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## **FloDesign**

### **Introduction**

One of the great challenges of the twenty first century is to produce the energy we need while minimizing harm to the global environment. As the world's demand for energy continues to rise, it is important to develop local and renewable energy sources such as solar, hydro, wind, geothermal and biomass.

Wind power is one of the fastest growing renewable energy sources because it uses a free, locally available and inexhaustible "fuel"- the wind- and it produces no harmful emissions.

Although the idea of wind power has overwhelming public support, many people do not want huge, unsightly towers located near their homes and businesses. Noise and danger to flying birds are also concerns associated with conventional wind turbines. But what if a smaller, more efficient wind turbine could be developed that could be used in residential areas as well as on large wind farms? What problems would need to be solved to make quiet, convenient wind power a reality?