



CleanTech, or clean technology, describes a variety of technologies or innovations which conserve energy and natural resources, protect the environment or eliminate harmful waste. Clean technology includes renewable energy like wind power, solar power, biomass, hydropower and biofuels; information technology; transportation; electric motors and lighting.

**Major CleanTech Companies in Richardson:**

**Safety-Kleen** — Safety-Kleen enables businesses to stay in sync with the environment by providing products and services focused on safety, cleanliness and purity. Specific services provided by Safety-Kleen include: oil collection, waste management, equipment services, total project management, compliance, vac services and emergency response. Safety-Kleen has a closed loop infrastructure which ensures that the waste it handles never leaves its hands. It also is the lead in developing innovative equipment for specialized cleaning needs. Safety-Kleen owns and operates the largest re-refinery of used motor oil in North America.

**Benning Power** — Benning Power Electronics, Inc. operates globally, designing, manufacturing, installing and servicing high-efficiency solutions to power communications and industrial equipment. Benning's product line serves a wide variety of industries including telecommunications, handling and distribution centers, industrial equipment, data centers, medical power supply and the military. Benning demonstrates its commitment to clean technology through its services and its facility design, which enables the company to decrease manufacturing time while making a positive impact on the environment.

**Convey Computer** — Convey Computer Corporation is the leader in hybrid-core computing. This groundbreaking technology breaks through the heat and power obstacles caused by increasing processor frequencies and semiconductor densities. It increases application performance and saves money in power and maintenance costs. The Convey HC-2 systems increase application performance tens of times over commodity servers and two to three times over previous generations of Convey servers. Convey offers performance solutions in the areas of big data, life sciences, government and research.

"Many of our customers have sustainability programs and either work in or own LEED-certified offices and buildings, and we believe they prefer to do business with companies that share their values."

-Roger Craycraft, CEO, Safety-Kleen, on selecting to locate to a Richardson building in the process of LEED and Energy Star certification

# Industry Cluster: CleanTech



## CleanTech companies in Richardson cont.:

**Delta Greentech** — Delta Greentech is a leading provider of efficient, energy-saving power, video and industrial automation products, services and solutions. Its clients span various industries, including telecommunications, power, petrochemical, mining and metallurgy, government, finance, rail transit, textile machines, paper making, printing, packaging, machine tools, electronic equipment and building automation. Greentech has successively implemented several energy conservation and emission reduction projects in areas such as energy conservation, using fresh air, fuel batteries, solar energy, LED lighting and integrated energy conservation.

**EnTouch Controls** — EnTouch Controls provides a single energy management systems (EMS) solution for small businesses. This system replaces traditional thermostat controls and creates a coordinated, full facility HVAC control system known to save companies 25 percent or more on energy bills. The EnTouch EMS features around the clock facility energy monitoring, synchronized HVAC controls to maximize comfort and minimize energy waste, remote site monitoring at multiple facilities and automated performance/maintenance alerts.

**Texas Instruments** — Texas Instruments is a global semiconductor company that designs and manufactures game-changing technology for any type of electronics, including solutions for ultra-low power products, energy management, alternative energy, cloud computing, safety and security, medical, and more. The company's semiconductors are synonymous with energy efficiency and greener designs. TI is also committed to sustainable operations. In 2009, it opened the world's first environmentally-responsible semiconductor manufacturing facility in Richardson.

## UT Dallas Renewable Energy and Vehicular Technology Laboratory (REVT-Lab)

The Renewable Energy and Vehicular Technology Laboratory (REVT-Lab) at UT Dallas conducts research to improve the reliability and security of power-electronic driven technologies. The lab is equipped with various sources of renewable energy such as:

- wind and solar power
- micro-grid formed by a network of multi-port power electronic converters
- stationary DFIG-based wind energy emulator
- series of adjustable speed motor drive technologies including PMSM, SRM and induction motor drives

The main focus of the REVT Lab is to improve reliability and security of the power electronic-driven technologies as applied to utility and vehicular industries.