Michigan's Energy Future Today

Michigan Grantmakers for Women & Girls

April 12, 2010

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Department of Energy, Labor & Economic Growth

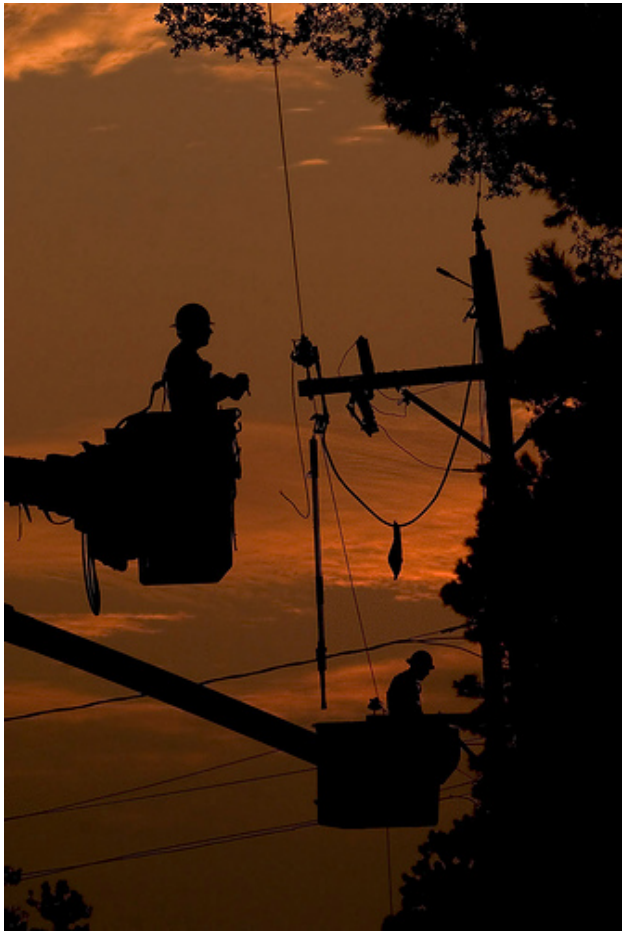
Governor Granholm's Leadership

Governor Granholm's goals are in perfect alignment with the Obama Administration

1. Create jobs by transforming Michigan's economy
2. Reduce reliance on foreign fuels
3. Emit less CO2

Vision – Thrive economically by exporting sustainable solutions

- Workforce
- Energy Efficiency
- Renewables
  - Wind
  - Solar
  - Bio-Materials
- Advanced Energy Storage



Successes

- **Wind**
  - Total job creation projected of 4,715
  - Total new business investment of $132 m
- **Solar**
  - Total job creation projected of 21,592
  - Total new business investment of $2.8 bill
- **Advanced Energy Storage**
  - Total job creation projected of 54,237
  - Total new business investment of $5.7 bill

Bottom Line - Over $8.6 billion of investment in Michigan in 2010!

Workforce

- Andy Levin - Chief Workforce Officer
- No Worker Left Behind - Green Jobs Initiative
- Green Jobs Report- May 2009 – showed 7.7% expansion
- Regional Skills Alliances
- Michigan Works Agencies
- Universities and community colleges
- DELEG Bureau of Workforce Transformation partnership with MEDC

Energy Efficiency

- Energy Optimization Statute in 2008 PA 295
- ARRA – $400 million for state energy programs including:
  - Weatherization Assistance Program to weatherize low-income homes
  - Appliance Rebates
  - State and local energy efficiency funding
- State of Michigan leading the way
  - DMB has decreased electrical use in SOM buildings by 23% saving Michigan taxpayers over $60 million
- Improvement in Michigan building codes
- Michigan Saves
- Reform Effort: New Utility Business Model

Large Scale Wind

- **Michigan is 1 of just 4 states** that will create **more than 30,000 manufacturing jobs** in the wind sector alone.
  - Regional transportation advantage
- Michigan has the potential to be one of the **top 8 states for wind production.**
  - 129 MW installed wind today, over 2000 MW planned under RPS plans.

