



Sustainable Manufacturing

An Energy Perspective

AMO Workshop

January 6, 2016





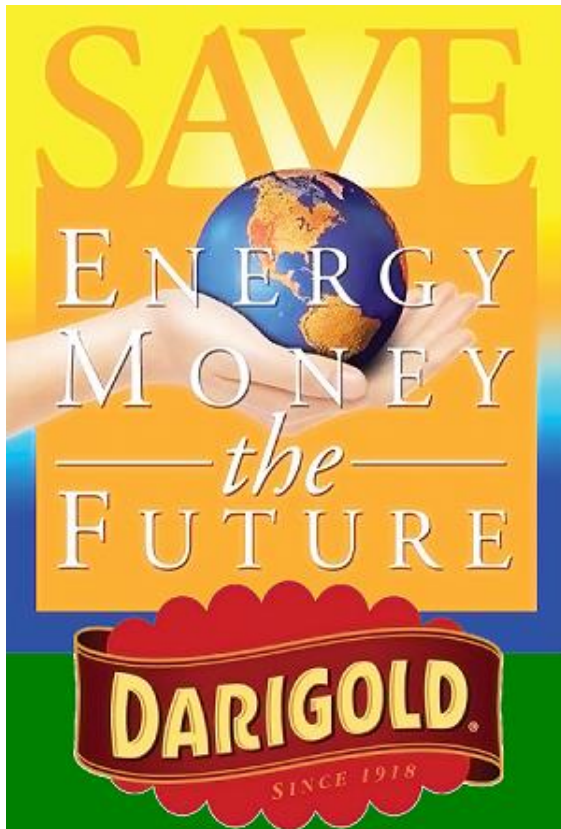
DARIGOLD

- 500 farmer owned co-op
- 2.5 million gallons of milk per day
- 11 manufacturing facilities WA, OR, ID & MT
- Consumer products and ingredients divisions
- 1400 employees
- \$2 billion sales annually





Some of our Partners





It all starts with a goal

“First, I believe that this nation should commit itself to achieving the **goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth”**

John F. Kennedy May 25, 1961



Our long-term Goal

Reduce Energy Intensity by 25% over 10years

- Challenging but achievable
- Can only be accomplished with **everybody's help** and working together as a team
- Requires a disciplined and **structured approach** !



ISO 50001 — Provides Structured Approach

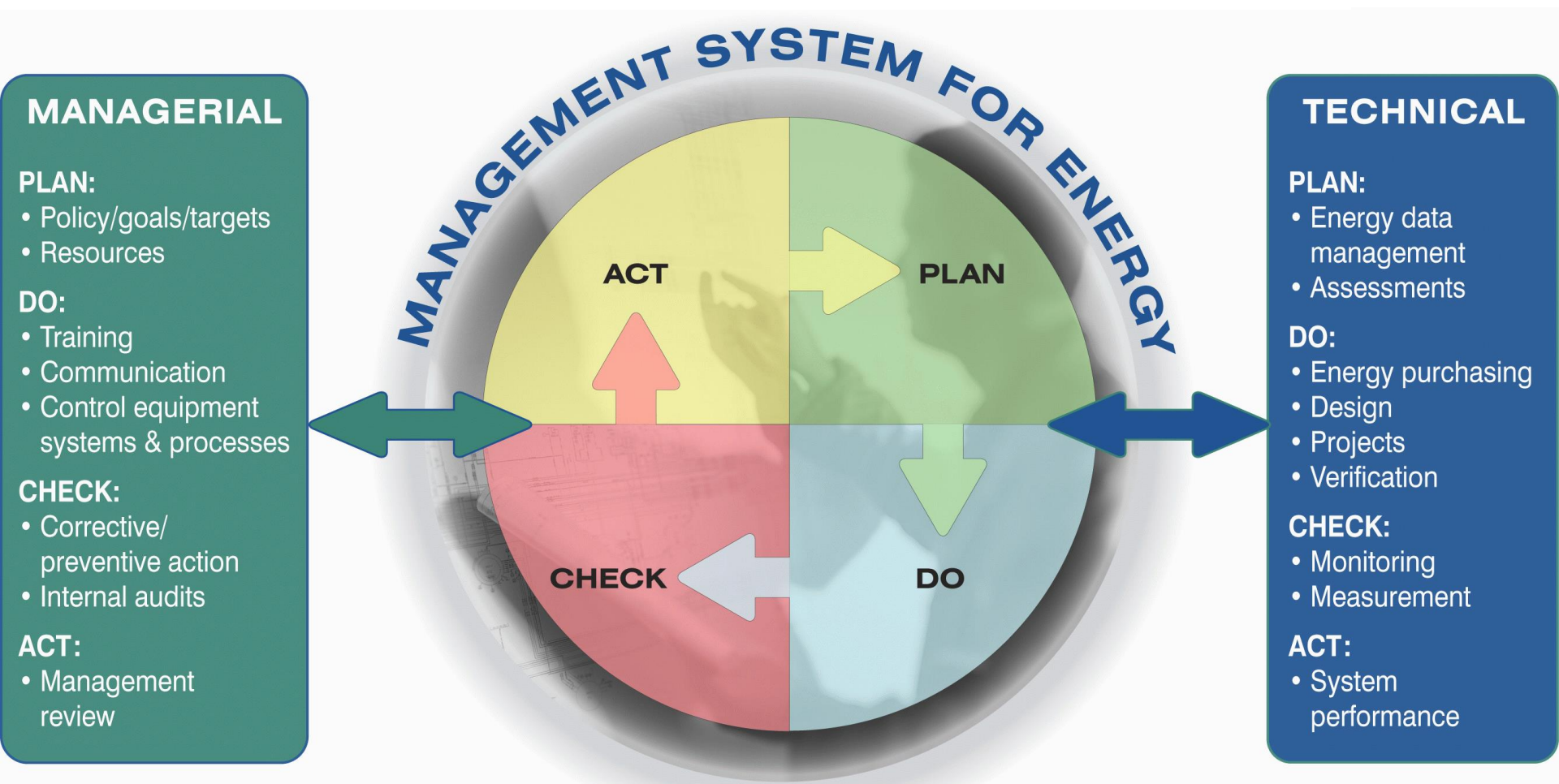
Introduction (extract from ISO 50001)

