

Exploring Solar Power Plants with Google Earth

Solar energy comes from the sun. In this activity, you will use Google Earth to explore solar power plants. You will

1. Learn some basic features of Google Earth.
2. Explore five existing solar power plants around the world.
3. Use the **Ruler** tool to measure the perimeter of solar power plants.

Read **all** instructions and answer **each** question on your field guide.

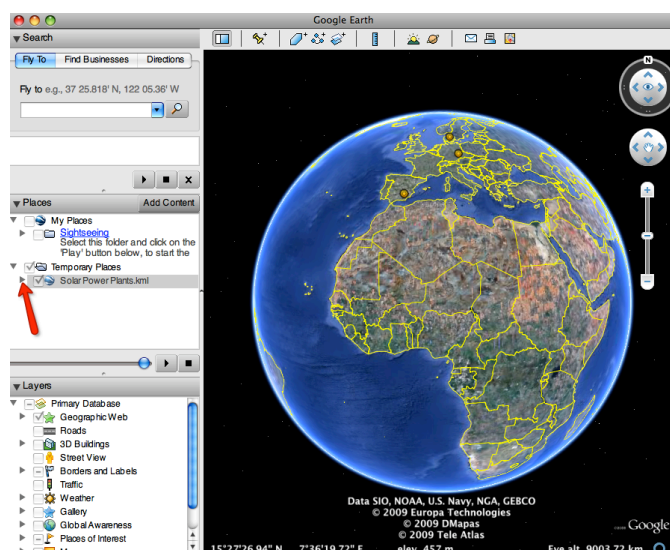


Step 1: Download data.

a. Open your Web browser. Go to **www.ei.lehigh.edu/learners/energy/**

b. Click on **Exploring Solar Power Plants with Google Earth**.

c. Click the arrow to the left of **“Solar Power Plants.kml”** in the left panel (see arrow).



The Solar Power Plants drop-down list will extend. If you cannot see the whole list, scroll down.

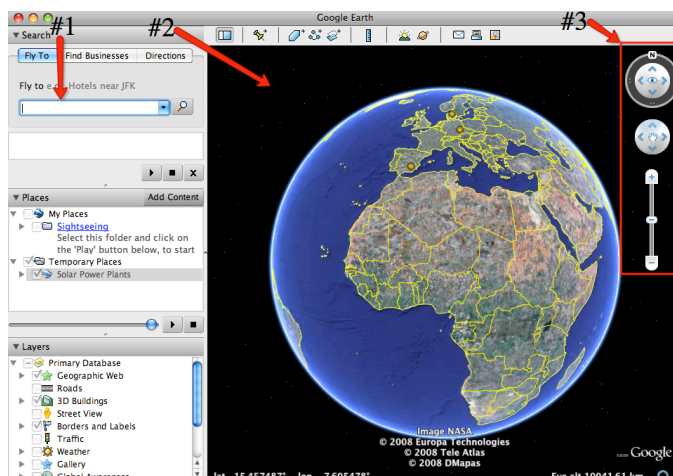
- ▼ ☒ Solar Power Plants.kml
 - ☒ Marstal
 - ☒ Plataforma Solar de Almeria
 - ☒ Solarpark Bavaria
 - ☒ Kramer Junction
 - ☒ Hermannsburg



Step 2: Basic features of Google Earth

Note the following Google Earth features, tools, and navigation controls in the figure on the right.


1. **Search Panel** (arrow #1) – Type in the white box to find a location.
2. **3-dimensional (3D) Viewer** (arrow #2) – This window shows the Earth and its terrain.
3. **Navigation controls** (arrow #3) – Use these controls to zoom, look, and move around. If the navigation controls are not visible click on View>Show Navigation>Always.



Step 3: Explore solar power plants and measure the perimeter.

You will explore solar power plants and use the **ruler tool** to measure the **perimeter** of each solar power plant. The perimeter is the **distance around** the solar plant.

- a. **Double-click** on **Marstal** in the **Places** window. Google Earth will zoom you in to the Marstal solar plant for you to view it.

- b. Click on the **Ruler tool**  on the **tools menu** at the top of the screen.

The ruler dialog box appears. If the dialog box covers up the solar power plant, move it to a different area on your screen.

- c. Click on **Path** (arrow #1). Click on the drop-down arrow (arrow #2) and select **Miles** if it is not already selected.

- d. Click on a corner of the solar power plant to begin measuring its perimeter.

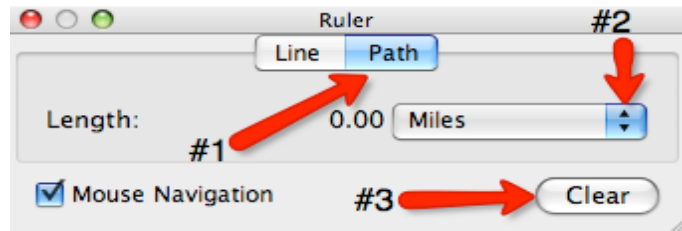
Continue to click on all corners around the solar power plant until you get back to your starting point.

Click and drag the last point to join it to the starting point.



Write the perimeter of **Marstal** in the **Solar Power Plants Data Chart** on your field guide.

NOTE: If you make a mistake, click **Clear** (arrow #3) and start measuring the perimeter from the starting point.



- e. Look at the **ground cover** area around the solar plant. The ground cover is the **appearance** of the land.

What does it look like? Is it on a flat or hilly surface? Does it look like a desert, a farm area, a forest, or something else?



Write a description of the **ground cover** in the **Solar Power Plants Data Chart** on your field guide.

- f. Click **Clear**. Do not close the ruler dialog box.

- g. **Double-click** on the next solar power plant. Repeat **Steps d, e, and f** to measure the perimeter of the other 4 solar power plants and analyze the ground cover around it.



Complete the **Solar Power Plants Data Chart** on your field guide.

- h. Click **Clear**. Close the ruler dialog box when you finish.



Answer **questions 1 – 6** on your field guide.