

The Ohio Apollo Program

Green pathways out of poverty towards family-sustaining wages



We are at a Crossroads

- Past practices and policies of the conventional energy economy created an economy with vast amounts of waste and “low-road” economic development strategies
 - Leaving our workers behind
 - Our communities impoverished
 - Our residents dependent on polluting fuels, and
 - Our environment polluted

New Energy Economy, New Way

- Driven by a partnership between labor, environmental, community, employers, policy makers, and concerned citizens working to promote “high-road” economic development strategies:
 - Strategies that grow the economy in a way that is good for our workers, good for our communities, and good for our environment
 - That means creating high-quality jobs, protecting the environment, and building career pathways

Taking the High Road

1. Enact policies and programs to drive demand for clean energy products and services, and to create good green jobs
2. Build a training pipeline of skilled workers by aligning clean energy development strategies with workforce development
3. Forge pathways out of poverty by targeting low-skilled workers, particularly women and persons of color, and help prepare them for these opportunities

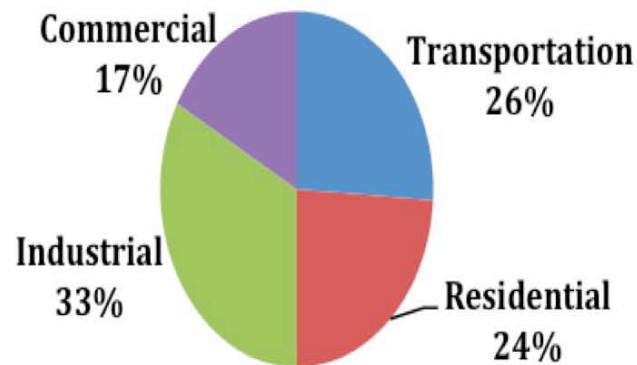
The Ohio Example: Backdrop

- **Since the last recession in 2001**, Ohio lost more than 370,000 manufacturing jobs, 70,000 construction jobs
- Five of Ohio's cities are on the nation's top ten list for having the biggest increases in poverty
- At the same time, Ohioans spent \$54 billion on energy in 2008, most of polluting fuels purchased largely from outside Ohio
- Ohio ranks 6th in the nation for the amount of energy we use, and our electric power industry ranks 2nd for its emissions

1. Ohio Energy Use

Figure 1. Ohio's Energy Use, by Sector (2007)

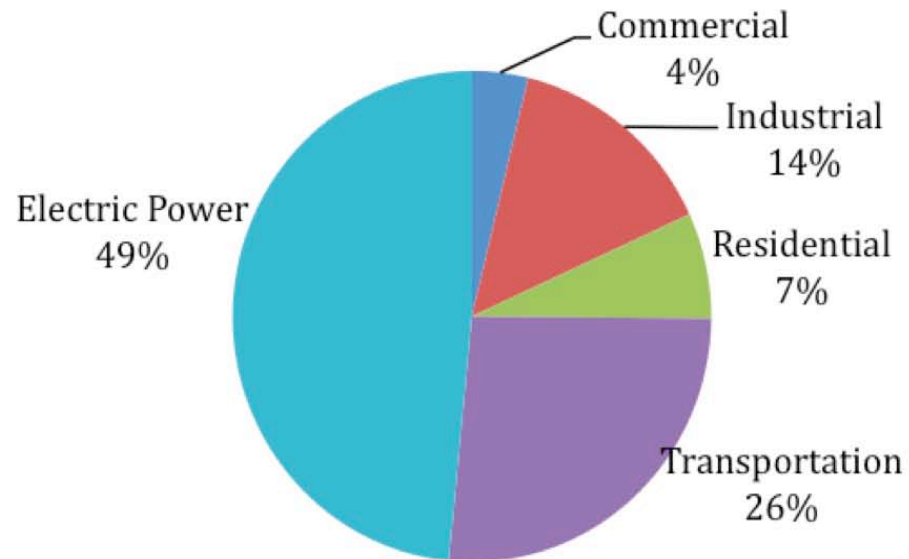
Source: Energy Information Administration



In order to achieve a more sustainable economy and reduce our dependence on fossil fuels, we must understand how we use energy....

Figure 3: 2007 Ohio Emissions, by sector (CO₂)

Source: Environment Ohio (based on EIA data)



And where our emissions come from.....

