Concentrating Solar Power

In 2015, Nevada had two major concentrating solar power plants in operation. The Crescent Dunes plant near Tonopah has a 125 MW capacity. It uses molten salt to store the solar energy. The molten salt flows from the central tower to a storage tank where it is used to generate steam and produce electricity. Nevada Solar One in Boulder City, has a capacity of 64 MW. Parabolic troughs are used heat a fluid that is then used to produce steam that drives a steam turbine.

The solar resource in Nevada is much larger than Nevada’s consumption could ever be.

**Level 1**
We assume that no new concentrating power plants are built in Nevada. We have 70MW of electricity production.

**Level 2**
Add one plant like Crescent Dunes (50MWe) every ten years.

**Level 3**
Add one plant like Crescent Dunes every five years. 0.4 GW of electricity are produced by 2050.

**Level 4**
Increase to one GW of electricity production by 2030 and then to12 GW by 2050, a truly massive investment and effort that would require about 1500 km² of land.

The Crescent Dunes Solar Energy Project near Tonopah, Nevada.