Lingang UDC, which will source 90% of its power from nearby wind farms. The project offers energy efficiency gains of up to 60% through seawater-based cooling and access to real estate near major cities. This marks a significant step towards reducing data centre energy needs, with some operators exploring gas or nuclear power for their facilities. [Read more.](#) *(Recharge)*

Chart 6: Deployment of the Data Centre Pilot Off Hainan



Source: Hicloud, Recharge News

Why green investors keep getting carried away. The recent green technology boom is remarkably similar to the alternative energy bubble of 2008, driven by investors' unrealistic expectations about new energy technologies. The current frenzy was sparked by tax credits and public awareness campaigns, leading to a surge in venture capital investments and market valuations. However, the collapse has begun, with several listed companies filing for protection and oil giants cutting back on alternative energy investments. [Read more.](#) (Reuters)

Record renewables capacity falls short of global target, REN21 says. A record 740 gigawatts of renewable energy capacity was added worldwide last year, but still falls short of the global goal to triple capacity by 2030. According to REN21's report, this shortfall amounts to 6.2 terawatts, more than all renewables deployed to date. Solar photovoltaic accounted for 81% of new capacity, with rooftop solar increasing in developing countries and technology costs falling. Analysts say the world is not on course to meet the 1.5C warming limit target, citing a lack of coherent policies and infrastructure development. [Read more.](#) (Reuters)

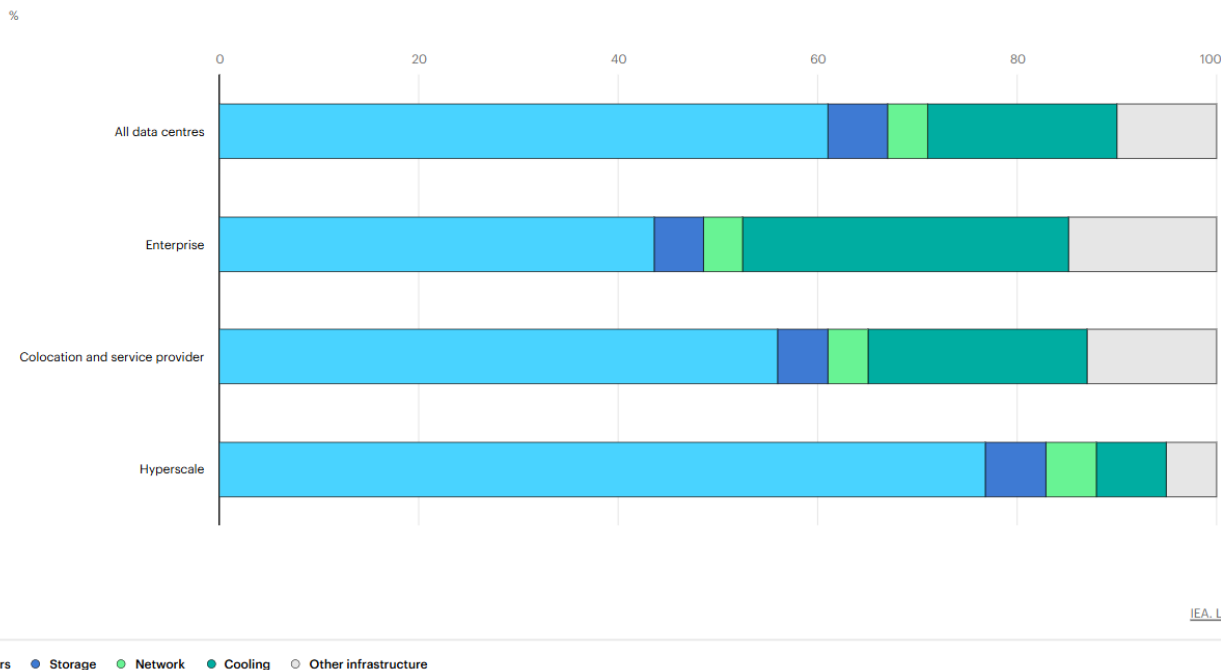
New York plans new advanced nuclear power plant upstate, governor says. New York plans to build an advanced nuclear plant with a minimum capacity of 1 gigawatt, Governor Kathy Hochul announced. The project aims to provide reliable zero-emissions electricity as the state experiences record electricity demand from data centers and industrial electrification. New York will partially finance the plant and purchase electricity from it, seeking partners for the upstate project, which is expected to be one of the first new U.S. reactors in a generation. [Read more.](#) (Reuters)

Renewable energy remains cheapest power builds as new gas plants get pricier. Renewable energy such as solar and onshore wind has become the cheapest and quickest power generation source in the US, even without government subsidies, according to Lazard's report. In contrast, new gas-fired power plants have reached a 10-year high in construction costs due to record electricity use and equipment backlogs. This shift highlights concerns about meeting rising demand amidst growing support for fossil fuels versus renewable energy, with implications for grid reliability and climate change. [Read more.](#) (Reuters)

Companies considering 2 gigawatts of data centers near NY hydropower sites, power authority says. Companies are considering building 2 gigawatts of data centers near New York Power Authority hydropower facilities, NYPA CEO Justin Driscoll said. This move comes as tech companies spend tens of billions on AI data centers, expected to drive U.S. power use to record highs this year and in 2026. The additional data centers would bring the total online capacity to 4.5 gigawatts by 2035, meeting growing demand from large energy users. [Read more.](#) (Reuters)

Data center demand to push US power use to record highs in 2025, '26, EIA says. The US Energy Information Administration projects record-high electricity consumption in 2025 and 2026, driven by growing demand from data centers supporting AI and cryptocurrency operations. Residential, commercial, and industrial customers are also expected to use more electricity for heat and transportation. The EIA forecasts a slight decline in natural gas' share of power generation and an increase in renewable output, with nuclear power's share holding steady before easing in 2026. [Read more.](#) (Reuters)

Chart 7: Share Of Electricity Consumption by Data Centre and Equipment Type, 2024



Source: IEA

US solar energy growth to slow as Washington priorities shift. US solar energy growth is expected to slow down over the next five years due to shifting federal priorities favoring fossil fuels, tariffs, and other challenges. A report by the Solar Energy Industries Association and Wood Mackenzie forecasts a 10% decline in new solar capacity by 2030 compared to 2025, with potential cuts to clean energy tax credits also posing a threat to the industry's growth. [Read more.](#) (Reuters)

Solar provided 87% of new US generating capacity in April. Solar provided 87% of new US generating capacity in April, marking the twentieth consecutive month it led as the largest source. Solar and wind combined accounted for almost 96% of new capacity added in the first third of 2025. Renewable energy sources now claim a 31.8% share of total US utility-scale generating capacity, with solar expected to become the second-largest source by 2027, surpassing coal and wind. [Read more.](#) (Renewables Now)

California fast-tracks 1.1 GW solar, 4.6 GWh battery project. The California Energy Commission has granted fast-track clearance to the Darden Clean Energy Project (DCEP), a 1.1 GW solar power project with up to 4.6 GWh battery storage capacity in western Fresno County. Developed by Intersect Power, the project will create over 2,000 construction jobs and provide \$2 million in community investments. It is the largest solar-plus-storage initiative globally and the first under California's Opt-In Certification program, which accelerates permitting for eligible clean energy projects. [Read more.](#) (Renewables Now)

Scoping launched on 200-MW California solar plan by Clearway unit. The US Bureau of Land Management (BLM) has launched a public comment period for a proposed 200-MW solar farm with storage on California's Riverside County public lands. The Redonda PV LLC project, an indirect subsidiary of Clearway Energy Group, will be built on 887 acres and backed by up to 250 MW of battery energy storage. Comments are due by July 1, with an in-person meeting scheduled for June 18. [Read more.](#) (*Renewables Now*)

Regulatory Updates

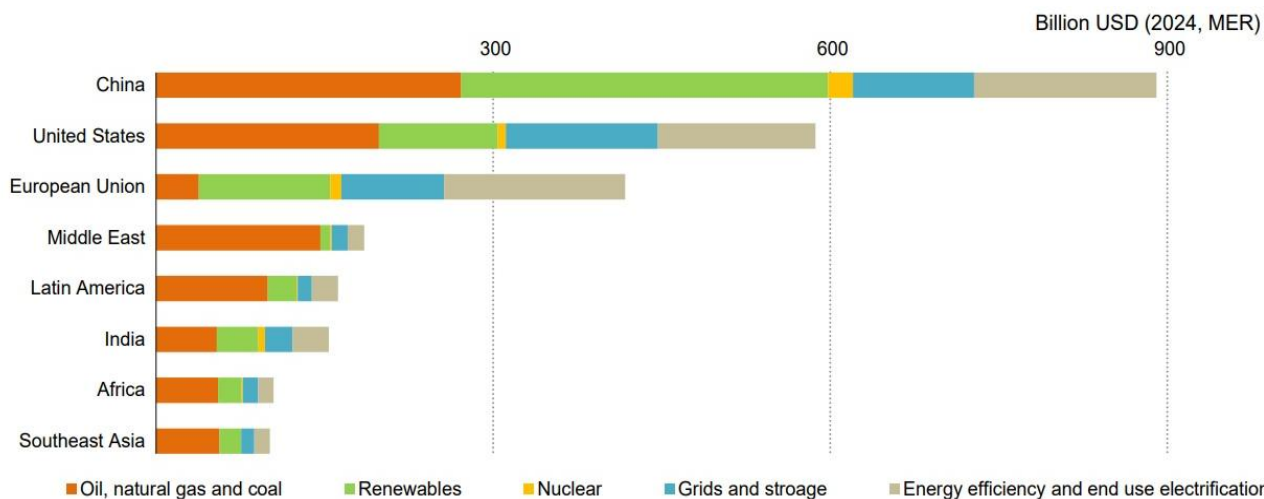
U.S. EIA forecasts new export licensing requirements will reduce U.S. ethane exports. The U.S. Energy Information Administration forecasts a significant reduction in U.S. ethane exports due to new licensing requirements for shipments to China, which accounts for 47% of U.S. ethane exports. Two terminals on the U.S. Gulf Coast have received notice from the U.S. Department of Commerce that they need special licenses to export ethane to China, citing an "unacceptable risk" it could be used for military purposes. This has resulted in several vessels being stalled or diverted, with no shipments leaving since May 23. [Read more.](#) (*Clean Technica*)

Race for Texas electrons unites clean and fossil groups to kill anti-renewables bills. An unlikely coalition of clean and fossil energy groups united to kill anti-renewables bills in Texas, driven by concern over potential future power shortages. The alliance, comprising historically antagonistic parties, played a key role in defeating the punitive legislation. Judd Messer, Texas vice-president of Advanced Power Alliance, credits this unity for their success, stating that it wasn't just renewables and fossil groups isolated from each other. [Read more.](#) (*Recharge*)

Investments and Fundraising

Global clean energy spending to reach USD 2.2trn in 2025 - IEA. Global clean energy investment is expected to reach a record USD 2.2 trillion in 2025, driven by efforts to reduce emissions, industrial policy, energy security, and cost competitiveness of electricity-based solutions. Total global energy investment will rise to USD 3.3 trillion, with solar PV drawing the most capital at USD 450 billion. China is solidifying its position as the world's largest energy investor, surpassing the US and EU combined. Grid investment needs to increase to maintain electricity security by the early 2030s. [Read more.](#) (*Renewables Now*)

Chart 8: Energy Investment by Region, 2025



IEA. CC BY 4.0.

Source: IEA, World Energy Investment 2025, Renewables Now

Millions to be invested in blue economy projects in “Big Ocean States”. Outrigger Impact is investing over \$5 million in island economies through its Outrigger Technical Assistance Facility (OTAF), with a long-term ambition of targeting up to \$100 million investments. The fund aims to support sustainable business models and develop more resilient economies, conserving biodiversity and ecosystems. Investing in island economies is crucial due to their reliance on ocean-based sectors and vulnerability to climate change impacts, which can wipe out years' worth of GDP. [Read more.](#) *(Clean Technica)*

Orsted 'eyes \$2.3 bn bounty from onshore wind sale'. Orsted is reportedly selling 800MW of European onshore wind assets, aiming to raise up to \$2.3 billion from the sale. The majority of the operating wind farms are in Ireland, with others located in the UK, Germany, and Spain. This sale is part of Orsted's strategy to focus on offshore wind projects, where it has a strong presence and growth opportunities. [Read more.](#) *(Recharge)*

US Energy Department takes axe to wind and solar technology funding. The US Department of Energy is proposing a significant reduction in funding for wind and solar technology programs as part of President Donald Trump's efforts to prioritize fossil fuels and nuclear power. The proposed budget cut would slash the Office of Energy Efficiency and Renewable Energy (EERE) by 74% to \$888m, potentially stifling clean energy development and contradicting previous government initiatives supporting renewable energy growth. [Read more.](#) *(Recharge)*

Nextwind raises \$1.6 billion for German wind energy expansion. Nextwind, a European renewable energy provider, has secured €1.4 billion (\$1.6 billion) in debt financing for the expansion of its wind energy project in Germany. The deal includes an option to raise an additional €1.3 billion over five years if capacity targets are met. Nextwind aims to increase its onshore wind generation capacity to 3 GW by 2028 and plans to repower half of its 37 wind farms with new technology. [Read more.](#) *(Reuters)*

US clean energy solutions firm Catalyst Power attracts new investor. Catalyst Power Holdings LLC, a US clean energy solutions firm based in New York, has secured an equity investment from DRW Energy Trading LLC to support its growth plans. The investment will accelerate Catalyst Power's expansion and enhance its offerings for commercial and industrial customers. Catalyst Power provides energy supply solutions, connected microgrids, energy storage, CHP, and solar options, with the goal of positioning itself as a leading provider in the clean energy sector. [Read more.](#) *(Renewables Now)*

Renewables firm Scale Microgrids banks USD 275m for projects across US. Scale Microgrids has secured \$275 million in project financing to support 140 MW of distributed generation projects across the US, including microgrids, community-scale solar and storage, and battery installations. The funding will be directed to projects in states such as New York, Pennsylvania, and California, with many already under construction. A consortium led by KeyBanc Capital Markets arranged the financing, which includes various loan types and a credit insurance policy from Energetic Capital. [Read more.](#) *(Renewables Now)*

Earthrise Energy obtains USD 630m to fund Illinois solar project. Earthrise Energy, an independent power producer, secured \$630 million in tax equity and debt financing for its 270-MW Gibson City Solar project in Illinois, targeting a commercial operations date of 2026. The deal includes a construction-to-term loan, tax equity bridge loan, and letter of credit facility, with BBVA, Intesa Sanpaolo, and Nord/LB as lead arrangers. This is one of the first solar project financings to utilize the Illinois Power Agency's Indexed Renewable Energy Credit offtake contract. [Read more.](#) *(Renewables Now)*

CIG to pour USD 870m into utility-scale solar in Texas area. Carey International Group (CIG) is investing USD 870 million in utility-scale solar projects in Texas through its internal energy platform, with construction already underway by SYMX Energy Corp. The new photovoltaic parks will connect to the Electric Reliability Council of Texas grid and are expected to be energized next summer. CIG's chief investment officer notes that utility-scale solar remains the lowest-cost power production method, supporting megatrends like AI, data centers, and industrial reshoring in the US. [Read more.](#) *(Renewables Now)*

Company News

Some interesting news from two upcoming US Electric Vehicle Firms. Allison Transmission Holdings and Dana Incorporated, two US-based firms with over 100 years of experience, have completed a \$2.7 billion transaction to expand their presence in global electric vehicle markets. The deal involves Allison acquiring Dana's off-highway business, enabling it to offer a wider range of commercial-duty powertrain solutions worldwide. Both companies will focus on electrification, with Allison targeting the Asia-Pacific market and Dana concentrating on fleet owners' growing demand for electric vehicles. [Read more.](#) *(Clean Technica)*

Swiss Startup launches solar gasoline at fossil fuel industry. Swiss startup Synhelion has launched "solar gasoline," a sustainable alternative to fossil fuels that stores solar energy for later use as a standard input for synthetic liquid fuels. The company's integrated process uses solar heat to produce syngas from biogas and water, creating a drop-in replacement for traditional gasoline. Synhelion showcased its solar gasoline in a classic 1985 Audi Sport quattro, demonstrating its compatibility with existing internal combustion engines without modifications or damage. [Read more.](#) *(Clean Technica)*

EnergySage & Third Act launch partnership to empower households with rooftop solar. EnergySage, a leading home electrification marketplace, has partnered with Third Act, a grassroots climate organization founded by environmentalist Bill McKibben, to make rooftop solar more accessible and affordable for homeowners. The partnership will host a free webinar on July 15 to demystify the solar process and empower participants with knowledge about costs, savings, installation, and incentives. Homeowners can answer basic questions, receive quotes from local installers, and access personalized support through EnergySage's platform. [Read more.](#) *(Clean Technica)*

LG Energy solution opens new LFP battery cell lines in Michigan to support energy storage as demand cools from EV manufacturers. LG Energy Solution has opened a new lithium-iron phosphate (LFP) battery plant in Holland, Michigan, marking a shift from electric vehicles to energy storage systems. The \$1.4 billion investment will create up to 1,700 jobs and generate \$2.5 billion annually, making Michigan a top state for grid-scale battery manufacturing. The plant's focus on LFP batteries is timely, as they offer high-loading/high-density designs suitable for long-duration energy storage, supporting the US grid by storing renewable or fossil-generated energy. [Read more.](#) *(Clean Technica)*

Ford Battery factory in Michigan fights for survival. Ford's battery factory in Marshall, Michigan is facing uncertainty due to the potential revocation of incentives under the Inflation Reduction Act, which was adopted by Democrats and now targeted for repeal by Republicans. The factory, a key step forward for Ford's electric vehicle plans, will manufacture LFP cells and employ 1,700 American workers. However, its partnership with Chinese battery manufacturer CATL has raised concerns among some lawmakers, who may block the incentives needed to make the project financially viable. [Read more.](#) *(Clean Technica)*

Renogy's 200W ShadowFlux™ Panel is built for real-world solar, shade & all. Renogy's new 200W ShadowFlux panel is designed to perform well in real-world conditions, including shade and heat. It features proprietary anti-shading technology that minimizes power loss and hot spots, retaining up to 65% of its output even when 25% shaded. The panel uses N-type monocrystalline cells for higher efficiency, lower degradation, and better performance at high temperatures. It's compact, lightweight, and built with longevity in mind, making it ideal for off-grid, mobile, or shaded installs. [Read more.](#) *(Clean Technica)*

Chart 9: Renogy 200W ShadowFlux™ Anti-Shading N-Type Solar Panel



Source: Clean Technica

SolarEdge expands U.S. Manufacturing in Salt Lake City, Utah. SolarEdge Technologies has expanded its U.S. manufacturing in Salt Lake City, Utah, marking a key milestone in its domestic supply chain strategy. The new site joins facilities in Florida and Texas, creating over 2,000 jobs and enabling the production of SolarEdge's full U.S. residential product suite on American soil. The company will manufacture its Home Battery, Power Optimizer, and inverters, support high-skill local manufacturing jobs and bolstering America's clean energy infrastructure with domestically produced technology. [Read more.](#) (Clean Technica)

Leap powers national grid's virtual power plant initiative in Massachusetts. Leap, a virtual power plant (VPP) platform, is expanding its collaboration with National Grid to selected facilities in Massachusetts, building on a successful pilot project in New York. The initiative will enable National Grid's office buildings to participate in the state's Clean Peak Standard and ConnectedSolutions grid services programs, lowering electricity usage during grid strain periods. Leap's software-only solution aggregates distributed energy resources to balance the grid and reduce carbon emissions. [Read more.](#) (Clean Technica)

Toyota & Airbus push hydrogen fuel cell dreams. Toyota and Airbus have announced partnerships to promote hydrogen fuel cell technology for transportation. Toyota has partnered with VDL Group to test four heavy trucks equipped with next-generation fuel cells, while Airbus has partnered with MTU Aero Engines to accelerate progress toward hydrogen-powered aircraft propulsion. However, critics argue that these announcements are "magic realism," ignoring the emissions problem and high cost of green hydrogen, which can only be produced from renewable energy sources. [Read more.](#) (Clean Technica)

GE Vernova cleared to build up to 18MW offshore wind prototype. GE Vernova has received approval to build an up to 18MW prototype offshore wind turbine, one of the most powerful ever produced by a Western manufacturer. This development comes despite GE Vernova's recent statement that it is not interested in the offshore wind sector due to its focus on clearing an unprofitable backlog for its turbines at sea. The prototype aims to push the boundaries of offshore wind technology. [Read more.](#) (Recharge)

Google's new mission: Unlock transmission capacity for more wind to power data centres. Google has announced a new mission to unlock transmission capacity for more wind power to fuel its data centers. The move comes as US onshore wind faces challenges from President Donald Trump's policies, threatening its cost competitiveness over the next four years. Interconnection delays and grid congestion are hindering new projects, particularly in the Great Plains region with abundant wind resources, impacting profitability of existing ones. [Read more.](#) (Recharge)

TotalEnergies biggest German offshore wind developer after latest tender win. TotalEnergies has won its third consecutive gigascale acreage at a German offshore wind tender, securing the 1GW N-9.4 far-offshore site northwest of Heligoland with a pledge to pay €180m (\$203m). The company outbid another unknown bidder in the "dynamic auction procedure", which followed zero-subsidy bids from two bidders earlier this month. TotalEnergies now has a 7.5GW development portfolio, making it Germany's largest offshore wind developer. [Read more.](#) (Recharge)

TotalEnergies links with AI firm to 'boost renewables rollout'. TotalEnergies has partnered with French AI firm Mistral to develop artificial intelligence solutions that support its multi-energy strategy. The partnership involves creating a joint innovation lab where experts from both companies will work together. This collaboration aims to boost the rollout of renewables as part of TotalEnergies' broader energy strategy, which includes diversifying into low-carbon sectors. [Read more.](#) (Recharge)

Texas firm aims to build world's largest data energy complex with nuclear, gas, solar. Fermi America, a Texas company co-founded by former US Energy Secretary Rick Perry, plans to build the world's largest energy and data complex, dubbed "Hypergrid", powered by nuclear, natural gas, and solar energy. The project, launched in partnership with Texas Tech University on July 4, aims to deliver up to 11 gigawatts of power, enough for over 8.2 million homes, with a potential campus size of nearly 5,800 acres near the Department of Energy's Pantex nuclear weapons plant. [Read more.](#) (Reuters)

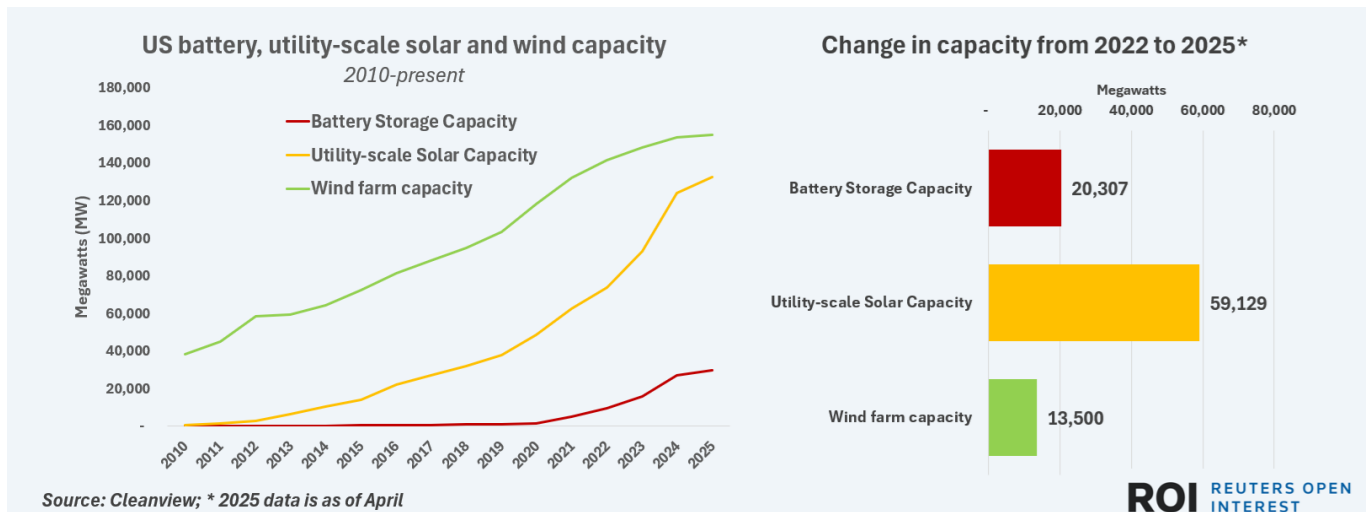
Renewable energy firm EDPR sticking to US plans despite tax credit cuts. EDP Renovaveis (EDPR), the world's fourth-largest wind energy producer, plans to stick to its goal of installing up to 1.75 gigawatts of new capacity in the US by 2026 despite potential tax credit cuts. The company's CEO, Miguel Stilwell d'Andrade, stated that EDPR will maintain its forecasts for 2025 and 2026, with a new business plan to be disclosed on November 6 outlining plans beyond 2027, pending Senate approval of the reconciliation bill. [Read more.](#) (Reuters)

