

Quiet wind turbine could provide up to 30% of a home's power

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The Swift wind turbine, developed by the Scottish company Renewable Devices, was designed for quiet roof-top performance. Credit: Cascade Engineering.

(PhysOrg.com) -- A quiet wind turbine developed in Scotland is now available in the US and Canada. Its developers say that the roof-based turbine can provide significant power for homes and commercial buildings alike.

Originally designed by Scotland-based Renewable Devices, the Swift wind turbine is being sold in the US by Cascade Engineering of Grand Rapids, Mich.

Unlike many existing small wind turbines, the Swift turbine is designed to reduce noise. At seven feet in diameter, it consists of five thin blades encircled by a ring. The ring reduces vibration and diffuses the noise to a level of less than 35 decibels.

Cascade says that the wind turbine should be positioned at least two feet above the roof line in locations with average wind. Its two fins direct the turbine to face the wind, with the ability to turn 360 degrees. The blades power a generator, which produces about 1.5 kilowatts with a 14-mph wind.

Over a year, the turbine can generate about 2,000 kilowatt-hours of electricity, which is a significant percentage of the 6,500 to 10,000 kilowatt-hours per year that US households typically consume (estimates are from the US Energy Information Administration).

While the installation cost run at around \$10,000, state rebates and tax credits could help lower the upfront cost; for example, a renewable energy tax credit gives consumers \$1,000 back for residential systems and \$4,000 for commercial buildings. Depending on these incentives and performance levels, Cascade estimates that the upfront cost could be made up in as little as three years.

So far, Cascade has installed nine Swift turbines in the US and has a backlog of 25 orders. Orders come from about half residential and half commercial customers. In Scotland, Swift turbines have been installed at 250 sites.

More information: www.swiftwindturbine.com

via: [CNet News](#)

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