

You are volunteering with the Berkshire Green Energy Committee (BGEC). Many of the towns in Berkshire County are looking to for green energy options, specifically the development of combined solar and wind farms. The BGEC learned that you are a GIS Expert and you were asked to delineate suitable locations for these combined solar – wind farms for two towns:

Town 1: Adams  
Town 2: Your Choice (in Berkshire County)

### **Selection Criteria:**

1. The site has to have a slope angle of 20° or less (it also can be flat).
2. The slope has to have a southerly aspect (135° to 225°).
3. The wind speed at 30 m has to be *above* 5 m per second.

Raster Calculator Refresher:

[http://edcommunity.esri.com/Resources/ArcLessons/Lessons/R/Raster\\_Calculator\\_Demonstration](http://edcommunity.esri.com/Resources/ArcLessons/Lessons/R/Raster_Calculator_Demonstration)

### **Deliverables**

Prepare a map, an ArcGIS Online web application, and a Google Earth map showing the locations in these two towns matching the site selection criteria.

### **Map Details**

- Prepare the overall map in 24 by 18 inches, landscape orientation, with 2 data frames (one for each town).
- Show the locations meeting the site selection criteria.
- Show the 30 m wind speed as labeled contours.
- Add an appropriate base layer data so that the map reader can determine out where the suitable sites are located.

### **Analysis**

This is obviously just the first step – now what?

What are the next steps needed to evaluate which of these locations is indeed suitable for the solar – wind farm? Include text on your map proposing these next steps.

### **Due Date**

Next meeting of the BGEC on Monday, 21 October 2013

**➔ *Contact me for help or clarification of this assignment or my expectations as needed.***