FACT SHEET: Indiana's CleanTech Opportunity

What is 'CleanTech?'

The clean technologies sector is proving to be one of the fastest growing global markets, with more than $150 billion invested in 2007. The sector is expected to double in size with increased federal support and enhanced market penetration spurred by carbon regulation and other fossil fuel limitations as well as the desire for energy independence.

Cleantech sub-sectors like wind and solar power, plug-in/hybrid electric vehicles, second generation biofuels, distributed power generation, and systems integration are each projected to grow to more than $70 billion over the next ten years, collectively accounting for a more than $350B global market.

Indiana's CleanTech Assets

Indiana has a strong and diverse set of corporate and institutional assets across several of the fastest-growing markets of the cleantech sector:

Electric/Hybrid Vehicles

Indiana companies span the entire electric/hybrid/plug-in vehicle production chain, with established and emerging companies focused on engines and electric motors, power electronics, energy storage, advanced chassis and overall systems integration. Firms operating in this arena include (but are not limited to): Cummins, Delphi, Allison Transmission, EnerDel, Bright Automotive, Light Engineering, Franklin Electric, Dart Controls, Johnson Controls, Remy, Caterpillar, AM General, Alcoa, Navistar, AM General and more.

Wind Power

Indiana already boasts one of the nation's largest wind farms (Benton County – northwest Indiana) and is home to companies like Brevini Wind (a subsidiary of Italy-based Brevini Inc.) which manufacture critical parts for wind turbines.

Second-Generation Biofuels

Indiana is home to 20+ existing biofuel plants with a combined 1 billion gallons of capacity, including the world's largest biodiesel plant. Second generation (cellulosic) biofuels from sources like corn stover could have greater potential than first generation (ethanol) fuels in Indiana.

Systems Integration

Perhaps the biggest market need and opportunity within the cleantech sector is the integration of clean energy systems to work in real-world applications – i.e. distributed power generation systems that 'levels' the intermittent power peaks and valleys produced by renewable energy sources like wind and solar, or 'smart grid' technologies that support the unique challenges posed by electric vehicles and other alternative energy applications. Collaboration among Indiana's corporate and research institutions could put the state on the cutting-edge of integration breakthroughs.

A Heritage of Innovation

Indiana has a rich legacy in engineering and manufacturing advanced energy solutions:

- Pioneered the electric power train, hybrid electric systems, and produced the EV1 (Delco Remy, Delphi, GM, Allison, Cummins, International, etc);
- Led advancements in energy storage and battery technology developing systems for the military and automotive industry (Crane, Delphi, etc); and
- Remains a global leader in power generation systems including diesel gensets and turbine technology (Cummins, CAT, Rolls Royce).

As in all high-tech industries, the cleantech sector relies on human capital and innovation as indispensable resources for success. Indiana's heritage and existing array of assets in this area mean both the workforce and R&D capacity to seize emerging opportunities in clean technologies.