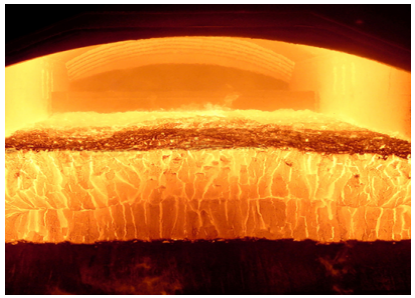
SunCoke Energy
&
OSIsoft Enterprise Agreement

Presented by **Scott Larson**

About SunCoke Energy

- Largest independent producer of metallurgical coke in the Americas
- Started in 1960 – 50 years of experience supplying coke to the integrated steel industry
- 2011 Revenue $1,528M
- 1,470 employees worldwide – 270 in Illinois
- Internationally recognized leader in heat recovery cokemaking technology that:
  - Produces high-quality coke for use in steelmaking
  - Captures waste heat for energy resale
  - Meets or exceeds environmental standards
- Secure, long-term, take-or-pay contracts with leading steelmakers
- www.suncoke.com



Our History

The Foundation

- 1960: Three test ovens successfully built in Vansant, VA

Development of the Modern Oven

- 16 large Jewell Thompson ovens built
- Jewell coke and coal operations purchased by Sun Company, Inc. (Sunoco)

Perfecting the Process

- SunCoke process designated as the Maximum Achievable Control Technology ("MACT") under the U.S. Clean Air Act

Breakthrough of Heat Recovery

- Opened Indiana Harbor facility
- Improved combustion control
- Patented technology
- Established joint ventures with minority partners

The Growth Phase

- Continued technology improvements
- New facilities in Haverhill, OH, Granite City, IL, and Vitória, Brazil

The Future

- New facility in Middletown, OH
- Additional developments considered in U.S. and internationally
- Technology improvements and adaptation
- Market-driven coal

Jewell Coke (1962)

Jewell Coal (1952)

Indiana Harbor (1998)

Haverhill 1 (2005)

Vitória (2007)

Haverhill 2 (2008)

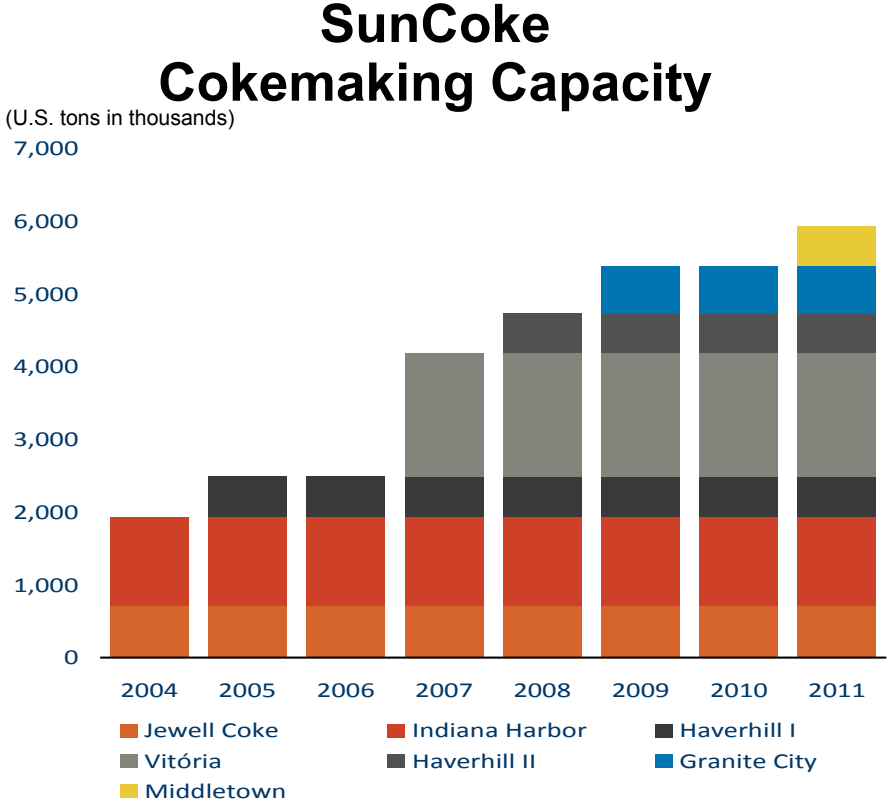
Granite City (2009)

Middletown (2011)

Harold Keene Coal Company (2011)

