

NEW

the *airTurbine*TM

**Save Fuel By Generating Power
Traveling Down the Road**



PUBLIC VERSION



The airTurbine™ - Introduction




Thank you for taking an interest in the airTurbine, a windmill for your vehicle that can charge secondary batteries and run cabin AC to help save fuel. These slides are a shortened version of our main presentation. Please take a few minutes and review the following slides to learn more about the inventor and the airTurbine.

Michael Feldhake BIO



1. Founder and Inventor of the airTurbine™ technology
2. 23 Years Experience in the Process Controls Industry
 - a. Has worked with Fortune 500 Companies like; **Anheuser Busch**, Peabody Coal, **McDonnell Douglas (Boeing)**, Chrysler, Owens Corning and **MillerCoors**.
 - b. Management Career Call-outs: **Senior Project Manager for 1MM - 40MM projects**, Led Teams of Senior Engineers of Different Disciplines, **Conducted Feasibility Studies and Put Together Projects, Developed Test Regiments and Conducted Scientific Tests.**
 - c. Technical Career Call-outs: **Fully Autonomous Control Systems**, Patent In AI, **Adaptable Cooling System Enhancements**, Many Liquid Filtration Process projects, Several Process Optimization Projects, **Developed Technical and Business Best Practices and Standards**, Reviewed Hundreds of Patent Applications / Conducted Initial IP Conflict Search.

Michael Feldhake - Project Highlights



- For a major brewery in California, **developed a large 15MM modernization project spanning from the gains unloading through the brewhouse to aging.** Project consisted of process enhancements and a major control platform upgrade.
- Developed an overall plan to modernize a Kraft Brewery in Baltimore. **Plan included new process equipment, building modifications and utility upgrades.**
- For a client having a plant in Puerto Rico, **developed a 40MM plan to relocate the plant to Illinois. Project consisted of new warehousing, new modern packaging equipment and asset relocations.**
- For a client in St. Louis, **developed an environmental test chamber** used to test out electrical equipment.
- **Developed a cost cutting packaging unit for a common medical device.** New unit replaced older 80's technology and saved the client 15% operationally.

Michael Feldhake - Client and Vendor Experience





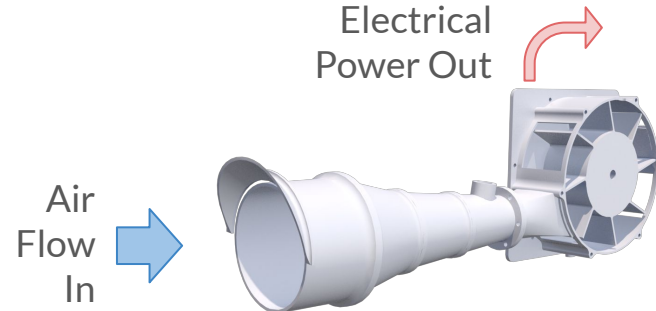
Current Trends in Trucking

- United States Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) have enacted greenhouse gas emissions regulations on commercial vehicles. (NACFE Idle Reduction Technology Report)
- Different Technologies exist to help trucking companies overcome the challenges of meeting these regulations and balancing driver comfort. These include:
 - Fuel Operated Heaters
 - Auxiliary Power Units
 - Engine Auto Start/Stop
 - Vehicle Controls / Driver Behavior
 - Engine Idle Parameters - Smart Idling
- Technologies are not necessarily selected for best fuel efficiency, sometimes driver comfort and retention wins out.
- Weight Allowances for these technologies are provided, however limits still exist.

What is the airTurbine™

Simply put, an airTurbine is a windmill for moving vehicles. Mounted in or above the air dam; by allowing the air around the vehicle to power a new style blade, useful energy can be used to:

