**Lesson 9: Designing a Solution**

**Problem Statement:** The problem is the PUD needs to invest money into alternative energy sources and needs suggestions for the future. This lesson ties into the problem because students must understand what options are going to be available in future years.

**Learning Objectives:** Students be able to explain their energy innovation clearly using science to back up their choices. They will be able to articulate why they chose what they chose, and make a well- crafted pitch to the intended audience.

**Materials:**

1. Computers and Internet access
2. YouTube video explaining electricity units basics (if not used already, or post to website for reference) Titled “Electric Units” <https://www.youtube.com/watch?v=QPat2PULZYw> is 2:41 long. This will give students some idea what they are reading when comparing energy sources to each other.

**Time Required**:    ~6 50 minute class periods

**Grouping of students for instruction**: Small energy groups

**Procedure:**

Day 1: Deliverable-Project Proposal

Research time given. Come to teacher and get approval to move forward with the

project based on the decision matrix and their product search.

Day 2: Model/ Design/Schematic/Picture/Model

Work day.  Identify how each team will model--CAD, clay, drawing, cardboard, etc.  Make a plan for what resources your groups have available.

Day 3,4,5: Finish refining the design and finish the poster.

Have all groups load PPT on screen and make note for revisions. Ex: Text is too small to read from back, graph missing labels, etc.

Day 6: Finishing the poster/PPT