Meta signs deal for advanced geothermal power in New Mexico. Meta has signed an agreement with XGS Energy to develop 150 megawatts of advanced geothermal electricity in New Mexico, which will power the company's artificial intelligence expansion. The project is part of a growing trend among tech giants like Meta and Google to secure massive amounts of clean energy for their data centers. Advanced geothermal energy does not rely on natural water sources, making it an attractive option for companies with emissions reduction goals. [Read more.](#) (Reuters)

German utility RWE and tech giant Amazon announce partnership. German utility RWE and tech giant Amazon announced a strategic partnership where RWE will provide clean power delivery from its wind and solar facilities in exchange for cloud services. The agreement covers artificial intelligence and data analytics, with ties expected to deepen between the two companies. Amazon has already contracted 1.1 gigawatts of renewable energy from RWE in the US, while RWE's Supply & Trading division uses AWS cloud services for mission-critical applications, achieving 30% performance improvements. [Read more.](#) (Reuters)

US power sector battery storage momentum keeps charging on. The US power sector is witnessing rapid growth in battery storage installations, with volumes scaling new records nearly every month due to declining costs and increasing energy density levels. Utilities are prioritizing battery deployments, which now often exceed other power sources during key periods in certain markets. Battery systems are stabilizing electricity networks by controlling frequency and voltage levels, preventing grid overloads, and storing excess solar power output for peak consumption periods. [Read more.](#) (Reuters)

Chart 10: US Battery Storage, Utility Scale Solar and Wind Farm Capacity



Source: Reuters Open Interest

NextEra CEO says renewables needed as bridge to expanding gas power. NextEra CEO John Ketchum stated that renewable energy sources like wind and solar power are necessary to meet growing US energy demand due to near-term obstacles in increasing natural gas capacity. He cited competition, high costs, labor shortages, and tariffs as reasons why new gas-fired plants won't be online for at least seven years. Ketchum emphasized the need for a "bridge" to 2032 when new gas is expected to become more expensive, warning of potential power shortages without renewables. [Read more.](#) (Reuters)

Array Technologies to buy racking provider APA Solar for USD 179m. Array Technologies has agreed to acquire APA Solar, a provider of engineered foundation solutions and fixed-tilt mounting systems, in a \$179 million deal. The acquisition will enable Array to offer an integrated tracker and foundation system suitable for various soil conditions. APA's products will still be available on the market, but its integration with Array will create a single solution platform. The deal is expected to be accretive to Array's earnings per share in the first year. [Read more.](#) (Renewables Now)

Solar power company Emeren agrees to go private. Emeren Group Ltd, a solar project developer and owner, has agreed to go private after signing a deal with Shurya Vitra Ltd for \$0.20 per ordinary share or \$2.00 per American Depositary Share. The transaction is expected to close in Q3, subject to shareholder approval, and will result in Emeren's delisting from the New York Stock Exchange. As of March 31, 2025, Emeren owned 293 MW of solar PV and 61 MWh of storage assets. [Read more.](#) (Renewables Now)

GlassPoint to deploy 750 MW of solar thermal power for SVM in US. GlassPoint, a US-based developer of solar steam projects, will deploy 750 MW of solar thermal power for Searles Valley Minerals (SVM) in California. The project aims to decarbonize SVM's manufacturing facility by replacing coal and natural gas boilers with solar steam technology, reducing carbon emissions by up to 500,000 metric tonnes per year. GlassPoint's advanced Enclosed Trough technology will utilize mirrors housed in greenhouses to heat pipes containing liquid salt. [Read more.](#) (Renewables Now)

PV module maker SEG Solar closes sale of USD 50m in tax credits. SEG Solar, a US-based PV module manufacturer, has closed a deal to sell up to \$50 million in Section 45X Advanced Manufacturing Production Tax Credits. The sale is tied to production output and sales of solar modules made in Houston, Texas, with an unnamed public company paying \$0.94 per dollar of tax credit value. This transaction will provide SEG Solar with significant cash flow, strengthening its financial position and enabling further investment in US manufacturing. [Read more.](#) (Renewables Now)

T1 Energy drives ahead with 5-GW solar cell project in Texas. T1 Energy Inc, a US solar and battery technology company, has selected Yates Construction to provide preconstruction services and site preparations for its planned 5-GW solar cell facility in Texas, called G2_Austin. The \$850-million project is expected to create up to 1,800 jobs by the end of 2026 and will use TOPCon technology to address demand for US solar cells and modules. [Read more.](#) *(Renewables Now)*

Invenergy breaks ground on 240-MW solar project in Ohio. Invenergy LLC has started building the Pleasant Prairie Solar Energy Center, a 240-MW solar farm in Ohio's Galloway, Franklin County. The estimated \$230 million project is expected to generate electricity for 46,000 homes annually and be commissioned in early 2027. Invenergy will use panels from its majority-owned company Illuminate USA, manufactured at an Ohio facility. This project adds to Invenergy's existing 1 GW of solar projects in Ohio, with plans for further development. [Read more.](#) *(Renewables Now)*

Avangrid energises 44-MW solar park in California's Kern County. Avangrid, a subsidiary of Iberdrola SA, has commissioned its 44-MW Camino solar park in California's Kern County, increasing the company's total operational capacity in the US to 10.5 GW. The plant features 105,000 panels and is expected to power around 14,000 homes annually, generating \$15 million in state and local tax revenue over its lifespan. Located near Avangrid's existing Manzana wind farm, Camino Solar is the company's first photovoltaic farm in California and seventh power generation site in the state. [Read more.](#) *(Renewables Now)*

Qcells launches solar recycling arm. Qcells, a unit of Hanwha Group, launched EcoRecycle, its solar panel recycling arm, with a US facility in Cartersville, Georgia, set to begin operations in 2025. The facility will process around 500,000 panels annually, recovering materials like aluminum, glass, silver, and copper. This move marks Qcells as the first C-Si solar panel producer with a full value chain, including manufacturing and recycling on US soil. [Read more.](#) *(Renewables Now)*

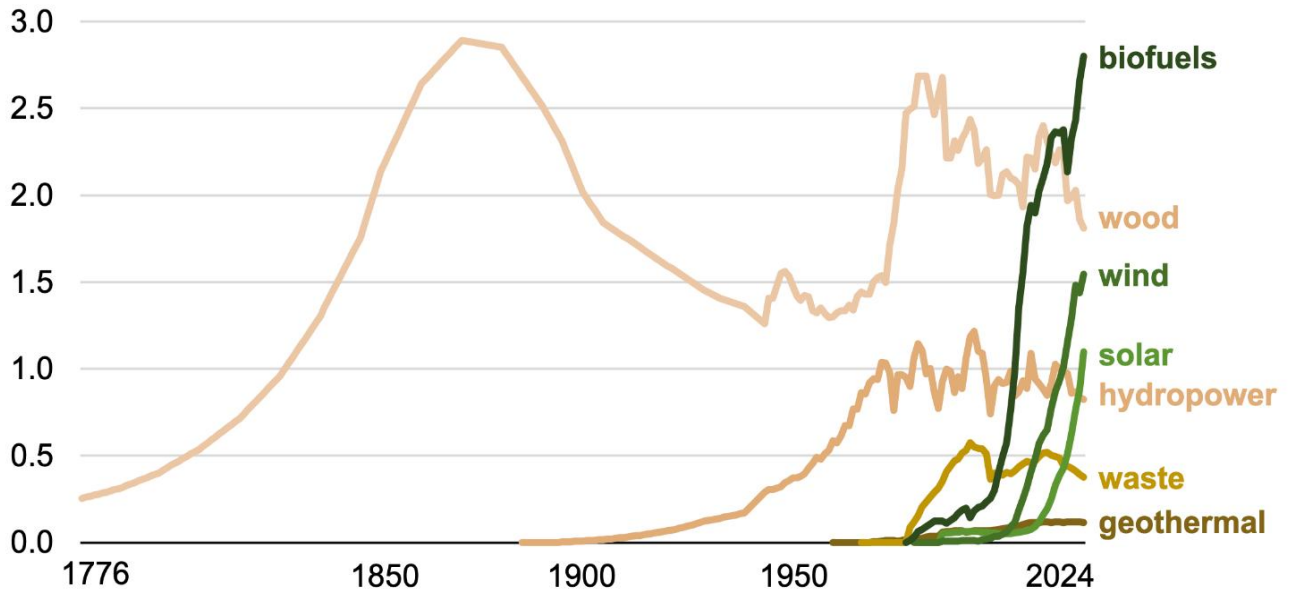
Chart 11: Image by FLEXRACK by Qcells



Source: Renewables Now

CLEANTECH CHART OF THE MONTH

Chart 12: U.S. Renewable Energy Consumption (1776-2024) (Quadrillion British Thermal Units)



Source: U.S. Energy Information Administration, Monthly Energy Review.

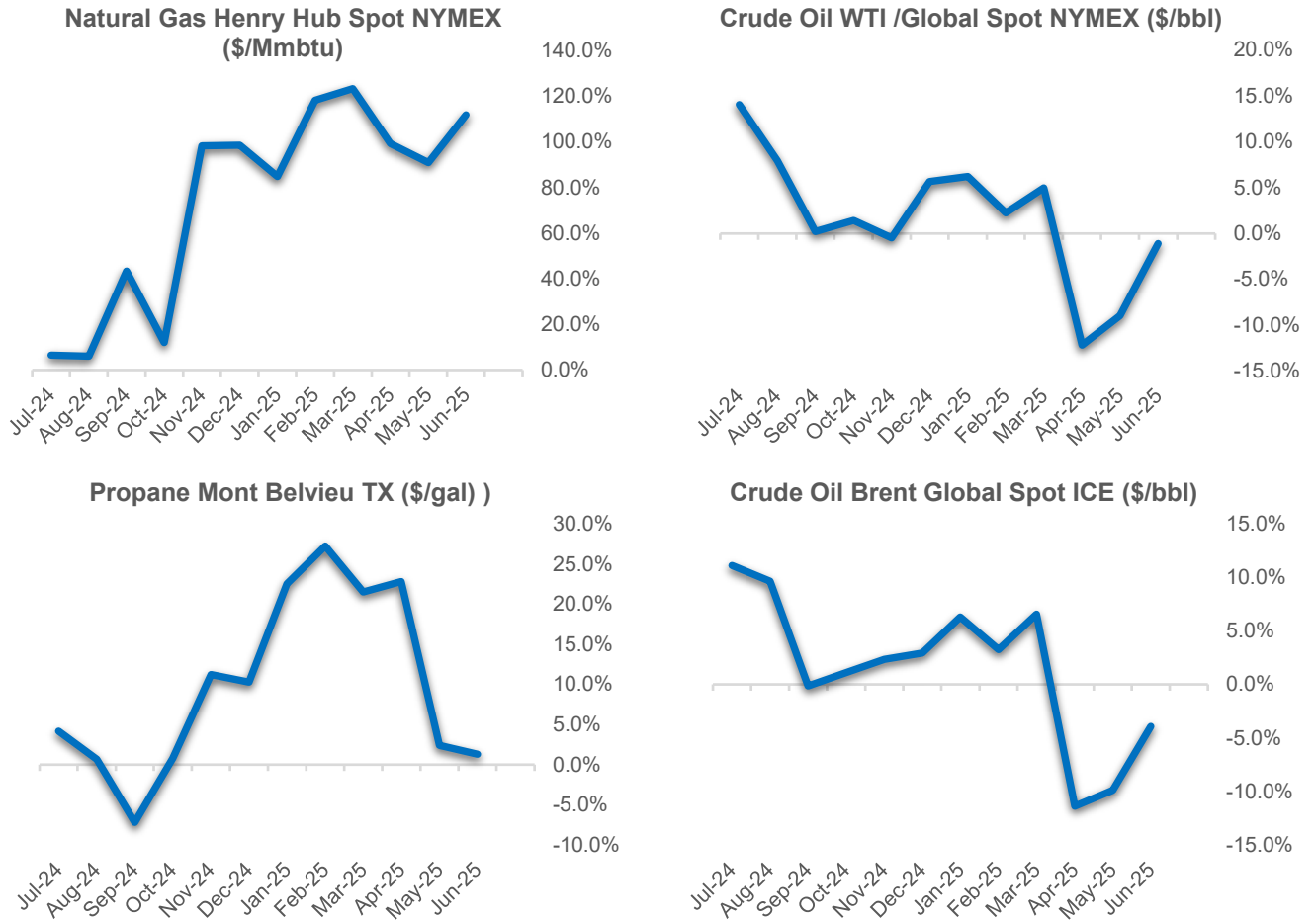
Data values: Renewable Energy Consumption by Source and Estimated primary energy consumption in the United States, selected years, 1635–1945.

CLEANTECH COMMODITIES

CleanTech Commodities	Price as of 30 June 2025	1M	3M	6M	1Y	YTD
Natural Gas and Crude Oil						
Natural Gas Henry Hub Spot NYMEX (\$/Mmbtu)	3.46	▲ 20.91%	▼ -15.86%	▲ 1.71%	▲ 90.00%	▼ -11.56%
Crude Oil WTI /Global Spot NYMEX (\$/bbl)	66.30	▲ 7.88%	▼ -7.75%	▼ -8.48%	▼ -4.71%	▼ -5.25%
Crude Oil Brent Global Spot ICE (\$/bbl)	68.15	▲ 5.95%	▼ -11.76%	▼ -8.62%	▼ -6.96%	▼ -8.84%
Propane Mont Belvieu TX (\$/gal)	0.72	▼ -1.10%	▼ -20.27%	▼ -11.66%	▼ -3.36%	▼ -24.84%
Refined Products						
Gasoline Conv Regular NY Harbor (\$/gal)	2.10	▲ 9.94%	▲ 0.05%	▲ 1.55%	▲ 0.43%	▲ 9.19%
Diesel No. 2 Low Sulfur NY Harbor (\$/gal)	2.37	▲ 17.47%	▲ 2.47%	▲ 2.29%	▲ 6.96%	▲ 0.64%
Heating Oil No. 2 NY Harbor (\$/gal)	2.26	▲ 17.67%	▲ 2.22%	▲ 0.80%	▲ 6.41%	▲ 1.12%
Jet Fuel Kerosene-Type U.S. Gulf Coast (\$/gal)	2.18	▲ 17.93%	▲ 1.97%	▼ -2.29%	▲ 4.87%	▲ 1.49%
Gasoil Near Term (IFEU \$/mt)	677.00	▲ 13.02%	▼ -1.31%	▼ -2.62%	▲ 1.20%	▼ -1.99%
Ethanol Iowa (CRB \$/gallon)	1.55	▼ -4.62%	▼ -4.62%	▲ 5.44%	▲ 5.44%	▲ 0.00%
WTI USG 3:2:1 Crack Spread	24.37	▲ 19.08%	▲ 12.29%	▲ 59.33%	▲ 56.28%	▲ 33.50%
Metals						
Copper Cash Official LME (\$/mt)	10040.00	▲ 4.33%	▲ 4.16%	▲ 15.32%	▲ 6.50%	▲ 7.22%
Lithium Carbonate 99.2% USGS (\$/t)	8300.00	▼ -4.05%	▼ -19.02%	▼ -19.61%	▼ -19.22%	▼ -21.14%
Nickel Cash Official LME (\$/mt)	15020.00	▼ -0.86%	▼ -4.42%	▼ -0.53%	▼ -3.28%	▼ -2.85%
Cobalt Cash Official LME (\$/mt)	32890.00	▼ -1.14%	▼ -2.12%	▲ 35.35%	▲ 35.52%	▲ 43.97%
Platinum Indust (Engelhard) (\$/ozt)	1355.00	▲ 25.93%	▲ 35.77%	▲ 48.09%	▲ 33.37%	▲ 42.93%
Uranium Near Term (NYM \$/lbs)	74.35	▲ 3.70%	▲ 15.72%	▲ 1.99%	▼ -6.65%	▲ 14.47%

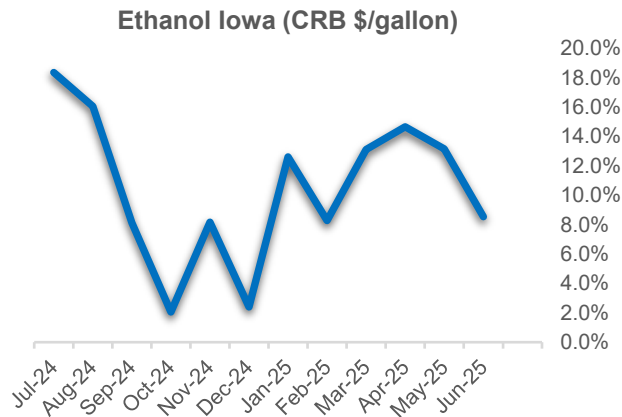
Source: Intro-act, FactSet, Data as of 06/30/25.

Chart 13: Indexed Change in Natural Gas and Crude Oil Prices in Last 12 Months



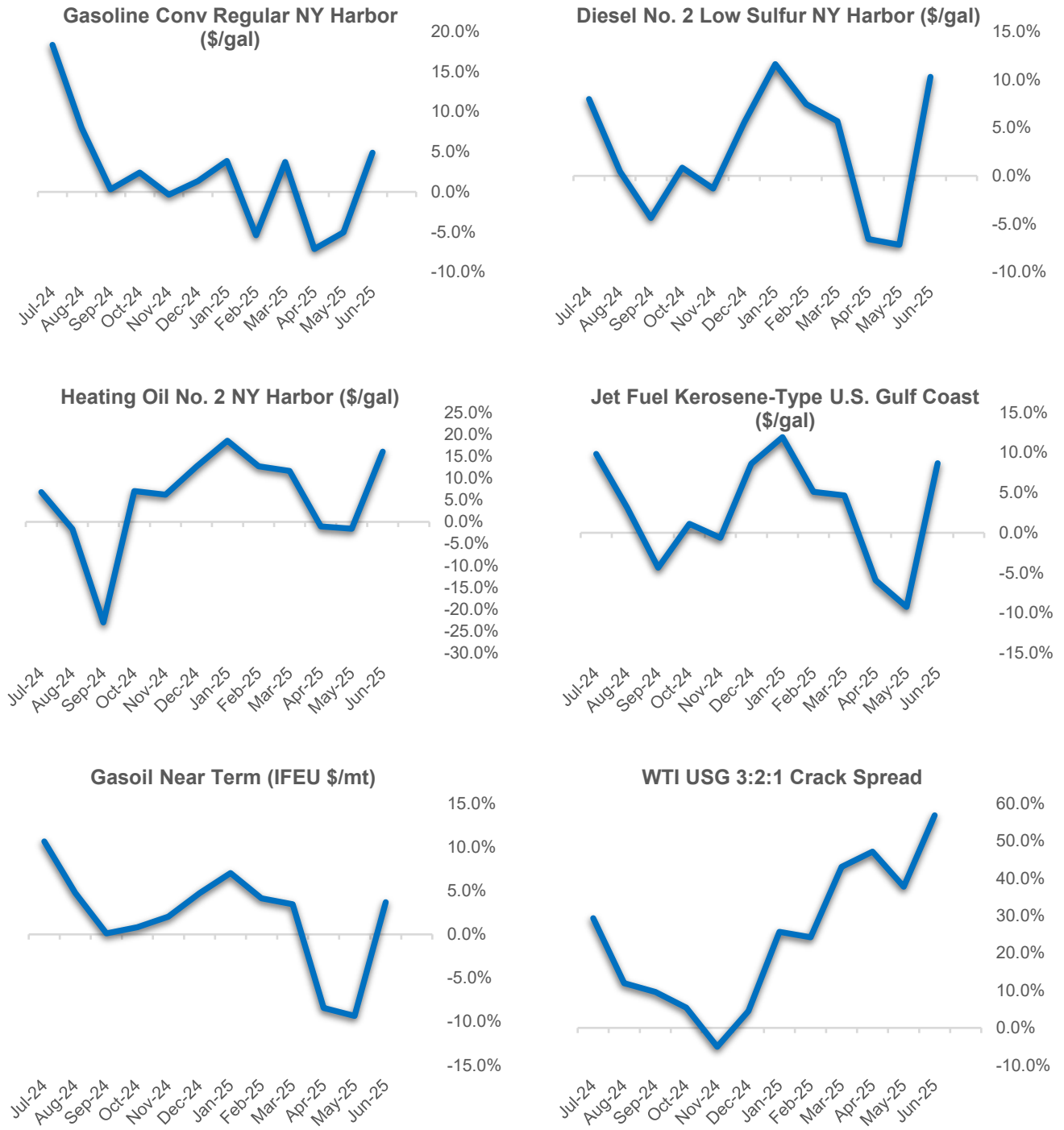
Source: Intro-act, FactSet, Data as of 06/30/25.

Chart 11: Indexed Change in Ethanol Prices in Last 12 Months



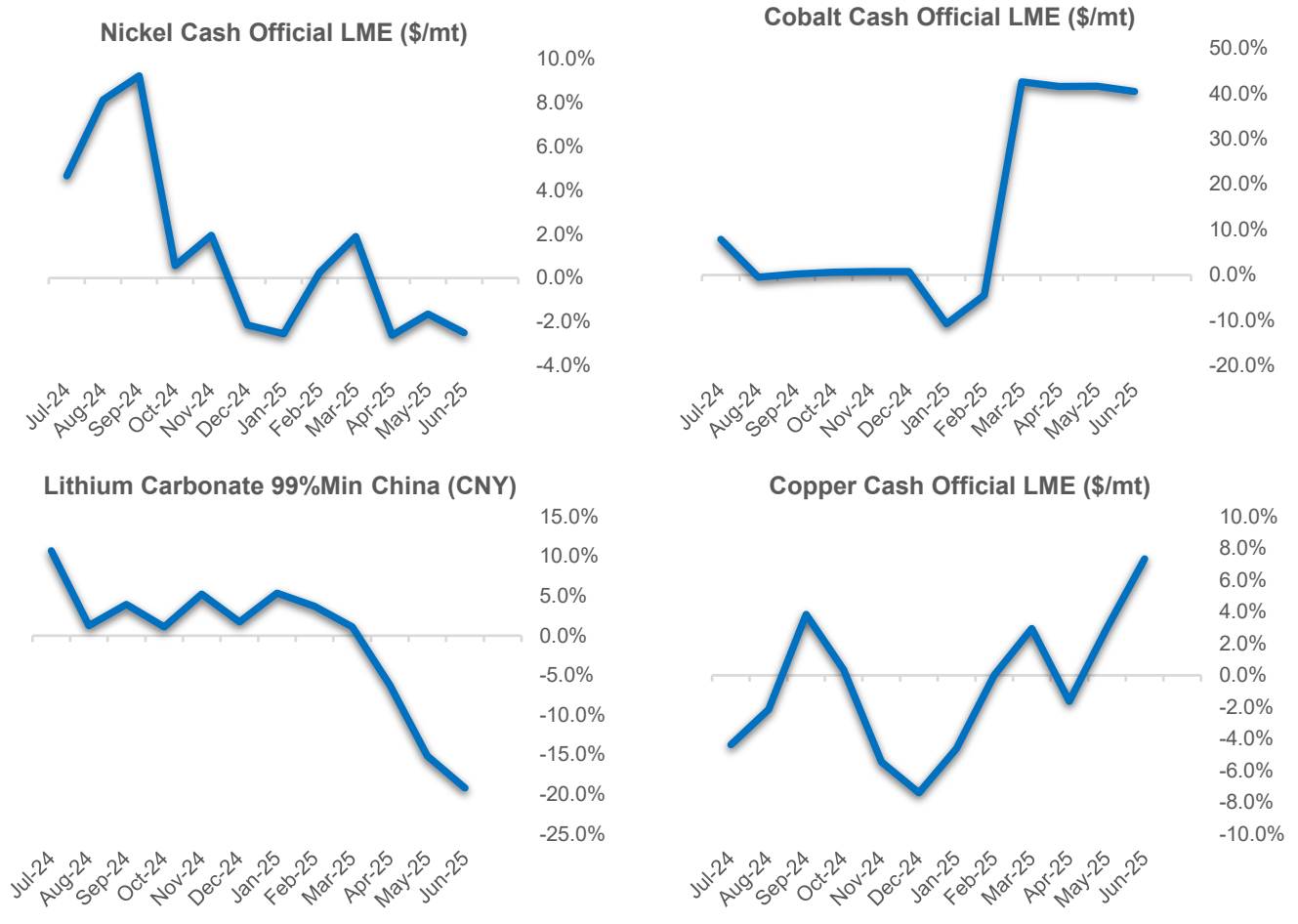
Source: Intro-act, FactSet, Data as of 06/30/25.

Chart 14: Indexed Change in Refined Products in Prices Last 12 Months



Source: Intro-act, FactSet Data as of 05/31/25.