Large Scale Wind

- Total job creation projected of 4,715
- Total new business investment of $132 m
- Core competency in advanced manufacturing for complex machines – automation, drivetrains, lightweight materials, etc.
- Clean Energy Advanced Manufacturing (CEAM) – $15 mill to diversify manufacturing
- Great Lakes Wind Council – off-shore focus
- Wind Energy Resource Zone Board
- NextEnergy Supplier Matchmakings – Over $700 m in business
- MEDC Supplier Diversification Financing

Successes
Wind

Astraeus Wind Energy - Sterling Hts./ Eaton Rapids

•90 direct

ATI Casting Services – Alpena

•368 (150 direct and 218 indirect)

Danotek – Canton

•353 (141 direct and 212 indirect)

Dowding Industries – Eaton Rapids

•358 (200 direct and 158 indirect)

Energetx – Holland

•2,599 (1,068 direct and 1,531 indirect)

Energy Components Group – St. Clair

•250 direct

Great Lakes Industry – Jackson

•48 direct

Loc Performance Products – Plymouth

•118 direct

MasTech/Mariah Power – Manistee

•116 Direct

Merrill Technologies Group – Saginaw

•125 direct

Ven Towers – Monroe

•290 (152 direct and 138 indirect)

4,715 Total Jobs

Solar

- Total job creation projected of 21,592
- Total new business investment of $2.8 bill
- Strong solar company presence in Michigan
  - Hemlock Semiconductor
  - Dow Corning
  - Dow Chemical – Solar Shingle to be build in MI
  - United Solar Ovonic
- New product availability – Luma Resources
- Triple Renewable Energy Credit incentive in PA 295
- Michigan Anchor Company Tax Credits
- Innovative utility programs filed under RPS

Successes Solar

Clairvoyant – Wixom

•5,343 (751 direct and 4,592 indirect)

Dow Chemical – Midland

•6,422 (1,275 direct and 5,147 indirect)

Evergreen Solar – Midland

•596 (101 direct and 495 indirect)

Global Watt – Saginaw

•2,768 (500 direct and 2,268 indirect)

Hemlock Semi Conductor – Saginaw Co.

•576 (190 direct and 386 indirect)

Suniva – Saginaw Co.

•2,125 (500 direct and 1,625 indirect)

United Solar Ovonics – Battle Creek

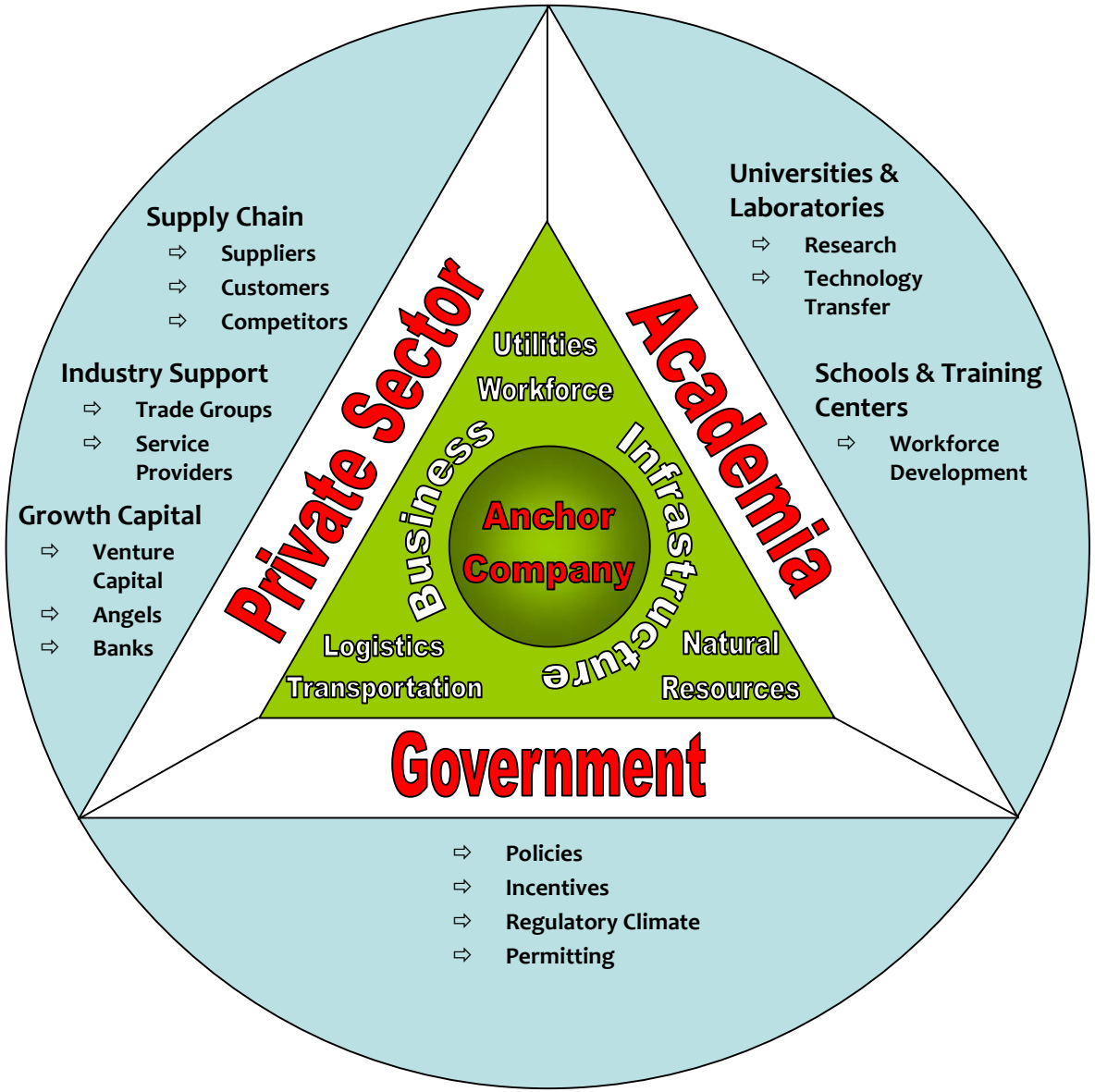
•3,762 (700 direct and 3,062 indirect)

