Tesla Gigafactory

What the heck is a Gigafactory. A Gigafactory is where Tesla plans to build new Lithium-Ion batteries for Tesla. There is also plans to begin building the electric cars in this same factory. This is the first of this kind of factory, and it sounds like there are more to come. There will likely be more factories built in locations that Tesla motors sell well in. This is a direct to consumer approach. With a goal to push the world to sustainable energy, there will need to be a way to store this power.

The first phase of Gigafactory 1 is underway. The building measures 5.5 million square feet, making it the largest building in the world in terms of its foot print. At full capacity, batteries will exit like a machine gun. It will run on 100% renewable energy. The building is earthquake proof, it is being built to withstand a large earthquake.



The Gigafactory has already began production on the batteries that it will be using in the vehicles that will also be produced there. Theses same batteries are also being used in Power packs and Powerwall’s for longer term storage from solar panels. The factory is estimated to cost around $5 billion. Panasonic plans to invest in the Gigafactory as well. Tesla expects to be able to decrease the cost in producing rechargeable batteries and in turn being able to produce the electric cars at a lower cost. With the world turning away from energies such as coal, renewable energy is the way of the future.

With any emerging technology, there will be difficulties. Building a factory of this size takes time and a lot of money. Nevada was chosen and construction began in 2014. There are many reasons to choose a specific location. Nevada is close to where the first Tesla factory is, and there was a very large tax incentive for them to build in Nevada. The state of Nevada allowed them to get this factory going quickly. The mass market electric car is going to be built because of this factory.

The Gigafactory is the largest Lithium-Ion battery factory in the world. In fact, it is larger than all the other battery factories put together. With a goal to be completely self sufficient between geo-thermal, wind and solar technologies. Usually the Lithium is mined and liquid is evaporated off over a year. Tesla plans to do this much faster to allow for increased manufacturing. With the mine only 200 miles south of the factory. Keeping all aspects under 1 roof will allow Tesla to make sure the quality is superior.

The Gigafactory is a needed new technology. We all want to enjoy living in a beautiful world. With pollution getting worse, air quality getting worse, emissions from vehicle polluting our air and water, the Gigafactory can bring us an affordable way to store electricity. The Power packs and the Powerwall’s can be used to store power for a solar home to use when the sun goes down, or they can be used to inject more electricity into the power grid when power consumption is at the highest. This is the kind of technology that can reduce the number of blackouts, and brownouts that occur during high power consumption.

The batteries that are being produced can be recharged many times and allow for a steady discharge. These batteries have a finite lifespan, usually 2-3 years or 300 to 500 charge cycles. These batteries these batteries are scalable, meaning that you can continue to put more batteries together to create a way to store more energy. This is how the battery packs are made for electric vehicles and storage packs. On July 6, 2017 Tesla announced a project in Southern Australia. The Tesla power pack will be installed to help maintain a reliable electrical infrastructure during peak times. The power packs will be charged from a local wind farm to store the renewable energy for use later. This type of technology will provide power for more than 30,000 homes.

The Gigafactory has a preliminary goal of 35 gigawatt hours of battery production per year. This is a very large amount. This is the same as 35 billion watts of power for 1 hour. This will bring Tesla closer to the goal of producing 500,000 electric vehicles per year. The plan is to move productions of the Tesla Model 3 to Gigafactory 1 for production and assembly. This will keep all the manufacturing under 1 roof. Tesla has Gigafactory 2 up and running, and it is a Solar cell facility. There they produce solar panels, and soon, solar shingles for a roof. There are plans for 3, 4, and 5. However, the locations have not yet been announced. China is a country that is quickly moving towards renewable energy and is a huge consumer of electric cars. China is in the running for a Gigafactory as well.

Tesla and the Gigafactory are right on track trying to create an affordable electric car. With the increased capacity doors are being opened to own a net zero house, or run, a net zero company. Being able to harness renewable energy and store is for later use, in an affordable way. With more technology like this available, we will be able to run our home all day long on the power of the sun. There is a lot for Tesla to learn from this first factory. There will be more wonderful things to come.

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