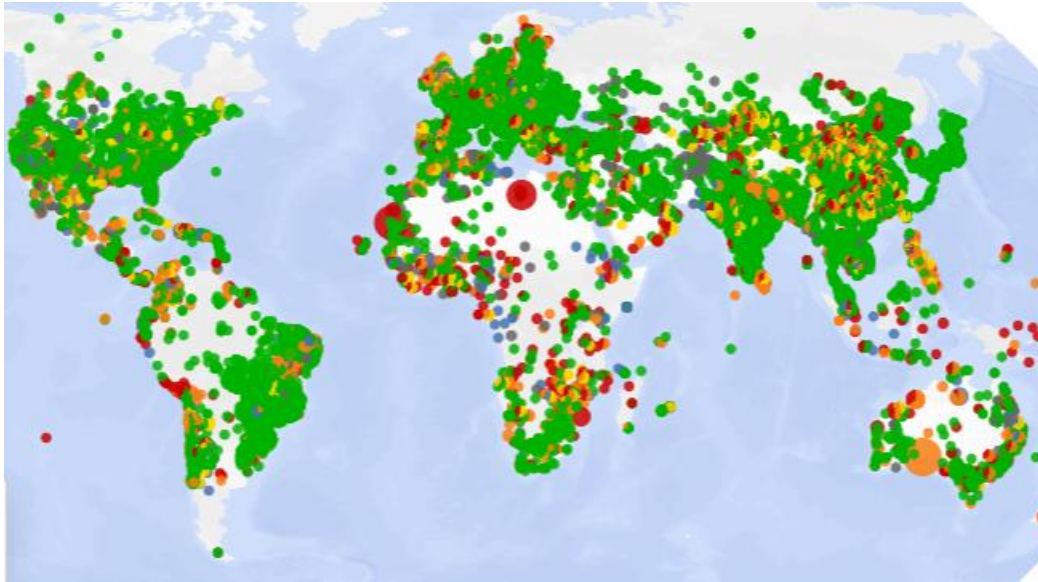
Chart 15: Indexed Change in Cleantech Metal Prices Last 12 Months



Source: Intro-act, FactSet. Data as of 05/31/25.

CLEANTECH INSTALLATIONS

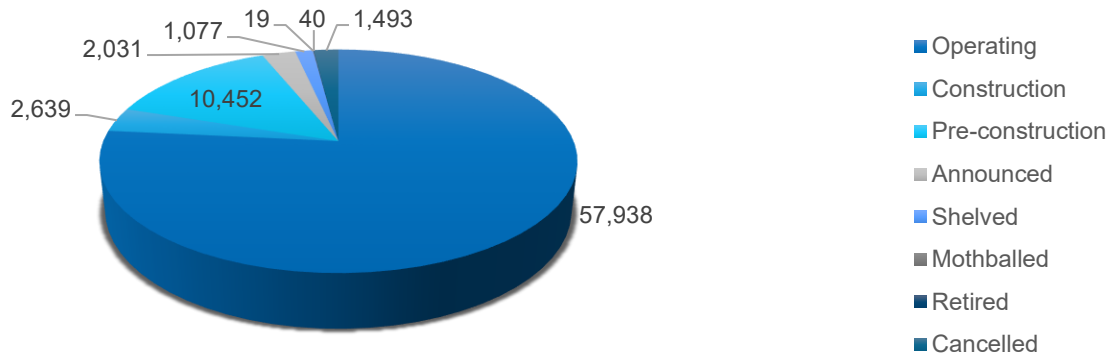
Chart 16: Global Solar Power Tracker (As of February 2025)



TOTAL SOLAR PHOTOVOLTAIC FARM PHASES SELECTED		75 689
Operating	57 938	
Announced	2 031	
Construction	2 639	
Pre-Construction	10 452	
Mothballed	19	
Shelved	1 077	
Cancelled	1 493	
Retired	40	

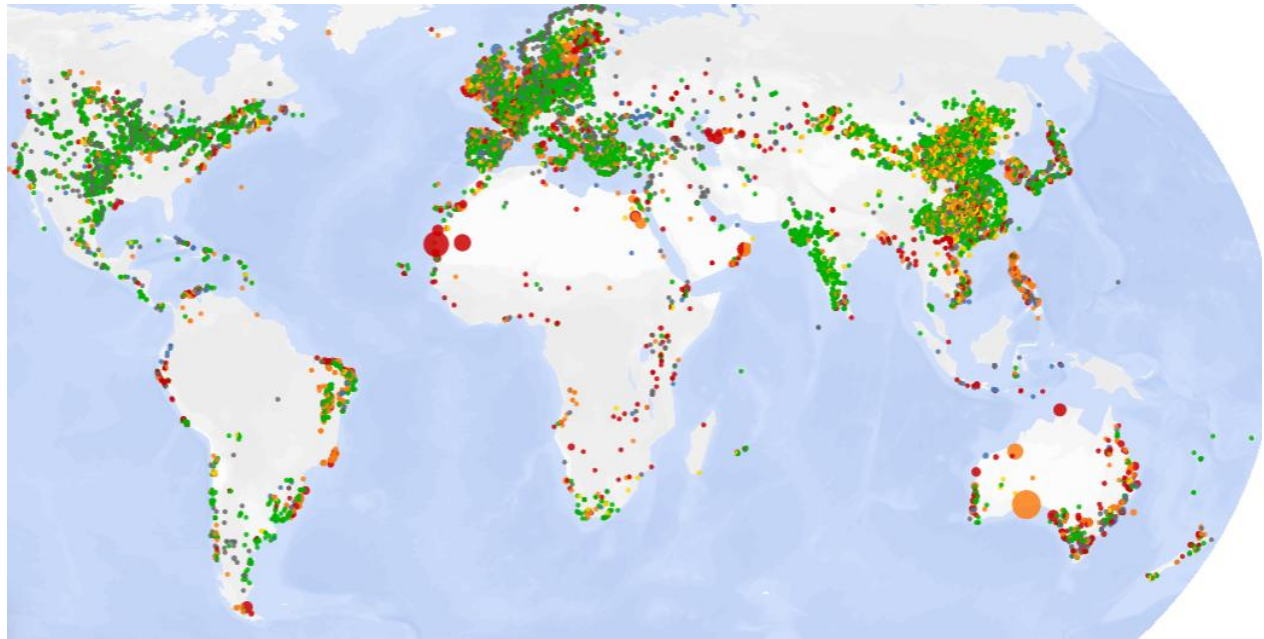
Source: Global Energy Monitor

Chart 17: Worldwide Solar Farm Phases. Total Farms: 75,689 as of February 2025



Source: Global Energy Monitor

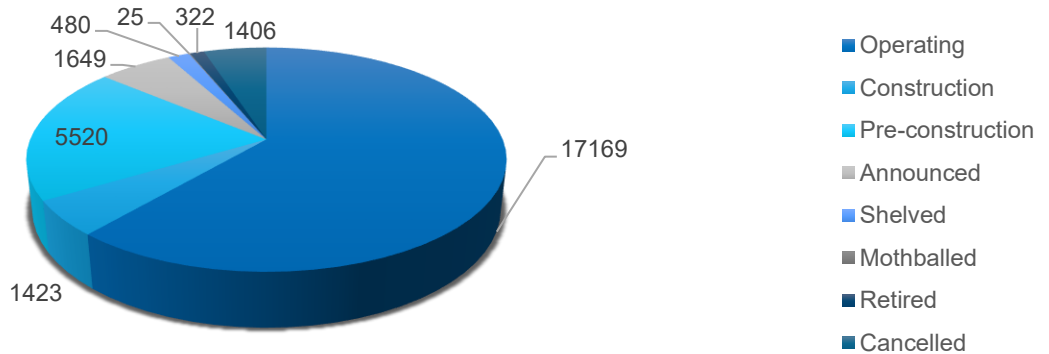
Chart 18: Global Wind Power Tracker (February 2025)



TOTAL WIND FARM PHASES SELECTED		31454
Operating	18340	
Announced	1661	
Construction	1441	
Pre-Construction	5693	
Mothballed	28	
Shelved	1471	
Cancelled	2442	
Retired	378	

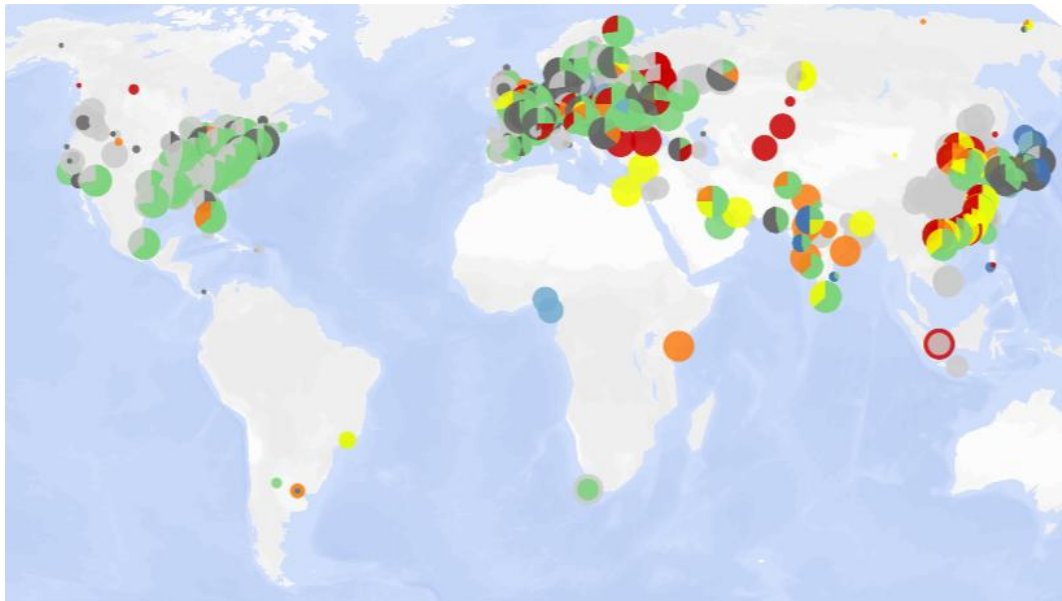
Source: Global Energy Monitor

Chart 19: Worldwide Wind Farm Phases. Total Farms: 27,994 as of February 2025



Source: Global Energy Monitor

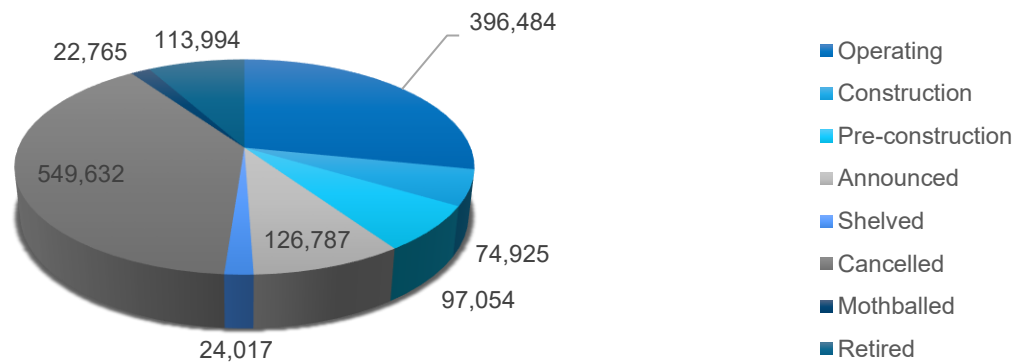
Chart 20: Global Nuclear Power Tracker (July 2024*)



TOTAL NUCLEAR POWER PLANT UNITS SELECTED		1541
<input checked="" type="checkbox"/>	Operating	419
<input checked="" type="checkbox"/>	Construction	69
<input checked="" type="checkbox"/>	Pre-Construction	92
<input checked="" type="checkbox"/>	Announced	178
<input checked="" type="checkbox"/>	Shelved	18
<input checked="" type="checkbox"/>	Mothballed	27
<input checked="" type="checkbox"/>	Retired	225
<input checked="" type="checkbox"/>	Cancelled	513

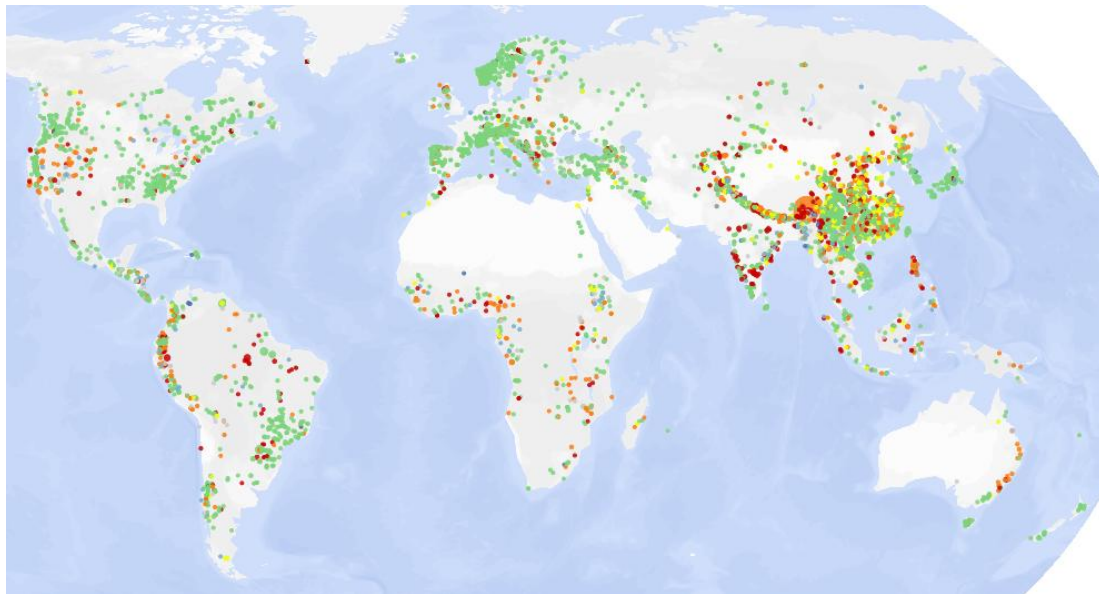
Source: Global Energy Monitor. *The data is available only up to July 2024

Chart 21: Worldwide Nuclear Power Capacity by Country/Area (MW) - July 2024*



Source: Global Energy Monitor. *The data is available only up to July 2024

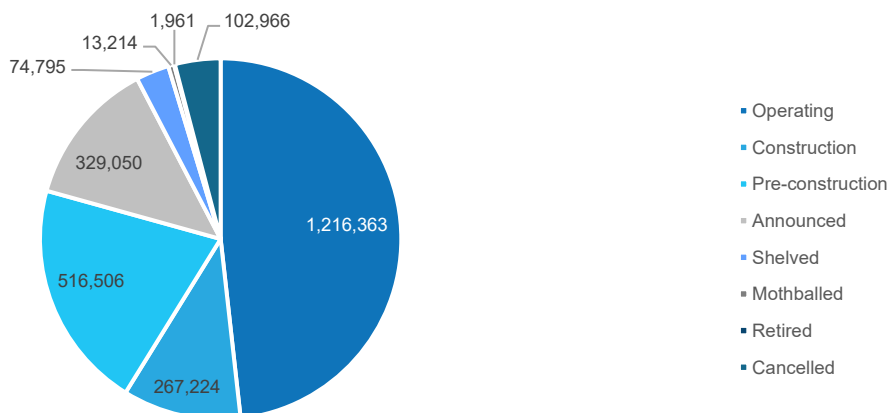
Chart 22: Global Hydropower Tracker (April 2025)



TOTAL HYDROPOWERED STATIONS SELECTED	5,663
Operating	3743
Construction	359
Pre-Construction	667
Announced	457
Shelved	185
Mothballed	24
Retired	8
Cancelled	220

Source: Global Energy Monitor.

Chart 23: Hydropower Capacity by Country/Area in Megawatts (MW)



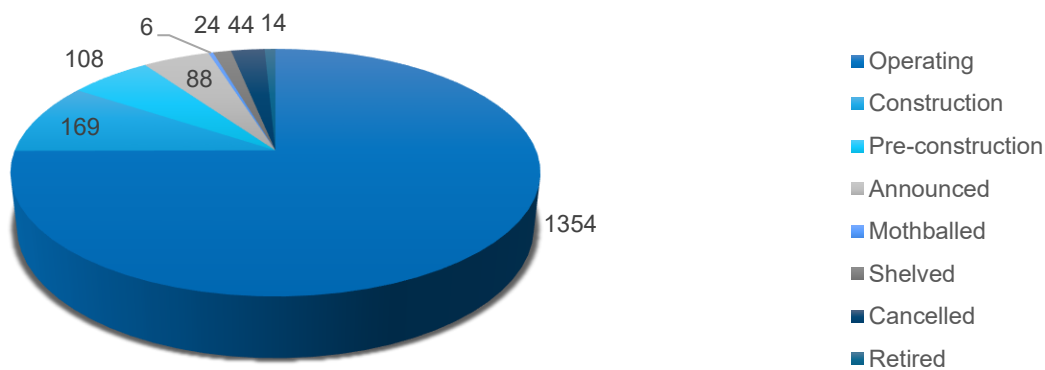
Source: Global Energy Monitor.

Chart 24: Global Bioenergy Power Tracker (September 2024*)



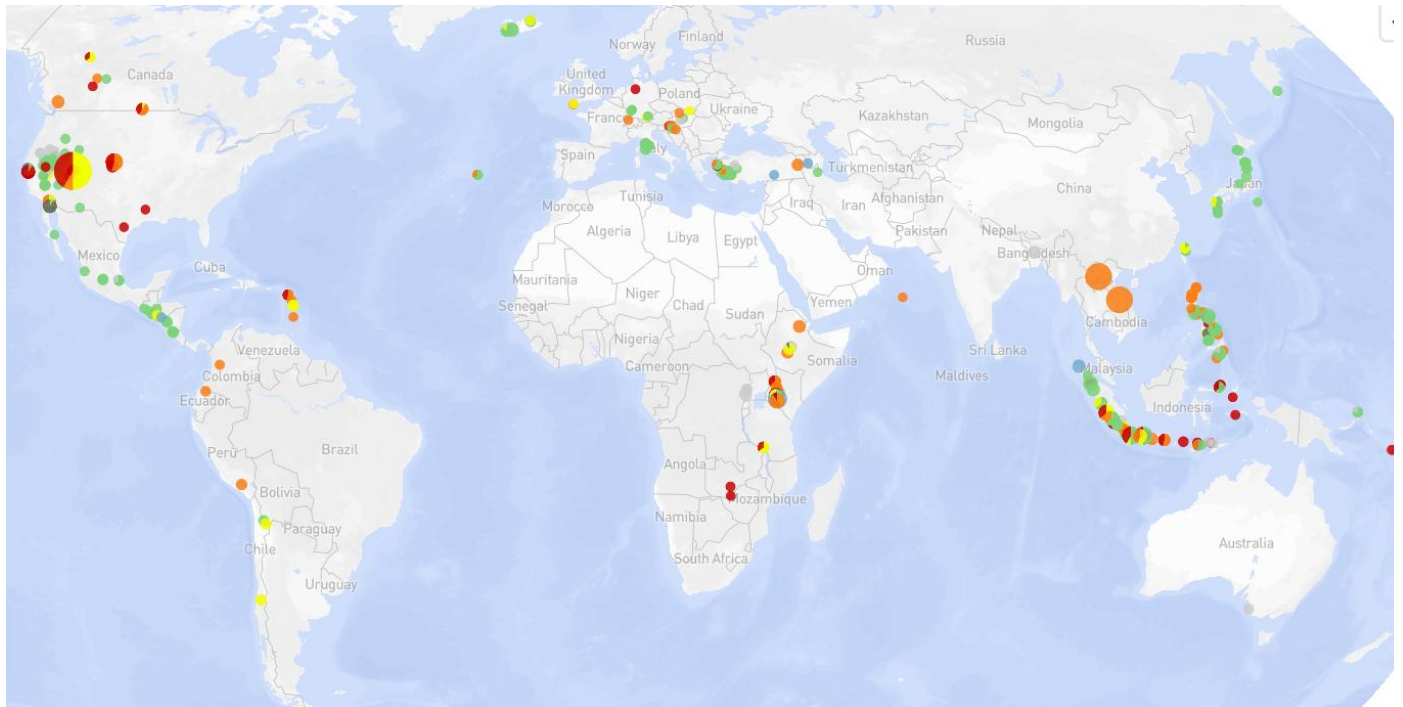
Source: Global Energy Monitor. *The data is available only up to September 2024

Chart 25: Worldwide Bioenergy Power Plants. Total Farms: 1,807 as of September 2024*



Source: Global Energy Monitor. *The data is available only up to September 2024

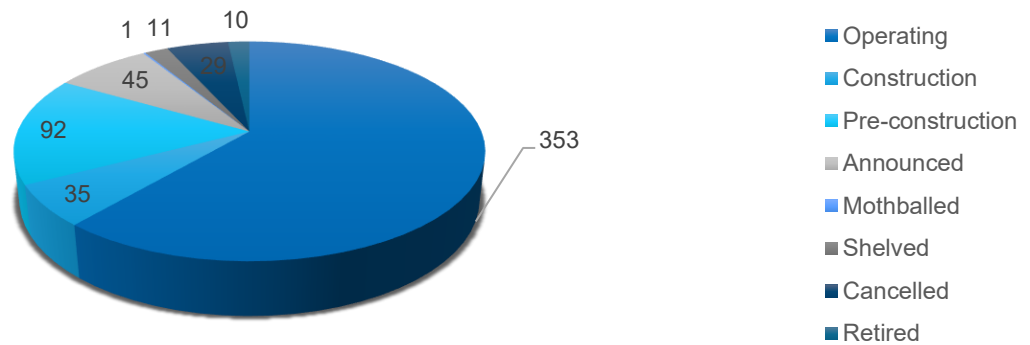
Chart 26: Global Geothermal Power Tracker (March 2025)



✓ ● Operating	480
✓ ● Construction	52
✓ ● Pre-Construction	111
✓ ● Announced	61
✓ ● Shelved	12
✓ ● Mothballed	2
✓ ● Retired	10
✓ ● Cancelled	43

Source: Global Energy Monitor

Chart 27: Worldwide Geothermal Power Plants. Total Farms: 576 as of May 2024*



Source: Global Energy Monitor.