21,592 Total Jobs

Advanced Energy Storage

- Total job creation projected of 54,237
- Total new business investment of $5.7 bill
- Positioned to become the leader in battery development
- State of Michigan tax credits
- Centers of Energy Excellence
- Automotive manufacturing strength to support burgeoning industry
- Smart grid and transmission improvements necessary to take advantage of batteries

Centers of Energy Excellence



Successes Batteries

A123

•2,217 (844 direct and 1,373 indirect)

Azure Dynamics

•83 (40 direct and 43 indirect)

Dow Kokam

•2,644 (885 direct and 1,759 indirect)

Ford Battery/Vehicle Engineering

•34,490 (8,600 direct and 25,890 indirect)

fortu Power

•650 direct

GM

•100 direct

Johnson Control Saft

•3,143 (1,096 direct and 2,047 indirect)

Magna Electronics

•1,766 (525 direct and 1,241 indirect)

Sakti3

•245 (127 direct and 118 indirect)

Techno SemiChem

•279 direct

Toda America

•148 (57 direct and 91 indirect)

Xtreme Power

•7,211 (2,500 direct and 4,711 indirect)

LG Chem

•1,261 (443 direct and 818 indirect)

54,237 Total Jobs

Successes
Bioenergy

American Process – Alpena

•48 (10 direct and 38 indirect)

Frontier Renewable – Kinross

•346 (72 direct and 274 indirect)

Heat Transfer International – Kentwood

•433 (90 direct and 343 indirect)

Renewafuel – Gwinn

•120 (25 direct and 95 indirect)

Swedish Biogas – Flint

•192 (40 direct and 152 indirect)

Working Bugs – Webberville

•96 (20 direct and 76 indirect)

1,235 Total Jobs

Strategic Vision

- Geothermal
- Smart Grid
- Transmission
- Biofuels/bioproducts
- Carbon capture and storage (CCS)
- More…

Recovery Act

- Weatherization Assistance Program + $243 million
- Energy Efficiency Conservation Block Grant + $76 million
- State Energy Program + $82 million
- Appliance Rebate Program + $9 million

Questions?

Thank you!

http://www.michigan.gov/energyoffice
http://www.michigan.gov/deleg
http://www.michigan.gov/recovery