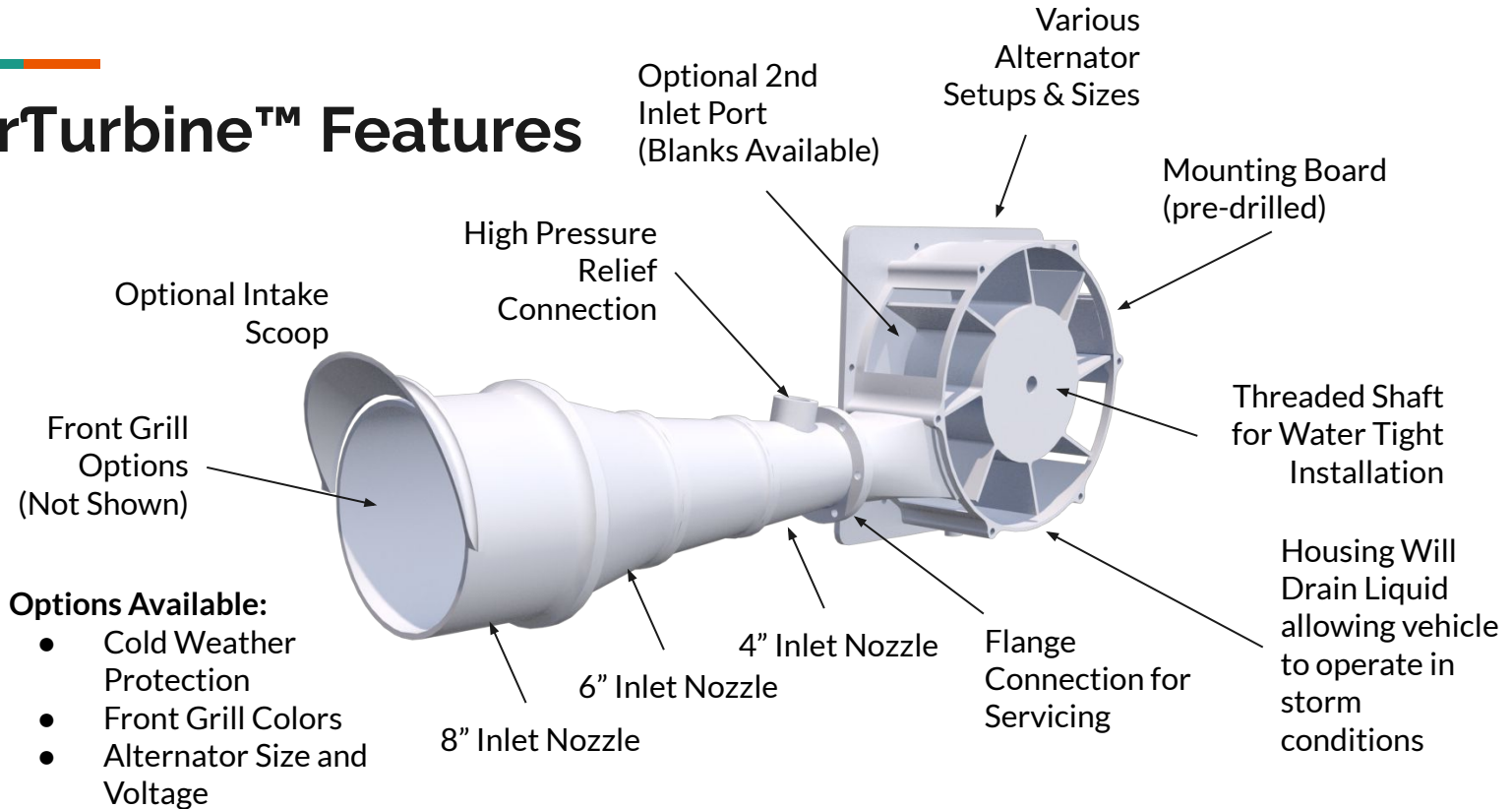
- Charge Secondary Batteries
 - 12, 24 or 48Vdc can be used to charge batteries for later accessory power
- Run Cabin AC
 - Running a 3rd party AC unit could save upwards of 25% fuel costs while traveling down the highway and save on engine wear



Watch Our Video: [Best Solution for Idling Restrictions - YouTube](#)



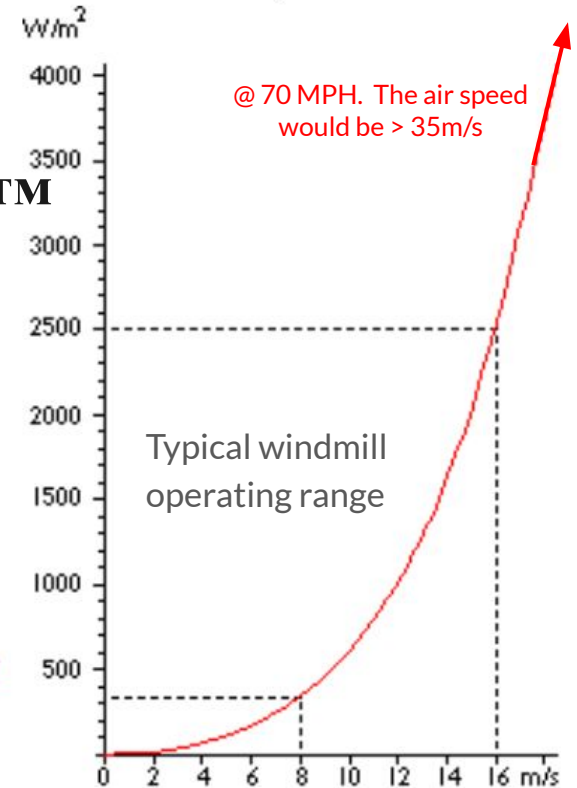
airTurbine™ Features



The Science behind the airTurbine™

Typical windmills operate between 8 and 16 m/s or between 17 and 36 MPH. Based on the energy in wind model, as speed increases the energy is cubed. See the site link below for more from www.WINDPOWER.com

The turbine is designed for high speeds and develops 5x more torque than the average windmill. This torque can be used to power standard automotive alternators and generate good power.



© 1998 www.WINDPOWER.org

More [Here](#)



The airTurbine™ Payoff



For a truck having a 150 sq. ft cabin, traveling 100k miles using the AC 50% of the year; the turbine powering a 3rd party AC unit could deliver upwards of **\$2,700 in fuel saving** at a nominal fuel price of \$3/gal.

For a typical installed cost of \$3000/unit, this represents almost a **13 month payback**. Your situation might be different and this calculation can be confirmed if you contact us.

Note: For this calculation we used a 4500 BTU AC, factored an average 6.8 MPG for the truck and a impact of 1% of MPG for the new turbine nozzle. The 50% AC usage is based on factors for inclement weather and cycling of the AC.



Project Study - Pilot Program Details

A project study is highly recommended for any fleet manager to finalize details of a capital project. Study would;

1. Review current fleet and provide installation recommendations.
2. Review trucking travel schedules, lengths and habits
3. Finalize BOM and deliverables
4. Finalize costs - Determination; OPEX or CAPEX project schedule
5. Finalize the **Return On Investment**

If you own a fleet and are interested in this technology, please send us an email at info@theairturbine.com



Closing Slide

In closing,

I hope you enjoyed this quick presentation and share our excitement about what we are doing to help you reach your goals. Our environment is essential to our livelihoods, health, and general well-being; however, trucking is a crucial part of this well-being. We hope you see the potential of this technology to reduce your fuel costs and help drive success. Don't hesitate to contact us at info@theairturbine.com if you want to learn more or engage us for a fleet study.

Thank you

Michael Feldhake
Founder
Feldhake Consulting, LLC