CLEANTECH CAPITAL MARKET ACTION (JUNE 2025)

M&A Activity

Target	Target Country	Acquirer	Transaction Value (MM)	Announcement Date
Skypower Solar India	India	Inox Neo Energies	30.84	30-Jun-25
Gunkul Solar Powergen Company	Thailand	Gulf Renewable Energy Company	-	26-Jun-25
Soltrix Energy Solution	India	Enviro Infra Engineers (NSE: EIEL)	-	24-Jun-25
Senba Power	Taiwan	Taiwan Cogeneration (TAI: 8926)	104.25	20-Jun-25
Eviny Solutions	Norway	AF Gruppen (OSL: AFG)	7.02	20-Jun-25
Guerin Energies	France	Atout Groupe (Isabelle Séité)	-	17-Jun-25
Inspire Clean Energy	United States	Rhythm (Energy)(Predrag Popovic)	-	13-Jun-25
Comwatt	France	Unifergie Groupe	-	12-Jun-25
NorthConnect	Norway	Flotation Energy, Vågrønn	-	12-Jun-25
Pasan	Switzerland	Avalon ST (Damien Etienne)	-	10-Jun-25
Vitalite (Energy Equipment)	Zambia	Solar Panda (Andy Keith)	-	9-Jun-25
Stella Futura	Sweden	Polarium	-	4-Jun-25
Eden Sustainable Group	United Kingdom	Ampyr Distributed Energy (John Behan)	-	2-Jun-25
Feizhan Energy	China	Guangdong Construction Engineering Group (SHE: 002060)	-	2-Jun-25
Linyang New Energy	China	Guangdong Construction Engineering Group (SHE: 002060)	-	2-Jun-25
Yongming Power Generation	China	Guangdong Construction Engineering Group (SHE: 002060)	-	2-Jun-25

Source: Intro-act, FactSet. As on June 30, 2025

PE/ VC Funding Activity

Company Name	Security Type	Amount (MM)	Active Investors	Investment Date
TerraPower	-	650.0	Bill Gates, Hyundai Heavy Industries Group (KRX: 267250), nVentures(Mohamed Siddeek)	18-Jun-25
Believ	-	338.7	Liberty Global (NAS: LBTYA), Zouk Capital (Massimo Resta)	06-Jun-25
Dispatch Energy	-	160.0	Hamilton Lane (NAS: HLNE) (Brent Burnett), Terramont Infrastructure Partners (Vikram Singh)	12-Jun-25
TAE Technologies	-	150.0	AJI Capital, Alphabet (NAS: GOOGL), Chevron Technology Ventures, New Enterprise Associates, The Goldman Sachs Group (NYS: GS)	02-Jun-25
Proxima Fusion	Series A	147.0	Balderton Capital (Daniel Waterhouse), Bayern Kapital, Cherry Ventures (Filip Dames), Club degli investitori, DeepTech & Climate Fonds, Elaia Partners, High-Tech Gründerfonds, Leitmotif, Lightspeed Venture Partners, Omnes Capital, Plural Platform (Ian Hogarth), Redalpine, UVC Partners (Benjamin Erhart), Visionaries Tomorrow, Wilbe Capital	10-Jun-25
John Cockerill Hydrogen	-	132.8	Fluxys (BRU: FLUX), Rely, SLB (Other Energy Services) (NYS: SLB), Société Fédérale de Participations et d'Investissement, Wallonie Entreprendre	25-Jun-25
UUGreenPower (SHE: 301590)	-	130.5	GAC Capital, Guangzhou Gongkong, Optics Valley Industry Investment, Shenzhen Gaoxin Investment	05-Jun-25
VivoPower International (NAS: VVPR)	-	121.0	Eleventh Holding Company (Abdulaziz bin Turki Al Saud)	02-Jun-25
Battery Smart	Series B	86.0	Blume Ventures, British International Investment, Leapfrog Investments (Nakul Zaveri), MUFG Bank, Panasonic Holdings (TKS: 6752), The Ecosystem Integrity Fund	26-Jun-25
Bioleum	Series A	85.0		04-Jun-25
Westwin Elements	-	80.0		12-Jun-25
Eavor	-	64.2	Canada Growth Fund (Cynthia Johnston)	03-Jun-25
Trawa	Series B	50.0	Andreessen Horowitz	27-Jun-25
Amber (Energy Services)	-	45.0	Breakthrough Victoria, ETF Partners (Robert Genieser), Gentrack Group (NZE: GTK), Rubio Impact Ventures, Square Peg Capital	04-Jun-25
Standard Nuclear	-	42.0	Andreessen Horowitz, Crucible Capital, Decisive Point, Fundomo, Washington Harbour, Welara	11-Jun-25
Asuene	Series C2	34.6	Daikin Industries (TKS: 6367)(Masaaki Miyatake), GLIN Impact Capital(Masahiro Hata), GMO Venture Partners(Ryu Muramatsu), Hideki Kojima(Hideki Kojima), Ignition Point Venture Partners, Japan Green Investment Corporation for Carbon Neutrality, Jera (Energy Production)(Tim Romero), KDDI (TKS: 9433), MetaProp(Zachary Aarons), Mirai Creation Capital, Murata Manufacturing Company (TKS: 6981), Nippon Express Holdings (TKS: 9147)(Satoshi Horikiri), Nissay Capital, Pavilion Capital, RICOH Innovation Fund, Salesforce Ventures(Masaru Asada), SBI Investment(Hiroyuki Ono), Sony Innovation Fund, SPARX Group Company (TKS: 8739), STRIVE (VC Investor)(Yosuke Takata), Sumitomo Mitsui Banking(Masayuki Shimura), Tybourne Capital Management	12-Jun-25
Melvan	-	28.6	Bpifrance(Clémentine Cazenave), Crédit Agricole Nord de France (PAR: CNDF), IDIA Capital Investissement, OCCTE	25-Jun-25
Wetility	-	28.0	Jaltech(Derrick Hyde)	18-Jun-25
Ataway	-	26.6	Armor Group, France 2030, InnoEnergy, Kreaxi, Starquest Capital (Emmanuel Gaude)	27-Jun-25
Ostrom	Series B	22.8	Adjacent (New York), Eneco Ventures (Jan Velde), J12 Ventures, SE Ventures, Union Square Ventures, Übermorgen Ventures	19-Jun-25
CeraPhi Energy	Series A	20.1		05-Jun-25
Voltfang	Series B	17.0	Aurum Impact, Daphni, Fiege, FORWARD.one (Paul Pruijmboom), Helen Ventures, Interzero Recycling Alliance, Newberry Group, PT1 (Berlin)	12-Jun-25
LINEA Innovation	Series A	12.1	ANRI (Masahiro Sameshima), Japan Post Spiral Regional Innovation Fund, Joyo Capital Partners, Keio Innovation Initiative, Mitsubishi Electric (TKS: 6503), Nissay Capital, Obayashi (TKS: 1802), On&board, SMBC Venture Capital, Spiral Capital (Tokyo)	02-Jun-25
Greenpower	-	12.0	Private Infrastructure Development Group (Claire Jarratt)	05-Jun-25
639 Solar	-	10.4	Mancora Ventures	30-Jun-25

Source: Intro-act, FactSet. As on June 30, 2025

CLEANTECH INSTITUTIONAL INVESTOR LEAGUE

Chart 28: Cleantech Institutional Owners League (Current)

Rank	Investor Name	Invested in Cleantech (\$M)	Q/Q Change (\$M)	Change in Positions (#)	% of Total Sector Inv.
1	The Vanguard Group, Inc.	122,167.99	(11,356.91)	-4	10.9%
2	BlackRock Fund Advisors	67,147.87	(6,835.94)	-6	6.0%
3	SSgA Funds Management, Inc.	46,039.71	(4,993.75)	-6	4.1%
4	Geode Capital Management LLC	27,536.36	(1,884.30)	-9	2.5%
5	Fidelity Management & Research Co. LLC	25,217.02	(4,822.53)	-15	2.3%
6	Capital Research & Management Co. (Global Investors)	17,805.80	(4,918.59)	-1	1.6%
7	Capital Research & Management Co. (International Investors)	17,091.72	(1,132.11)	1	1.5%
8	Norges Bank Investment Management	14,780.53	14,449.50	46	1.3%
9	BlackRock Advisors (UK) Ltd.	13,987.54	(1,706.40)	-6	1.3%
10	T. Rowe Price Associates, Inc. (IM)	12,114.97	(1,985.72)	3	1.1%
11	JPMorgan Investment Management, Inc.	11,503.72	(1,241.36)	-4	1.0%
12	BlackRock Investment Management (UK) Ltd.	10,936.06	(31.44)	1	1.0%
13	Charles Schwab Investment Management, Inc.	10,502.99	(863.56)	-4	0.9%
14	Northern Trust Investments, Inc. (Inv. Mgmt.)	9,937.89	(991.31)	-9	0.9%
15	Dimensional Fund Advisors LP	9,312.47	(776.72)	-4	0.8%
16	Wellington Management Co. LLP	8,624.98	(594.40)	-3	0.8%
17	Capital Research & Management Co. (World Investors)	8,456.48	(4,020.33)	-1	0.8%
18	Invesco Capital Management LLC	7,823.53	(198.29)	-5	0.7%
19	TCI Fund Management Ltd.	7,672.32	(1,413.54)	0	0.7%
20	Morgan Stanley Smith Barney LLC (Inv. Mgmt.)	7,653.12	(627.82)	-5	0.7%
21	Nomura Asset Management Co., Ltd.	6,958.29	(845.34)	-2	0.6%
22	State Farm Investment Management Corp.	6,668.85	(628.10)	0	0.6%
23	RBC Global Asset Management, Inc.	6,557.66	147.71	-4	0.6%
24	Columbia Management Investment Advisers LLC	6,249.13	(70.46)	-4	0.6%
25	Managed Account Advisors LLC	6,208.89	954.48	4	0.6%
26	Vanguard Global Advisers LLC	5,838.27	(375.45)	-6	0.5%
27	Dodge & Cox	5,663.57	(457.73)	1	0.5%
28	Massachusetts Financial Services Co.	5,356.00	(637.86)	1	0.5%
29	National Pension Service of Korea	5,304.42	2,967.41	-3	0.5%
30	Goldman Sachs Asset Management LP	5,213.29	(947.53)	-5	0.5%
	Others	601,721.79	(50,810.62)	724	53.8%
	Total	1,118,053	(86,649)	675	100.0%

Source: Intro-act, 13F Filings

Chart 29: Top 25 Cleantech Buyers (Q/Q)

Rank	Investor Name	Invested in Cleantech (\$M)	Q/Q Change (\$M)	Change in Positions (#)	% of Total Sector Inv.
1	SBI Securities Co., Ltd.	10.69	10.69	95	0.001%
2	Caitong International Asset Management Co., Ltd.	2.59	2.59	58	0.000%
3	KLP Kapitalforvaltning AS	623.08	364.72	50	0.056%
4	Norges Bank Investment Management	14,780.53	14,449.50	46	1.322%
5	Osaic Advisory Services LLC	39.53	38.39	46	0.004%
6	MAI Capital Management LLC	65.61	1.02	39	0.006%
7	Andbank Wealth Management SGIIC SAU	10.83	10.83	38	0.001%
8	R Squared Ltd. (Hong Kong)	2.40	2.40	38	0.000%
9	SpiderRock Advisors LLC	50.94	(3.39)	33	0.005%
10	State Street Global Advisors (Japan) Co. Ltd.	70.65	70.65	32	0.006%
11	Amundi Iberia SGIIC SA	36.65	36.65	31	0.003%
12	Parkworth Wealth Management, Inc.	0.05	0.05	30	0.000%
13	The Millstone Evans Group LLC	2.70	2.70	29	0.000%
14	Aster Capital Management (DIFC) Ltd.	4.78	4.78	28	0.000%
15	Union Bancaire Privee, UBP SA	69.83	34.64	26	0.006%
16	Transce3nd LLC	1.00	1.00	26	0.000%
17	Renta 4 Gestora SGIIC SA	21.14	21.14	25	0.002%
18	Raiffeisen Kapitalanlage-Gesellschaft mbH	345.42	159.20	24	0.031%
19	Nomura Securities International, Inc.	49.22	27.21	24	0.004%
20	Global Financial Private Client LLC	4.09	1.24	24	0.000%
21	Golden State Wealth Management LLC	3.06	3.06	24	0.000%
22	WealthTrak Capital Management LLC	0.15	0.15	24	0.000%
23	Universal-Investment-Gesellschaft mbH (Inv. Mgmt)	787.57	749.70	23	0.070%
24	WhippleWood Advisors LLC	1.04	1.04	23	0.000%
25	The Ameriflex Group, Inc.	0.89	0.89	23	0.000%

Source: Intro-act, 13F Filings

Chart 30: Top 25 Cleantech Sellers (Q/Q)

Rank	Investor Name	Invested in Cleantech (\$M)	Q/Q Change (\$M)	Change in Positions (#)	% of Total Sector Inv.
1	RBC Dominion Securities, Inc.	0.00	(4.13)	-67	0.000%
2	Capital Performance Advisors LLP	0.45	(0.79)	-63	0.000%
3	State Board of Administration of Florida Retirement System	829.99	(513.02)	-54	0.074%
4	Banque Cantonale Vaudoise (Investment Management)	6.02	(87.01)	-51	0.001%
5	Russell Investments Canada Ltd.	45.15	(22.95)	-49	0.004%
6	Acadian Asset Management LLC	418.07	(64.83)	-34	0.037%
7	Millburn Ridgefield Corp.	0.25	(1.10)	-34	0.000%
8	MultiConcept Fund Management SA	1.61	(103.82)	-31	0.000%
9	Mediolanum International Funds Ltd.	129.54	(306.05)	-30	0.012%
10	Healthcare of Ontario Pension Plan	531.70	14.66	-29	0.048%
11	BOCI-Prudential Asset Management Ltd.	17.90	(98.88)	-28	0.002%
12	Sparkasse Oberosterreich Kapitalanlagegesellschaft m.BH.	12.85	(15.15)	-28	0.001%
13	Ashton Thomas Securities LLC	3.87	(0.90)	-28	0.000%
14	abrdrn Investment Management Ltd.	1,011.13	(1,146.12)	-27	0.090%
15	Catalyst Funds Management Pty Ltd.	1.15	(4.50)	-27	0.000%
16	Jennison Associates LLC	3,026.20	(160.17)	-26	0.271%
17	Eagle Asset Management, Inc.	115.05	(308.61)	-25	0.010%
18	Thrivent Trust Co.	11.03	(4.71)	-25	0.001%
19	abrdrn Alternative Investments Ltd.	1.91	(60.89)	-25	0.000%
20	Consultinvest Asset Management SGR SpA	1.59	(6.92)	-24	0.000%
21	Jyske Bank A/S (Investment Management)	112.24	(59.10)	-22	0.010%
22	International Assets Investment Management LLC	19.05	(57.52)	-22	0.002%
23	GTS Securities LLC	7.34	(52.90)	-22	0.001%
24	Carne Global Fund Managers (Luxembourg) SA	4.79	(2.54)	-22	0.000%
25	ClariVest Asset Management LLC	3.39	(18.76)	-21	0.000%

Source: Intro-act, 13F Filings

ETF SPOTLIGHT

Global X Cleantech ETF (CTEC)

Closing Price (\$)	CUSIP	Expense Ratio	Inception
7.7	37954Y228	0.5	27/10/2020

AUM (\$ million)	Shares Outstanding (#)	Fund Flows (1M, \$)	Fund Flows (YTD, \$)
21.72	3 MM	-383 k	\$-10 MM

Fund Description

The CTEC Fund is an environmentally focused investment opportunity, designed to mirror a global index of companies driving technological advancements that mitigate environmental harm. This fund commits at least 80% of its assets to securities within the underlying index, in addition to American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs) linked to those securities. The underlying index comprises businesses primarily dedicated to Cleantech, including renewable energy, energy efficiency, smart grid solutions, lithium-ion batteries, fuel cells, and pollution prevention. These companies are carefully selected based on their generation of at least 50% of revenues from Cleantech-related activities and must meet specific market capitalization and liquidity criteria. The fund aims to harness the growth potential of Cleantech, and any modifications to the 80% investment policy necessitate a 60-day prior notice to shareholders. With eligibility spanning countries such as the United States, Japan, China, the United Kingdom, and others, this fund offers diversification for eco-conscious investors seeking Cleantech exposure.

ETF Returns Annualized (As of 06/30/2025)

1 Year	3 Year	5 Year	Since Inception
-5.8%	-.18.8%	-	-

ETF Returns Cumulative (As of 06/30/2025)

1 Month	3 Month	YTD	Since Inception
8.69%	18.96%	4.57%	-51.14%

Top 10 Holdings (updated as of 06/30/25)

Ticker	Name	% of Net Assets	Market Value (\$M)
NXT	Nextracker Inc Cl A	7.4369	1.61
FSLR	First Solar Inc Com	6.7388	1.46
VWS.CO	Vestas Wind Systems As Ord	5.7111	1.24
QS	Quantumscape Corp Cl A	5.5838	1.21
006400.KQ	Samsung Sdi Co Ltd Ord	5.3249	1.15
NIBE-B.ST	Nibe Industrier Ab Ord B	5.2938	1.15
JMAT.L	Johnson Matthey Plc Ord	5.1205	1.11
NDX1.DE	Nordex Se Ord	4.7495	1.03
0257.HK	China Everbright Env Grp Ltd Ord	4.4924	0.97
BE	Bloom Energy Corp Cl A	3.8373	0.83

Source: Factset

For more information on CTEC visit: <https://www.globalxetfs.com/funds/ctec/>

iShares Global Clean Energy ETF (ICLN)

Closing Price (\$)	CUSIP	Expense Ratio	Inception
13.5	464288224	0.41	24/06/2008

AUM (\$ Billion)	Shares Outstanding (#)	Fund Flows (1M, \$)	Fund Flows (YTD, \$)
1.46	108 MM	-18 MM	\$-198 MM

Fund Description

The ICLN Fund offers investors exposure to a carefully curated selection of global companies at the forefront of the clean energy sector. This fund seeks to replicate the performance of the S&P Global Clean Energy Index™, comprising approximately 100 clean energy-related companies. To be eligible for inclusion in this index, companies must meet specific criteria, including a minimum total market capitalization of \$300 million, float-adjusted market capitalization of \$100 million, and a median daily value traded of \$3 million over six months, all on developed market exchanges. The index construction process involves rigorous screening, utilizing classifications such as the Global Industry Classification Standard (GICS) and FactSets Revere Business Industry Classification System (RBICS), along with environmental, social, and governance (ESG) considerations. Clean energy exposure scores are assigned based on a company's primary business, with additional evaluation of carbon-to-revenue footprint to ensure alignment with sustainable and environmentally responsible practices. The result is a diversified fund that offers investors an opportunity to participate in the global clean energy revolution while adhering to stringent ESG criteria.

ETF Returns Annualized (As of 06/30/2025)

1 Year	3 Year	5 Year	Since Inception
-1.7%	-12.3%	-0.4%	-

ETF Returns Cumulative (As of 0/30/2025)

YTD	1 Month	3 Months	Since Inception
18.4%	4.0%	27.6%	-74.5%

Top 10 Holdings (updated as of 06/30/25)

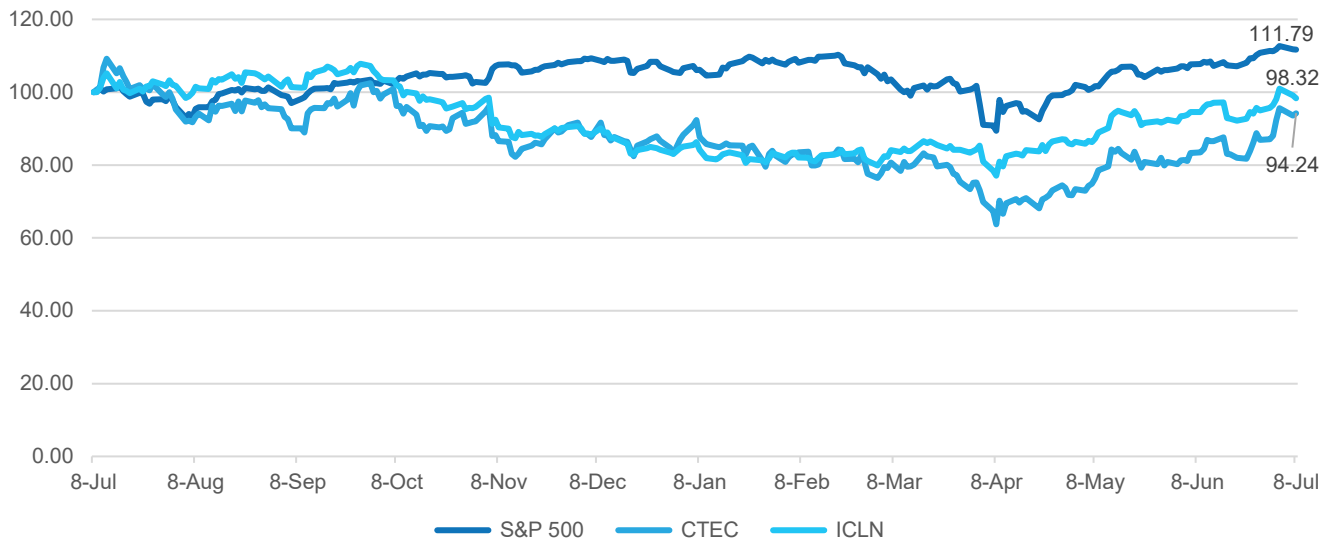
Ticker	Name	% of Net Assets	Market Value (\$M)
FSLR	First Solar Inc Com	8.64	125.69
SSE	Sse Plc Ord	6.21	90.32
VWS	Vestas Wind Systems As Ord	6.00	87.32
IBE.MC	Iberdrola Sa Ord	5.62	81.73
NXT	Nextracker Inc Cl A	4.71	68.45
600900.SS	China Yangtze Power Co Ltd Ord A	4.07	59.18
EDP.LS	Edp (Portugal) Sa Ord	3.69	53.64
EQTL3.SA	Equatorial (Energia) Sa Ord	3.36	48.86
SUZLON.NS	Suzlon Energy Ltd Ord	3.06	44.48
ENPH	Enphase Energy Inc Com	2.77	40.32

Source: Factset

For more information on ICLN visit: <https://www.ishares.com/us/products/239738/ishares-global-clean-energy-etf>

ETF Performance vs. S&P 500

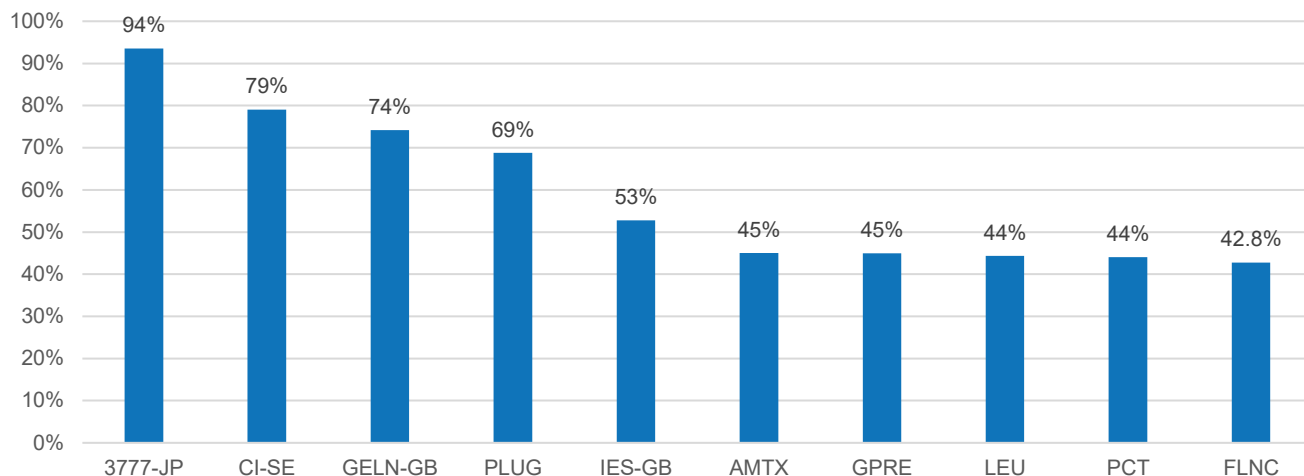
Chart 31: 12-month Indexed Returns of ICLN and CTEC vs. S&P 500



Source: Intro-act, Factset, Data as of 07/08/2025.

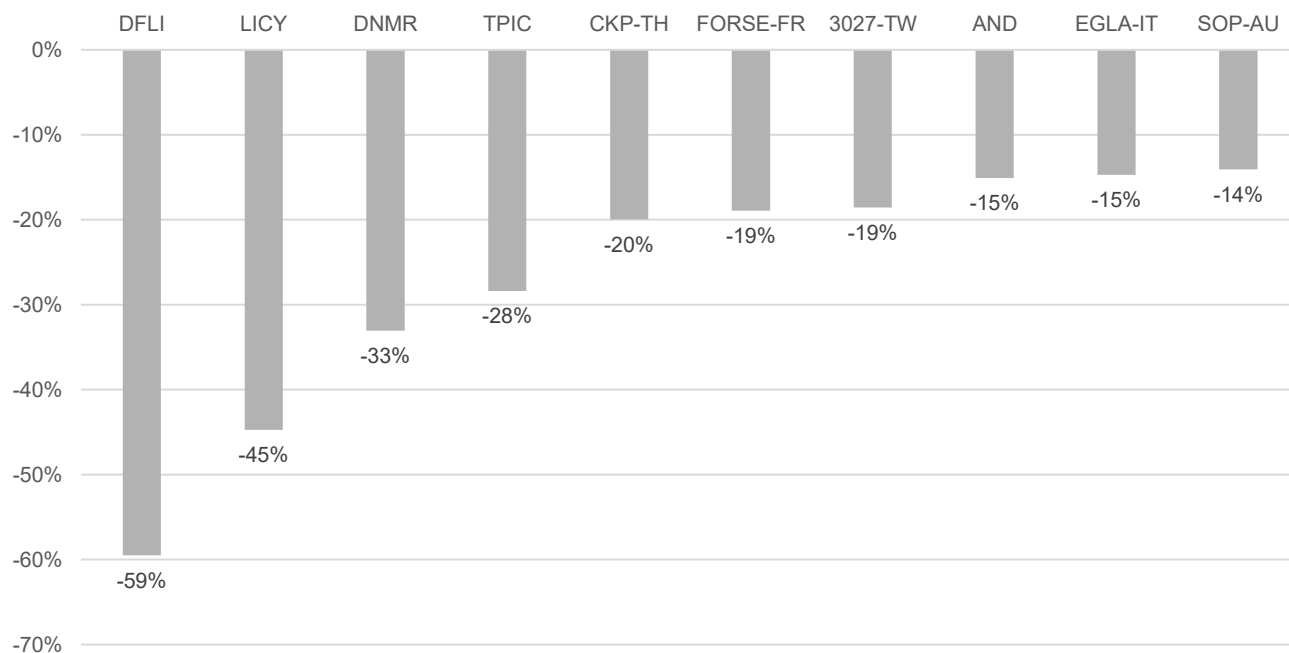
GAINERS AND LOSERS – CLEANTECH STOCKS

Chart 32: Top 10 M/M Cleantech Gainers



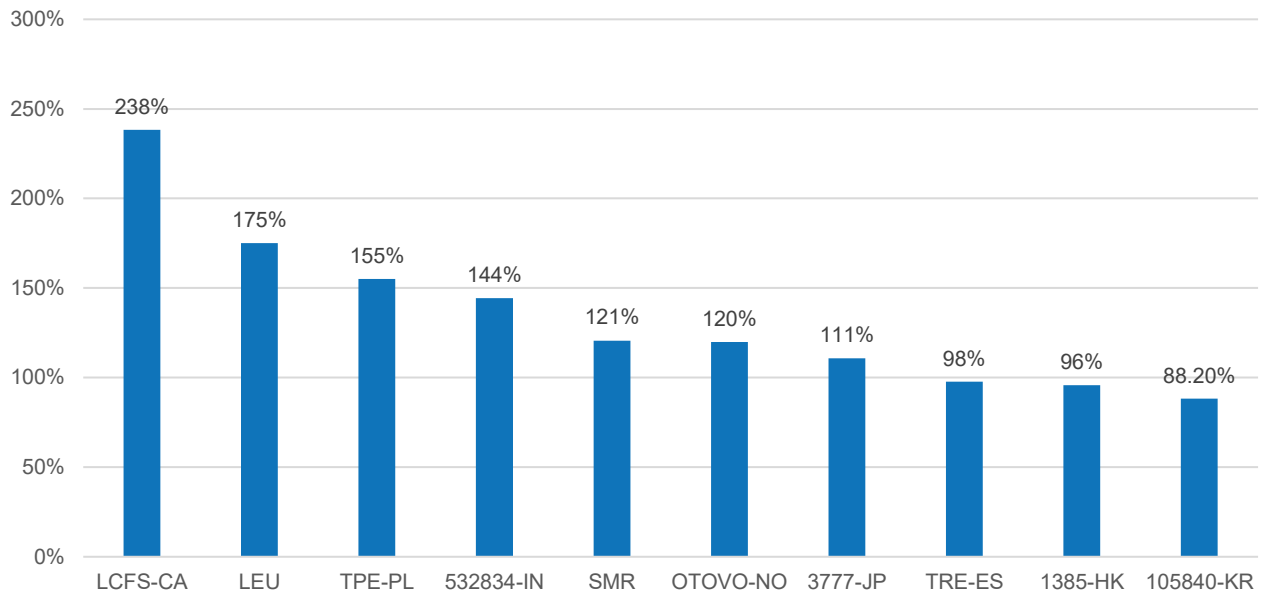
Source: Intro-act, FactSet, Data as on June 30, 2025.

