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The Building Blocks of Delaware’s Clean Energy Economy

University of Delaware
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Scale of Opportunity

- $6T$: Size of global energy market (6x greater than internet)
- $250B$: U.S. Wealth exported to import energy
- $120B$: Est. annual health costs from energy
- 10%: Average operating budget spent on energy
- 80-90%: Reduction in GHG emissions by 2050
Scale of Opportunity
Fundamental Tenets

1. The transition to clean energy is good for economy & will create more jobs and prosperity than are displaced.

3. Clean technology is not simply an emerging industry sector, but rather a mechanism to make the entire U.S. economy more competitive.

4. The worldwide competition for clean energy jobs will be intense and success will require policy entrepreneurship & strategic partnerships.
Goals of a Statewide Strategy

Statewide Goals:

- Enhance State’s Competitiveness (Green Savings)
- Spur New Investment & Industries (Green Opportunities)
- Provide Range of Career Opportunities (Green Talent)
- Improve Environmental Outcomes
Creating a Clean Energy Economy

Regions can create a market and spur growth by influencing both supply & demand-side levers:

**Supply Side**
- Innovation & manufacturing of Clean Tech products
- Employment in Clean Tech & support industries

**Clean Technology**
- Market-driven innovations that:
  - Utilize renewable energy sources
  - Manage energy resources more efficiently
  - Reduce environmental impacts

**Demand Side**
- Awareness & adoption of sustainable practices
- Purchase of Clean Tech products
Delaware’s Clean Energy Economy

Support Growth of Clean Energy Companies

Innovation ➔ Commercialization ➔ Manufacturing & Supply Chain ➔ Deployment & Operations

Job Creation & Workforce Opportunities

Building & Operational Efficiency ➔ Clean Energy ➔ Advanced Transportation ➔ Sustainable Products

Build Market Demand for Goods & Services
Workforce Development

Innovative workforce programs:

✓ Classroom & on-the-job training programs
✓ Industry involvement in community college curricula
✓ Job placement/employee recruitment services
✓ Energy job training with Federal, State and private funds
Executive Order #18

1. Reduce energy use by 30%
2. Receive 30% of our electrical power from renewable sources
3. Build to LEED Silver Standard
4. Divert 75% of the waste from landfills
5. Reduce gas consumption and vehicle emissions by 25%
6. Procure environmentally responsible products
Transforming Challenges into Opportunities

Challenge: State Budget
- Energy & maintenance costs
  - ~$35 million per year
  - ~125,000 tons of CO₂

Executive Order 18
- Reduce operating expenses
- Reduce energy use & emissions
- Increase renewable power

Spur Job Creation
- Catalyze innovation/incubation
- Support manufacturing/installation jobs
- Create export opportunities
- Generate revenues for services

Create Market
- Spur demand for goods/services
- Provide demonstration opportunities

[Political graphics and logos]
How do we best seize the opportunity?

• Drive economic prosperity & wealth creation
• Reduce operating expenses
• Create well-paying jobs/careers & attract/retain talent
• Improve environmental outcomes & quality of life
• Demonstrate that economic growth & environmental sustainability are interconnected
Delaware’s Clean Energy Economy

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- Clean Energy
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Build Market Demand for Goods & Services
Building Blocks of our Clean Energy Economy