# Proforma

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# What is it?

- Proforma:  “In the form of…..”

- It is your “best guess” of what is going to occur
- Hopefully your “Best Guess” is an educated one!!!!

# What are you guessing about?

- It could be almost anything, but the most common would be:
  - Cash Flow Statement
  - Profit or Loss Statement
  - Balance Sheet

# The Cash Flow Proforma

- Think of it as having three sections
  - The income side
  - The expense side
  - The left-over side  ( Cash Gain or Loss)

- Remember:  You are only interested in cash, so even things that might not be part of a profit  or loss statement, like principle payment on debt are part of the cash flow.

# The first category of educated guessing is the income

- Assume each wind turbine has an output rating such as “2 megawatts”
  - That assumes that the turbine is operating at 100% efficiency------ They don’t!
  - There is an estimated capacity factor for your turbine at the location and height you are contemplating, and given the wind resource you are tapping.
  - For this illustration, I will use a capacity factor of .40

# Let’s do the math

- Name plate capacity times the estimated capacity factor (.40) times 24 hours per day times 365 days:

- 2000 X .40 X 24 X 365 =7,008,000

# Now factor in reality!

- You won't be up and running all of the time!
  - Down time for
    - Maintenance:  Scheduled and Otherwise
    - Adverse wind conditions
    - Possible curtailment
    - "Factors beyond your control"
  - Maybe a good number to use is about  88% of the  time you are functioning as planned

# More Math!

- You had a 7,008,000 kilowatt hours potential. Reality says that is true only part of the time. For purposes of illustration, use 88%. Now do the math:

- 7,008,000 X .88 = 6,167,040

This is an estimate of your saleable product

# Price????

- Dust off your crystal ball
- You have a limited number of potential customers, none of whom are overly eager to buy your power at a price you think is reasonable.  So you negotiate.
- In building the proforma cash flow, you probably want to be fairly conservative. The folks who already have a PPA are most likely sworn to secrecy as to how much the power company is willing to pay. Be alert to rumors!

# C-BED pricing

- You are allowed to negotiate a different rate for the first ten years than for subsequent years.
- The rate you will probably wind up with is somewhere between the power companies reported wholesale rate and the price you pay on your utility bill.
- Aim for the middle for starters, and adjust up( or down) as your PPA matures.

# Back to the Math!

- To illustrate:  Our 2 megawatt turbine, capable of producing 7,008,000 Kilowatt hours per year, with an efficiency of 88% would produce 6,167,040 Kilowatt hours of electrical power
- Pick a number:  I'll use 4.75 cents per KWH for the first ten years and 3.2 cents per KWH for the subsequent years
- 6,167,040 X $.0475= $292,934  first ten yrs.
- 6,167,040 X $.032 =  $197,345  Subsequent Yrs

# You may be able to benefit from the Federal Production Tax Credit

- If you can, add 1.9 cents per KWH to your income stream.
- Most individuals don’t have that kind of passive income against which the tax credit can apply.
- In this illustration, I’ll ignore it ( although it is hard to ignore $ 117,173 in potential income!)

# There are a few expenses you can’t ignore!

- Build a list of the most likely categories of expense.
  - Your list might look something like this:
    - Operation and management
    - Service and warranty
    - Electrical usage
    - Accounting and audit
    - Property Tax-  based on KWH of production
    - Land leases
    - Insurance

# How do you fill in the numbers?

- Start with the categories where you have solid estimates of costs.
    - Insurance
    - Land leases or acquisition costs
    - Property tax.
- Fill in the categories where a “Best Guess” is all you have

# Cost Escalation

- Almost all costs will increase unless fixed by contract.
- Use the spread sheet to escalate costs to reflect inflationary growth
- A 2-4% inflationary increase would be reasonable.
  - A $10,000 expense inflating at the rate of 2% per year would be $11,262 in 5 years.

# Listen!

- You may be able to get estimates of some costs just by listening to those who have a wind generating unit already functioning.
- Your DEVELOPER should be able to help you with estimating operating costs.

# Use a spread sheet for developing your proforma

- Check you spread sheet for omissions and errors and for correct formulae
- Adjust frequently
- Remind yourself frequently that a proforma is a “Best Guess”  You could be wrong!
- Run some contingency tests on your spreadsheet to determine what would happen if your estimates are out of whack

# Paying for it

- You have to factor in debt service. Debt should probably be retired in the first ten years.
  - Creditor terms
  - C-BED  terms make it more possible
- Just for a reference point, if you had a $2 Million debt on your turbine, at 8.0% interest, the annual principle and interest payment would be $291,360 per year for a ten year term.

# In this illustration, things are looking grim!!!!!

- Potential income with a PPA at $.0475 for the first ten years : $ 292,934
- Debt Retirement $ 291,360
- Cash Flow + $ 1,574 ( and we still haven't paid for any of the operating expenses!)
- If you can figure out some way to use the Federal Production Tax Credit: $117,173 (most likely in debt structuring), You can probably pay for most of the operating expenses

# The primary uses of a Cash Flow Proforma

- Estimating income and expenses
- Limiting errors and omissions
- Determining the feasibility  of the project

# Be Prepared for:

- Delayed Gratification
- Rising Costs- Fixed Income
- Lowering your sights on becoming an instant millionaire.
- Remember that riding a bicycle is better for your health than riding in a Mercedes: Aim lower!