Chart 33: Top 10 M/M Cleantech Losers



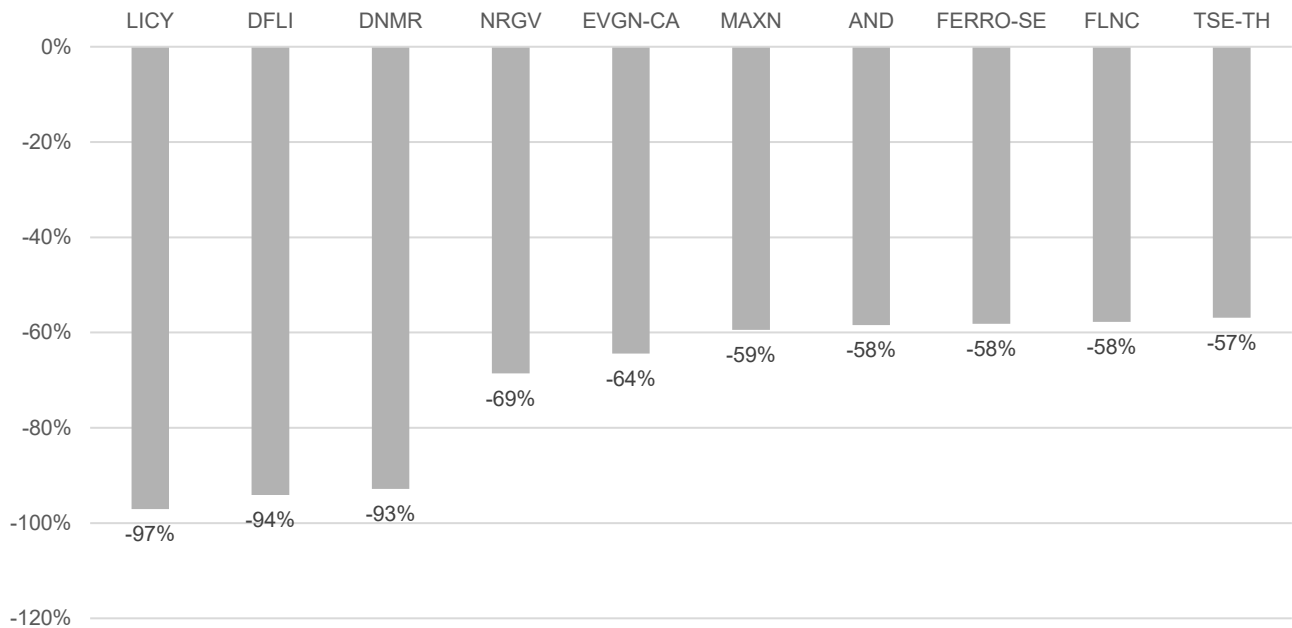
Source: Intro-act, FactSet, Data as on June 30, 2025.

Chart 34: Top 10 YTD Cleantech Gainers



Source: Intro-act, FactSet. Data as on June 30, 2025.

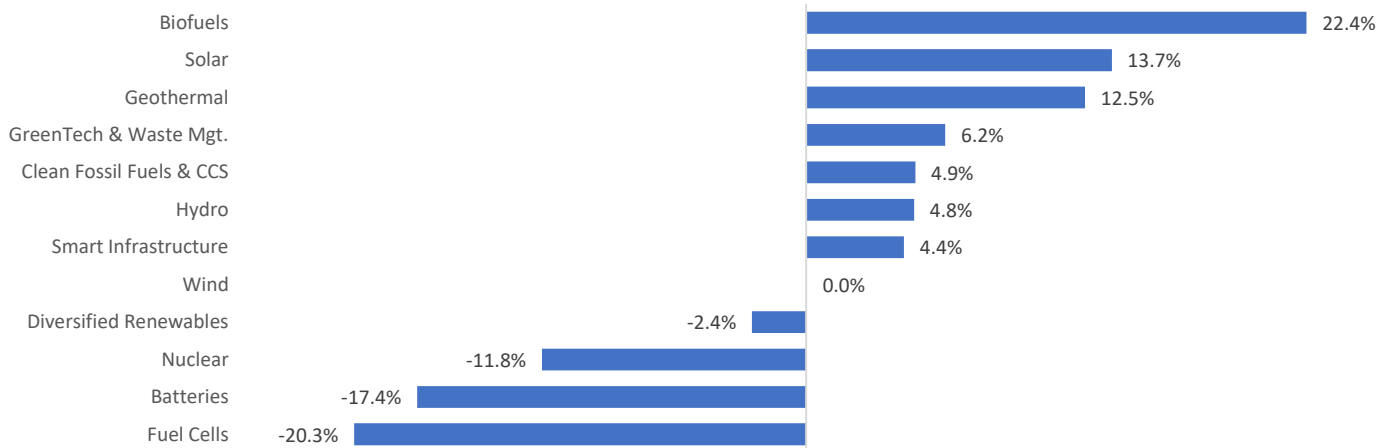
Chart 35: Top 10 YTD Cleantech Losers



Source: Intro-act, FactSet. Data as on June 30, 2025.

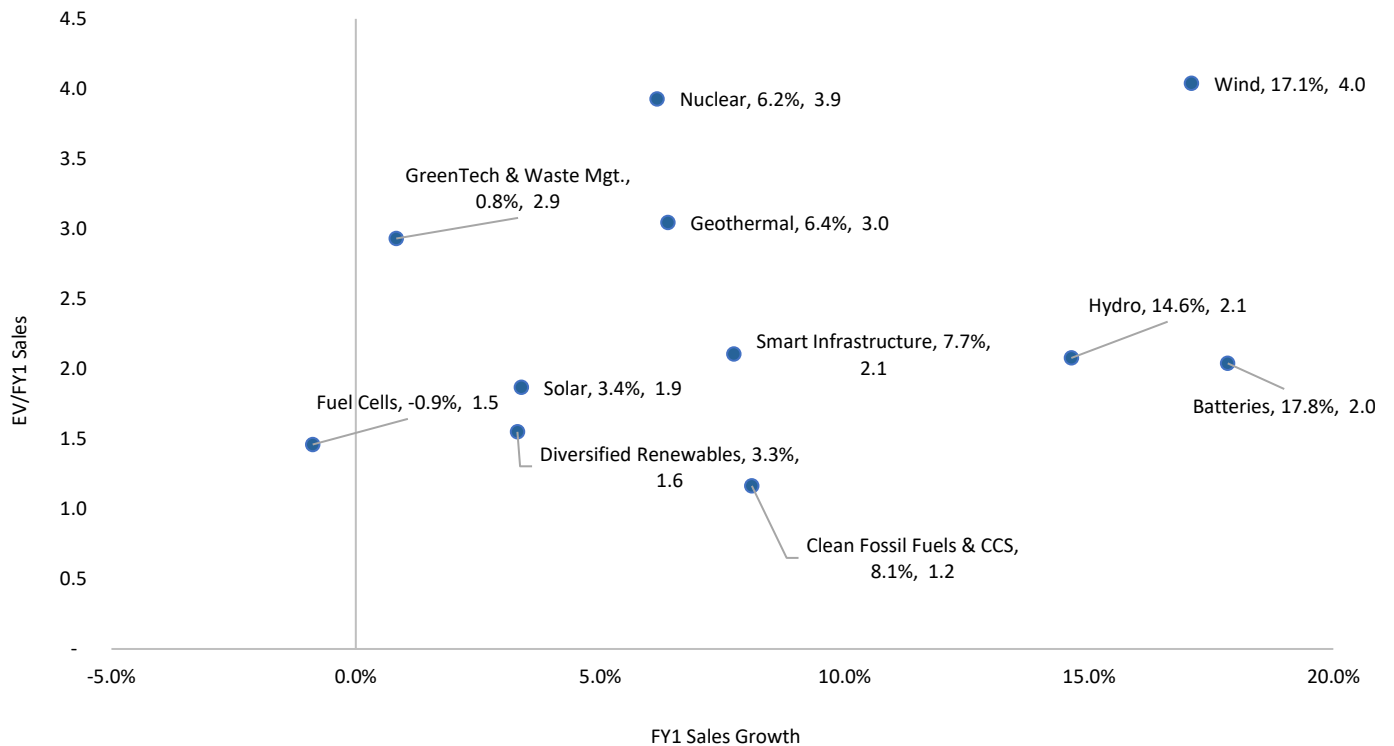
SEGMENT RETURN AND VALUATION

Chart 36: YTD Stock Price Returns by Segment



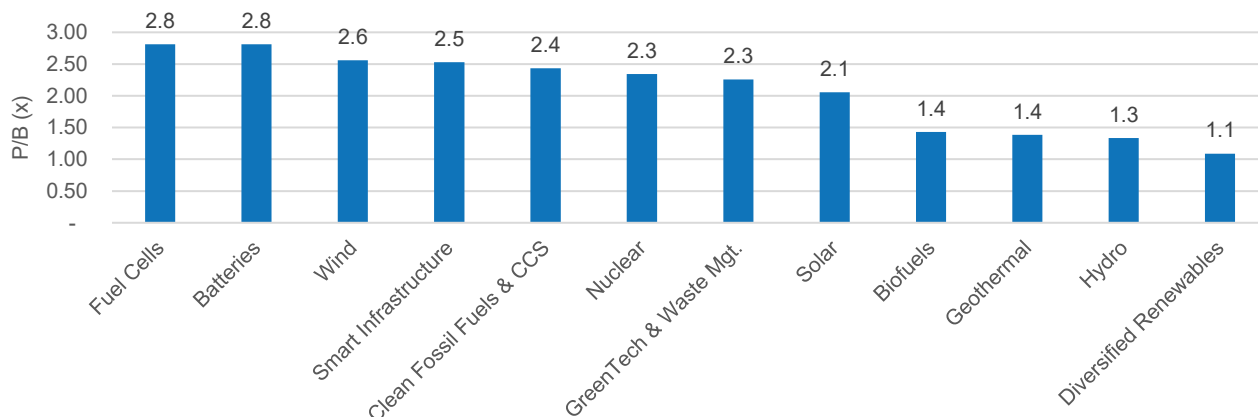
Source: Intro-act, FactSet. YTD Data as on June 30, 2025.

Chart 37: Cleantech Industry Growth and Valuation by Segment



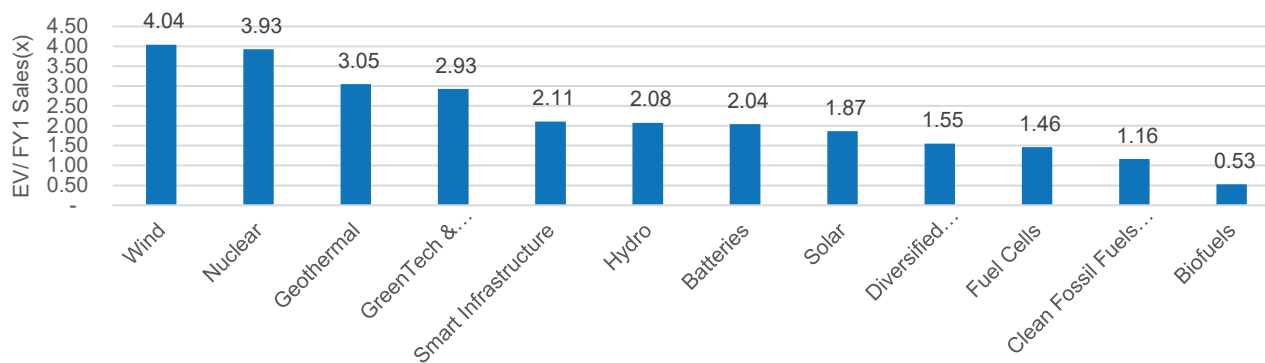
Source: Intro-act, FactSet, Data as on June 30, 2025. FY1 data is the first unreported financial year.

Chart 38: Price-to-Book Multiple by Segment



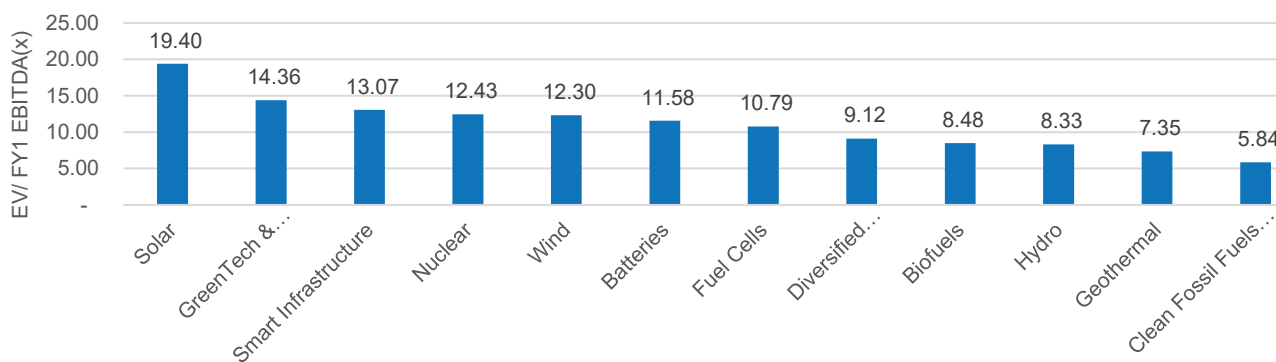
Source: Intro-act, FactSet. Data as on June 30, 2025

Chart 39: EV to FY1 Sales Multiple by Segment



Source: Intro-act, FactSet. Data as June 30, 2025. FY1 data is the first unreported financial year.

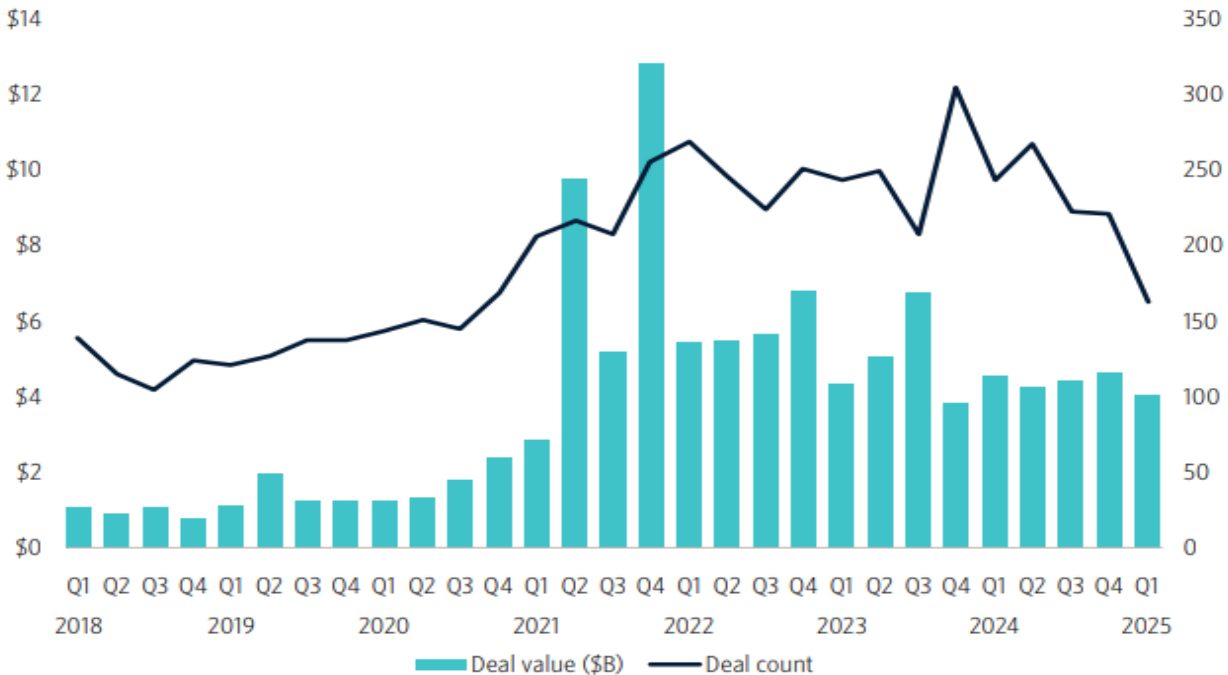
Chart 40: EV to FY1 EBITDA Multiple by Segment



Source: Intro-act, FactSet. Data as on June 30, 2025. FY1 data is the first unreported financial year.

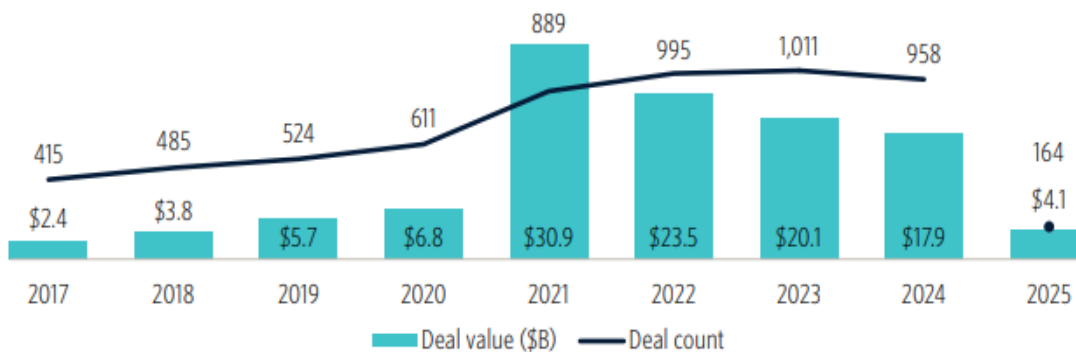
CLEANTECH CAPITAL MARKET TRENDS

Chart 41: Clean Energy VC Deal Activity by Quarter



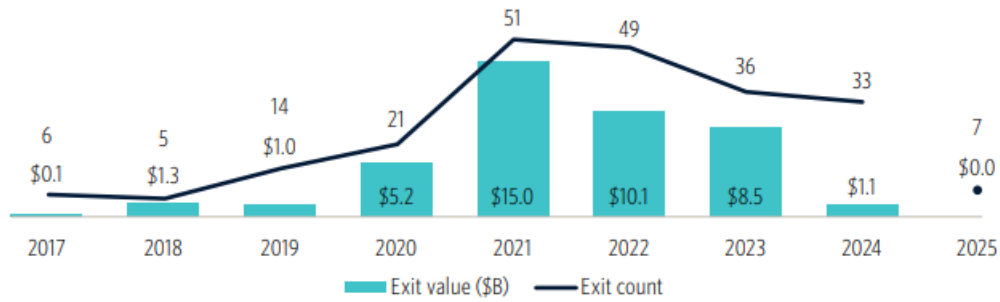
Source: Pitchbook. Data as of March 31, 2025

Chart 42: Clean Energy VC Deal Activity



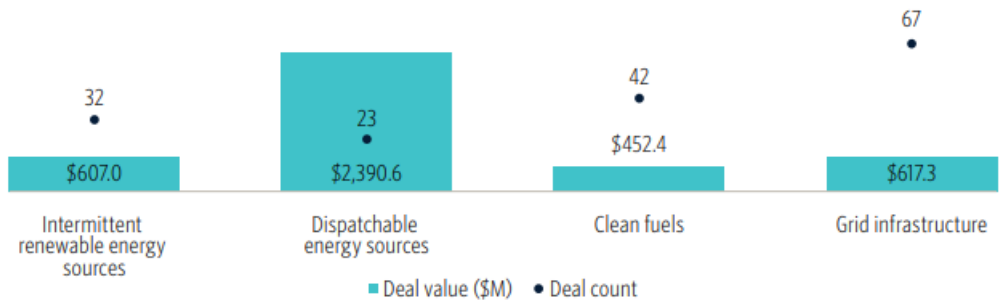
Source: Pitchbook. Data as of March 31, 2025

Chart 43: Clean Energy VC Exit Activity



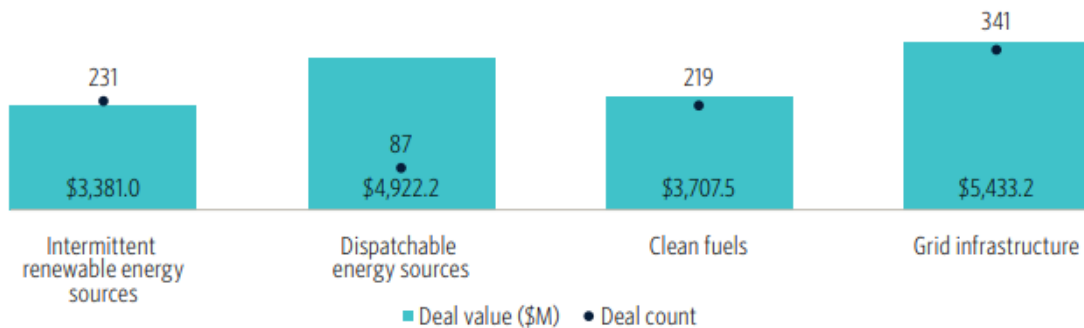
Source: Pitchbook. Data as of March 31, 2025.

Chart 44: Q125 Clean Energy VC Deal Activity by Segment



Source: Pitchbook. Data as of March 31, 2025.

Chart 45: Trailing 12-Month Clean Energy VC Deal Activity by Segment



Source: Pitchbook. Data as of March 31, 2025.