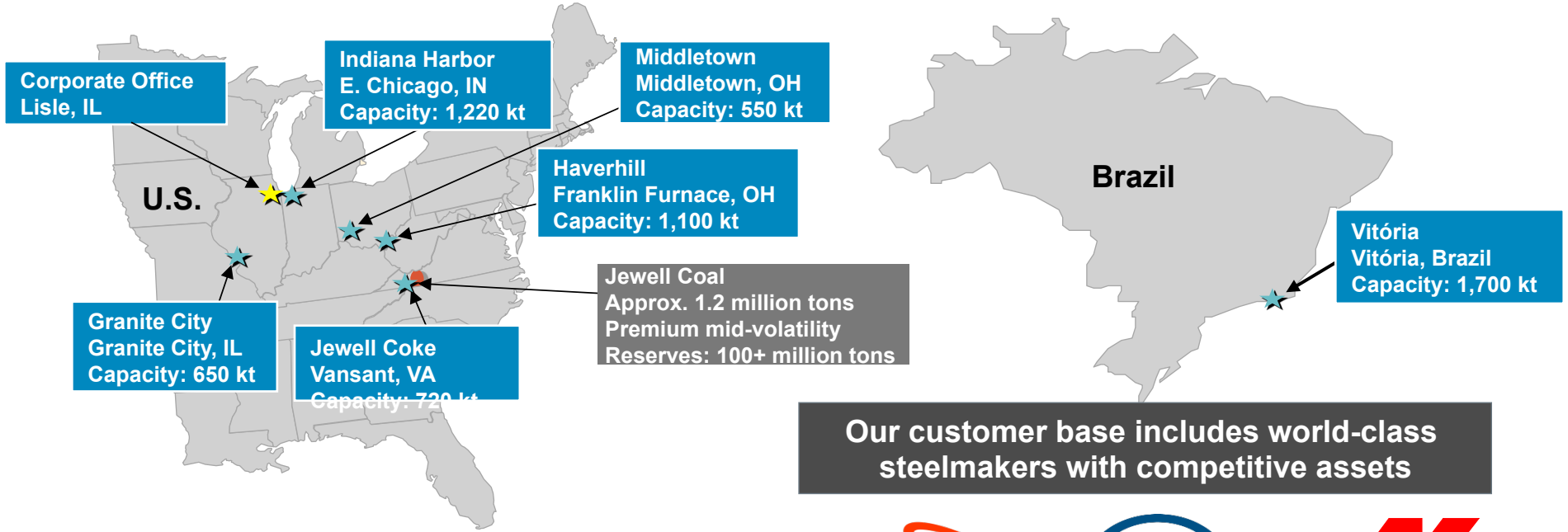
The Leading Independent Cokemaker

- Nearly 6 million tons of cokemaking capacity per year
  - 5 facilities in U.S. and 1 in Brazil
  - More than doubled capacity since 2005
- Proven ability to permit, develop, construct and operate new facilities and work internationally
- Industry leading environmental signature: U.S. EPA Maximum Achievable Control Technology



Our Locations and Customers

Our facilities are located near integrated steelmaking operations



Our customer base includes world-class steelmakers with competitive assets

Coke capacity in thousands of tons per year

- Existing coke facility
- Coal mining
- Corporate Office

ArcelorMittal

USS

AK Steel

Our Cokemaking

Coke

Blast Furnace Coke

- Key raw material in blast furnace iron-making process
- Acts as a reductant and burden support in the blast furnace

and

Breeze or Nut Coke

- Small-sized coke screened from the blast furnace-sized coke production

Energy

Steam

- Heat recovery steam generators (“HRSG”) capture waste heat from the coking process to make low-pressure, saturated steam

and/or

Electric Power

- HRSGs produce high-pressure, superheated steam for power generation
- Facilities generate ~9 MW of electric power each hour per 110,000 U.S. tons of

History of PI at SunCoke

2009 - Sunoco first purchased PI for SunCoke

- Automation capability varies from site to site
  - Manual to more automated
- No control system automation standards
  - Delta V, Experion, Modbus, etc.
- PI footprint was Sunoco chemical footprint
- Installed initial PI footprint at all sites plus HQ
- No formalized best practices approach

What changed?

- 2011 - SunCoke spun off from Sunoco
- SunCoke moved to a centralized business model
- HQ moved to Lisle, IL
- PI Champion on board mid 2011

The EA Journey

1. Louisville Regional Seminar
2. EA Interest Meeting w/SunCoke Management
3. Case Building/Plant Visits
4. OSIsoft EA Presentation to SunCoke
5. VP Support Gathering
6. Presentation to SunCoke President
7. Signed Enterprise Agreement
8. EA Kickoff Meeting

SunCoke Initiatives & Projects

- SunCoke 2013 PI-related Projects
  - Continuous Improvement
  - Monthly Performance Reports
  - Environmental & Root Cause Analysis Reports
  - Environmental Initiative Support
  - Process Technology Analysis
  - Lab Data Correlation
  - Oven Reliability Project
  - BI – Garbage In/Garbage Out
  - Site Comparisons
  - Data Loss Mitigation
  - Safety Program Data Tracking

Why EA?

Many PI-related Projects – want to realize value faster

- No standards/best practices
- Time from 'PI' request to turn around and install: 4-6 months

What is Best way to Get there?

