

Supply Chain Fitness™

The Make or Break for Suppliers & Corporate Social
Responsibility

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About the topic

- Supply Chain Fitness™ A framework for businesses for energy policy development and management
- Why?
- SCF preserves a position in a supply chain with customer(s)
- SCF can create or keep a competitive advantage with competitors
- SCF is an effective way to reduce cost and energy usage for the very long term



Brief history of Sustainability as a movement

1972 – UN Conference on Human Environment – Stockholm, Sweden

1987-- The Brundtland Report ... *Our Common Future*

1992 -- UN Conference on Human Environment – Rio de Janeiro, Brazil

2002 – World Summit on Sustainable Development, Johannesburg South Africa

2015 —UN Framework Convention on Climate Change [UNFCCC] – Le Bourget, France



Are you Sustainable?

“...Development which meets the needs of the present without compromising the ability of the future generations to meet their own needs...”

Our Common Future



Why participate?

- Ground Shift –Toward Sustainability
- Increasing Stakeholder Expectations
- Belief in the threats presented by Climate Change
- Independent Certification / ISO / Fairtrade
- Industry Specific Certification



The need for Supplier Fitness

Threats :

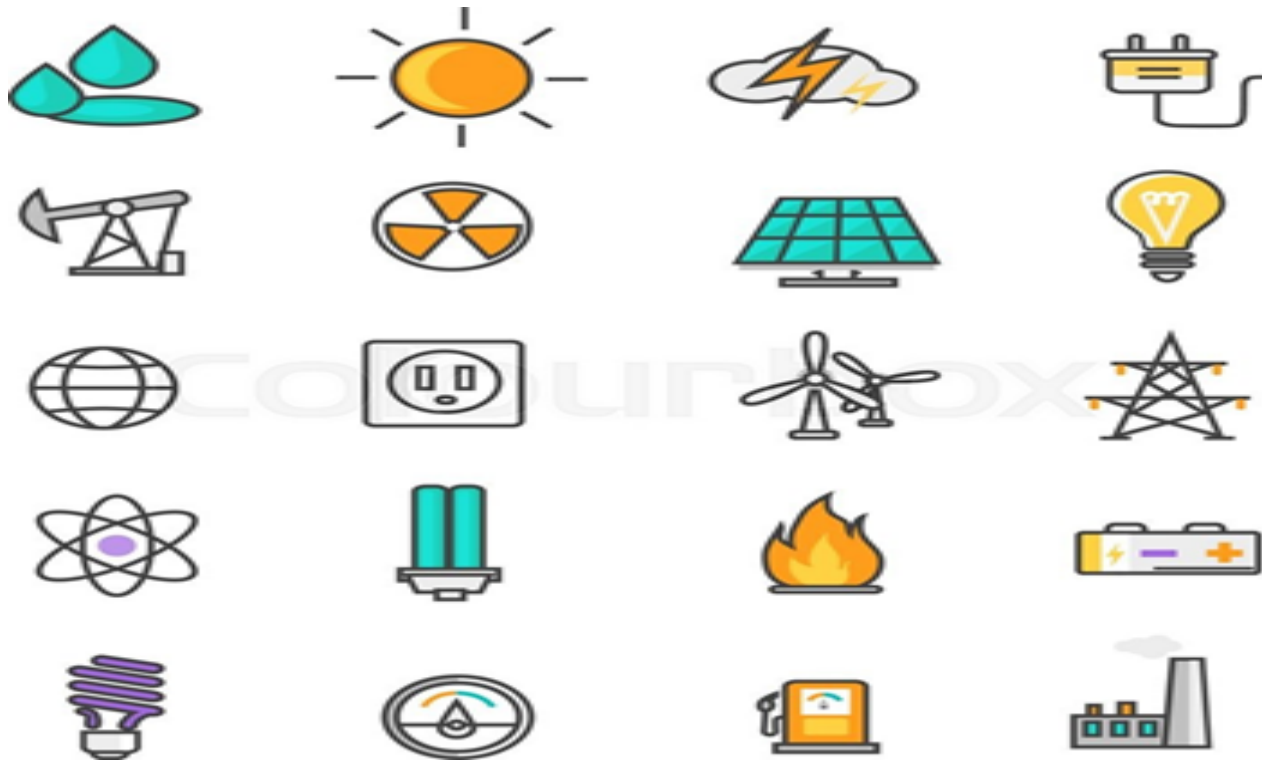
- **Globally-- According to a progress report by CERES published in February 2018**
Out of the Companies assessed - 68 % have sustainability performance requirements for suppliers ALREADY!!!
- **Here in Michigan —Employee Stakeholder & Turnover**
By 2028, 3.5 million manufacturing jobs will likely be needed, and 2 million are expected to go unfilled due to the skills gap

Opportunities:

- Improves risk management
- Improves Financial Performance
- Fosters Innovation and Loyalty among employee stakeholders
- Builds Customer Loyalty!



