Low Wind LLC

EXECUTIVE SUMMARY

By

Richard K. Sutz

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Key Executives

Richard K. Sutz

- Founder & CEO
- Inventor, Low Wind Turbine Technology
- 30 years' experience with Drag-Type wind machines

Consultant

Peter Jenkins, PhD, PE

- Former Director, Texas A&M Turbo Machinery Laboratory, and former
- Dean of Engineering at U of Colorado
- Recognized expert in Gas Turbines and Drag-Type wind machines

Future Personnel

- Seasoned industry execs and engineers have been identified and, upon funding will join LW

Drag-Type

Lift-Type

Advisory Board

Brion Crum

- Merrill Lynch
- Financial Advisor

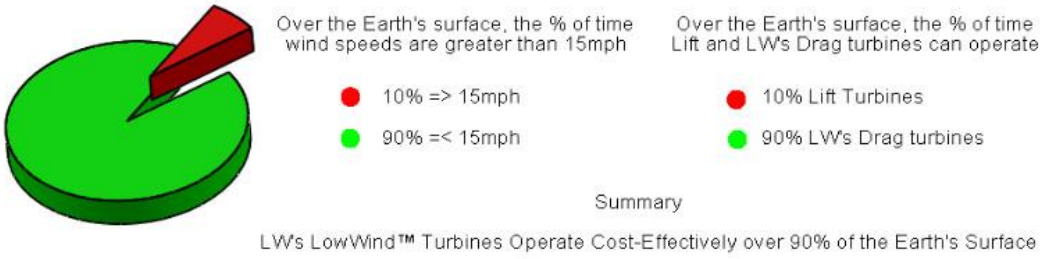
Martin Zwilling

- Business Advisor

- **Additional Member**
- Leaders in renewable energy, academia, finance & marketing have been identified and will be asked to join the company

Problem - 3-Bladed Turbines Require Locations with Prevailing Winds of ~15 MPH

For cost-effective operation, LIFT-Type turbines require locations with ~15 MPH wind speeds - only available over approximately 10% of the earth's land mass



Solution – Low Wind's pat. pending DRAG-Type turbines produce power from wind speeds beginning at 5 mph, which prevail over ~90% of the earth's surface.

Summary – Low Wind's (LW) Low Speed Turbine Features:

- Delivers grid-level power, in wind speeds beginning at 5 MPH (8 KPH)
- Turnkey Price (purchase and installation) less than half the price of a Lift turbine
- Long-term O&M a fraction of a Lift turbine
- Unsubsidized cost/KWH cost =~ $0.01
- Warrantied 50 year life - Rugged, reliable and virtually maintenance-free

Worldwide Market for LW's Drag-Type Turbines

- Opens a worldwide, billion dollar market, from the untapped energy in low wind speeds prevailing over ~ 90% of the earth's land surface
- Ideal for Distributed Power in Developed & Developing countries
- Ideal for licensed manufacture, sales, installation & service
- Ideal for multiple turbines, in wind farm groupings, for MW size Distributed Power

Comparison

	LW's Drag-Type Turbines Features	vs. Lift-Type Turbines Features
Turnkey Cost	Half the cost of a Lift Turbine	Twice the cost of a Drag Turbine
Installation	Like an Erector Set™	Expensive due to rotor blades
O&M	Virtually maintenance-free	Very High through entire lifespan
Swish/Thump	No Environmental Noise	Amplitude modulation noise
Bird Deaths	Not an issue	Serious concerns
Controls	No Yaw or Pitch required	Expensive Yaw & Pitch systems
Manufacture	Worldwide - Requires only entry-level mechanical skills	Restricted to highly developed high tech locations
Warranty	Warrantied for 50 years	Warrantied for 5 years
Manufacturing	Standard machine shop skills	For mfg., state-of-the-art skills
Materials	95% Low carbon galvanized steel	High-tech components
Rated Speed	12 MPH	Generally 22 to 28 MPH
Business Model	Ideal for Patent Holding Company & worldwide licensing	Requires state-of-the-art manufacturing facilities
Distributed Power	Almost unlimited over 90% of the earth's land mass	Limited to areas of 15 MPH or above
Cost per KWH	At 12 mph, without subsidies, the cost/KWH = ~ one cent	At 12 mph, without subsidies, ~32 cents; w/subsidies about 5-6 cents

LW 50 KW Specs

- Rated Output – 12 MPH
- Cutout Speed 40 MPH
- Survival > 100 MPH
- 50 Year Warrantied Life
- Low Maintenance & Noise
- Output Voltage – Standard

Product Line

- 10 KW
- 20KW
- 30 KW
- 40 KW
- 50 KW
- 75 KW
- 100 KW

Funding History

- $5.5 million R&D to date

Investment & Equity

- $5 MM commitment
- 20% equity in LW
- Phase One - $1.5 million
- Phase Two - $3.5 million
- Phase Two Investment contingent on success of Phase One testing of the Scale Model

Exit Strategy Options

- Merger or Acquisition
- Public Offering

Use of Proceeds

Phases	One	Two
Scale Model	35%	2%
Validate/Test	15%	8%
Patents	15%	4%
Mfg. 50KW	0%	42%
50 KW Install	0%	3%
Marketing	10%	17%
Working Cap.	25%	25%
	100%	100%

Contact

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LW Technology Status

- LW's patent pending technology is defined in SolidWorks®
- An analysis of LW's SolidWorks model, conducted by Peter E. Jenkins, PhD, has confirmed projected performance features. See attached.

