

# GUS Vertical Axis Wind Turbines

## VAWT

### Frequently Asked Questions

Below are a few of the more commonly asked questions about the Tangarie product line.

#### **Q. What about payback?**

A. Far and away the most common question we are asked is “**What is the payback period?**” It is important that our customers understand what it is they are really asking. Each turbine installation is unique. The variable in wind speed alone can have a dramatic effect on the pay back period. When you also account for the wide range in energy costs across the country, peak and off peak pricing, factoring in whether you plan on storing energy during off peak pricing periods and drawing from storage during peak pricing periods -the calculations can become formidable. The most important part of the equation is often overlooked -

**You are installing a power plant with a useful life in excess of twenty years. Your fuel cost for the life of the power plant will be ZERO.**

When you consider that fossil fuel prices are almost certainly going to rise you realize that payback typically accelerates over the life of an installation. For this reason, payback projections are often longer than actual results.

#### **Q. Can we see the output records online.**

A. Currently, our turbine installations produce data on site only. This is collected periodically. We are asking all new installations if they will allow us access to streaming data which we hope to provide on our website in the near future.

#### **Q Do you guarantee, maintain and service / repair your units?**

A. All GUS units are warranted to five (5) years with extended warranty and service coverage available at additional cost.

#### **Q. Can you provide a typical installation cost and time to payback?**

A. Keeping in mind that any turbine installation take into account such factors as wind resource, turbine mounting, whether the turbine will be part of a “hybrid” renewable system incorporating solar, geothermal, and demand side management such as building control systems, LED lighting and such and you understand that each installation is unique.

When we further consider the range in energy prices across regions and the wind variable, we see that essentially every single installation has unique aspects that affect the economics.

One of the few constants is that, over the entire life cycle of your power plant your fuel cost will be zero.

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### Frequently Asked Questions, Cont.

**Q. What are the costs? What are the payback schedules for the various units at a particular kwh price?**

A. Please [contact us](#) for additional information regarding costs, payback schedules and power curves.

**Q. Can I power my whole house with one of the GUS turbines?**

A. Many factors will determine if this is possible; the first is your wind resource. Next would be your electricity consumption or “electrical load”. Please see our power curves and examples of typical loads supported by each of our turbine models.

**Q. Can I tie a turbine into my existing solar array and save money on the installation?**

A. It's possible to integrate a wind turbine into an existing photovoltaic and save on equipment and installation costs. We have incorporated our turbines into existing PV arrays with great success. HOWEVER, Tangarie Alternative Power cannot guarantee equipment and/or installation(s) by other manufacturers or installers.

**Q. Will the turbine produce Renewable Energy Credits or Carbon Offsets?**

A. Yes. Electricity generated through renewable sources have a separate component known as Renewable Energy Certificates (REC's), Tradable Renewable Energy Certificates (TREC's), or Green Tags to name a few. Read more about this in our REC section of this website.

**Q. Aren't wind turbines noisy?**

A. Tests show no perceptible increase in noise levels in normal background conditions.

**Q. What are the incentives for wind in my state?**

A. Incentives vary from state to state. Please see our resources area of the website for more information on incentives available in your area.

**Q. Will I have a problem getting a permit to install a turbine?**

A. Zoning regulations vary from area to area and generally aren't written with VAWT's in mind. The American Wind Energy Association website has a toolkit available at XXXXXX. Or your rep will be able to assist you in finding and applying for wind incentives.