Wind gives very low cost, once you have built a wind turbine.

In `https://paradigms.oregonstate.edu/activity/719` we worked out the kinetic energy of generated wind in order to find the consumptions of a car. In this activity we will look at capturing the kinetic energy of wind.

Your task will be to estimate the power output of the Biglow Canyon Wind Farm in Oregon. This farm consists of 225 wind turbines. There are three arms on each wind turbine, each arm having a length of 46 meters!

You can think of a wind turbine as a magic disk that captures the kinetic energy of the air that passes through the circle formed by the turbine. **Suppose would we extract all the K.E. from the incoming air given the current wind speed at Biglow Canyon. Estimate how much energy would we get per second. How does this compare with the rated capacity for Biglow Canyon Wind Farm of 450 MJ/s?**

0.1 Making it more realistic

Our answer above is assuming that we can turn *all* the energy from the air into electrical energy. **Brainstorm reasons why we might get less energy out.**