New wind turbine blade

Next Generation Of Wind Turbine Blade

The Opportunity

Power = Torque x Angular Velocity *Our new blade shape is 'disruptive innovation' to the status quo*

A Windrush client *has designed a radical new shape of wind turbine blade.*

In terms of a wind turbine's ability to capture some of the wind's kinetic energy, a mere 1% more-efficient blade design offers a massive pay-off in terms of the turbine's lifetime profitability.

The opportunity exists therefore, for an investor (or a cabinet of investors) to participate in the roll-out of the innovation across the entire renewable energy industry worldwide.

We envision our need for equity investment to be such that it will at first be a relative trickle . . . then an avalanche !

How so ?

Special points of interest:

- ***Environmentally friendly development***
- ***Relatively Low Capital Investment***
- ***High Returns***
- ***Passive Income For Years***

New Blade Wind Tunnel Testing

Although the client has already initially tested the design, there is the need for truly independent testing in a proper aerodynamic testing facility, a ***wind tunnel****.*

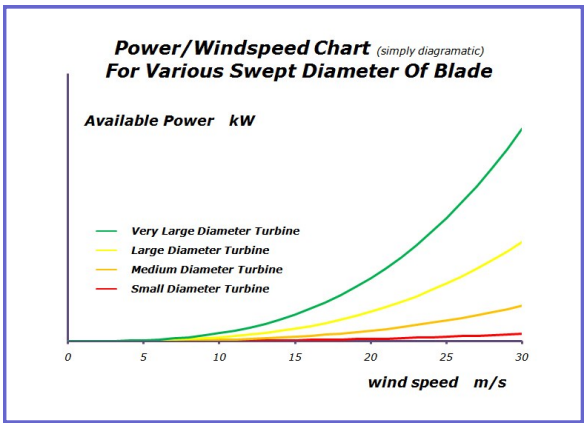
The testing facility of choice also needs to have a sufficiently prestigious reputation in order for the test results data's importance to be fully perceived as a piece of 'disruptive innovation' about to be born.

We are talking to Lockheed Martin in the United States of America about doing the testing for us. (Lockheed Martin make fighter jets for the American Air Force)

We are confident that the wind tunnel test data will be such as to raise eyebrows among those investors with the ability to fund fully the worldwide roll-out.

In This Opportunity

Importance Of Wind Tunnel Test Data



" You can never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete. "

Buckminster Fuller – American Futurist

What will the test data actually be *and* ***what will it accomplish ?***

Firstly, the blade results data will be in the form of readings of ***dynamic torque*** *exerted on the shaft and the corresponding* ***angular velocity -*** *under the whole range of attacking wind speeds. This will enable us (our testing engineers) to produce a* ***Power/Windspeed*** *curve for the blade shape at that* ***swept diameter****.*

Secondly, the test results numbers will then have a scientific modelling technique performed upon them - known as ***dimensional analysis*** *- which will enable us to predict a whole family of Power/Windspeed performance curves for the full portfolio of working-scale turbines feeding electricity into the national grid.*

This, in turn, lets us forecast the total actual energy harvest each year from the known windspeed frequency distribution at any given windfarm site.

Our expectation is that the annual energy harvest improvement that our design will have over the existing blade design will be significant, not marginal.

And this will become our ultimate unique selling point.

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But our first achievement needs to be finding the initial kernel of investment, possibly from you - to fund the wind tunnel testing results, because with the results (the figures) we'll be able to obtain the big funding.

Capital Expenditure *Initial Kernel*

From talking to the people at Lockheed Martin we've been able to get a price from them for the wind tunnel testing and doing the dimensional analysis work. $50,000 (£30,000) will cover it.

When the results are in, we'll 'have the power' and we'll have the options - options which will not be mutually exclusive either !

