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Real Fuel on Campus

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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

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 bio-degradable 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

Generator Conversion