

Economy, Energy & Environment:

***Sustaining the Path for Manufacturing toward
Continuous Environmental Improvement in Michigan***

Laura Rauwerda, Michigan DEQ
Office of Environmental Assistance
Great Lakes Regional Pollution Prevention Roundtable,
Spring Update
May 12, 2011



Supporting Manufacturing Leadership Through Sustainability

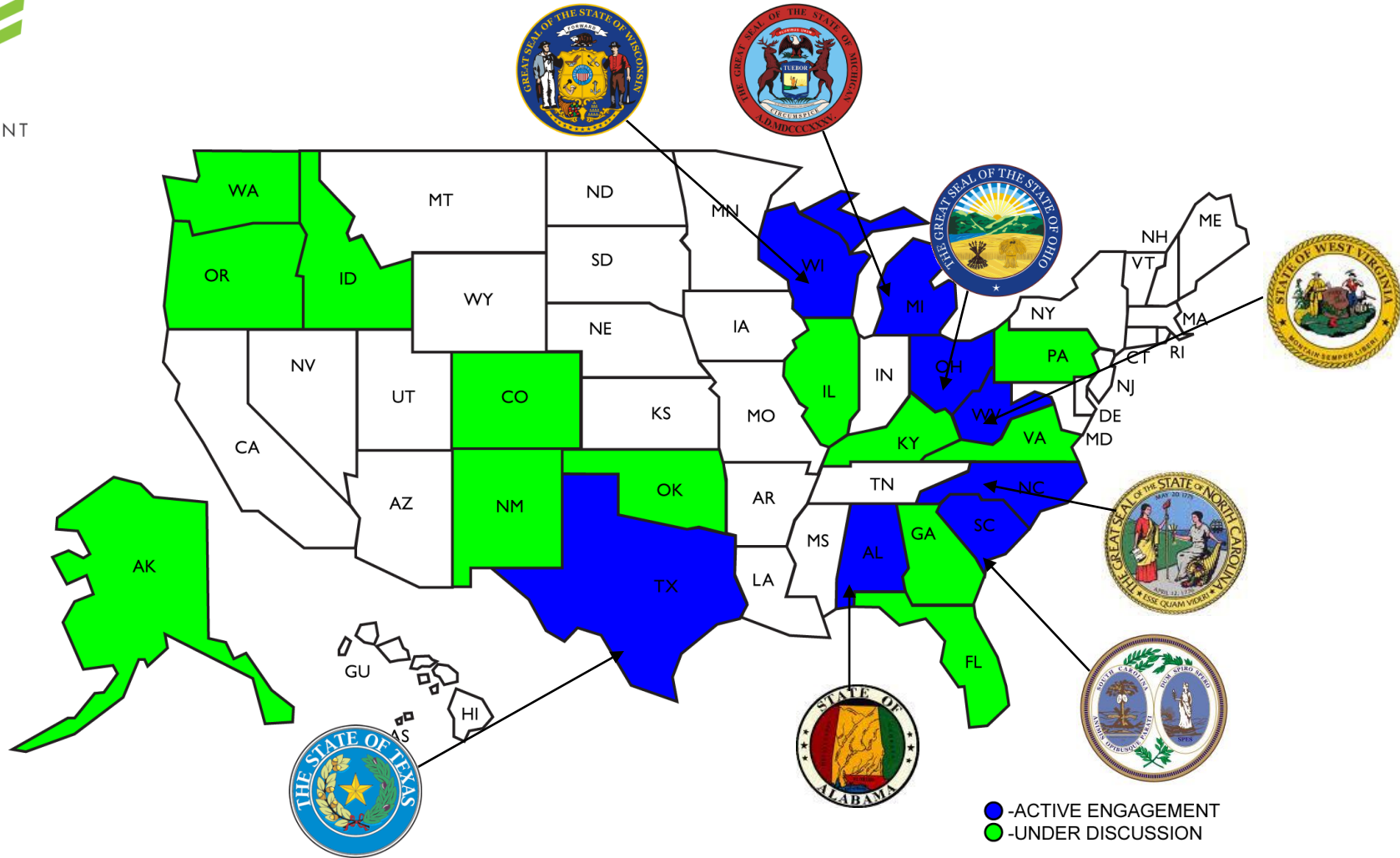
E3: Economy, Energy, and Environment



Interest in E3 is Growing



ECONOMY
ENERGY
ENVIRONMENT



Current as of October 26, 2010

E3 Package

- 1. Technical Assessment**
- 2. Implementation Support**
- 3. Training and Continuous Improvement**



