



SINCLAIR GROUP

Rapid Transformation® • Extraordinary Results

# Sterling Energy Project Review

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# SINCLAIR GROUP

Rapid Transformation™ • Extraordinary Results

Operations management consultancy  
delivering dramatically rapid and  
sustainable business improvements to  
highly motivated management teams

# Sterling Facilities at Texas City



- Chemical production
- Cogeneration and boiler facilities
- On site distribution of industrial gases and water

# Sterling Operations Excellence Plan

Implement best practices delivered by Sinclair

- Plant Operations
- Maintenance and Reliability
- Small Project Execution
- Technology Management
- **Energy Management**
- Procurement

# Energy Management Assessment

- Data driven analysis of all energy production, consumption and distribution facilities
- Numerical analysis supported by extensive interviews and site inspections
- Final report highlighted opportunities in
  - Operating practices
  - Maintenance practices
  - Capital projects with preliminary economics

# Sinclair Group Work Processes

Detailed descriptions of the steps and roles involved in getting the *right work* done by the *right people* with the *right knowledge and skills*

# Energy Management Work Process

A step by step standardized methodology that provides focus and sustainability for managing energy generation, distribution and use to the most economical efficiency level

# Energy Management Work Process Phases

- Establish An Energy Management Team and Policy
- Conduct an Energy Audit
- Energy Conservation Monitoring and Reporting
- Project and Operating Discipline Identification and Implementation



# Phase 1: Establish an Energy Team & Policy

- Empowered Team
- Energy Policy
- Energy Goals
- Communications plan for awareness

## Phase 2: Conduct an Energy Audit

- Pre-audit questionnaire
- Conduct in-plant audit
- Evaluate purchased energy agreements and establish negotiating strategy for new agreements
- Create an energy management database
- Establish energy balance and identify losses/improvement opportunities

## Phase 3: Energy Conservation Monitoring and Reporting

- Inspection procedures for specific equipment—including metering and operators taking ownership for the equipment
- Establish operating and maintenance procedures for specific equipment
- Re-negotiate purchased energy contracts

## Phase 4: Project and Operating Discipline ID and Implementation

- Identify high value projects
- Identify improved operating procedures
- Develop a training plan for new procedures
- Evaluate the energy management program for effectiveness and implement improvements

# Energy Management Best Practices

- Management support
- Achievable but stretch goals with accountability
- Communication/training for all personnel
- Energy management database developed
- Energy use baseline is established
- Share cost data with all employees
- Benchmarking energy use
- Regular reports viewed by all personnel
- Action plans developed for improvements
- Control plan developed for sustainability

## Sinclair involvement with Sterling

- Provided work process and training
- Coaching to establish energy use baseline
- Assisted Sterling with in-plant audit and report to gain management support
- Worked with site team to develop a detailed implementation plan

## Next Steps

- Implement a management oversight and control plan for sustainability
- Assure completion of value added projects
- Evaluate new technologies
- Evaluate and improve energy management program

QUESTIONS ???