

Wind Harvest Company Prototype - Camarillo Model

Camarillo and Bald Mountain, CA | Installed 1976

Bob Thomas' first Vertical Axis Wind Turbine (VAWT) was a proof of concept model built in 1976. He built it with modest funds and observed it operating in low winds.

The test turbine was mounted on a small trailer and pulled out of a hangar at the Camarillo Airport to see how it responded to the light breezes. We had a small handheld anemometer to measure wind speed. The rotor quickly responded to the light breezes starting in wind of 5 mph or less. It easily self-started, which was encouraging.

We took the Camarillo turbine off the small trailer and mounted it on an external steel frame adapted to a 17' travel trailer. The system was hauled up to a mountain ridge on the Hollister Ranch in Santa Barbara County.

The turbine shaft extended into the trailer through the trailer vent. A centrifugal brake was mounted on the shaft to provide a load proportional to wind speed cubed. It proved not to be a good idea, and the site resource was not good for our purposes. We moved the trailer to Bald Mt. in Los Angeles County.

Bald Mt. has a very good wind resource and was a good testing site. A weather station there provided us with lodging and some storage. We tested the small turbine there and developed a chain drive speed up.

Camarillo Model Specifications	
Rotor Height (m)	4.26
Rotor Diameter (m)	4.9
Swept Area (m²)	78
Number of modules	2
Number of blades per module	2 to 4
Number of stators per module	5
Blade length (m)	2.4
Solidity	33%