Chart 46: Top-10 Clean Energy VC Deals in 1Q25

Company	Close date	Category	Deal Value (\$M)
Pacific Fusion	March 6	Nuclear Fusion	900
Equilibrium Energy	March 12	Analytics & Grid Management	28
Gridware	January 8	Analytics & Grid Management	26.4
Terraform Industries	January 1	Clean Conventional Fuels	25
Sonocharge	January 23	Lithium Batteries	23.5
Niko	January 30	Solar Photovoltaic	23
Steady Energy	March 5	Nuclear Fission	22.9
C1 Green Chemicals	March 19	Waste To Energy/Fuel	21.3
Electron Green	January 15	Solar Photovoltaic	19.4
EcoPlanet	January 20	Analytics & Grid Management	16.5

Source: Pitchbook. Data as of March 31, 2025

CLEANTECH EVENTS CALENDAR

Sr.	Event	Place	Dates
1	Connecting Hydrogen APAC 2025	Melbourne, Australia	17-Jul-25
2	Australia Wind Energy 2025	Melbourne, Australia	17-Jul-25
3	Carbon Capture APAC Summit 2025	Melbourne, Australia	17-Jul-25
4	Cleantech San Diego Networking Reception	San Diego, USA	24-Jul-25
5	Clean Energy Innovation Forum 2025	Boston, USA	17-Jul-25
6	Dynamo Summer Summit: Martha's Vineyard	Martha's Vineyard, USA	23-Jul-25
7	NCEL 2025 National Forum	Boston, USA	31-Jul-25

Source: Intro-act, Multiple web sources

CLEANTECH SPAC ACTION

Chart 47: Searching SPACs

Sr.	SPAC Name	Ticker	Trust Value (\$M)	IPO Date	Estimated Completion Date
1	Spring Valley Acquisition Corp. II	SVII	230	12-Oct-22	17-Oct-25
2	Global Lights Acquisition Corp	GLAC	69	14-Nov-23	14-May-25
3	Legato Merger Corp. III	LEGT	201	6-Feb-24	6-May-26
4	EQV Ventures Acquisition Corp	EQV	350	6-Aug-24	6-Aug-26
5	CO2 Energy Transition Corp.	NOEM	69	20-Nov-24	20-Nov-26
6	Hennessy Capital Investment Corp VII	HVII	190	16-Jan-25	16-Jan-27
7	Tavia Acquisition Corp	TAVI	115	4-Dec-24	4-Jun-26
8	EGH Acquisition Corp.	EGHA	150	9-May-25	9-Aug-25
9	Origin Investment Corp I	ORIQ	60	2-Jul-25	2-Jul-27

Source: Intro-act, Boardroom Alpha

Chart 48: Business Combination Agreement Announced

Sr.	SPAC Name	Ticker	Target Company	EV (\$M)	MA Date	Close Date
1	Portage Fintech Acquisition Corp.	PFTA	Rbio Energy	350	2/7/2024	2Q25
2	Aquaron Acquisition Corp.	AQU	Huture	1000	7/12/2024	2Q25
3	Compass Digital Acquisition Corp.	CDAQ	EEW Renewables Ltd	386	9/6/2024	2Q25
5	Athena Technology Acquisition Corp. II	ATEK	Ace Green Recycling, Inc.	2500	12/4/2024	4Q24
6	HCM II Acquisition Corp	HOND	Terrestrial Energy	1000	03/26/2025	3Q26

Source: Intro-act, Boardroom Alpha

Chart 49: De-SPACs

Sr.	SPAC Name	SPAC Ticker	DE-SPAC Company Name	De-SPAC Ticker	EV (\$M)	Closing Date
1	Nubia Brand International Corp.	NUBI	Honeycomb Battery Co.	STI	700	5-Feb-24
2	ESGEN Acquisition Corp	ESAC	Sunergy	ZEO	475	14-Mar-24
3	Power Digital Infrastructure Acquisition II Corp.	XPDB	Montana Technologies	AIRJ	500	15-Mar-24
4	Keyarch Acquisition Corp	KYCH	ZOOZ Power Ltd.	ZOOZ	100	5-Apr-24
5	AltC Acquisition Corp.	ALCC	Oklo	OKLO	850	10-May-24
6	Global Partner Acquisition Corp II	GPAC	Stardust Power, Inc.	SDST	493	9-Jul-24
7	Project Energy Reimagined Acquisition Corp.	PEGR	Heramba Electric	PITA	450	30-Jul-24
8	TMT Acquisition Corp.	TMTC	eLong Power Holding Limited	ELPW	450	22-Nov-24
9	Roth CH Acquisition V Co.	ROCL	New Era Helium Corporation	NEHC	90	7-Dec-24
10	Swiftmerge Acquisition Corp.	IVCP	AleAnna Energy, LLC	ANNA	186	16-Dec-24
11	Inflection Point Acquisition Corp. II	IPXX	USA Rare Earth, LLC	USAR	870	13-Mar-25
12	Focus Impact BH3 Acquisition Company	BHAC	XCF Global Capital	SAFX	1,800	9-Jun-25

Source: Intro-act, Boardroom Alpha

CLEANTECH COMP TABLE

	6/30/2024	Price	Mkt Cap (\$ Mns)	Ent Val (\$ Mns)	Price Performance			Sales			EBITDA			Book Value		
					% to High	% to Low	% YTD	FY0	FY1	EV/Sales	FY0	FY1	EV/EBITDA	Book/Share	P/Book	
Biofuels	Ticker		153,176	237,659			22%	453,249	448,343	0.5 x	28,032	28,029	8.5 x		1.4 x	
1	VALERO ENERGY CORP	VLO-US	156.8	51,260	58,873	7%	-37%	34%	129,881	117,428	0.5 x	6,527	5,443	10.8 x	75.00	2.1 x
2	ARCHER DANIELS MIDLAND CO	ADM-US	60.5	29,889	35,658	9%	-32%	23%	85,530	85,052	0.4 x	4,284	4,052	8.8 x	46.08	1.3 x
3	WILMAR INTERL LTD	F34-SG	2.3	14,647	38,799	17%	-4%	3%	67,379	73,578	0.5 x	3,533	3,852	10.1 x	3.41	0.7 x
4	BUNGE GLOBAL SA	BG-US	106.8	15,118	18,916	8%	-37%	45%	53,108	53,584	0.4 x	2,478	2,175	8.7 x	78.71	1.4 x
5	DARLING INGREDIENTS INC	DAR-US	36.8	5,872	10,470	18%	-29%	10%	5,715	5,911	1.8 x	1,080	1,108	9.5 x	28.13	1.3 x
6	ENERGY ABSOLUTE PC	EA-TH	0.2	1,138	2,889	25%	-76%	32%	530	-	-	-	-	-	0.16	1.3 x
7	COSAN SA	CSAN3-BR	2.4	4,568	19,737	10%	-56%	87%	28,658	29,331	0.7 x	3,848	4,195	4.7 x	0.78	3.1 x
8	SD GUTHRIE BERHAD	5285-MY	0.9	6,186	7,874	32%	-1%	-19%	4,462	4,746	1.7 x	944	954	8.3 x	0.62	1.4 x
9	VALMET OYJ	VALMT-FI	28.6	5,278	6,290	20%	-22%	18%	5,591	6,196	1.0 x	731	833	7.5 x	15.43	1.9 x
10	VERBIO SE	VBK-DE	18.7	1,189	1,311	18%	-58%	52%	1,847	1,827	0.7 x	136	40	32.4 x	16.06	1.2 x
11	SAO MARTINHO SA	SMTO3-BR	5.9	2,086	3,234	5%	-47%	70%	1,315	1,461	2.2 x	672	724	4.5 x	3.74	1.6 x
12	GREEN PLAINS INC	GPRE-US	15.9	1,025	1,461	14%	-80%	65%	2,459	2,428	0.6 x	18	28	51.8 x	12.20	1.3 x
13	FIRST RESOURCES	EB5-SG	1.0	1,613	1,748	32%	0%	-5%	1,039	1,144	1.5 x	378	461	3.8 x	0.95	1.1 x
14	COFCO BIOTECH	000930-CN	0.7	1,291	1,895	32%	-10%	-9%	2,753	2,755	0.7 x	156	159	12.0 x	0.79	0.9 x
15	ANDERSONS INC	ANDE-US	49.6	1,689	2,227	12%	-37%	22%	11,258	11,419	0.2 x	363	332	6.7 x	39.66	1.3 x
16	MONTAUK RENEWABLES	MNTK-US	5.7	819	813	8%	-71%	44%	176	179	4.5 x	43	45	18.1 x	1.81	3.2 x
17	ADECOAGRO S A	AGRO-US	9.7	1,013	2,054	24%	-13%	7%	1,490	1,507	1.4 x	430	435	4.7 x	14.20	0.7 x
18	RAIZEN SA	RAIZ4-BR	0.5	722	11,941	17%	-48%	55%	45,325	43,260	0.3 x	2,047	2,579	4.6 x	0.31	1.7 x
19	GREENVOLT ENERGI	GVOLT-PT	8.9	1,456	2,760	5%	-5%	23%	-	-	-	-	-	-	-	-
20	CROPENERGIES AG	CE2-DE	13.8	1,206	1,147	18%	-6%	-1%	-	-	-	-	-	-	10.06	1.4 x
21	LONGYAN ZHUOYUE	688196-CN	3.2	383	396	117%	-20%	-31%	488	715	0.6 x	26	56	7.1 x	3.32	1.0 x
22	SHANDONG MINHE ANI	002234-CN	1.3	455	544	19%	-22%	7%	297	406	1.3 x	(7)	55	9.9 x	0.79	1.7 x
23	REX AMERICAN RES	REX-US	45.6	798	504	18%	-27%	16%	642	-	-	-	-	-	32.56	1.4 x
24	ENVIVA INC	EVA-US				-	-	-	-	-	-	-	-	-	-	-
25	AUDAX RENOVABLES	ADX-ES	2.0	906	1,294	8%	-29%	25%	2,081	2,773	0.5 x	121	145	8.9 x	0.57	3.5 x
26	JALLES MACHADO SA	JALL3-BR	1.2	371	958	18%	-50%	65%	426	457	2.1 x	268	281	3.4 x	1.22	1.0 x
27	HENAN BCCY ENVIRON	300614-CN	1.3	201	259	55%	-13%	-4%	-	-	-	-	-	-	1.10	1.1 x
28	DALMIA BHARAT	500097-IN	4.9	398	506	41%	-32%	16%	439	452	1.1 x	55	64	7.9 x	4.66	1.1 x
29	CAMLIN FINE	532834-IN	1.2	207	277	223%	-8%	-26%	196	246	1.1 x	24	44	6.4 x	0.47	2.6 x
30	GEVO INC	GEVO-US	0.6	132	(67)	508%	-14%	-74%	17	145	-0.5 x	(61)	(6)	-	1.96	0.3 x
31	TUNAS BARU LAMPUNG	TBLA-ID	0.0	223	978	29%	-20%	-1%	-	-	-	-	-	-	0.09	0.4 x
32	ALTO INGREDIENTS	ALTO-US	1.4	111	175	42%	-47%	-8%	965	929	0.2 x	(9)	10	18.1 x	2.80	0.5 x
33	DHAMPUR SUGAR MILL	500119-IN	2.7	175	285	4%	-53%	44%	-	-	-	-	-	-	1.94	1.4 x
34	AEMETIS INC	AMTX-US	3.0	134	565	57%	-59%	-10%	268	320	1.8 x	(20)	(0)	-	(5.19)	-0.6 x
35	DHAMPUR BIO	543593-IN	1.7	113	236	15%	-61%	28%	-	-	-	-	-	-	1.78	1.0 x
36	CODEXIS INC	CDXS-US	3.1	219	177	96%	-39%	-45%	59	65	2.7 x	(46)	(47)	-	0.60	5.2 x
37	LGI LIMITED	LGI-AU	2.0	178	184	5%	-28%	8%	23	24	7.6 x	10	11	16.5 x	0.40	5.0 x
38	AGRIA GROUP	AGH-BG	11.0	75	269	25%	-8%	4%	-	-	-	-	-	-	28.88	0.4 x

Monthly Newsletter – The Cleantech Industry

39	COMSTOCK INC	LODE-US	1.6	23	19	516%	-23%	-91%	3	4	5.1 x	-	-	-	2.21	0.7 x
40	FERMENTALG	FALG-FR				-	-	-	-	-	-	-	-	-		
41	GREENLANE	GRN-CA	0.1	9	4	96%	-26%	-8%	36	-	-	-	-	-	0.11	0.5 x
	Clean Fossil Fuels & CCS	Ticker		138,716	173,402			5%	137,737	148,898	1.2 x	29,605	29,705	5.8 x		2.4 x
42	AIR PRODS & CHEMS	APD-US	258.1	57,366	70,411	32%	-6%	-11%	12,101	11,928	5.9 x	5,042	5,028	14.0 x	66.07	3.9 x
43	ENI SPA	ENI-IT	15.4	50,528	71,724	8%	-21%	26%	92,464	99,978	0.7 x	19,262	18,804	3.8 x	20.40	0.8 x
44	SHANXI LU'AN ENVIR	601699-CN	2.5	7,464	5,126	10%	-42%	27%	4,913	4,540	1.1 x	964	940	5.5 x	2.20	1.1 x
45	HENAN SHENHUO COAL	000933-CN	2.8	6,264	8,226	12%	-34%	21%	5,283	5,604	1.5 x	1,147	1,308	6.3 x	1.39	2.0 x
46	CNOOC ENERGY	600968-CN	0.6	5,764	5,054	25%	-16%	-3%	7,152	7,831	0.6 x	964	936	5.4 x	0.38	1.5 x
47	CALIFORNIA RES	CRC-US	53.2	3,633	3,825	14%	-42%	-21%	3,198	3,294	1.2 x	986	1,179	3.2 x	39.43	1.3 x
48	KEDA INDUSTRIAL GR	600499-CN	1.2	2,225	2,733	25%	-22%	12%	1,734	2,137	1.3 x	356	377	7.2 x	0.89	1.3 x
49	AKER SOLUTIONS ASA	AKSO-NO	4.2	2,043	1,155	24%	-41%	56%	4,742	5,581	0.2 x	410	474	2.4 x	2.33	1.8 x
50	GUIZHOU PANJIANG R	600395-CN	0.8	1,776	3,695	11%	-27%	19%	1,222	1,656	2.2 x	202	316	11.7 x	0.68	1.2 x
51	TECNICAS REUNIDAS	TRE-ES	13.5	1,087	734	80%	-21%	20%	4,629	6,153	0.1 x	223	316	2.3 x	9.25	1.5 x
52	AKER CARBON CA	ACC-NO	0.6	378	299	13%	-99%	12%	1	0	35,474.8 x	(7)	(5)	-	0.90	0.7 x
53	TIDEWATER	LCFS-CA	5.4	188	420	22%	-93%	818%	298	198	2.1 x	57	32	13.3 x	3.15	1.7 x
	Diversified Renewables	Ticker		376,452	707,205			-2%	441,452	456,047	1.6 x	74,056	77,550	9.1 x		1.1 x
54	ENBRIDGE INC	ENB-CA	35.6	75,622	148,415	34%	-1%	-18%	37,880	37,954	3.9 x	13,143	14,646	10.1 x	20.65	1.7 x
55	HITACHI	6501-JP	22.4	103,794	107,660	33%	-22%	-9%	68,718	70,125	1.5 x	9,415	10,254	10.5 x	8.84	2.5 x
56	ENGIE	ENGI-FR	14.3	34,805	76,723	66%	5%	-10%	76,860	84,516	0.9 x	16,244	17,001	4.5 x	14.77	1.0 x
57	NIDEC CORPORATION	6594-JP	22.3	26,634	28,380	7%	-43%	28%	18,108	18,037	1.6 x	2,621	2,706	10.5 x	10.38	2.2 x
58	RWE AG	RWE-DE	34.2	25,471	34,881	26%	-16%	14%	26,276	27,920	1.2 x	6,161	5,674	6.1 x	52.80	0.6 x
59	CHUBU ELEC POWER	9502-JP	11.8	8,958	26,794	11%	-17%	13%	25,773	23,426	1.1 x	2,900	2,524	10.6 x	25.54	0.5 x
60	ZHEJIANG ZHENENG	600023-CN	1.0	13,121	19,176	10%	-29%	26%	12,113	11,151	1.7 x	2,268	2,470	7.8 x	0.78	1.3 x
61	BROOKFIELD RENEWABLE	BEP-US	24.8	7,085	59,964	19%	-22%	9%	3,246	6,677	9.0 x	2,533	2,859	21.0 x	12.07	2.1 x
62	TOKYO ELEC POWER	9501-JP	5.4	8,653	46,499	-2%	-55%	79%	46,849	45,775	1.0 x	-	5,288	8.8 x	14.08	0.4 x
63	FUJI ELECTRIC CO.	6504-JP	56.9	8,494	9,138	11%	-45%	6%	7,864	7,792	1.2 x	1,218	1,187	7.7 x	32.51	1.8 x
64	MERCURY NZ LTD	MCY-NZ	4.0	5,577	6,724	9%	-22%	21%	2,106	2,035	3.3 x	539	463	14.5 x	2.04	2.0 x
65	BHARAT HEAVY ELECT	500103-IN	3.6	12,559	12,882	11%	-44%	35%	3,314	4,518	2.9 x	143	357	36.1 x	0.81	4.5 x
66	SOJITZ CORPORATION	2768-JP	24.3	5,468	10,790	4%	-25%	26%	17,264	17,903	0.6 x	856	1,172	9.2 x	31.82	0.8 x
67	ULTRAPAR	UGPA3-BR	3.9	4,338	6,424	16%	-36%	58%	22,858	24,915	0.3 x	947	1,090	5.9 x	2.59	1.5 x
68	HUBEI ENERGY GR	000883-CN	0.8	5,393	11,861	3%	-26%	22%	2,750	2,810	4.2 x	949	984	12.1 x	0.73	1.1 x
69	IHI CORPORATION	7013-JP	29.9	4,620	7,573	279%	-1%	-48%	11,217	11,348	0.7 x	1,431	1,583	4.8 x	22.03	1.4 x
70	CIA ENERG MG-CEMIG	CMIG4-BR	1.8	3,392	6,607	25%	-8%	0%	6,357	6,897	1.0 x	1,586	1,333	5.0 x	1.79	1.0 x
71	ELEC POWER DEV	9513-JP	15.6	2,857	13,117	17%	-5%	-5%	8,883	8,200	1.6 x	1,718	1,506	8.7 x	50.58	0.3 x
72	ENCAVIS AG	ECV-DE	18.1	2,929	5,049	20%	-2%	1%	-	-	-	-	-	-	5.56	3.3 x
73	CENTRAIS ELET BRAS	ELET6-BR	7.2	2,021	25,422	19%	-17%	22%	7,162	7,116	3.6 x	3,876	3,854	6.6 x	9.33	0.8 x
74	TERNA ENERGY SA	TENERGY-GR	20.9	2,467	3,403	13%	-2%	2%	-	-	-	-	-	-	4.87	4.3 x
75	TAURON POLSKA	TPE-PL	1.0	1,726	5,650	147%	-18%	8%	9,392	8,799	0.6 x	1,717	1,922	2.9 x	2.97	0.3 x
76	ROMANDE ENERGIE	REHN-CH	62.8	1,789	1,754	4%	-26%	47%	938	1,011	1.7 x	144	122	14.3 x	102.6 3	0.6 x
77	RENEW ENERGY	RNW-US	6.2	1,524	9,437	23%	-17%	-9%	1,267	1,515	6.2 x	920	1,052	9.0 x	3.37	1.8 x
78	GEK TERNA S.A	GEKTERNA-GR	17.7	1,833	4,026	37%	-3%	-4%	3,700	4,418	0.9 x	460	673	6.0 x	20.57	0.9 x
79	FIRST GEN	FGEN-PH	0.3	1,102	2,512	29%	-11%	10%	2,579	2,426	1.0 x	1,044	881	2.9 x	0.97	0.3 x
80	KEPCO PLANT	051600-KR	27.6	1,241	1,114	74%	-7%	-8%	1,072	1,144	1.0 x	184	171	6.5 x	20.11	1.4 x

Monthly Newsletter – The Cleantech Industry

81	BCPG PCL	BCPG-TH	0.2	514	1,410	39%	-17%	5%	128	113	12.4 x	102	96	14.7 x	0.31	0.6 x
82	SHANGHAI ELECTRIC	2727-HK	0.2	573	9,406	187%	-6%	-46%	16,022	16,724	0.6 x	809	814	11.6 x	0.47	0.4 x
83	ABO WIND AG	AB9-DE	58.1	536	716	3%	-41%	55%	482	455	1.6 x	71	90	8.0 x	27.08	2.1 x
84	PETROVIETNAM	NT2-VN	0.9	245	224	4%	-28%	4%	233	275	0.8 x	30	34	6.6 x	0.53	1.6 x
85	AKER HORIZONS	AKH-NO	0.3	182	1,570	7%	-62%	27%	-	-	-	-	-	-	0.33	0.8 x
86	ENER INNOV	EIDF-ES	6.7	396	499	17%	-56%	97%	-	-	-	-	-	-	0.33	20.0 x
87	RENEWABLE JAPAN	9522-JP	5.4	161	962	57%	-39%	-33%	122	-	-	-	-	-	2.90	1.9 x
88	ALTIUS RENEWABLE	ARR-CA	6.7	207	140	31%	-6%	-	-	-	-	-	-	-	-	-
89	CLEARWISE AG	ABO-DE	2.2	165	304	6%	-26%	27%	41	51	5.9 x	26	32	9.4 x	2.48	0.9 x
	Batteries	Ticker		276,581	322,066				-17%	133,991	157,896	2.0 x	21,047	27,822	11.6 x	2.8 x
90	CATL	300750-CN	24.8	108,989	100,559	73%	-6%	-32%	50,069	60,799	1.7 x	11,336	13,812	7.3 x	8.32	3.0 x
91	LG ENERGY SOLUTION	373220-KR	237.2	55,504	65,520	39%	-18%	0%	17,901	18,512	3.5 x	2,436	4,029	16.3 x	67.01	3.5 x
92	ORSTED A/S	ORSTED-DK	53.3	22,390	33,314	27%	-34%	18%	9,995	11,549	2.9 x	4,442	4,390	7.6 x	24.59	2.2 x
93	LUCID GROUP INC	LCID-US	2.6	6,022	4,985	70%	-26%	-35%	808	1,387	3.6 x	(2,438)	(2,476)	-	1.04	2.5 x
94	SOLAREEDGE TECH.	SEDG-US	25.3	1,447	1,487	27%	-59%	80%	901	1,102	1.4 x	(1,213)	(199)	-	10.19	2.5 x
95	GENERAC	GNRC	132.2	8,014	9,279	48%	-25%	-13%	4,296	4,447	2.1 x	789	797	11.6 x	41.79	3.2 x
96	LITTELFUSE INC	LFUS-US	255.6	6,335	6,700	8%	-44%	9%	2,191	2,268	3.0 x	414	453	14.8 x	99.39	2.6 x
97	WUXI LEAD INTELLIG	300450-CN	2.3	3,585	3,801	70%	-20%	-16%	1,631	2,029	1.9 x	120	289	13.1 x	1.08	2.1 x
98	CHINA SHIPBUILDI.G	600482-CN	2.7	5,870	5,282	47%	-5%	-22%	7,097	8,267	0.6 x	382	556	9.5 x	2.45	1.1 x
99	CNGR ADVANCED	300919-CN	4.3	4,000	7,108	60%	-13%	-12%	5,519	6,886	1.0 x	598	714	10.0 x	3.06	1.4 x
100	ENERSYS	ENS-US	103.5	4,164	4,750	9%	-26%	17%	3,618	3,676	1.3 x	599	583	8.2 x	48.89	2.1 x
101	SHENZHEN KEDALI	002850-CN	10.5	2,838	3,122	95%	-9%	-22%	1,651	2,017	1.5 x	362	416	7.5 x	6.28	1.7 x
102	GOTION HIGH-TECH	002074-CN	2.6	3,501	9,190	83%	-8%	-29%	4,947	6,247	1.5 x	573	841	10.9 x	2.03	1.3 x
103	VOLTRONIC POWER	6409-TW	59.3	5,206	5,007	26%	-41%	5%	694	825	6.1 x	167	179	27.9 x	4.29	13.8 x
104	WUXI AUTOWELL	688516-CN	5.8	1,809	2,033	63%	-25%	-3%	1,258	1,062	1.9 x	237	184	11.1 x	1.88	3.1 x
105	FARASIS ENERGY	688567-CN	1.3	1,615	1,866	75%	-12%	-17%	1,608	1,556	1.2 x	105	131	14.2 x	1.12	1.2 x
106	FLUENCE ENERGY INC	FLNC	17.3	2,218	1,893	38%	-80%	7%	2,699	2,711	0.7 x	78	3	564.9 x	2.98	5.8 x
107	ZHUHAI COSMX	688772-CN	2.1	2,312	2,842	42%	-24%	-7%	1,591	1,986	1.4 x	290	326	8.7 x	0.92	2.2 x
108	BEIJING EASPRING	300073-CN	4.7	2,296	1,736	68%	-20%	-14%	1,045	1,479	1.2 x	103	164	10.6 x	3.66	1.3 x
109	HUNAN CHANGYUAN	688779-CN	0.6	1,229	1,534	56%	-10%	-13%	-	-	-	-	-	-	0.50	1.3 x
110	ZHEJIANG HANGKE	688006-CN	2.4	1,450	1,187	41%	-19%	-2%	410	517	2.3 x	53	89	13.3 x	1.21	2.0 x
111	GUANGZHOU GREAT	300438-CN	2.5	1,271	1,638	121%	-9%	-34%	1,093	1,277	1.3 x	68	113	14.5 x	1.41	1.8 x
112	SHENZHEN SENIOR	300568-CN	1.1	1,368	1,853	75%	-16%	-14%	487	578	3.2 x	144	213	8.7 x	1.04	1.1 x
113	KEHUA DATA CO	002335-CN	2.9	1,342	1,782	184%	-20%	-34%	1,065	1,325	1.3 x	131	190	9.4 x	1.63	1.8 x
114	ZHEJIANG NARADA	300068-CN	1.1	995	2,219	212%	-11%	-47%	-	-	-	-	-	-	0.59	1.9 x
115	ANKER INNOVATIONS	300866-CN	9.8	2,882	4,877	71%	-29%	-28%	3,401	4,356	1.1 x	329	400	12.2 x	2.46	4.0 x
116	SUNNOVA ENERGY	NOVA-US	5.6	692	8,940	133%	-100%	60%	840	933	9.6 x	605	648	13.8 x	14.65	0.4 x
117	W-SCOPE CHUNGJU	393890-KR	22.0	741	971	8%	-79%	190%	222	135	7.2 x	(7)	0	22,242.2 x	21.11	1.0 x
118	V-GUARD INDUSTRIES	532953-IN	5.2	2,251	2,288	33%	-34%	5%	652	736	3.1 x	60	71	32.2 x	0.52	10.0 x
119	SINENG ELECTRIC CO	300827-CN	2.2	1,102	1,254	144%	-8%	-49%	654	922	1.4 x	84	120	10.4 x	0.63	3.5 x
120	GUIZHOU ZHENHUA E-	688707-CN	1.3	682	915	60%	-17%	-11%	269	293	3.1 x	(30)	(32)	-	1.19	1.1 x
121	PEOPLE AND TECH.	137400-KR	48.8	1,110	1,182	-3%	-56%	86%	715	-	-	120	-	-	19.42	2.5 x
122	NIKOLA CORP	NKLA-US	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123	VARTA AG	VAR1-DE	9.4	402	1,008	34%	-93%	490%	-	-	-	-	-	-	-	-

