Congratulations! You passed!

Grade received 100%

Latest Submission Grade 100%

To pass 80% or higher

Go to next item

1. To guarantee that shade from an object will not impact the solar panels, how far away from that object should the panels be? **1 / 1 point**

- (•) Three times as far as the object is tall
- ( ) Five times as far as the object is tall.
- ( ) Ten times as far as the object is tall.

Correct
Correct! Setbacks will vary at different latitudes.

2. Although commercial roofs are often flat, they may present installation challenges. **1 / 1 point**

- (•) True
- ( ) False

Correct
Correct! Commercial roofs often have objects that not only take up space, but also create shade.

3. Visit the Sun Chart Path Program at http://solardat.uoregon.edu/SunChartProgram.html **1 / 1 point**

In Step 1, specify the zip code: 80014. In Step 2, specify time zone: UTC -7h (MST). For Steps 3 through 6, retain the default values (first selection for each step). Click create chart in Step 7, and review your PDF.

At what time does the June 21 solar elevation first reach 20 degrees?

- ( ) Between 5 and 6 am
- (•) Between 6 and 7 am
- ( ) Between 10 and 11am

Correct
Correct!

4. Why is a low slope angle recommended for solar panels that are installed on flat roofs? **1 / 1 point**

- ( ) Flat panels are a fire hazard.
- ( ) Flat panels do not collect as much sunshine.
- (•) Flat panels on a flat roof may accumulate snow and/or dirt, reducing performance.

Correct
Correct! A low slope helps to ensure dirt is washed off by rain, and that snow slides off as it melts.

5. Select all disadvantages of residential rooftop PV systems. **1 / 1 point**

- [x] May have to penetrate the roof.

Correct
Correct! Roof penetrations can lead to leaks over time. There are other correct answers.

- [x] Aesthetics.

Correct
Correct! Some individuals may not like the look of solar panels on a roof. There are other correct answers.

- [ ] High transmission loss

6. Increasing the distance of a solar array from the load it is serving increases costs primarily due to: **1 / 1 point**

- ( ) Increased permitting fees.
- ( ) Increased environmental impact.
- (•) Increased wire costs.

Correct
Correct! As distance from the panels to the load being served increases, so too does the wiring cost.

7. Which option represents the different categories of solar PV systems from smallest to largest? **1 / 1 point**

- (•) Residential, small commercial, industrial, utility scale
- ( ) Residential, utility scale, small commercial, industrial
- ( ) Residential, industrial, small commercial, utility scale

Correct
Correct!

8. According to the land-use requirements article published by NREL, how many acres would be required to produce 2 MWac for a small, fixed system, using the capacity-weighted average land use? **1 / 1 point**

- ( ) 5.5 acres
- ( ) 3.2 acres
- (•) 11 acres

Correct
Correct! Table ES-1 states that 5.5 acres are needed per MWac, therefore 11 acres would be needed to produce 2 MWac.

9. Select all that apply to modules tilted above the mounting surface: **1 / 1 point**

- [x] The University of Oregon provides sun elevation angles by month for zip codes across the U.S.

Correct
Correct! There are other correct answers.

- [x] Partial shading of a module significantly reduces output.

Correct
Correct! There are other correct answers.

- [ ] An understanding of trigonometry is needed to determine proper spacing.

10. Building a structure for a ground mount is more expensive than a roof installation. **1 / 1 point**

- (•) True
- ( ) False

Correct
The cost incurred for site preparation and installation is typically greater for a ground mount.