Supply Chain & Energy



The relationship between Energy & Production is changing



Cost of Energy

- Resources are Scarce and Getting Scarcer
- Energy is an increasingly significant production input due to rising and increasingly volatile prices.
- Technical risks from volatility in prices can impact the stability of individual firms and their supply chains.
- The capacity to transfer price movements through the chain is reduced due to embedded understandings.



Michigan's manufacturers are on board



So, where are you in this process?

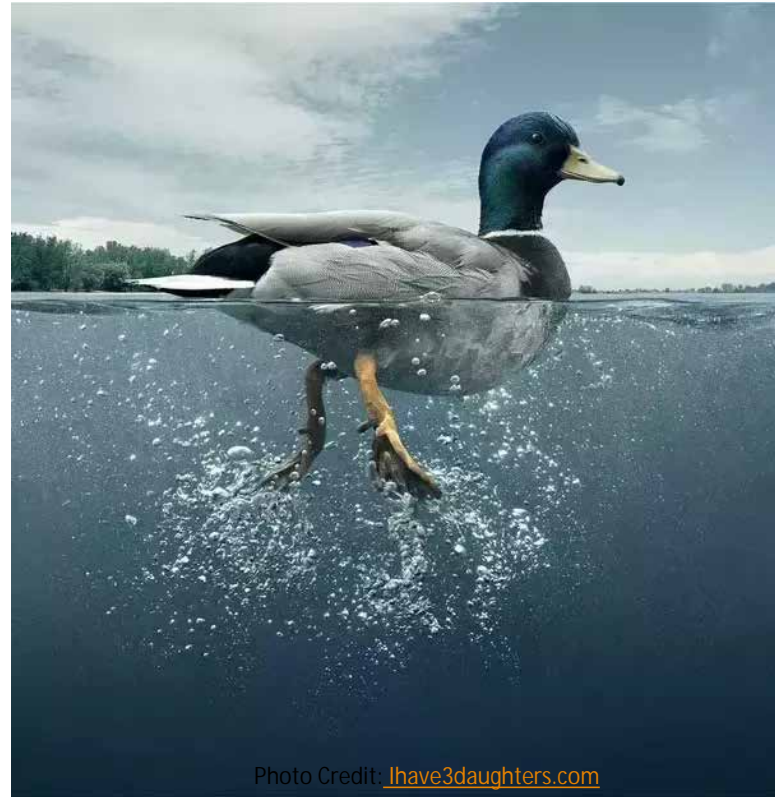
- The clock is ticking ...
- The need clearly exists
- The benefits outweigh the costs
- Energy should be front & center in production strategies and long term thinking
- Energy should be treated as a manageable input to the production process, like any raw material or resource, not viewed as plentiful and cheap...
- What gets measured gets managed...
- Enter the **ENERGY PLAN**...



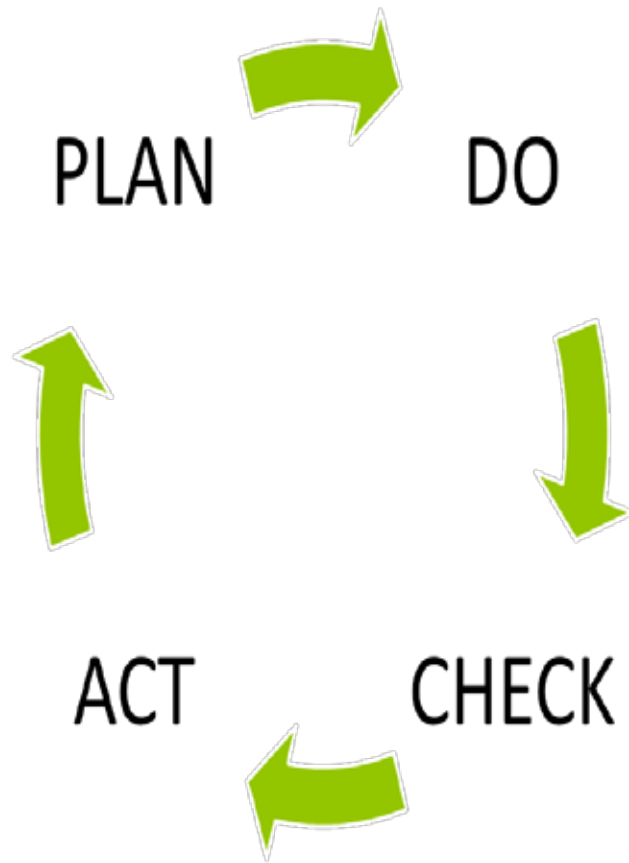
Supply Chain Fitness™

An Energy Management Plan

- A framework for businesses to help manage energy usage and cost, improve operating margin and increase employee comfort
- A road map for how to design an energy plan and how to uncover 'opportunities that exist' for greater sustainability ... 'Below the water line'
- Provides a "big picture" view and is used as a Continuous Improvement tool for business



