

## SUSTAINABILITY IN THE BUILT ENVIRONMENT

### DESIGN A SOLAR PHOTOVOLTAIC (PV) SYSTEM!

[Note: you will need to watch sustainability video starting at the 16:45 mark, for a guide on this activity.]

Sustainability is using resources at a rate/quantity that does not deplete those resources for future generations or the surrounding ecology. Can you design a solar panel system that can save energy in our everyday lives?



#### 1. DESIGN YOUR SYSTEM

Visit <https://pvwatts.nrel.gov/> and design your solar system

#### 2. IDENTIFY YOUR LOCATION

Choose your location (zip code)

#### 3. CONVERT

Convert your system's AC Watts to DC Watts

#### 4. CALCULATE INSTALLATION

Calculate solar system installation cost --\$2/DC Watt

#### 5. CALCULATE PAYBACK

Calculate simple payback period --[annual energy savings]/[installation