Monthly Newsletter – The Cleantech Industry

124	FREYR BATTERY	FREY-US	1.7	237	8	98%	-46%	-41%	3	898	0.0 x	(104)	28	0.3 x	1.30	1.3 x
125	SHENZHEN CLICK	002782-CN	1.5	751	725	40%	-12%	-11%	-	-	-	-	-	-	0.59	2.6 x
126	ENCHEM CO LTD	348370-KR	163.5	3,323	3,494	4%	-76%	73%	-	-	-	-	-	-	18.28	8.9 x
127	LI-CYCLE	LICY-US	6.5	146	552	-21%	-100%	83%	28	-	-	-	-	-	8.65	0.8 x
128	HNAC TECHNOLOGY	300490-CN	1.0	390	503	58%	-14%	-8%	-	-	-	-	-	-	0.83	1.2 x
129	GOGORO INC	GGR-US	1.5	428	719	7%	-88%	190%	311	297	2.4 x	43	47	15.5 x	0.54	2.9 x
130	MICROVAST	MVST-US	0.5	145	269	935%	-67%	-79%	380	469	0.6 x	(33)	103	2.6 x	1.40	0.3 x
131	ZHEJIANG POWER	688184-CN	1.7	100	352	43%	-29%	-45%	-	-	-	-	-	-	1.76	0.9 x
132	CALB GROUP CO LTD.	3931-HK	2.0	1,214	7,969	31%	-29%	20%	3,820	5,095	1.6 x	556	821	9.7 x	2.69	0.7 x
133	FUJIAN NEBULA	300648-CN	2.3	345	472	141%	-8%	-37%	-	-	-	-	-	-	0.72	3.2 x
134	ENERGY VAULT	NRGV-US	0.9	141	7	184%	-37%	-60%	46	184	0.0 x	(60)	(29)	-	0.75	1.3 x
135	W-SCOPE CO	6619-JP	3.2	176	789	8%	-63%	81%	209	-	-	-	-	-	5.77	0.6 x
136	EOS ENERGY	EOSE-US	1.3	275	451	480%	10%	-77%	16	161	2.8 x	(156)	(90)	-	(4.15)	-0.3 x
137	ALLIS ELECTRIC	1514-TW	4.5	1,161	1,239	11%	-48%	43%	269	351	3.5 x	34	37	33.6 x	0.78	5.8 x
138	VITZROCELL CO LTD	082920-KR	15.6	357	279	48%	-22%	11%	145	182	1.5 x	-	-	-	9.42	1.7 x
139	VULCAN ENERGY	VUL-AU	2.5	473	394	118%	-14%	-35%	9	9	43.6 x	(37)	(61)	-	1.80	1.4 x
140	NHOA	NHOA-FR	1.2	320	238	21%	0%	-	-	-	-	-	-	-	-	-
141	LEOCH INTL	842-HK	0.2	287	598	80%	-11%	0%	-	-	-	-	-	-	0.45	0.5 x
142	FORSEE POWER	FORSE-FR	1.0	69	112	37%	-63%	36%	170	158	0.7 x	1	(4)	-	0.78	1.2 x
143	LARGO INC	LGO-CA	1.8	118	155	53%	-42%	6%	125	114	1.4 x	(1)	(20)	-	2.70	0.7 x
144	FDK CORPORATION	6955-JP	4.5	154	226	9%	-53%	32%	443	-	-	-	-	-	3.27	1.4 x
145	MPLUS CORP	259630-KR	8.1	99	91	21%	-41%	58%	-	-	-	-	-	-	5.39	1.5 x
146	NIPPON DENKAI LTD	5759-JP	6.4	58	127	1%	-100%	45039%	-	-	-	-	-	-	-	-
147	FLUX PWR HLDGS	FLUX-US	3.1	52	67	53%	-63%	95%	61	66	1.0 x	(4)	(3)	-	(0.26)	-11.9 x
148	PIONEER PWR	PPSI-US	4.0	39	38	76%	-43%	-14%	23	28	1.4 x	(4)	(4)	-	3.10	1.3 x
149	IDEAL PWR INC	IPWR-US	7.1	54	34	37%	-47%	-14%	0	0	489.6 x	-	-	-	1.86	3.8 x
150	GELION UK LTD	GELN-GB	0.3	38	29	34%	-58%	1%	3	4	8.2 x	(7)	(6)	-	0.09	3.0 x
	Fuel Cells	Ticker		47,347	53,937			-20%	37,268	36,939	1.5 x	5,265	4,999	10.8 x		2.8 x
152	CUMMINS INC	CMI	276.9	37,878	43,218	40%	-6%	-21%	34,102	33,136	1.3 x	6,326	5,401	8.0 x	79.33	3.5 x
153	PLUG POWER INC	PLUG-US	2.3	1,730	2,393	43%	-70%	-29%	629	737	3.2 x	(893)	(428)	-	1.90	1.2 x
154	BLOOM ENERGY	BE-US	12.2	2,779	3,695	144%	-26%	-46%	1,474	1,742	2.1 x	159	207	17.8 x	2.49	4.9 x
155	NEL ASA	NEL-NO	0.5	879	603	35%	-66%	101%	135	93	6.5 x	(19)	(37)	-	0.30	1.8 x
156	BALLARD PWR SYS	BLDP-CA	2.3	676	(18)	20%	-55%	36%	70	97	-0.2 x	(185)	(111)	-	2.30	1.0 x
157	DOOSAN FUEL CELL	336260-KR	15.4	1,006	1,549	20%	-45%	42%	285	407	3.8 x	12	14	111.5 x	4.42	3.5 x
158	SHINRY TECH.	300745-CN	2.0	334	268	69%	-13%	-7%	-	-	-	-	-	-	1.92	1.0 x
159	CERES POWER	CWR-GB	2.2	433	260	82%	-75%	4%	67	72	3.6 x	(30)	(19)	-	1.09	2.1 x
160	FUELCELL ENERGY	FCEL-US	19.2	318	195	13%	-81%	54%	112	147	1.3 x	(101)	(68)	-	26.75	0.7 x
161	NANOFILM TECH.	MZH-SG	0.5	365	354	35%	-40%	1%	153	179	2.0 x	37	43	8.2 x	0.47	1.2 x
162	SFC ENERGY AG	F3C-DE	20.7	359	303	50%	-19%	16%	156	207	1.5 x	23	32	9.5 x	9.55	2.2 x
163	POWERCELL SWEDEN	PCELL-SE	2.8	145	138	77%	-25%	-22%	31	44	3.2 x	(4)	(1)	-	0.72	3.8 x
164	HYZON MOTORS INC	HYZN	16.1	79	2	13%	-97%	1267%	-	-	-	-	-	-	-	-
165	BUMHAN FUEL CELL	382900-KR	16.1	141	206	-4%	-51%	89%	-	38	5.5 x	-	5	43.3 x	14.16	1.1 x
166	BEIJING SINOHYTEC	2402-HK	2.8	102	633	58%	-17%	8%	50	78	8.2 x	(55)	(27)	-	1.46	2.0 x
167	TECO 2030 ASA	TECO-NO	0.1	22	43	33%	-91%	114%	-	-	-	-	-	-	0.02	5.7 x

Monthly Newsletter – The Cleantech Industry

168	S-FUELCELL	288620-KR	11.2	78	64	-3%	-57%	85%	-	-	-	-	-	-	6.96	1.6 x
169	ADVENT TECH.	ADN-US	3.1	8	17	188%	-44%	-41%	-	-	-	-	-	-	(9.36)	-0.3 x
170	CELL IMPACT AB	CI-SE	0.0	14	14	39%	-86%	-51%	3	2	8.7 x	(6)	(6)	-	0.02	0.8 x
	Geothermal	Ticker		8,141	14,045			13%	4,334	4,610	3.0 x	1,784	1,910	7.4 x		1.4 x
171	ORMAT TECH.	ORA-US	71.7	4,332	6,559	23%	-14%	5%	880	957	6.9 x	550	582	11.3 x	40.57	1.8 x
172	PERTAMINA GEOTHERM	PCEO-ID	0.1	3,016	3,017	39%	-43%	25%	404	444	6.8 x	323	358	8.4 x	0.05	1.4 x
173	FIRST PHILIPPINE	FPH-PH	1.1	492	4,042	47%	-7%	14%	2,974	3,127	1.3 x	856	912	4.4 x	6.65	0.2 x
174	POLARIS RENEWABLE	PIF-CA	9.4	197	330	4%	-20%	1%	76	83	4.0 x	55	58	5.7 x	12.33	0.8 x
175	ENVIRONMENT FRIEND	3777-JP	0.2	65	59	145%	-39%	7%	114	-	-	-	-	-	0.08	3.0 x
176	BLUESTONE RES	BSR-CA	0.3	39	38	41%	-27%	15%	-	-	-	-	-	-	-	-
	GreenTech & Waste Mgt.	Ticker		122,637	166,759			6%	56,423	56,890	2.9 x	10,907	11,611	14.4 x		2.3 x
177	WASTE CONNECTIONS	WCN	175.4	45,247	53,241	15%	-3%	2%	8,920	9,531	5.6 x	2,902	3,159	16.9 x	31.02	5.7 x
178	XYLEM INC	XYL	135.6	32,883	34,380	6%	-26%	16%	8,562	8,762	3.9 x	1,763	1,879	18.3 x	44.44	3.1 x
179	GFL ENVIRONMENTAL	GFL	38.9	14,196	21,863	34%	-5%	-10%	5,500	4,766	4.6 x	1,574	1,416	15.4 x	15.25	2.6 x
180	CASELLA WASTE	CWST	99.2	5,667	6,698	22%	-8%	-14%	1,557	1,807	3.7 x	361	421	15.9 x	24.37	4.1 x
181	STERICYCLE INC	SRCL	58.1	5,394	7,297	7%	0%	-	-	-	-	-	-	-	-	-
182	ACEA SPA	ACE-IT	16.2	3,449	9,243	58%	1%	-16%	4,643	5,007	1.8 x	1,646	1,676	5.5 x	14.43	1.1 x
183	KEPPEL INFRA.	A7RU-SG	0.3	1,951	4,509	6%	-19%	-3%	1,643	1,776	2.5 x	323	380	11.9 x	0.12	3.0 x
184	SIMS LTD	SMSMY	6.9	1,329	1,796	55%	-7%	-6%	5,776	4,789	0.4 x	211	274	6.5 x	8.79	0.8 x
185	CHINA TIANYING INC	000035-CN	0.6	1,573	2,786	30%	-11%	-1%	780	807	3.5 x	254	262	10.6 x	0.64	1.0 x
186	ENERGY RECOVERY	ERII	13.3	762	659	53%	-18%	-5%	145	149	4.4 x	41	38	17.5 x	3.61	3.7 x
187	SHANGHAI ENV.	601200-CN	1.0	1,312	2,892	35%	-2%	-13%	862	879	3.3 x	235	250	11.6 x	1.18	0.8 x
188	PURECYCLE TECH.	PCT	5.9	975	1,254	163%	-24%	-47%	0	38	32.6 x	(106)	(53)	-	1.33	4.5 x
189	MONTROSE ENV	MEG-US	44.6	1,519	1,952	-8%	-76%	139%	696	762	2.6 x	96	107	18.3 x	12.65	3.5 x
190	GS ENGINEERING	006360-KR	10.9	934	3,716	67%	-6%	-7%	8,905	9,204	0.4 x	321	437	8.5 x	39.10	0.3 x
191	ENVIRI CORP	NVRI	8.6	691	2,197	48%	-45%	12%	2,340	2,297	1.0 x	319	310	7.1 x	5.08	1.7 x
192	NGL ENERGY	NGL-US	5.1	671	4,449	13%	-48%	2%	3,469	3,343	1.3 x	618	622	7.2 x	(1.29)	-3.9 x
193	CECO ENVIRONMENTAL	CECE	28.9	1,008	1,117	22%	-39%	-5%	558	721	1.5 x	63	90	12.4 x	8.11	3.6 x
194	WELLE ENV.	300190-CN	0.4	296	683	65%	-4%	-18%	-	-	-	-	-	-	0.51	0.7 x
195	TSUKISHIMA HOLDING	6332-JP	9.2	421	569	66%	-15%	2%	960	1,004	0.6 x	-	-	-	14.95	0.6 x
196	VERTEX ENERGY INC	VTNR	0.9	88	532	21%	-100%	2599%	-	-	-	-	-	-	-	-
197	VA TECH WABAG	533269-IN	15.4	955	929	49%	-17%	-20%	384	445	2.1 x	49	62	15.1 x	3.69	4.2 x
198	GREENTECH ENV.	688466-CN	1.6	202	208	66%	-12%	-11%	85	115	1.8 x	18	24	8.6 x	1.29	1.3 x
199	EKOPAK NV	EKOP-BE	19.6	291	323	4%	-78%	14%	54	98	3.3 x	(3)	13	24.2 x	3.26	6.0 x
200	CSD WATER SERVICE	603903-CN	1.0	195	453	16%	-23%	10%	-	-	-	-	-	-	0.83	1.2 x
201	DANIMER SCIENTIFIC	DNMR	24.1	70	423	16%	-99%	954%	-	-	-	-	-	-	70.08	0.3 x
202	DYNAGREEN ENV.	1330-HK	0.4	158	2,130	69%	-16%	-15%	469	495	4.3 x	222	244	8.7 x	0.81	0.5 x
203	GREEN IMPACT	GIP-CA	2.4	52	86	73%	-18%	13%	105	84	1.0 x	(2)	(3)	-	2.73	0.9 x
204	ASCENT INDUSTRIES	ACNT-US	9.8	99	130	40%	-16%	-16%	178	-	-	-	-	-	9.05	1.1 x
205	TACMINA CORP	6322-JP	13.0	101	70	17%	-22%	35%	77	-	-	-	-	-	10.35	1.3 x
206	NAGAOKA INTL	6239-JP	10.8	76	68	-4%	-40%	43%	64	-	-	-	-	-	6.98	1.5 x
207	EVERGEN INFRA.	EVGN-CA	1.5	20	42	38%	-80%	-10%	10	10	4.2 x	2	3	16.2 x	2.01	0.7 x
208	PUEQU CO LTD	9264-JP	10.6	49	65	15%	-36%	20%	56	-	-	-	-	-	6.22	1.7 x
	Hydro	Ticker		239,066	419,108			5%	175,925	201,680	2.1 x	43,506	50,310	8.3 x		1.3 x
209	VINCI	DG-FR	105.4	62,053	82,758	41%	-5%	7%	74,090	86,731	1.0 x	13,065	15,661	5.3 x	62.50	1.7 x

Monthly Newsletter – The Cleantech Industry

210	CEZ	CEZ-CZ	37.7	20,259	25,691	56%	-3%	-4%	14,950	15,417	1.7 x	5,964	5,969	4.3 x	22.59	1.7 x
211	ENDESA SA	ELE-ES	18.8	19,897	33,297	73%	1%	-13%	22,187	26,124	1.3 x	5,519	6,441	5.2 x	9.85	1.9 x
212	HUANENG LANCANG	600025-CN	1.5	26,705	44,538	19%	-22%	14%	3,416	3,792	11.7 x	2,505	2,906	15.3 x	0.47	3.2 x
213	S.P.E.E.H. HIDRO	H2O-RO	26.9	12,078	10,599	6%	-9%	5%	1,952	2,318	4.6 x	1,217	1,392	7.6 x	12.04	2.2 x
214	TATA POWER CO	500400-IN	5.3	16,880	23,509	12%	-29%	15%	7,626	8,543	2.8 x	1,580	1,754	13.4 x	1.31	4.0 x
215	MERIDIAN ENERGY	MEL-NZ	3.8	9,922	10,634	9%	-21%	15%	3,035	2,907	3.7 x	566	387	27.5 x	1.83	2.1 x
216	ORKLA ASA	ORK-NO	8.1	8,159	10,047	49%	-4%	-5%	6,310	6,965	1.4 x	960	986	10.2 x	4.78	1.7 x
217	BROOKFIELD RENEWABLE	BEP.UT-CA	24.7	7,076	59,954	19%	-22%	9%	3,246	6,677	9.0 x	2,533	2,859	21.0 x	12.73	1.9 x
218	NHPC LTD	533098-IN	1.2	12,131	16,463	17%	-33%	28%	1,204	1,568	10.5 x	631	906	18.2 x	0.47	2.6 x
219	BROOKFIELD RENEW.	BEPC-US	28.4	5,098	34,389	24%	-16%	27%	5,876	5,381	6.4 x	2,131	3,055	11.3 x	11.50	2.5 x
220	IDACORP INC	IDA-US	93.2	4,959	7,636	30%	-1%	-16%	1,818	1,905	4.0 x	589	635	12.0 x	61.95	1.5 x
221	PORTLAND GEN	POR-US	43.2	4,455	9,022	15%	-9%	-7%	3,440	3,599	2.5 x	1,035	1,182	7.6 x	35.10	1.2 x
222	CHINA SOUTHERN	600995-CN	1.3	4,249	6,542	28%	-10%	-4%	850	1,038	6.3 x	549	681	9.6 x	0.95	1.4 x
223	SJVN LTD	533206-IN	1.6	6,200	8,187	21%	-42%	29%	359	570	14.4 x	260	392	20.9 x	0.43	3.6 x
224	COLBUN S.A.	COLBUN-CL	0.1	2,263	3,502	31%	-8%	4%	1,576	1,668	2.1 x	642	690	5.1 x	0.19	0.7 x
225	BORALEX INC	BLX-CA	24.5	2,517	5,034	10%	-31%	23%	567	660	7.6 x	465	520	9.7 x	11.42	2.1 x
226	WEBUILD SPA	WBD-IT	2.2	2,234	1,883	104%	3%	-24%	12,984	14,939	0.1 x	1,050	1,285	1.5 x	2.02	1.1 x
227	INNERGEX	INE-CA	7.5	1,521	6,300	36%	-36%	34%	738	924	6.8 x	500	630	10.0 x	3.48	2.1 x
228	AKSA ENERJI	AKSEN.E-TR	1.3	1,648	2,253	3%	-43%	21%	-	931	2.4 x	-	278	8.1 x	0.93	1.5 x
229	ENEL GENERACION	ENGEPEC1-PE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
230	TANGSHAN JIDONG	000401-CN	0.6	865	3,963	58%	0%	-54%	3,481	3,318	1.2 x	501	651	6.1 x	1.42	0.4 x
231	BESTWAY MARINE	300008-CN	0.5	937	983	106%	-12%	-15%	542	623	1.6 x	40	47	20.9 x	0.17	3.1 x
232	SCATEC ASA	SCATC-NO	8.1	1,293	3,752	21%	-24%	16%	585	614	6.1 x	440	420	8.9 x	6.32	1.3 x
233	MANAWA ENERGY	MNW-NZ	2.5	786	1,071	55%	-8%	-20%	288	293	3.7 x	54	88	12.1 x	2.36	1.1 x
234	CK POWER PUBLIC	CKP-TH	0.1	868	1,777	14%	-40%	14%	303	322	5.5 x	139	123	14.4 x	0.11	1.0 x
235	MEIDENSHA CORP	6508-JP	22.7	1,033	1,298	70%	-19%	-18%	2,058	2,235	0.6 x	223	244	5.3 x	21.18	1.1 x
236	NAFCO CO LTD	2790-JP	19.1	568	451	6%	-45%	72%	1,227	-	-	-	-	-	43.36	0.4 x
237	TORISHIMA PUMP	6363-JP	19.7	573	545	6%	-43%	40%	593	610	0.9 x	56	68	8.0 x	14.56	1.4 x
238	NORTHWEST PIPE	NWPX-US	34.0	337	523	70%	-5%	-29%	493	490	1.1 x	69	63	8.4 x	37.84	0.9 x
239	TOKYO ENERGY	1945-JP	8.7	304	255	13%	-29%	30%	458	-	-	-	-	-	14.22	0.6 x
240	LITHIUM IONIC	LTH-CA	0.4	59	59	104%	-24%	-32%	0	0	-	(21)	(18)	-	(0.02)	-16.7 x
241	GIA LAI ELECTRIC.	GEG-VN	0.5	188	655	28%	-21%	11%	91	126	5.2 x	69	97	6.8 x	0.45	1.2 x
242	INDIAN HUME PIPE	504741-IN	4.8	255	303	51%	-33%	15%	175	192	1.6 x	22	23	13.3 x	3.05	1.6 x
243	DAIDO METAL	7245-JP	3.9	184	462	22%	-29%	17%	922	919	0.5 x	112	121	3.8 x	10.68	0.4 x
244	DAT PHUONG	DPG-VN	1.3	134	210	38%	-24%	18%	140	175	1.2 x	23	28	7.6 x	0.75	1.8 x
245	REACH SUBSEA	REACH-NO	0.8	208	349	29%	-30%	-8%	243	-	-	105	-	-	0.39	2.0 x
246	INIZIATIVE	IB-IT	15.0	78	191	12%	-9%	0%	29	35	5.5 x	21	25	7.6 x	16.65	0.9 x
247	IMAGINEER CO	4644-JP	6.2	66	5	21%	-1%	7%	44	-	-	-	-	-	8.67	0.7 x
248	SYNERTEC CORP	SOP-AU	0.1	26	19	28%	-75%	49%	13	-	-	(4)	-	-	0.01	5.0 x
	Nuclear	Ticker		206,019	385,780			-12%	92,527	98,231	3.9 x	28,514	31,034	12.4 x		2.3 x
249	CONSTELLATION	CEG-US	200.3	63,132	72,426	76%	-22%	-10%	23,568	23,952	3.0 x	4,869	5,006	14.5 x	41.34	4.8 x
250	PUBLIC SVC	PEG-US	73.7	36,709	57,458	29%	0%	-13%	10,290	11,049	5.2 x	4,021	4,583	12.5 x	32.81	2.2 x
251	ENTERGY CORP NEW	ETR-US	53.5	22,848	50,318	65%	-3%	-30%	11,875	12,919	3.9 x	5,041	5,721	8.8 x	35.25	1.5 x
252	CHINA NATL NUCLE.P	601985-CN	1.5	27,704	84,745	18%	-19%	-6%	10,625	11,610	7.3 x	6,326	7,078	12.0 x	0.76	1.9 x

