



In here we are explaining the early power station with 4 panels. The first one on the right is Edison's Pearl Street Steam Electric Station. First business model in the world to sell the electricity. In 1882, in the area of 500sqm Pearl Street, New York, he supplied 150V DC (direct current) from the power station which was in the same area. Because of the resistance of power lines, they can't be transported far away due to the loss of heat caused by high current. At that time, only a few hundred meters of power was able to be transmitted. On the next left panel, we are showing Deptford Power Station in U.K., in 1887. This power station designed by Ferranti uses alternating current instead of direct current for power transmission. It also uses new technology such as transformers to raise the voltage to supply power the urban area of London, more than 10 km away. Compared to Edison's 150 V voltage, he transmitted 10k V voltage. If the voltage is higher, you may need lesser current. That eliminate the waste a lot. Now look at the panel of the left end. Edison insisted DC (Direct Current) was the superior so that he was always arguing with Nikola Tesla who insisted AC (Alternating Current) was the superior. After a great success of AC hydroelectric power plant at Niagara Falls by adopting a process invented by Tesla, AC power generation turned to be the superior of the two. In order to send electricity to distant places without waste, alternating current was excellent because it could easily raise and lower the voltage with a transformer. Electricity generated by power station is transmitted at high voltage, 500,000 V nowadays to be transmitted over the greatest distance possible. If you look back, you may see the exhibitions about today's power plant. Even though it comes to near your house, the voltage remains around 6,600 V. So with using transformer on electric poles, it will be 100 V when the electricity reaches your house. #6 will be about Pixii's generator.