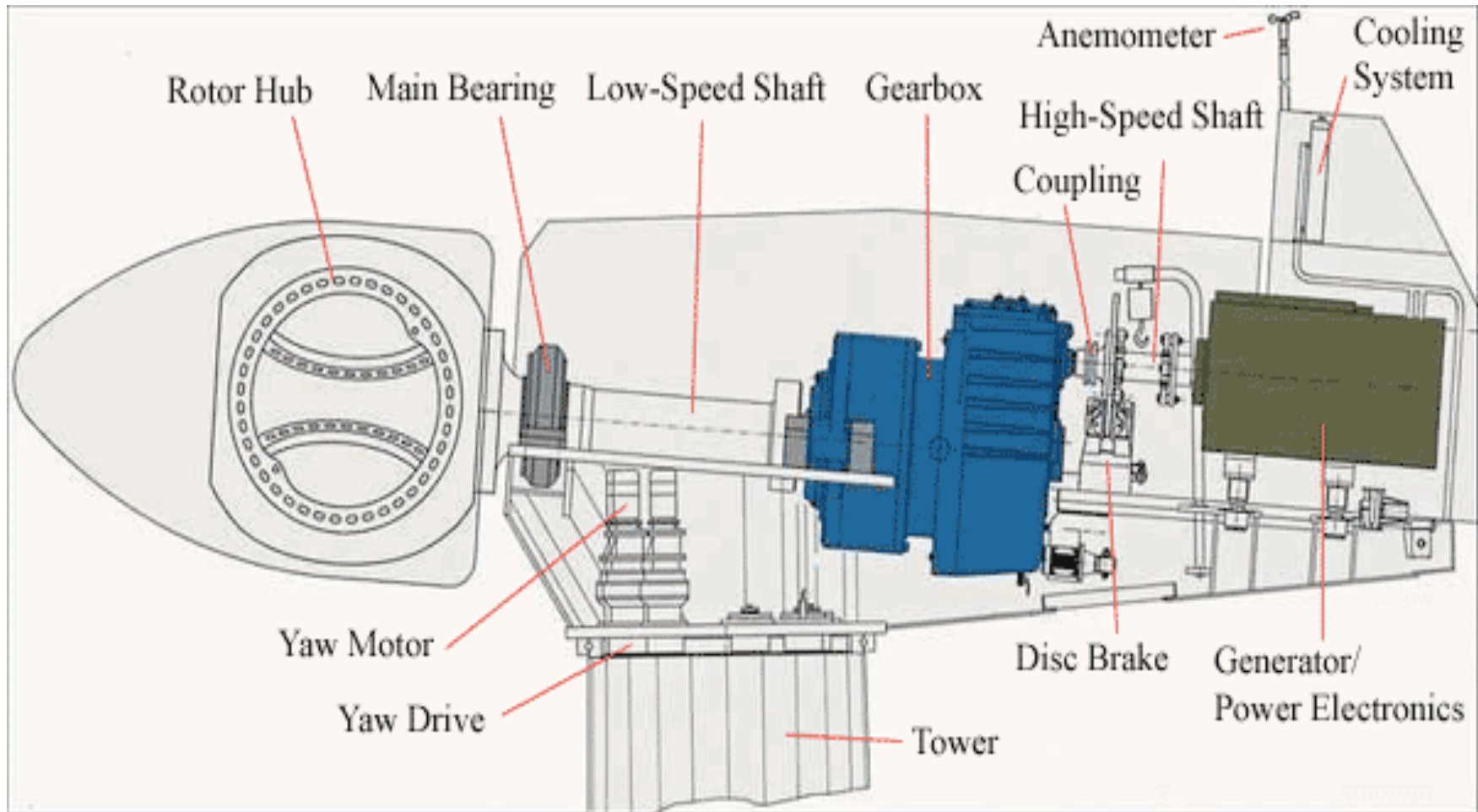
The Ohio Example: Creating Demand

1. Governor created position for Energy Advisor
2. **Electricity:** Passed Renewable energy and energy efficiency standards
3. **Industrial Energy Use:** Created the Ohio Center for Industrial Energy Efficiency, and invested significant portion of federal stimulus dollars in industrial efficiency
4. **Transportation:** Brought in Dept. of Transportation Director with rail background, secured \$400m in federal stimulus dollars for passenger rail, changed the contracting process at ODOT to factor in enviro benefits

Ohio Department of Development

- Undertook a large supply chain analysis
- Building from 2005 REPP report showing that Ohio's manufacturing infrastructure and workforce poised to us to become a leader in providing parts for clean energy equipment
- **Ohio could gain more than 22,000 manufacturing jobs from significant investments in renewable energy.**
- ODOD firms that could benefit involvement in the clean energy supply chain, and went door to door
- Initial focus on wind supply chain, based on research

Clean energy equipment is not made of mysterious parts



More than 1200 Ohio Firms already made the kinds of parts found in wind, solar, geothermal, and biomass equipment

Ohio's Clean Energy Standards

- In May 2008, on the Governor's initiative, Senate Bill 221 was introduced
 1. Re-regulated Ohio's Electric Utility Companies
 2. Included Aggressive Clean Energy Standards
- Governor Ted Strickland (D): "We must implement an advanced energy portfolio standards in order to create thousands of new Ohio jobs."

