

# MEETING Minutes 5

## Topic: Meeting 5 – Market Team Meeting

Wednesday, October ,11th , 2017

05:15pm-06:15pm

**Chair:** Anthony Cheslic

**Attendees:** Alana Benson, Craig Collins, Leo Segura De Niz, Mitchell Green, Michael Vogelsang,, Diana Carlson, Tyler Brown and Jordan, Shawn, Dr. Parris, Ross Taylor

**Please bring:**

- Business Team Members: Any questions regarding the competition.
  
- Engineering Team Members: Questions for Ross Taylor

**Location:** Frankie Business College, Room #435

**Table 1.** Tentative Schedule

<b>05:15pm-05:25pm</b>	<b>Announcements</b> <ol style="list-style-type: none"><li>1. Update on Dr. Oman’s response to email chain.<ol style="list-style-type: none"><li>a. Will be attending office hours</li></ol></li><li>2. Ross Taylor introduction<ol style="list-style-type: none"><li>a. 12 years experience</li><li>b. 3 wind energy companies</li><li>c. Recently in Manilla</li><li>d. Mainly small wind 100kW</li></ol></li></ol>
<b>05:25pm-06:10pm</b>	<b>Discussion Topics</b> <ol style="list-style-type: none"><li>1. Ross Taylor thoughts on pitch contestants<ol style="list-style-type: none"><li>a. Blimp concept<ol style="list-style-type: none"><li>i. Cost of helium (Amounts required)</li><li>ii. Cost of cabling</li><li>iii. Cost of Skystream Turbine</li><li>iv. Not necessarily cost viable</li></ol></li><li>b. Telecom Tower??? (Good Market)<ol style="list-style-type: none"><li>i. Previous years idea</li><li>ii. Ideal for wind power, no real option for solar</li></ol></li><li>c. Water Pumping/DoD (DoD preferred direction)<ol style="list-style-type: none"><li>i. FOB energy stations</li><li>ii. Fits into a conex box</li><li>iii. Hybrid solar/wind</li><li>iv. Look into California based company?</li></ol></li><li>d. EV Charging Station (Good market)<ol style="list-style-type: none"><li>i. Charging stations on the coast</li></ol></li></ol></li></ol>

- ii. Optimal wind energy capacity
  - iii. Place batteries at charging stations, not necessarily at the coast
- e. Off-Grid Living
  - i. Ideal for wind/solar hybrid
  - ii. Allows for a smaller battery bank
  - iii. Average of wind and solar power throughout the year tend to average out.
- f. Alaska for wind focused power system.
  - i. Small community power system
- g. Worldwide Wind Implementation
  - i. Easily done in Europe
  - ii. Difficult to implement in poorer countries
    - 1. Transportation of supplies
    - 2. Theft
    - 3. Lack of skilled worker
    - 4. Consider risk of theft
    - 5. Village electrification projects tend to protect what is implemented.
    - 6. Solar panels are easily taken and utilized.
- h. Electric Water Pumping
  - i. Turbine powers pump
  - ii. Turbine placement can be off site of pump

2. Questions, and other comments?

- a. Japan 10kW popular due to government feed in tariff. 56 yen per kWh
- b. Disaster Relief
  - i. Solar tie in
  - ii. Battery Bank
  - iii. Grid tie-in (Must meet UL standard)
- c. Micro Grid Considerations
  - i. Level of autonomy
  - ii. Critical power figures
- d. Be patient with bad ideas
- e. Design considerations
  - i. Consider giving up efficiency for robustness.
  - ii. Do not be seduced by funneled designs
  - iii. Consider real world wind characteristics

3. Market and Business Concept Generation Technique

- a. Improv technique (5 through -5)
  - i. Dead dog (Dr. P and Alana)
  - ii. Computer assignment (Leo and Diana)
- b. Using “Yes and,” in your rebuttal of others ideas
- c. 5-3-1 Method

**06:10pm-06:15pm**  
(Remaining minutes)

**Plan for next meeting**

1. Send Ross a, "Thank you"
2. Review concepts developed
3. Update on Capstone assignment due dates
4. Review deliverables/ tasks/ to-do's to be completed by the next meeting.
5. Business team designates scale...