Green Suppliers Network



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Costs & Resources for E3 Assessments

Cost per Assessment

- Lean & Clean --\$10K
- Energy Audit ---\$ 9K
- State P2 ----- no cost
- SBA ---no initial cost
- DOL -----no initial cost

Resource Base

- DOE Block grants
- State Energy Funds
- Utilities
- Foundations
- Small fee to manufacturer
- EPA & SRA grants
- DOL Grants

**There is no formal appropriation for E3 at this point in time

Michigan GSN-E3 Partner Companies

Apex Spring and Stamping
Auto Cast
BAE
Byrne Electrical
Chemico- Birmingham
Chemico-Chesterfield
Compatico Inc.
Detail Technologies
DeWys Manufacturing
Elm Plating
Falcon Foam
Gallant North America
Grand Rapids Controls
Grand Rapids Foam Technologies
H&L Advantage
Irwin Seating
IVC Industrial Coatings
JD Plating
Knap & Vogt
Light Corporation
Master Finish Co.
Metal Components LLC
Metal Standard Corp
Metal Works
Michigan Extruded Aluminum

Miller Tool and Dye
Nuvar Inc.
Precision Mold & Engineering
Progressive Technologies, Inc.
Rapid-Line, Inc.
Renosol
Techno-Coat, Inc.
TPI Powder Metallurgy, Inc.
Trimline Tool
Valley City Plating
Wright Coating Company, Inc.
Landscapeforms, Inc.
General Oil Company
Burkard Industries, Inc.
Durcon, Inc.
Eclipse Mold, Inc.
Rhetch