By 2025, SB221 requires of electric utilities:

- 25% of energy must come from “Advanced Energy” sources
 - half of that (12.5%) from renewable energy
 - The other half can be met with other forms of Advanced Energy such as clean coal and nuclear
 - ½ to be generated in state
 - .5% from solar power (solar carve out)
- Utilities also required to achieve 22% in energy savings
- Benchmarks start small, ramp up over time

A Key Partner:
The Ohio Consumers' Counsel

- Diversifying Our Energy Supply is good for Ohio's Energy Consumers
 - Dependent on fossil fuels, which are a scarce resource with limited supply
 - Fossil fuel prices are volatile at best, and trending upwards
 - By increasing demand for clean energy we can relieve pressure on fossil fuels prices, reducing energy prices in the long run

Both the chambers of the Ohio legislature were Republican controlled

- Initially hesitant
- Speaker of the House Jon Husted (R):* “We will create an energy policy that will take an environmentally responsible approach, emphasizing renewable energy while transforming our economy with new job-creating green businesses.”
- The Ohio Senate tacked on a provision that the advanced energy standard could not raise consumer rates by more than 3%

Clean Energy Standards at Work (summer 2010)

To comply, we are seeing utilities:

1. Mainly depending on purchasing renewable energy credits (RECs)
2. Engaging in power purchase agreements with 3rd parties
3. Few projects owned and operated by utilities, almost all of which involve co-firing biomass with coal
4. Discounts and rebates for energy efficiency products and services, and consumer ed

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- The bill created a renewable energy credit market by guaranteeing Ohioans and outside investors have a commodity to sell,
- **American Electric Power (1/3 of market)** has a power purchasing agreement for 10MW solar field, nearly all of the 160,000 panels were manufactured in NW Ohio.
- **Duke (16% of market)**: Started a program to buy Renewable Energy Credits from their customers who invest in renewable energy.
- **Dayton Power and Light (10%)**: Built Yankee Solar Field, is currently testing the co-firing of biomass (10% biomass, 90% coal)
- \$340 million invested over 3 years in energy efficiency programs (largely in the form of rebates and incentives)

Issues: Solar Benchmarks and Biomass

- sRECs: All companies met 2009 renewable energy requirements, but fell short on their solar benchmarks (granted *force majeure* due to a lack of certified solar projects). FirstEnergy announced they couldn't meet their 2010 solar requirement
- Biomass is an important piece in the transition to a more sustainable economy. However, the magnitude of projects currently proposed is potentially problematic.

2. Building Ohio's Training Pipeline

Aligning workforce development strategies:

- *Ohio Skills Bank*: Started to quantify the job impact of the policies and programs put in place
- *Green Pathways Advisory Panel*: Enabling communication across multiple sectors involved in sustainability, departments, stakeholders
- *Constructing Futures*: Used federal stimulus funds to support pre-apprenticeship programs that target low-skilled workers, particularly women and persons of color

Improvements needed on Ohio's Road to a Sustainable Economy and Workforce

1. Ohio needs a strategy to make our transportation sector more energy independent and economically and environmentally sustainable:
 - Make funding for public transportation a priority
 - We secured \$400 million in stimulus dollars to connect our 3 largest cities, the new Governor returned it
2. Lot more work to be done in industrial efficiency, coalitions are forming to work with manufacturers to identify policies that would support CHP development and allow manufacturers to sell electricity into grid

Improvements needed on Ohio's Road to a Sustainable Economy and Workforce

3. Publicly-funded sustainability projects provide an opportunity to ramp up skills needed, *if* we promote on-the-job training opportunities.
 - Current low-cost bidding practices often mean few quality training opportunities, cutting corners
 - When spending public funds, we should take the high road—promoting high quality workmanship, quality training opportunities, and sustainable practices—by awarding contracts to projects that provide the overall best value to the community
 - Set aside project funds for skills development of low-skilled workers

Conclusion:

In Ohio, we have already taken significant steps on the high road towards a more sustainable economy. More can and should be done, with the benefits far outweighing any costs in the long run, to build an economy that works better for our communities, our workers, our citizens, and our environment.

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