

# Tesla Unveils 'Masterplan 3' and Ways to Invest in Renewable & Energy Transition Companies

written by Matt Bohlsen | April 17, 2023

[Tesla's](#) (NASDAQ: TSLA) [Master Plan 3](#) was released in detail on April 5, 2023, and it gives the world a road map on how the world can transition to a clean sustainable energy future. It is arguably one of the most important documents ever released in history.

Key pillars of the plan include re-powering the existing grid with renewables (including solar, wind, geothermal, and hydro), switching to electric vehicles ("EVs"), switching to heat pumps, and some use of green hydrogen for high-temperature applications. Elon Musk also supports smart nuclear as a good base load power option, especially when compared to fossil fuel power, especially coal.

To achieve this, the world needs to build out a new infrastructure and a key part is stationary energy storage, mostly using batteries. Musk's Master Plan 3 suggests we need a massive 240 TWh of energy storage globally to support both energy production and EVs. To get some perspective on this number, in 2022, the world produced only about [700 GWh](#) of lithium-ion batteries. 240 TWh is equal to 240,000 GWh, which is **342x** the current 700 GWh.

Of course, other energy storage apart from lithium-ion can be used, but certainly, the electric transport sector will rely on lithium-ion and it is estimated to need 112 TWh of the total 240

TWh needed. If the world was to steadily grow and reach 20TWh per annum (“pa”) of new energy storage production starting in 2030, then it would take 12 years ( $240/20=12$ ) to reach the end goal sometime around 2042. In terms of costs, the plan suggests it would cost about US\$10 trillion, which is only 10% of the world’s 2022 GDP. Also because electrification for transport and heat pumps are much more efficient, then the world would only need to produce 1/2 as much energy.

## Tesla Master Plan 3 – The world needs 240 TWh of energy storage to become clean energy sustainable and avoid using fossil fuels



Figure 2: Estimated Resources & Investments Required for Master Plan 3

Source: [Tesla Master Plan 3 \(April 5, 2023\)](#)

## Investing in renewable & energy transition companies

One way to cover many of the areas discussed above is via some or all of the Sprott ETFs shown below:

- [Sprott Energy Transition Materials ETF](#) (NASDAQ: SETM)
- [Sprott Physical Uranium Trust](#) (TSX: U.UN | OTCQX: SRUUF)
- [Sprott Uranium Miners ETF](#) (NYSE: URNM)
- [Sprott Junior Uranium Miners ETF](#) (NASDAQ: URNJ)
- [Sprott Lithium Miners ETF](#) (NASDAQ: LITP)
- [Sprott Nickel Miners ETF](#) (NASDAQ: NIKL)

- [Sprott Junior Copper Miners ETF](#) (NASDAQ: COPJ)

Some other EV, battery, and battery metals ETFs include:

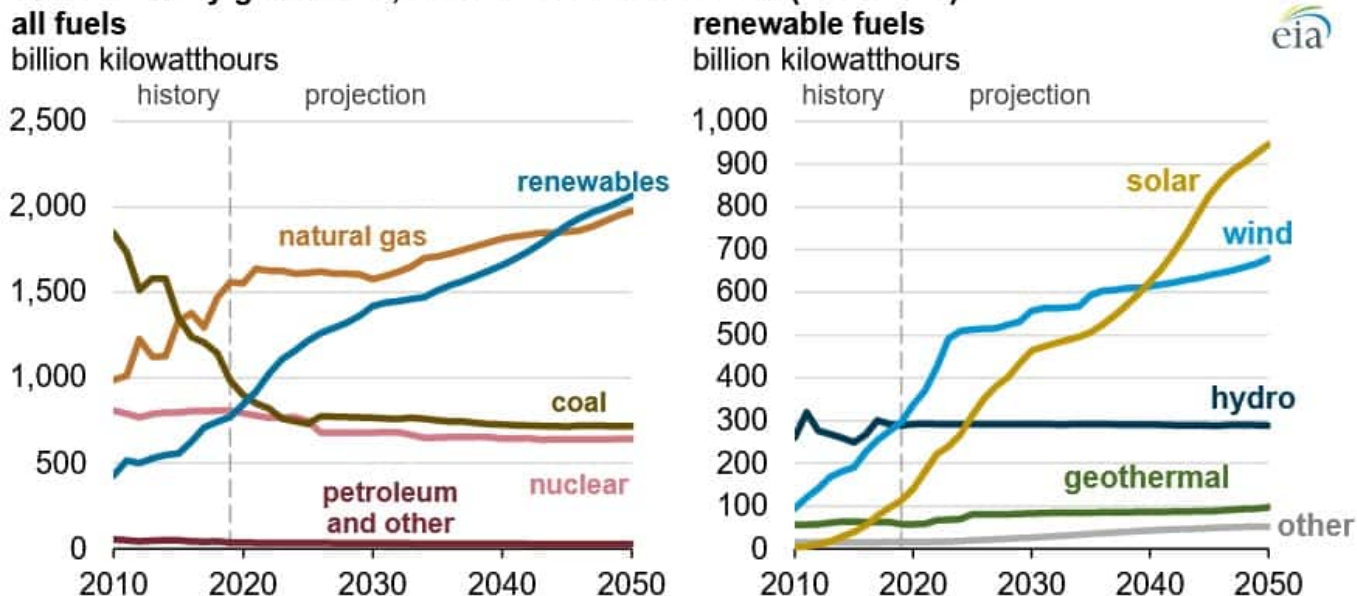
- [Amplify Lithium & Battery Technology ETF](#) (NYSE Arca: BATT)
- [ProShares S&P Global Core Battery Metals ETF](#) (NYSE Arca: ION)
- [Global X Lithium & Battery Tech ETF](#) (NYSE Arca: LIT)

The fact that renowned investor Eric Sprott has recently added several new energy transition ETFs bodes well for the various sectors. It also helps individual and professional investors gain broad access to these markets via a single ticker.

Another way to invest in these themes is via companies covered by [InvestorIntel.com](#). Probably the best place to start is looking under the [Critical Minerals & Rare Earths](#) tab and the [ESG & Cleantech](#) tab.

## EIA data and forecasts showing solar and wind to grow the fastest to 2050

**U.S. electricity generation, AEO2020 Reference case (2010-2050)**



Source: U.S. Energy Information Administration, *Annual Energy Outlook 2020*

## Closing remarks

Tesla continues to lead the world toward a clean and sustainable energy future. Their Master Plan 3 gives a concise and detailed picture of what needs to be done. It details solar and onshore wind as the two cheapest forms of energy production ([page 19](#)) and lithium-ion batteries as the cheapest energy storage ([page 18](#)) solution.

The clean energy transition has already begun with solar and wind as the fastest-growing new energy generation globally and battery energy storage global growth is [set to double in 2023](#). To meet all the 240 TWh of global energy storage needed, lithium-ion battery capacity would need to grow by several hundred times. The global electric vehicle market share [reached 13%](#) in 2022 and is a key part of this megatrend.

The global energy transition and transport electrification is the biggest trend of our time, at least until the full build-out is completed by approximately 2050. Investors should embrace the change and understand it is inevitable.

Our children, grandchildren, and future generations will also want to enjoy a clean planet one day.