## "Role of an Energy Manager"

Richard Miller Corporate Energy Manager Mannington Mills

Presented at the U.S. Department of Energy Industrial Technologies Program July 1, 2010 Webcast

### Outline

 Energy benchmarking Goal-setting Monitoring and verification of energy flows Training and communications Carbon footprint reduction initiatives Scouting for new technologies and best practices

### **Energy Benchmarking**

 Track energy consumption - Reduce energy intensity by 25% in 10 years Identify under-performing plants Set priorities Monitor progress Verify improvements - Repair & correct significant deviation in energy consumption

### **Goal-Setting**

- Set the tone for improvement throughout the organization
- Measure the success of the energy management program
- Help the Energy Team to identify progress and setbacks at a facility level
- Foster ownership of energy management, create a sense of purpose, and motivate staff
- Create schedules for upgrade activities and identify milestones

### Monitoring and verification of energy flows

- Collect energy use information and document data over time
- Determine the starting point from which to measure progress
- Compare the energy performance of your facilities to each other, and competitors, and prioritize which facilities to focus on for improvements

Understand your energy use patterns and trends
Evaluate the operating performance of facility systems and equipment to determine improvement potential

### **Training & Communications**

- Have facility leadership communicate the importance of energy management to associates
- Develop targeted information for key audiences about our energy management program
- Build support at all levels of your facility for energy management initiatives and goals
- Through training, access to information, and transfer of successful practices, procedures, and technologies, you can expand the capacity of your staff
- Create incentives that encourage staff to improve energy performance to achieve goals

# Carbon Footprint Reduction initiatives

- Installed 2,870 solar panels on 2.2 acres on 5 roof tops
  - System will generate about 700 MWh of renewable energy annually

Upgraded plant lighting corporate-wide

- Replaced Metal Halides & High Pressure Sodium with 4 Lamp 32 Watt T8 fixtures with sensors
- Quantify & reduce GHG emissions
  - Set reduction target of 20%





### Scouting for New Technologies & Best Practices

 Utilize DOE software tools to analyze equipment efficiency

 Seek out state/federal incentives for energy efficiency/renewable projects
Seek EPA Energy Star recognition in 2010

## The Role of the Energy Manager: The Simplot Way

#### **Don Sturtevant**,

**Corporate Energy Manager** 

JR Simplot, Company



### A bit about us...

- One of North America's largest privately held food and agribusiness companies.
- Annual revenues of approximately \$4.5 billion and approximately 10,000 employees worldwide.
- Phosphate mining, fertilizer manufacturing, farming, ranching and cattle production, food processing, food brands and other agriculture enterprises.
- Major operations in the U.S., Canada, Mexico, Australia, New Zealand and China, with products marketed in over 40 countries worldwide.
- North America's fourth-largest phosphate mining company.
- One of the world's largest frozen-potato processors, with production of more than three billion pounds of french fries and related products.
- Extensive farm and ranch holdings.
- Second largest cow/calf herd and sixth-largest cattle feeding capacity in the United States.
- Simplot ranching operations are twice size of the State of Delaware.



### What is an Energy Manager?

- Cheerleader?
- NO! (not exactly)....You've got to be in the game, not on the sidelines
  - General Manager the business side
  - Coach the team side
  - Talent Scout reward & recognition
  - Quarterback be ready to call the shots
  - Running Back offer to take the ball and run with it
  - Wide Receiver be open and available to receive the ball
  - Lineman (CRITICAL) block and protect allowing your stars to shine
  - Cheerleader yes, this too

### <u>So, what has made us successful?</u>

- **1.** Determine savings potential
- 2. Gain Presidential "Top-Down" Leadership
- **3.** Clearly define and communicate goals
- 4. Perform comprehensive audits & listen to employees
- 5. Infusion of energy capital (shows we are serious)
- 6. Establish empowered champions and teams at facilities

"We don't let our kids leave the refrigerator door open at home, but we don't close or repair the blast freezer door"

- 7. Rewards & Recognition
- 8. Employee DOE Training (for Sustainability)
- 9. Communicate successes, challenges, and solutions



### **Clearly Defined Goal**

- Embrace DOE Save Energy Now Leader pledge
  - This is your Rally Flag
  - 25% Energy Intensity Reduction (energy/pound) over 10 years
  - Invited by DOE because we are a leader in northwest industrial energy efficiency
  - <u>No penalty</u> for withdrawal from program or failure to meet goal
  - Increased support from DOE in funding, training, and support
  - Cornerstone of "Sustainable Simplot" and carbon reduction
  - Provides achievable goal for measurable reductions
  - Only pursue cost-effective reductions (>15% IRR)
  - Thorough auditing, training, & metering



## Determine the savings potential Save Millions!

#### "25x10" Goal Comparison



### **Consider Hiring Energy Efficiency Engineers**

- Who in your organization is dedicated <u>solely</u> to Energy Efficiency?
- 10,000 Energy Experts
  - They just don't know it
- Make the business case for personnel resources
  - **-** 1% savings on \$100MM = \$1,000,000.00
  - How many salaries would this support?
  - Buyers market for fantastic talent
- 3-year DOE Case Study



#### Monthly invoice data....master Excel sheet



### **Establish a President's Award**

- Three major categories
- 250 Points: Energy Intensity (EI) reduction vs. FY08
- 500 Points: El reductions vs. FY06-FY09 average
  - Shows continued pursuit of energy excellence
- 250 Points: Leadership and Strategic Partner Survey
  - Facility leadership embraces energy intensity reduction, actively pursues it, and leads their team to all cost-effective measures.
  - This facility's hourly employees are engaged and seek to reduce energy intensity as a normal part of their job.
  - This facility should be selected as the FY09 President's Award for Energy Excellence.



### **Enjoy the Success**



#### The FIRST French Fry facility in the U.S!

ENERGY STAR



J.R. Simplot, Company 624 Simplot Loop Aberdeen, ID 83210

has earned the

### **ENERGY STAR**

for

### 2009

The U.S. Environmental Protection Agency recognizes The Aberdeen Potato Processing Facility for demonstrating superior energy performance.

Jean M. Lupinacci Director, Commercial & Industrial Branch ENERGY STAR

### Why Are We Successful?

"My dad's credo to <u>hire good people and turn</u> <u>'em loose</u> is still a vital part of the Simplot philosophy and it is one reason why we have been so successful."

- Scott Simplot, Chairman of the Board



### Most importantly...

- Drive cultural awareness and change
- <u>Success defined</u>:
  - "Energy is measured and compared to target at <u>every</u> shift-change meeting across the company, using readily available data. Individual and team personnel goals and rewards are tied to this metric, much like safety or environmental."
- Success is a journey



### In Summary...

- **1.** Determine savings potential
- 2. Gain Presidential "Top-Down" Leadership
- **3.** Clearly define and communicate goals
- 4. Perform comprehensive audits & listen to employees
- 5. Infuse energy capital (shows we are serious)
- 6. Establish empowered champions and teams at facilities

"We don't let our kids leave the refrigerator door open at home, but we don't close or repair the blast freezer door"

- 7. Provide Rewards & Recognition
- 8. Train employees in DOE best practices (for Sustainability)
- 9. Communicate successes, challenges, and solutions





# Thank you!

