

ACTIVITY 2: EPBT (Energy Payback Time) of Activity 1

Activity Objective: Determine the EPBT (Energy Payback Time) of the two systems in activity 1 and explain if EPBT cannot be determined.

Materials: Chapter 8, paper, computer, printer, Internet Access

Definition: The EPBT (Energy Payback Time) of a power generating system is the time requisite to generate as much energy as is consumed during the production and lifetime operation of the energy system. Due to technology improvements, this payback time has been decreasing since the introduction of photovoltaic (PV) systems.

REVIEW VIDEO:

Energy payback time of solar electric generation: Payback for a solar panel system:

<https://www.youtube.com/watch?v=SIri5gQNTAQ>

Procedure:

1. Work as partners or small teams.
2. Review the above video.
3. Research and brainstorm the EPBT (Energy Payback Time) of a power generating system.
4. Calculate the EPBT (Energy Payback Time) of the system data from Activity 1
5. Create a Power Point presentation of your findings.



RUBRIC

4 World-Class Learner	3 Proficient Learner	2 Developing Learner	1 Emergent Learner
Learner at this level has gone beyond mastery of knowledge, skills, & attitudes described in project. World-class learner consistently exhibits high-quality performance.	Learner at this level has had opportunities to apply knowledge, skills, & attitudes of component of project. Proficient learner has mastered essential attributes, thus proving mastery.	Learner at this level has been exposed to & had opportunity to apply knowledge, skills, & attitudes of project. Developing learner may have only a few essential attributes to master before mastery.	Learner at this level may or may not have been exposed to knowledge, skills, & attitudes required by academic standards of the project.

1= Emergent Learner

2 = Developing Learner

3 = Proficient Learner

4 = World-Class Learner