Continuous Improvement Process



- **PLAN** -- BUDGETS, RESOURCES, TIMELINES, TRACKING
- **DO** – EXECUTE, IMPLEMENT, DEPLOY, MANAGE
- **CHECK** – MEASURE & REPORT TO MANAGEMENT, CORRECT COURSE OF ACTION ETC., FEEDBACK
- **ACT** – ANALYSIS & ROOT CAUSE DETERMINATION, MODIFY PLAN OR CORRECT COURSE OF ACTION



Begin with Background

- Describe the business – its history and current structure (at parent and local level, ownership, etc.)
- Summarize key business concerns facing the Business and sector
- Describe the manufacturing processes of the Business
- Incorporate any past energy conservation projects and successes
- List any existing energy metering or monitoring systems
- Incorporate findings of any past energy or feasibility studies
- Include any former Energy Plans or Best Practices
- Identify key challenges



Start with a summary of the Energy Plan:

- State Plan Objectives, Targets & Timeline
- Begin the process with an **ENERGY USAGE BASELINE** of facilities
 - Include process equipment for energy intensity
 - Include all sources and uses of energy
[water, gas, electricity, renewables, waste]
 - Identify the flow of energy in the facility
 - Compare the facility's usage to industry norms
 - Management Buy-In
- Create a list of **ENERGY CONSERVATION PROJECTS**
 - Estimate Savings
 - incentives and
 - return on investment
- Outline the **LONG TERM ENERGY MANAGEMENT** activities planned
- Develop a **COMMUNICATION STRATEGY** and **SHARE PLAN UPDATES & INFORMATION** with all stakeholders



Establish an Energy Team

- An 'All-Hands' Effort – when compiling a team identify and include “who within the company has an impact on energy use or energy projects”
- Include stakeholders with experience in energy management facility operations
- Include at least one member from senior management
- Designate at least one “Energy Champion”
- Document and communicate their involvement on the Energy Team to all stakeholders



Baseline energy usage & intensity of the plant

- List all sources and uses of energy used at the facility
- Drill down on detail of all energy users
 - E.G.: # of fans, pumps or motors on a production line, # of chillers, condensers or roof top units
 - Determine the Original Operating Intensity of the equipment [equipment operating manuals, service techs]
- Consider comparing energy usage with industry norms, energy with a platform like Energy Star / Portfolio Manager® or some other tool
- Integrate utility data including demand charges
- Outsource this process to a 3rd Party Audit Firm



Identify major energy using equipment

- Process equipment
- Operations equipment
- Other energy usage elements
- Sub Metering
- Use of experts



Identify TOP 5 PROJECTS for energy conservation

:::For Each Project :::

- Give Prioritization / Ranking
- Estimate CAPEX [Source the cost / financing & all available incentives]
- Estimate Savings and Return on Investment associated with the Project
- Devise a Timeline for each project
- List barriers against a projects' success
- Develop a Budget



Communication Strategy

- Replicate messaging and tactics about an Energy Plan with all Stakeholders at all Locations
- Incorporate best practices from all locations
- Actively Query employees for ideas and opportunities to improve energy savings
- Identify potential road blocks with management and key personnel before they become too large to manage
- Create awareness campaigns and programs to create intensity and competitiveness among employees



Identify All Opportunities for Operational Savings

- Build a comprehensive list of Energy Savings Opportunities
- Include suggestions/ideas from every corner
- Identify NO COST and LOW COST opportunities
- Survey employees and other key persons for their input
 - Increased Employee Awareness creates and uncovers opportunities management never knew existed
- This is where the savings 'below the water line ' can be found



EMPLOYEE Awareness

Employee awareness programs identify and target everyday actions that employees can be encouraged to do...

Employee Awareness
== Operational Savings

Plant Managers & Line Operators very often have ideas for optimizing their production lines and how to eliminate waste



Create an environment through SCF initiatives to encourage contributions from all stakeholders

Photo Credit: Joe Amon, Denver Post



Implement, Measure & Report

- Implement Energy Conservation Management Projects
- Measure & Report findings, progress to Management
- Share successes with Stakeholders [including customers!]
- If projects and implementation do not produce intended savings correct course of action
- Ask for FEEDBACK !



Check & Re-Check!

- Monitor Performance of Energy Projects against your estimated outcomes
- If performance is as planned – SHOUT IT FROM THE ROOFTOPS!
- If Performance is not as planned – determine the cause and correct your course of action...
- Continuous Improvement Processes will evolve over time so expect course correction and changes to the project over the long term.
- Track the savings and promote the sustainability of the organization



Alternatives & Assistance

Outsource the process of Energy Policy Development and Management

Work with an Expert to develop everything from your goals to templates and guide you project implementation

E Three Inc. is an energy services firm that provides audit, analysis, recommendations, implementation and project management of energy efficiency improvements or new construction for Businesses in Michigan and throughout the Midwest.

Supply Chain Fitness™ is among the services we provide for our clients



Supply Chain Fitness™

A Framework for Energy Policy Development & Management

For the long term

For greater customer transparency

For improved performance & profitability under the water line

For greater competitive advantage in the marketplace

For a firmer hold on your position in a Supply Chain

For greater good



Questions ?



Photo Credit: Ihave3daughters.com





Thank You!

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