

ISRAEL AT SIXTY

From Modest Beginnings to a Vibrant State

1948–2008

- *web extra* -

Gearing up for energy efficiency with IQWind

By Karin Kloosterman September 14, 2008

Wind power is a good energy alternative to free America from its oil dependence, but it could be made a lot more efficient. The wind as we know, can blow in gusts and spurts, it can tickle your ears or rip out trees - but the massive blades of today's wind turbines can't match the wind's temperament: the rotors are fixed to spin at an even speed, maintaining a constant RPM (rounds per minute).

The result is that a large amount of wasted energy just dissipates with the wind. A new Israeli company IQWind, exemplifying the spirit of the strong Israeli clean technology movement, proposes a new solution. The company founded in 2007, and recently voted a Top 100 Tech Startup by Red Herring business magazine, has designed a new gearbox that promises to squeeze the most energy from both new and existing wind turbines.

"IQWind has solved a painful problem in wind turbines, and allows them to work in an efficient way while significantly reducing the costs. Because when you add our gears in, other components become redundant, and can reduce the price of building a wind turbine by 25 percent," IQwind founder and CEO Gideon Ziegelman, tells ISRAEL21c.

Astorre Modena, a general partner at Jerusalem-based Terra Venture Partners, a major investor in IQWind, adds that the technology is "an elegant, smooth and solid gearbox that allows you to change gears without disconnecting the transmission," he says, noting that "there is much more meat," to the technology's innovation that he can't disclose.

It might not take long to get a sneak peak of IQWind's gears in action: Modena says that the company expects to have a beta test site in Israel - possibly outdoors, or in a lab - within the next six months. It will take another two years before the gearbox goes into production.

PUTTING WIND IN THE MARKET'S SAILS

The \$30 billion dollar wind turbine market is growing, putting IQWind and other wind power enabling technology in a lucrative position. There is currently a 12 to 24 month waiting list to buy a wind turbine and have it installed, and as the windiest spots of land are developed, Europeans and Americans will need to make existing operations more efficient.

Modena sees a future where wind energy technology will become more differentiated, especially in Europe where installing new turbine projects is limited: "There will be more play in efficiency and that's where the value is going to come in," he says, citing IQWind's and Israel's special position.

ISRAELI CLEAN TECH ON THE HORIZON

Israel has strong expertise in solar thermal and water technology, owing its success in clean technology to the massive influx of Russian immigrants, says Modena who remarks that in general, clean technology is a difficult field, requiring cooperation between multiple disciplines: “Israelis are good at that,” he says, noting that Terra has plans to invest in a new clean technology company every quarter.

The company doesn't have to be Israeli, says Modena, but it should be willing to establish an R&D center in Israel, if there is no other connection. Terra is looking to invest in energy efficiency solutions, like IQWind, as well as solar energy technology.

IQWind, founded by Gideon Ziegelman, a graduate from the Technion - Israel Institute of Technology, is based outside of Raanana, Israel, where it employs about 10 people.

IQWind - www.iqwind.com

Terra Venture Partners - www.terravp.com