Monthly Newsletter – The Cleantech Industry

253	CAMECO CORP	CCJ-US	49.2	21,384	22,312	53%	-29%	-4%	2,210	2,489	9.0 x	1,035	1,487	15.0 x	10.36	4.7 x
254	BWX TECHNOLOGIES	BWXT-US	95.0	8,684	9,864	53%	-11%	-15%	2,704	3,058	3.2 x	499	555	17.8 x	12.04	7.9 x
255	CHINA NUCLEAR ENGI	601611-CN	1.1	3,361	14,926	24%	-15%	-10%	15,633	16,831	0.9 x	1,475	1,313	11.4 x	0.99	1.1 x
256	CGN POWER CO LTD	1816-HK	0.4	4,919	55,680	6%	-33%	20%	11,948	12,096	4.6 x	5,144	5,129	10.9 x	0.33	1.3 x
257	NEXGEN ENERGY LTD	NXE-US	7.0	3,768	3,788	28%	-44%	0%	15	2	1,823.9 x	(44)	(52)	-	1.35	5.2 x
258	URANIUM ENERGY	UEC-US	6.0	2,457	2,357	49%	-36%	-17%	0	82	28.7 x	(41)	(44)	-	2.05	2.9 x
259	LANZHOU LS HEAVY	603169-CN	0.6	809	1,393	127%	-8%	-17%	797	934	1.5 x	69	71	19.7 x	0.35	1.7 x
260	DENISON MINES	DNN-US	2.0	1,776	1,671	24%	-46%	10%	3	13	131.0 x	(58)	(60)	-	0.40	4.9 x
261	ENERGY FUELS INC	UUUU-US	6.1	992	801	23%	-47%	-11%	78	42	19.1 x	(43)	(62)	-	2.70	2.2 x
262	SINOSEAL HOLDING	300470-CN	4.7	969	818	36%	-14%	-9%	214	247	3.3 x	65	76	10.8 x	1.88	2.5 x
263	BEIJER ALMA AB	BEIA.B-SE	19.5	1,050	1,432	31%	-29%	31%	660	807	1.8 x	127	142	10.1 x	7.76	2.5 x
264	JIANGSU SHENTONG	002438-CN	1.5	755	845	38%	-14%	-11%	293	344	2.5 x	85	82	10.3 x	0.99	1.5 x
265	CENTRUS ENERGY	LEU-US	42.8	653	638	394%	-22%	-40%	442	433	1.5 x	66	81	7.9 x	12.56	3.4 x
266	EAGLE INDUSTRY	6486-JP	12.0	596	657	24%	-11%	0%	1,153	-	-	-	-	-	17.43	0.7 x
267	TAIHEI DENGYO	1968-JP	33.2	688	494	20%	-17%	2%	862	953	0.5 x	-	-	-	37.75	0.9 x
268	NUSCALE PWR	SMR-US	11.7	1,035	948	288%	-41%	-57%	37	58	16.4 x	(161)	(121)	-	5.29	2.2 x
269	FISSION URANIUM	FCUUF	0.9	745	642	16%	-43%	-	-	-	-	-	-	-	-	-
270	UR-ENERGY INC	URG	1.4	394	360	9%	-61%	-6%	34	28	12.9 x	-	-	-	0.34	4.1 x
271	SUNG KWANG BEND	014620-KR	8.4	240	146	224%	-4%	-40%	157	186	0.8 x	33	39	3.8 x	14.58	0.6 x
272	WOOJIN INC	105840-KR	6.7	136	144	44%	-42%	60%	-	-	-	-	-	-	6.95	1.0 x
273	STUDSVIK	SVIK-SE	12.6	103	108	79%	-18%	18%	82	98	1.1 x	6	12	9.0 x	4.97	2.5 x
274	CHINA NUCLEAR	611-HK	0.0	76	803	76%	-8%	-9%	-	-	-	-	-	-	0.12	0.3 x
275	TVE CO LTD	6466-JP	15.1	37	3	12%	-18%	6%	72	-	-	-	-	-	33.11	0.5 x
	Smart Infrastructure	Ticker		408,763	488,182			4%	215,166	231,805	2.1 x	34,256	37,337	13.1 x		2.5 x
276	SIEMENS AG	SIE-DE	186.2	148,948	198,623	43%	-11%	-3%	80,304	92,512	2.1 x	14,181	16,472	12.1 x	86.11	2.2 x
277	ABB LTD	ABB	55.6	103,363	106,419	8%	-18%	5%	32,850	34,634	3.1 x	6,188	6,890	15.4 x	7.37	7.5 x
278	STMICROELECTRONICS	STMPA-FR	39.5	35,669	32,685	10%	-57%	60%	13,269	11,595	2.8 x	3,441	2,425	13.5 x	21.54	1.8 x
279	SIEMENS INDIA LTD	500550-IN	92.4	32,899	32,005	5%	-69%	21%	2,637	1,934	16.5 x	357	237	135.0 x	4.04	22.9 x
280	EVE ENERGY	300014-CN	5.5	10,156	13,936	51%	-21%	-14%	6,661	8,894	1.6 x	967	1,302	10.7 x	2.64	2.1 x
281	WESCO INTL INC	WCC-US	158.5	8,057	12,641	36%	-21%	-9%	21,819	22,547	0.6 x	1,509	1,508	8.4 x	103.18	1.5 x
282	SENSATA TECH.	ST-US	37.4	5,636	8,584	13%	-54%	41%	3,933	3,654	2.3 x	885	833	10.3 x	19.51	1.9 x
283	ACUITY BRANDS INC	AYI	241.4	7,428	7,416	43%	-10%	-17%	3,841	4,357	1.7 x	675	786	9.4 x	84.17	2.9 x
284	AGL ENERGY	AGL-AU	7.2	4,866	6,528	16%	-18%	3%	8,993	9,153	0.7 x	1,467	1,332	4.9 x	5.13	1.4 x
285	ADVANCED ENERGY	AEIS	108.8	4,072	4,108	28%	-31%	-6%	1,482	1,679	2.4 x	193	281	14.6 x	32.46	3.4 x
286	SHARP CORP	6753-JP	5.8	3,761	6,297	24%	-23%	-8%	14,610	12,988	0.5 x	492	457	13.8 x	1.65	3.5 x
287	HYUNDAI AUTOEVER	307950-KR	119.4	3,275	2,950	18%	-40%	39%	2,532	2,975	1.0 x	248	296	10.0 x	45.45	2.6 x
288	ITRON INC	ITRI-US	99.0	4,539	4,656	38%	-9%	-8%	2,441	2,468	1.9 x	325	335	13.9 x	32.66	3.0 x
289	VERRA MOBILITY	VRRM	27.2	4,529	5,398	14%	-28%	17%	879	930	5.8 x	402	413	13.1 x	1.88	14.5 x
290	BEIJING E-HUALU	300212-CN	2.3	1,675	2,381	113%	-16%	-27%	64	123	19.3 x	(85)	95	24.9 x	0.12	19.6 x
291	IREN SPA	IRE-IT	2.1	2,703	8,340	55%	-8%	6%	6,422	7,467	1.1 x	1,375	1,582	5.3 x	3.15	0.7 x
292	HANNON ARMSTRONG	HASI	29.6	3,375	7,596	24%	-26%	4%	384	397	19.2 x	223	325	23.4 x	19.83	1.5 x
293	FIBOCOM WIRELESS	300638-CN	2.4	1,802	1,853	160%	-40%	23%	1,131	1,164	1.6 x	130	102	18.1 x	0.68	3.5 x
294	KEC INTERNATIONAL	532714-IN	10.6	2,734	3,179	46%	-34%	-27%	2,560	2,934	1.1 x	176	243	13.1 x	2.21	4.8 x

Monthly Newsletter – The Cleantech Industry

295	TKH GROUP NV	TWEKA-NL	43.6	1,842	2,237	10%	-28%	34%	1,803	2,083	1.1 x	261	344	6.5 x	25.99	1.7 x
296	HEXING ELECTRICAL	603556-CN	6.4	3,150	2,553	15%	-47%	28%	645	756	3.4 x	173	198	12.9 x	2.08	3.1 x
297	NV5 GLOBAL INC	NVEE-US	23.2	1,501	1,730	12%	-37%	19%	941	1,027	1.7 x	144	165	10.5 x	12.84	1.8 x
298	TAIWAN SECOC	9917-TW	4.1	1,829	1,872	15%	-22%	9%	-	-	-	-	-	-	1.06	3.8 x
299	TOPCON CORPORATION	7732-JP	11.2	1,210	1,585	105%	-25%	-36%	1,461	1,502	1.1 x	158	187	8.5 x	6.79	1.6 x
300	ALFEN NV	ALFEN-NL	18.5	402	462	12%	-42%	49%	509	533	0.9 x	30	31	15.1 x	8.22	2.3 x
301	COSCO SHIPPING	002401-CN	2.1	765	559	46%	-17%	-5%	-	-	-	-	-	-	0.63	3.3 x
302	KAZAKHSTAN ELEC.	KEGC-KZ	3.1	810	1,036	2%	-11%	1%	-	-	-	-	-	-	4.97	0.6 x
303	PENTAMASTER CORP	7160-MY	1.1	758	703	8%	-61%	20%	141	151	4.7 x	28	31	22.9 x	0.26	4.2 x
304	SHANGHAI FUDAN	1385-HK	1.6	443	1,446	160%	-24%	-20%	494	571	2.5 x	130	171	8.4 x	1.00	1.6 x
305	JIAYUAN SCIENCE	301117-CN	2.5	328	261	62%	-16%	-15%	46	71	3.6 x	4	13	19.9 x	1.41	1.8 x
306	HANGZHOU EZVIZ	688475-CN	4.7	1,903	3,173	30%	-27%	14%	743	883	3.6 x	98	104	30.4 x	1.00	4.7 x
307	SHENZHEN LONGTECH	300916-CN	3.5	501	383	49%	-18%	-16%	-	-	-	-	-	-	1.32	2.6 x
308	SHIJIAZHANG KELIN	603050-CN	2.3	910	1,053	26%	-23%	18%	-	-	-	-	-	-	0.58	3.9 x
309	FARO TECHNOLOGIES	FARO	16.0	307	299	175%	-16%	-37%	342	347	0.9 x	40	53	5.7 x	13.53	1.2 x
310	AMERICAN SUPERCOND.	AMSC	23.4	865	786	76%	-40%	-19%	223	265	3.0 x	8	18	43.0 x	4.99	4.7 x
311	JIANGSU TONGXIN.	301339-CN	2.0	329	704	36%	-13%	5%	123	188	3.7 x	-	-	-	0.68	2.9 x
312	BILLION ELECTRONIC	3027-TW	1.2	142	126	12%	-44%	37%	-	-	-	-	-	-	0.64	1.9 x
313	ENERGY S.P.A	ENY-IT	1.5	81	92	1%	-53%	50%	40	57	1.6 x	(17)	0	215.4 x	0.96	1.6 x
314	DRAGONFLY ENERGY	DFLI-US	7.6	52	90	10%	-98%	-49%	51	65	1.4 x	(19)	(9)	-	(2.06)	-3.7 x
315	INVINITY ENERGY SY	IES-GB	0.2	109	50	41%	-59%	23%	7	30	1.7 x	(28)	(23)	-	0.20	1.2 x
316	POWERFLEET INC	PWFL	4.6	491	596	91%	-19%	-45%	363	436	1.4 x	71	104	5.7 x	3.35	1.4 x
317	CEPTON INC	CPTN-US	2.7	43	103	23%	-12%	-18%	-	-	-	-	-	-	-	-
318	INSEEGO CORP	INSG	10.7	127	286	94%	-41%	-18%	191	174	1.6 x	20	16	17.4 x	(0.87)	-12.3 x
319	ARQ INC	ADES	6.1	219	214	34%	-45%	-32%	109	124	1.7 x	7	16	13.0 x	5.17	1.2 x
320	ORION ENERGY SYS	OESX	1.1	36	43	-1%	-50%	35%	80	84	0.5 x	(3)	1	62.6 x	0.36	3.1 x
321	MERUS POWER OYJ	MERUS-FI	5.0	38	39	29%	-36%	22%	-	-	-	-	-	-	1.46	3.4 x
322	FERROAMP AB	FERRO-SE	0.9	35	40	8%	-90%	5%	-	-	-	-	-	-	0.24	3.9 x
323	TANTALUS SYSTEMS	GRID-CA	1.2	51	68	133%	-24%	-23%	44	52	1.3 x	1	2	43.3 x	0.13	8.7 x
	Solar	Ticker		90,050	123,827			14%	64,087	66,256	1.9 x	1,772	6,383	19.4 x		2.1 x
324	FIRST SOLAR INC	FSLR-US	225.5	24,134	22,818	17%	-48%	28%	4,206	5,053	4.5 x	1,843	2,200	10.4 x	76.34	3.0 x
325	ENPHASE ENERGY	ENPH-US	99.7	13,567	13,191	30%	-67%	51%	1,330	1,468	9.0 x	381	402	32.8 x	6.18	16.1 x
326	JA SOLAR TECH.	002459-CN	1.5	5,102	9,014	79%	-18%	-18%	9,627	10,368	0.9 x	285	920	9.8 x	1.11	1.4 x
327	XINJIANG DAQO	688303-CN	2.8	6,019	3,587	92%	-18%	-15%	1,020	645	5.6 x	(67)	225	15.9 x	2.59	1.1 x
328	TRINA SOLAR	688599-CN	2.3	5,075	9,972	80%	-25%	-11%	10,999	10,953	0.9 x	399	517	19.3 x	1.59	1.5 x
329	SUZHOU MAXWELL	300751-CN	16.4	3,176	4,397	19%	-45%	15%	1,353	1,269	3.5 x	154	187	23.5 x	3.84	4.3 x
330	ARRAY TECH.	ARRY-US	10.3	1,557	2,316	18%	-63%	69%	916	1,117	2.1 x	174	190	12.2 x	(0.64)	-16.0 x
331	HENGDIAN GROUP	002056-CN	1.7	2,753	2,361	34%	-9%	-2%	2,562	3,268	0.7 x	392	502	4.7 x	0.91	1.9 x
332	SUNRUN INC	RUN-US	11.9	2,629	14,988	88%	-55%	24%	2,038	2,244	6.7 x	(3,036)	204	73.6 x	11.51	1.0 x
333	SHOALS TECH.	SHLS-US	6.2	1,063	1,204	13%	-57%	15%	399	436	2.8 x	99	105	11.4 x	3.34	1.9 x
334	RISEN ENERGY	300118-CN	1.7	1,898	3,916	39%	-33%	3%	-	-	-	-	-	-	1.40	1.2 x
335	DAQO NEW ENERGY	DQ-US	14.6	964	(60)	111%	-15%	-26%	1,029	659	-0.1 x	(348)	(171)	-	64.86	0.2 x
336	CECEP SOLAR ENERGY	000591-CN	0.6	2,330	5,014	23%	-14%	-1%	828	997	5.0 x	-	-	-	0.85	0.8 x
337	NEXTRACKER INC	NXT-US	46.9	6,715	6,448	45%	-34%	24%	2,959	3,321	1.9 x	776	756	8.5 x	11.18	4.2 x

Monthly Newsletter – The Cleantech Industry

338	WUHAN DR LASER	300776-CN	6.3	1,727	1,784	97%	-11%	-27%	277	347	5.1 x	86	109	16.3 x	1.80	3.5 x
339	CANADIAN SOLAR	CSIQ	14.8	976	4,423	33%	-55%	31%	5,993	6,416	0.7 x	444	654	6.8 x	41.85	0.4 x
340	JINKOSOLAR HLDG	JKS-US	20.7	1,101	6,594	80%	-35%	-12%	12,639	10,337	0.6 x	311	(1,036)	-	50.63	0.4 x
341	JOLYWOOD	300393-CN	0.8	865	1,723	65%	-21%	-7%	-	-	-	-	-	-	0.41	1.9 x
342	JIANGSU SHUANGXING	002585-CN	0.7	787	1,080	31%	-17%	-6%	810	901	1.2 x	20	108	10.0 x	1.08	0.6 x
343	BRAVIDA HOLDING AB	BRAV-SE	7.4	1,515	1,851	37%	-7%	2%	2,728	3,006	0.6 x	199	250	7.4 x	4.56	1.6 x
344	SUNPOWER CORP	SPWR-US	1.1	55	135	201%	-5%	-62%	101	350	0.4 x	(41)	(18)	-	(1.11)	-1.0 x
345	DAEJOO ELECTRONIC	078600-KR	103.9	1,608	1,720	-3%	-54%	111%	151	193	8.9 x	28	39	44.1 x	11.48	9.1 x
346	WONIK IPS CO LTD	240810-KR	25.3	1,241	1,183	15%	-45%	68%	522	643	1.8 x	34	83	14.2 x	13.36	1.9 x
347	UNITED RENEWABLE	3576-TW	0.4	685	894	10%	-51%	37%	-	-	-	-	-	-	0.23	1.8 x
348	MAXEON SOLAR	MAXN-US	85.3	48	394	-60%	-97%	-63%	509	1,000	0.4 x	(376)	58	6.7 x	(17.58)	-4.9 x
349	HUBEI HUITIAN NEW	300041-CN	1.1	611	819	39%	-12%	-10%	545	630	1.3 x	46	47	17.4 x	0.75	1.5 x
350	ABALANCE CORP	3856-JP	8.9	160	477	10%	-67%	80%	1,402	-	-	-	-	-	9.51	0.9 x
351	JIANGSU YUXING	300305-CN	0.8	305	315	34%	-27%	11%	151	162	1.9 x	(33)	11	27.9 x	0.85	1.0 x
352	TES CO LTD	095610-KR	19.3	382	259	5%	-53%	107%	165	217	1.2 x	30	44	5.9 x	14.22	1.4 x
353	THAI SOLAR ENERGY	TSE-TH	0.0	60	178	33%	-70%	7%	-	-	-	-	-	-	0.04	0.6 x
354	OTOVO ASA	OTOVO-NO	0.2	47	33	38%	-60%	114%	58	73	0.5 x	(30)	(15)	-	0.15	1.1 x
355	CHUGAI RO CO LTD	1964-JP	21.1	165	138	32%	-27%	0%	254	-	-	-	-	-	26.72	0.8 x
356	SUZHOU DELPHI	688170-CN	3.0	241	244	41%	-20%	-1%	98	121	2.0 x	3	12	20.8 x	1.65	1.8 x
357	NPC INC.	6255-JP	7.5	166	132	23%	-46%	36%	72	63	2.1 x	18	-	-	3.20	2.4 x
358	INTEVAC INC	IVAC-US	3.9	103	48	8%	-36%	14%	64	-	-	-	-	-	-	-
359	GANTAN BEAUTY	5935-JP	9.9	38	42	43%	-5%	6726577%	-	-	-	-	-	-	10.95	0.9 x
360	SOLARMAX TECH.	SMXT	3.3	148	174	35%	-82%	93%	-	-	-	-	-	-	(0.35)	-9.5 x
361	SUPER TOOL	5990-JP	13.7	32	23	6%	-13%	13%	37	-	-	-	-	-	30.22	0.5 x
	Wind	Ticker		519,357	793,639			0%	167,750	196,428	4.0 x	56,844	64,544	12.3 x		2.6 x
362	NEXTERA ENERGY	NEE-US	70.8	145,481	233,987	22%	-13%	-1%	24,753	28,352	8.3 x	13,933	16,674	14.0 x	24.19	2.9 x
363	GE AEROSPACE	GE-US	159.0	174,010	173,870	64%	-6%	-2%	35,121	39,877	4.4 x	8,554	9,466	18.4 x	18.05	8.8 x
364	IBERDROLA SA	IBDRY-US	51.9	83,401	144,607	49%	-2%	0%	46,587	53,747	2.7 x	17,746	18,862	7.7 x	32.51	1.6 x
365	DOMINION ENERGY	D-US	49.0	41,072	84,083	26%	-2%	-11%	14,459	16,310	5.2 x	7,016	7,831	10.7 x	30.92	1.6 x
366	EVERSOURCE ENERGY	ES-US	56.7	19,976	48,291	22%	-8%	-5%	11,901	13,196	3.7 x	4,432	4,878	9.9 x	41.77	1.4 x
367	AVANGRID INC	AGR-US	35.5	13,750	27,796	2%	-1%	-	-	-	-	-	-	-	-	-
368	NORTHLAND POWER	NPI-CA	17.2	4,408	9,797	6%	-35%	35%	1,626	1,747	5.6 x	875	958	10.2 x	11.83	1.5 x
369	MING YANG SMART	601615-CN	1.3	2,951	5,373	60%	-12%	-20%	3,728	5,708	0.9 x	182	508	10.6 x	1.73	0.8 x
370	NEOEN SA	NEOEN-FR	40.4	6,169	9,433	11%	0%	-7%	-	-	-	-	-	-	21.05	1.9 x
371	SUZLON ENERGY	532667-IN	0.6	8,634	8,606	62%	-16%	-13%	1,273	2,071	4.2 x	219	366	23.5 x	0.04	15.1 x
372	TITAN WIND ENERGY	002531-CN	1.2	2,211	3,690	14%	-33%	14%	667	1,016	3.6 x	185	289	12.8 x	0.70	1.8 x
373	CECEP WIND-POWER	601016-CN	0.4	2,664	5,522	25%	-12%	-5%	692	739	7.5 x	585	579	9.5 x	0.39	1.1 x
374	NORDEX SE	NDX1-DE	12.3	2,899	2,727	78%	-11%	5%	7,600	9,002	0.3 x	308	563	4.8 x	4.91	2.5 x
375	CLEARWAY ENERGY	CWEN-US	24.7	2,036	13,712	33%	-2%	-6%	1,371	1,470	9.3 x	1,146	1,222	11.2 x	16.49	1.5 x
376	CS WIND CORP	112610-KR	36.0	1,517	2,307	53%	-44%	29%	2,115	2,262	1.0 x	289	391	5.9 x	21.66	1.7 x
377	QINGDAO TIANNENG	300569-CN	0.6	586	1,156	65%	-8%	-15%	-	-	-	-	-	-	0.73	0.8 x
378	INOX WIND LTD	539083-IN	1.7	2,216	2,631	85%	-11%	-20%	425	783	3.4 x	88	143	18.4 x	0.24	7.1 x
379	WINDEY ENERGY	300772-CN	1.3	918	1,893	72%	-7%	-27%	3,342	4,405	0.4 x	79	111	17.0 x	1.15	1.2 x
380	ALIMAK GROUP	ALIG-SE	10.9	1,168	1,439	46%	-12%	4%	658	745	1.9 x	132	158	9.1 x	7.25	1.5 x

381	VRL LOGISTICS	539118-IN	6.7	590	712	10%	-27%	14%	369	392	1.8 x	67	75	9.6 x	1.33	5.1 x
382	JIANGSU HAILI WIND	301155-CN	5.5	492	1,326	96%	-11%	-24%	186	802	1.7 x	21	147	9.0 x	3.52	1.6 x
383	FICONT INDUSTRY	605305-CN	3.5	754	536	32%	-20%	-9%	178	232	2.3 x	45	66	8.2 x	1.76	2.0 x
384	EUROGROUP	EGLA-IT	4.4	413	1,053	6%	-48%	60%	940	1,116	0.9 x	121	132	8.0 x	3.20	1.4 x
385	GURIT HOLDING AG	GURN-CH	58.6	274	342	2%	-80%	250%	481	440	0.8 x	34	43	8.0 x	15.92	3.7 x
386	GOLDWIND SCI&TECH	2208-HK	0.4	315	7,728	148%	0%	-52%	7,794	10,413	0.7 x	813	1,051	7.4 x	1.18	0.3 x
387	CS BEARING CO LTD	297090-KR	5.1	140	156	30%	-51%	73%	-	-	-	-	-	-	2.56	2.0 x
388	TPI COMPOSITES INC	TPIC-US	4.0	189	710	32%	-84%	106%	1,335	1,441	0.5 x	(39)	19	38.3 x	(8.65)	-0.5 x
389	BROADWIND INC	BWEN-US	3.3	71	103	13%	-57%	67%	143	151	0.7 x	13	14	7.4 x	2.59	1.3 x
390	WINDAR PHOTONICS	WPHO-GB	0.6	50	52	35%	-23%	-31%	5	11	4.7 x	(1)	3	18.9 x	0.13	4.8 x

IMPORTANT DISCLOSURES

This third-party research report has been prepared by Intro-act and PartnerCap Securities; LLC (henceforth “PartnerCap”) has reviewed the said research report for compliance with the applicable provisions of the relevant regulations. Based on representations of the research provider, PartnerCap has a reasonable belief such research is objective and reliable and is not in possession of information that would prove otherwise. PartnerCap Securities, LLC and Intro-act have common ownership.

PartnerCap shall not be considered to have distributed a third-party research report where the research is an independent third-party research report and is made available (a) upon request; (b) through a member-maintained website; or (c) to a customer in connection with a solicited order in which the registered representative has informed the customer, during the solicitation, of the availability of independent research on the solicited equity security and the customer requests such independent research.

In addition, PartnerCap assumes no warranty, liability or guarantee for the current relevance, correctness or completeness of any information provided. Furthermore, PartnerCap assumes no liability for any direct or indirect loss or damage or, in particular, for lost profit, which you may incur as a result of the use and existence of the information, provided within the report. This electronic message and any attachments has been provided only to the person or entity to which it is addressed and has been provided for informational purposes only and should not be used or construed as an offer to sell, a solicitation, an offer to buy, or a recommendation for any security and is not purported to be tailored to any particular investor and may not be re distributed.

Other than disclosures relating to PartnerCap and its affiliates, the information herein is based on sources we believe to be reliable but has not been independently verified by us and does not purport to be a complete statement or summary of the available data. No representation is made that such information is accurate in all material respects, complete or up to date. PartnerCap is under no obligation to update, modify or amend the information and it does not accept any liability for any loss or damage, however caused, arising from any errors, omissions, or reliance on any information or views presented.

Information and securities mentioned may reflect a third party's independent opinions and are not recommendations of PartnerCap. The commentary is a general discussion based on short term market factors or current market trends, and may differ from, or be inconsistent with the views of other sales and trading personnel within the Firm or the long-term views of research analysts employed by PartnerCap.

The third-party research sourced information is the exclusive property of Intro-act; and without its permission, this information and any other intellectual property may not be reproduced, re-disseminated or used to create any financial products, including any indices. This information is provided on an “as is” basis. The user assumes the entire risk of any use made of this information. The third-party research analyst, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information.

Neither PartnerCap or Intro-act beneficially own 1% or more of any class of common equity securities of the subject company covered in the said research report.

Intro-act Disclosures

Analyst Certification: I, Shreya Chaware, certify that the views expressed in the research report accurately reflect my professional views about the subject securities or issues. Intro-act issued this report and may seek fees for the assistance with investor targeting, access, and further investor preparation services. Intro-act will not seek remuneration for any investment banking service or investment advice.

Accuracy of content: All information used in the publication of this report has been compiled from publicly available sources who are believed to be reliable. However, the issuer and related parties, as well as Intro-act, do not guarantee the accuracy or completeness of this report, and have not sought for this information to be independently verified. Opinions contained in this report represent those of the Intro-act analysts at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, and estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties, and other factors that may cause the actual results, performance, or achievements of their subject matter to be materially different from current expectations.

AI-generated content: Content in this research report is AI-generated. Intro-act employs its proprietary AI research system for content-generation, based on a universe of credible and authentic source documents. The system functions under an overall manual supervision, and thus the creative control over the content generated by the system lies with its human authors. The AI content is not mere “mechanical reproduction” and instead is the result of the human author’s “own original mental conception, to which [the author] gave visible form.” The AI-generated content from the system is sufficiently modified so as to meet the standards for copyright protection. Intro-act thus claims that the work as a whole constitutes an original work of human authorship, and the content in this research report has sufficient human authorship to support a copyright claim, according to the Copyright Registration Guidance, published by the U.S. Copyright Office on 03/16/2023.

Exclusion of Liability: To the fullest extent allowed by law, Intro-act, Inc. shall not be liable for any direct, indirect, or consequential losses, loss of profits, damages, or costs or expenses incurred or suffered by you arising out or in connection with the access to, use of, or reliance on any information contained in this note.

No personalized advice: The information that we provide should not be construed in any manner whatsoever as personalized advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Intro-act's solicitation to affect, or attempt to affect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

Investment in securities mentioned: Intro-act has a restrictive policy relating to personal dealing and conflicts of interest. Intro-act, Inc. does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees, and contractors of Intro-act may have a position in any or related securities mentioned in this report, subject to Intro-act's policies on personal dealing and conflicts of interest.

Copyright: © 2025 Intro-act, LLC

Intro-act is not registered as an investment adviser with the Securities and Exchange Commission. Intro-act relies upon the “publishers’ exclusion” from the definition of investment adviser under Section 202(a) (11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Intro-act does not offer or provide personal advice, and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell, or hold that or any security, or that any particular security, portfolio of securities, transaction, or investment strategy is suitable for any specific person.