

# MEETING MINUTES

## Topic: Individual Analyses

Thursday, March 15, 2018

10:35 am – 11:00 am

Minutes recorded by Jacob Barker

Attendees: Jacob Barker, Samm Metcalfe, Ashley Shumaker (+David Willy, Amy Schwartz)

Table 1. Record of meeting.

<b>10:35 am to end</b>	<b>General Approach to Technical Analyses</b> <ul style="list-style-type: none"><li>• MOST IMPORTANT: Calculate Reynolds Number<ul style="list-style-type: none"><li>○ Other variables<ul style="list-style-type: none"><li>▪ Angle of attack</li><li>▪ Lift/drag ratio</li><li>▪ Tip speed ration<ul style="list-style-type: none"><li>• Ratio of tip speed to free stream velocity</li><li>• Wind turbines-higher TSR = more efficient</li><li>• For us, set TSR ~3</li></ul></li></ul></li><li>▪ Axial, Reaction Turbine<ul style="list-style-type: none"><li>• Velocity Triangles</li></ul></li></ul></li><li>○ Start playing with equations in MATLAB</li><li>○ Solidity<ul style="list-style-type: none"><li>▪ Ratio of blade area to total area, <math>\sigma</math></li></ul></li><li>○ Design system based on available air compressors</li></ul>	EGR 120
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