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Real Fuel on Campus

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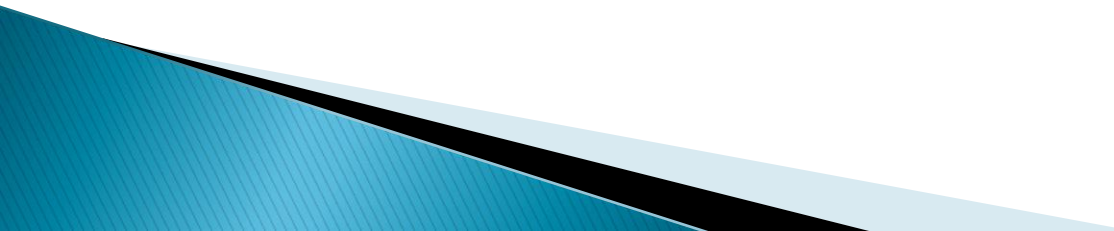
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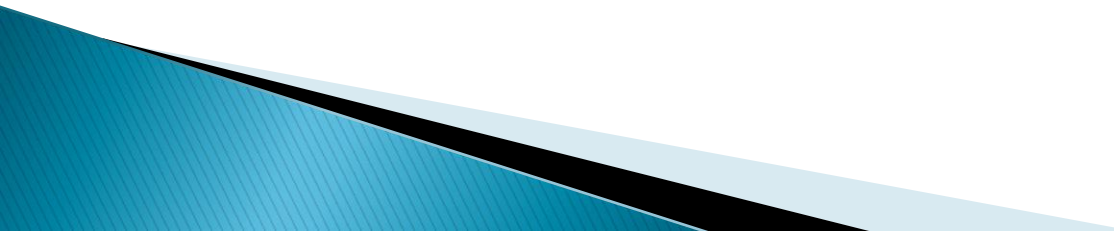
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Steps to Success

- ▶ Original Plan: Purchase generator built to run on WVO
 - ▶ No generators available– retrofit diesel generator with automobile WVO system
 - ▶ Obstacles throughout process slowed progress, but engineering around them allows for new development
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Why Vegetable oil?

- ▶ WVO contains no sulfur, the major carcinogenic component in diesel fuel—doesn't contribute to acid rain
 - ▶ Particulates (black soot) are reduced by as much as 30%.
 - ▶ “Non-toxic” if spilled it is quickly biodegradable back into the earth
 - ▶ Carbon Neutral
 - ▶ Its free!
- 


Components to the Generator

- ▶ Generator Needs:
 - Mobile system
 - Fuel Injection
- ▶ Design Considerations:
 - Closed/Open water circuit
 - Simplify oil heating system
 - Design new heated fueling system

Components to the Fuel

- ▶ Oil Needs:
 - Gathering oil and storage
 - Filtering & water separation
 - Developing a testing system for ideal oil conditions
 - Working with food services to facilitate ideal oil conditions

Possibilities

- ▶ Develop a system ideal for use at restaurants, stadiums, golf courses, other veggie oil using venues.
 - ▶ Use no diesel—completely **carbon neutral** product
 - ▶ Automated filtration system
 - ▶ Test to see what features are necessary, cut the excess and develop the needs
 - ▶ Capture as much lost energy from generator, i.e. from exhaust
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Generator Conversion