Options about whether to sell (exit) our individual share at this stage, or

- *Press on with* ***Global Patent acquisition****, and*
- *Actually go into* ***turbine blade production*** *ourselves, or*
- *Go down the* ***Production Licensing*** *route, or*
- *Some combination of the above.*

And we can exercise our individual choices independently.

Subsequent CapEx . . .

Obtaining the wind tunnel test data really is the all-important thing.

Intermediate capital *raising would be used for patenting - prioritising patent applications in countries with the greatest potential for our development being used - countries with high wind resource mixed with existing and emerging economic potential. We think the deployment of your '****lazy equity****' may be able to fill this need as well.*

Tertiary capital *raising for turbine blade production would be an optimised blend of debt capital and more equity, possibly by an* ***IPO****.*

Calculating The Capital Value & Intrinsic Profitability Of Your Participation In Your New Wind Turbine Blade Opportunity

*According to some reports, the World's installed wind energy production will grow by at least **10.5% pa** over the next 15 years - from 513.6 GW in 2015 to 2,300 GW by 2030.*

It is a robust assumption therefore that the uptake of our blade design will be at a significantly higher rate than this.

*With the capital cost of wind infrastructure being ~ Million£1.2/MW, this means that the wind industry market potential in 2016 will be 53.99 GW or **£64.78 Billion !***

*And if our share of that was 1% of 1%, say coming from **manufacturing licensing alone**, our combined income in the first year would be £6,478,350.*

*And if **your share** of this was 37.5% . . .*
. . . £2,429,381.

*Over a 25 year income horizon your **Net Present Value** would be £109,918,349.*

*And your **Internal Rate Of Return** would be 200.73% (meaning that you would **treble** your capital from year to year !*

Conclusion;

The opportunity is ready for the initial investment now.

Get in touch by phone if you would like to take part. Let's seize the day !

" You do things when the opportunities come along. I've had periods in my life when I've had a bundle of ideas come along, and I've had long dry spells. If I get an idea next week, I'll do something. If not, I won't do a damn thing. "

- Warren Buffet

Downloads

Webpage (download this Opportunity PDF):
www.windrush.biz/new-wind-turbine-blade/new-wind-turbine-blade-design-opportunity.pdf

Spreadsheet (download this Opportunity Spreadsheet):
www.windrush.biz/new-wind-turbine-blade/turbine-blade-development-spreadsheet.xls

Links

http://www.windrush.biz/wind-turbine-blade-design.html

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About Windrush . . .

Windrush *developed out of the credit crunch as a result of an even greater need for private equity in funding development projects. From 2010 it has been our mission to put together wind farm development joint venture opportunities which exhibit a high rate of return. As the renewable energy industry matures we anticipate a greater role acting as agents for the sale of operational wind farm assets.*

Our clients *vary from individual developers with one or more turbine opportunities through property companies looking to diversify into energy or infrastructure to industrial systems engineering companies in adjacent industries.*

Currently we have developer clients with opportunities in Scotland, England, Ireland and the United States of America.

Frequently Asked Questions

Q*: What scale of project opportunities is Windrush involved in ?*

A*: From a medium-sized (250kW) single wind turbine requiring an equity investment of £450,000 up to a 30MW wind farm major civil engineering opportunity requiring €44,000,000 . . . that's the beautiful thing about energy . . . sometimes we're dealing in multiples and in the same workday we can be working with orders of magnitude.*

Q*: Does Windrush only work with wind energy ?*

A*: No. For example, one of our developer clients intends to construct a geothermal power plant right after our initial wind farm development goes operational. We also have a client with an opportunity to develop a portfolio of green (natural) burial sites.*

Q*: How easy is it to arrange for my existing property to be used like this ?*

A*: It's a surprisingly straightforward process. It depends on the circumstances of the case of course, and it only takes a day to create the separate legal container for our venture together, our special purpose vehicle LLP.*

For more general information, visit our website

www.windrush.biz

Meetings with prospective joint venture partners are regularly being held in Glasgow and Edinburgh.

Francis McMenamin, Windrush Principal