“The purpose of this International Standard is to enable organizations to establish the systems and processes necessary to improve energy performance, including energy efficiency, use, and consumption. Implementation of *this standard is intended to lead to reductions in* greenhouse gas emissions, *energy cost,* and other related environmental impacts, - *through systematic management of energy.*”

“Say what you do and do what you say”



Deming Cycle Plan – Do – Check – Act





Darigold Energy Team

- Multi-functional team with one representative from each facility and other key personnel with diverse skill sets
- Develops and implements energy management program
- Meets via conference call (webinar) every two weeks
- Promotes corporate-wide energy awareness
- Establishes annual goals and objectives (with senior management)
- Conducts internal audits of the Energy Management Program
- Recognizes Plant Energy Team achievements



Plant Energy Teams

- Cross functional team with representatives from different departments and skill sets
- Meets **at least monthly** (meeting minutes and attendance records are required)
- Develops list of energy savings opportunities★
- Promotes employee awareness★ (posters, bulletin board, meetings, etc.)
- Seeks suggestions from all employees and **visitors**
- Tracks and monitors energy performance on a **daily basis**

★ Main Tasks



Northwest Manufacturing Industry Challenges An Energy Perspective

- Without incentives many Energy Projects do not provide a sufficient ROI
- Energy Project tax credits are not beneficial for various companies (competitive bidding process and short application windows render some local programs ineffective)
- Evaluating new technologies is typically beyond plant personnel (assistance from government agencies is crucial)
- State mandated carbon tax or cap and trade is generally viewed by industry as a burden to the local economy (energy efficiency incentives are preferred)
- Effects of aging technical workforce will confront us soon



Ample Opportunities

- Incentives for training do provide long-term benefits (ROC, ROCEE, RETA CRES, DOE InPIt)
- Collaboration within industry will be to everybody's advantage (the automotive industry is a great example)
- Strategic Energy Management is vital to our future
- Energy Efficiency is still the cheapest Resource



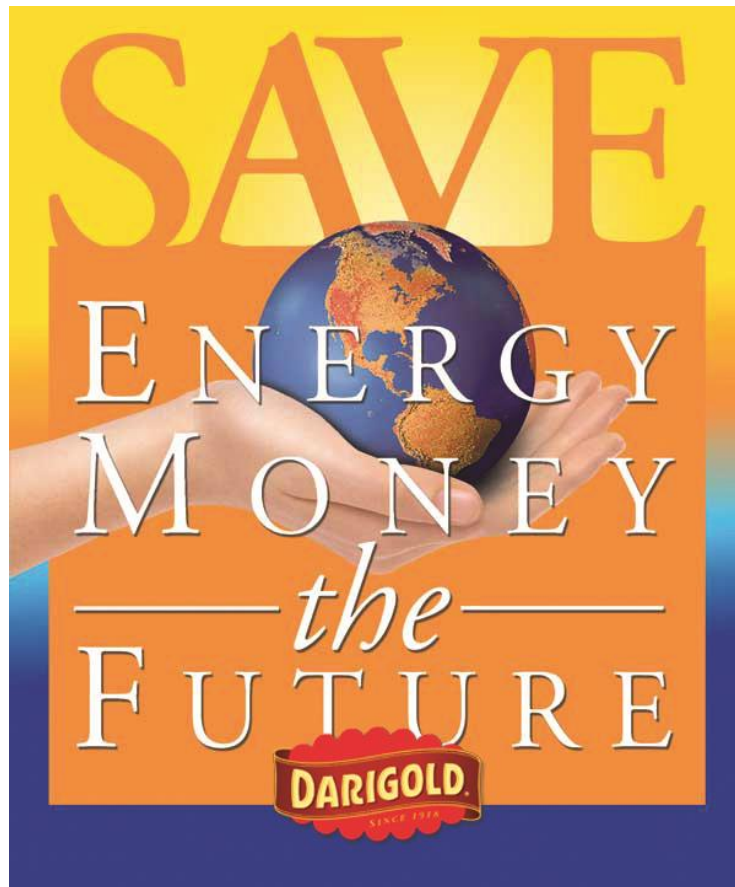
Energy \$avings are small,.... message is **HUGE!**
Do your part, turn off the lights.



Questions



Saving Energy Is Everybody's Responsibility



Thank You