The Next Step – Test a Scale Model - Validate Performance Features

FASTER
5 to 50 MPH Wind Tunnel
&
Aerodynamic
Research Facility

Competition & Competitive Advantage

- Low Wind's turbines are in the 10 to 100 KW range
- LW's low wind turbine technology's competitive advantages:
  - Ability to cost-effectively utilize the currently untapped energy in the wind over approximately 90% of the earth's surface
  - Low O&M due to its rugged, reliable & virtually maintenance-free characteristics
  - Minimum life span of 50 years – as compared to 20 years for lift turbines
  - Low cost per KWH as compared to conventional lift-type turbines

Marketing & Sales Strategy – Patent Holding & Licensing Company

- Earning 10% of the turn-key turbine price, plus negotiated up-front fees
- pro forma example is 50 KW turbine with a LW turnkey price of $200,000
- Licensing to existing wind turbine and wind turbine-related companies, who have manufacturing, installation, maintenance and service capabilities
- Follow-on initiatives include JVs and other strategic alliances

Financial Estimates – Based on an Investment of $5 Million

$ Dollars in 1,000s	2014	2015	2016	2017	2018	2019	2020
Investment	$1,500	$3,500					
50 KW Turbine Sales Price		$200	$200	$200	$200	$200	$200
Turbines Sold - Domestic	0	0	100	500	800	1,000	1,500
Turbines Sold - Foreign	0	0	125	625	1,000	1,250	1,875
Total Turbines Sold	0	0	225	1,125	1,800	2,250	3,375
Total Turbine Revenue	**$0**	**$0**	**$45,000**	**$225,000**	**$360,000**	**$450,000**	**$675,000**
LW Royalty at 10%	**0**	**$0**	**$4,500**	**$22,500**	**$36,000**	**$45,000**	**$67,500**
Operating Exp - 20%	1,500	$3,500	900	4,500	7,200	9,000	13,500
Net Income Before Tax	**-$1,500**	**-$3,500**	**$3,600**	**$18,000**	**$28,800**	**$36,000**	**$54,000**
Cumulaltive NIBT	**-$1,500**	**-$5,000**	**-$1,400**	**$16,600**	**$45,400**	**$81,400**	**$135,400**

Use of Funds – Based on a Commitment of $5 MM

- Phase One: $1.5 MM for scale model testing & validation of all parameters
- Phase Two: $3.5 MM (Contingent on success of Phase One Testing)
  - Manufacture and testing of a 50 KW turbine
  - LW as a worldwide patent holding company, to license the manufacture, sales, installation & service of LW's line of 10 to 100 KW turbines

The following document is the non-confidential analysis of LW's SolidWorks model, conducted by Dr. Peter Jenkins.

Dr. Jenkins is the former Director of the Texas A&M Turbo Machinery Laboratory, former Dean of Engineering and current Professor of Mechanical Engineering at the University of Colorado.

Dr. Jenkins is a respected expert in multiblade wind machines.

His confidential detailed analysis, and report on LW Turbine's low wind features and characteristics, is available under a NDA

Peter E. Jenkins, PhD, PE

Date: November 16, 2011

To: Richard K. Sutz, CEO
Low Wind LLC

From: Peter E. Jenkins, PhD, PE

Subject: Report on the Engineering Evaluation of the Design and Projected Performance Claims made for the Sutz Low Wind Speed Turbine.

Because my professional services have been retained under the restrictive terms and conditions of LWT's NDA, my report consists of two parts: Part One-Not Confidential, and Part Two-Confidential.

Part One - Not Confidential

I have conducted an engineering analysis of the Confidential and Proprietary information regarding the development of a multiblade wind turbine that Sutz claims can generate cost-effective utility-grid quality power in wind speeds beginning at 4 MPH.

My analysis and calculations have been based on material Sutz provided to me:

- A software model of his low wind speed turbine
- Backup calculations
- Subsequent information explicitly defining how this would be achieved in an operating wind machine

Based on the above information and after performing my own engineering analysis, my professional opinion is that I confirm the ability of Sutz's low wind machine to generate utility-grid quality power in wind speeds beginning at 4 MPH.

From my analysis, in comparing the power output from the Sutz turbine with a conventional turbine of comparable size, I found that the Sutz turbine provided more power output than the conventional turbine over a wind speed range of 4-45 mph.

On the question of can a commercial wind machine of Sutz's design be manufactured? Sutz has extensive, and to my knowledge, unique experience in the world of low wind speed multiblade wind machines. He gained this experience during the development of the RESTEC multiblade low wind speed water pumping windmill.
Therefore, I am confident that he can lead the manufacture of such a wind machine and I believe such a wind turbine can be manufactured.

I look forward to subsequently performing a parallel analysis and validation on Sutz's Phase II plan to manufacture, instrument and test a model low wind speed turbine.

A positive engineering analysis of the Phase II model would permit extrapolation of the test model results to a full size commercial version.

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I would suggest that an additional benefit of the proposed Phase II testing program will be the opportunity to optimize the performance of the turbine components.

Part Two - Confidential

Part Two – The confidential part of my Engineering Evaluation, Appendix A to Part Two, is available from Richard Sutz, Low Wind Technology's CEO, subject to LWT's NDA terms and conditions.

A few non-confidential highlights of my Engineering Evaluation are:

- Sutz's proprietary low wind turbine technology describes several separate inventions, which in combination contribute to his claimed performance.

- Sutz's developments do not violate the limitations of the Betz Law. In fact, based on my analysis, the Sutz wind turbine could have a power coefficient of approximately 0.52, compared to the Betz factor of 0.593. This compares to a normal power coefficient of about 0.33; hence on this basis alone, the Sutz turbine would be more efficient than a standard wind turbine.

- Although having reviewed the software model and the information Sutz provided, and having confirmed the validity of Sutz's claims, I must emphasize that a final validation of his turbine's performance claims can only be made by testing a fully instrumented model in a low wind speed wind tunnel.