

## System Degradation Calculations

In solar power plant the major degradation is about the solar panels, as their efficiency reduces over the years. The selected solar panel is for reputed company having the degradation of 0.55% over the span of 30 years. The annual degradation calculated and found that after 30 years the plant will able to produce around 42 MW of electricity. So, over the span 30 years, power plant will lose around 8 MW at least. The degradation is linear and each year equal percentage of power degrades from the power plant. The graph of power loss over the 30 years span has shown below.

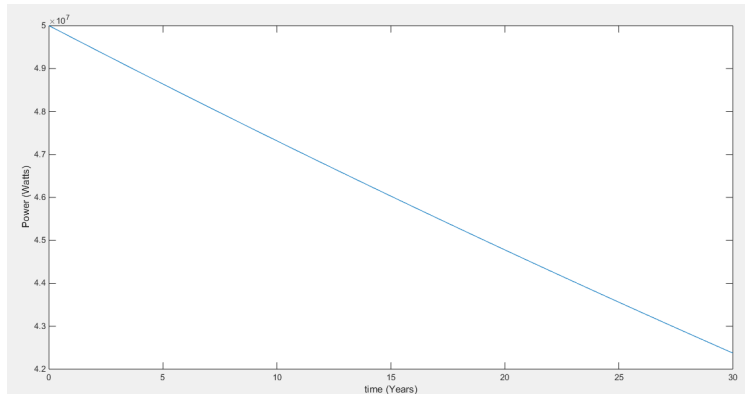


Figure 2: Degradation of total power plant

It can see from the above graph that the power loss is linear decreasing over the time period and hence the degradation will be same from start till end in this case.

### Degradation Calculations 2

Using the inverter, the power that will reduce over the 30 years will be only 2.2 MW, hence after 30 years 47.798 MW.

