

ACTIVITY 2: EPBT (Energy Payback Time) of Hypothetical Wind Energy Project

Activity Objective: Calculate the EPBT (Energy Payback Time) of Hypothetical Wind Energy Project from activity 1.

Definition: The EPBT (Energy Payback Time) of a wind power generating system is the time requisite to generate as much energy as is consumed during the production and lifetime operation of a wind energy system.

REVIEW VIDEO:

Energy payback time (EPBT) of wind electric generation: Facts about wind energy:

<https://www.youtube.com/watch?v=8PE69jcleKg>

Materials: Chapter 9, paper, computer, printer, Internet Access

Procedure:

1. Work as partners or small teams.
2. Review the above video and Chapter 9 information from www.sus101.com and research the web on how EPBT (Energy Payback Time) is calculated and find examples of similar wind projects.
3. Calculate the EPBT (Energy Payback Time) for the Activity 1 Wind Project.



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