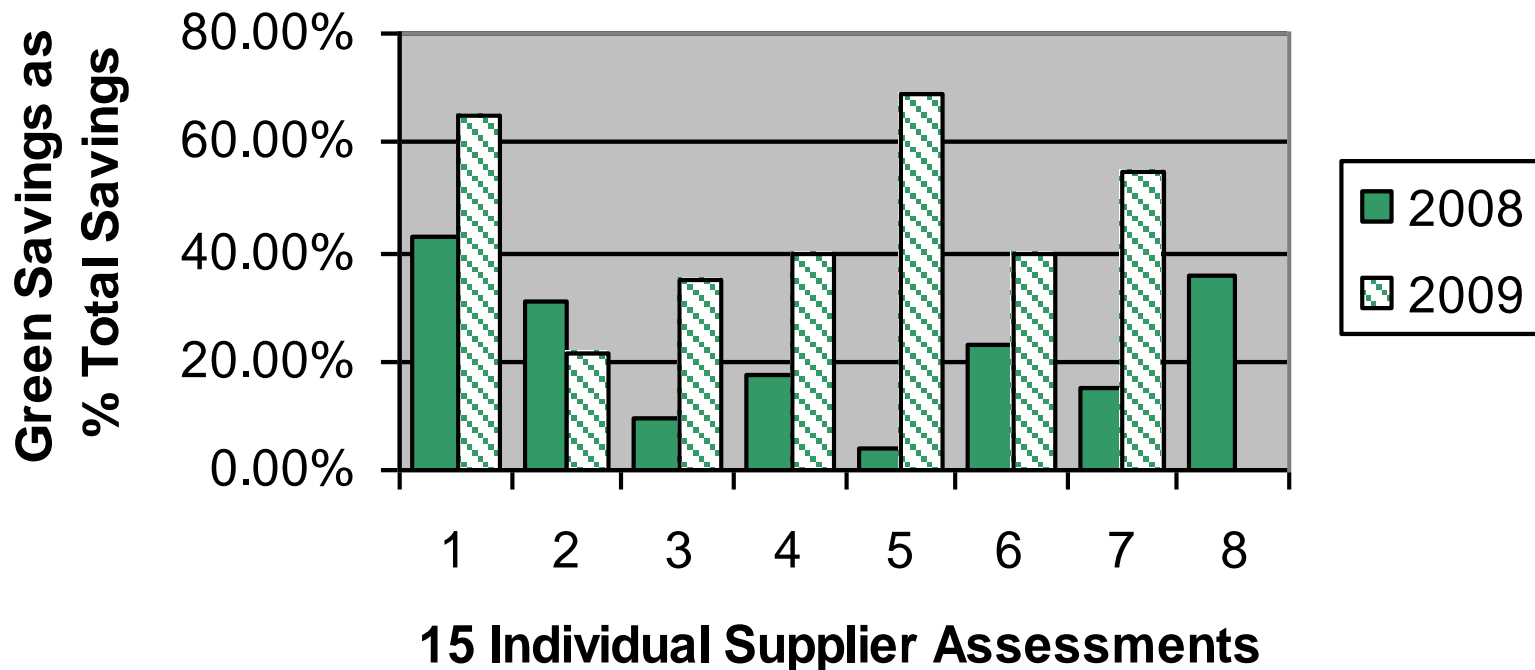


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Percent Added Dollar Value Identified in Environmental Assessments



Source: West Michigan MMTC, 2010



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The Business Case for Energy Efficiency Implementation at 1 Company

- Lighting: Office Lighting Modification resulting in \$1060/yr. savings
- Lighting: Shop Floor Modification resulting in \$11,909/yr. savings
- Compressed Air Modification resulting in \$4,180/yr. savings
- Infrared Oven Modification by monitoring production, \$17,142/yr.
- Infrared Oven Modification by shutting off unused IR coils \$17,414/yr.
- TOTAL Annual Savings: \$51,705





Implementation and Follow-up

E3 - Assessment recommendations are prioritized and acted upon by the company through MMTC-Value Stream Mapping Process



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Leveraging Resources & Coordinating Services



Additional Collaborations

SUPPLIERS PARTNERSHIP
FOR THE ENVIRONMENT™

An Innovative Partnership between Auto Manufacturers, their Suppliers and the U.S. EPA



new economy
initiative
for southeast michigan



University of Michigan
Michigan Industrial Energy Center





Training for Environmental Metrics & Improvement

- EPA Region 5 PPIS Grant 2011- Michigan E3 Sustainable Supply Chain Alliance
- \$276,594 total project cost
- Pass-through grant recipient, Michigan Manufacturing Technology Center-Plymouth
- Facilitate diffusion through MMTC locations in the State
- Measure Environmental Outputs and Greenhouse Gas emissions
- Associate Cost Savings, Data Analysis and Aggregation

“The most important figures needed for management of any organization are unknown and unknowable. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.”

W. Edwards Deming, Out of Crisis, 1982



Partners - Detroit

PRIVATE

- Detroit Edison (DTE)
- Consumers Energy
- Detroit New Economy Initiative (NEI)
- Comprehensive list of 49 companies developed
- 10 companies recommended by DTE
- Currently 5 contracts for E3 assessment process

PUBLIC

- MDEQ, EPA & NIST
- MMTC-Plymouth
- Detroit Regional Chamber of Commerce
- SBA, LARA, U of M
MIEC, SBTDC, DOL,
DOE



Partners – West Michigan

PRIVATE

- Steelcase
- Herman Miller
- 32 suppliers to the office furniture industry in West Michigan
- BIFMA- International, Business and Institutional Furniture Manufacturing Association
- Consumers Energy
- Great Lakes Energy
- Food Processors

PUBLIC

- MDEQ, EPA & NIST
- MMTC-West, The Right Place, Inc.
- West Michigan Strategic Alliance
- SBA, LARA, U of M
MIEC, SBTDC, DOL,
DOE



Thank You!

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or

visit the Great Lakes Sustainable Suppliers Environmental Network web site:

http://www.michigan.gov/deq/0,1607,7-135-3585_57802_40313---,00.html