- Trust data, reduce time manually getting & calculating data

Enterprise Services & Infrastructure

- Achieves 2013 Roadmap Initiatives
- Allows focus on value opportunities vs admin processes
- Mitigates data loss exposure (NOC)
- No more counting – software compliant!
- Prioritize and document success - VRP

Change perception of IT role: delivering VALUE to the business vs. cost to support

What Worked/Some Lessons Learned

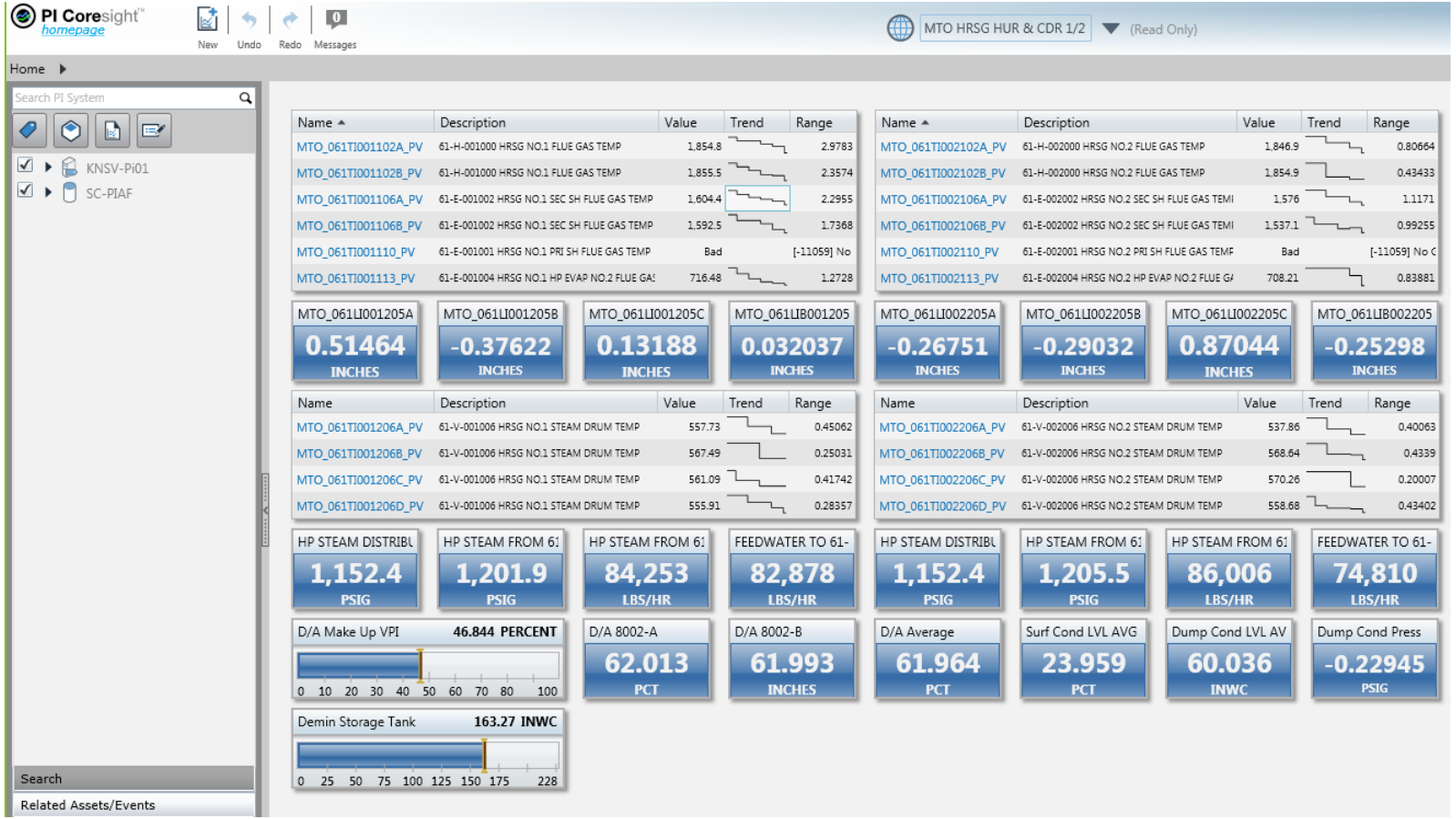
- Is EA good fit for your company?
- Set a Goal Time Frame
- Build Demand through Socialization, Education & Awareness by
  - Identifying/Discussing/Learning Needs

    Process Technology, Advanced Modeling, Environmental, Energy, Operations, Engineering, IT, Input from Various Sites
  - Aligning PI and EA with Business Roadmap
- Convey EA Message and Value to Management and Sites
- Address Internal Challenges
- Unintended value: Amortization

EA Current State

- PI Manual Logger
  - Oven Reliability Program
  - Safety
  - Operational rounds
  - O_2 Inspections
- VRP in progress
- Managed PI installed at all sites
- Over 126,000 new tags across all systems
- PI Notifications
- vCampus & User Conference attendance

HRSG Coresight Display



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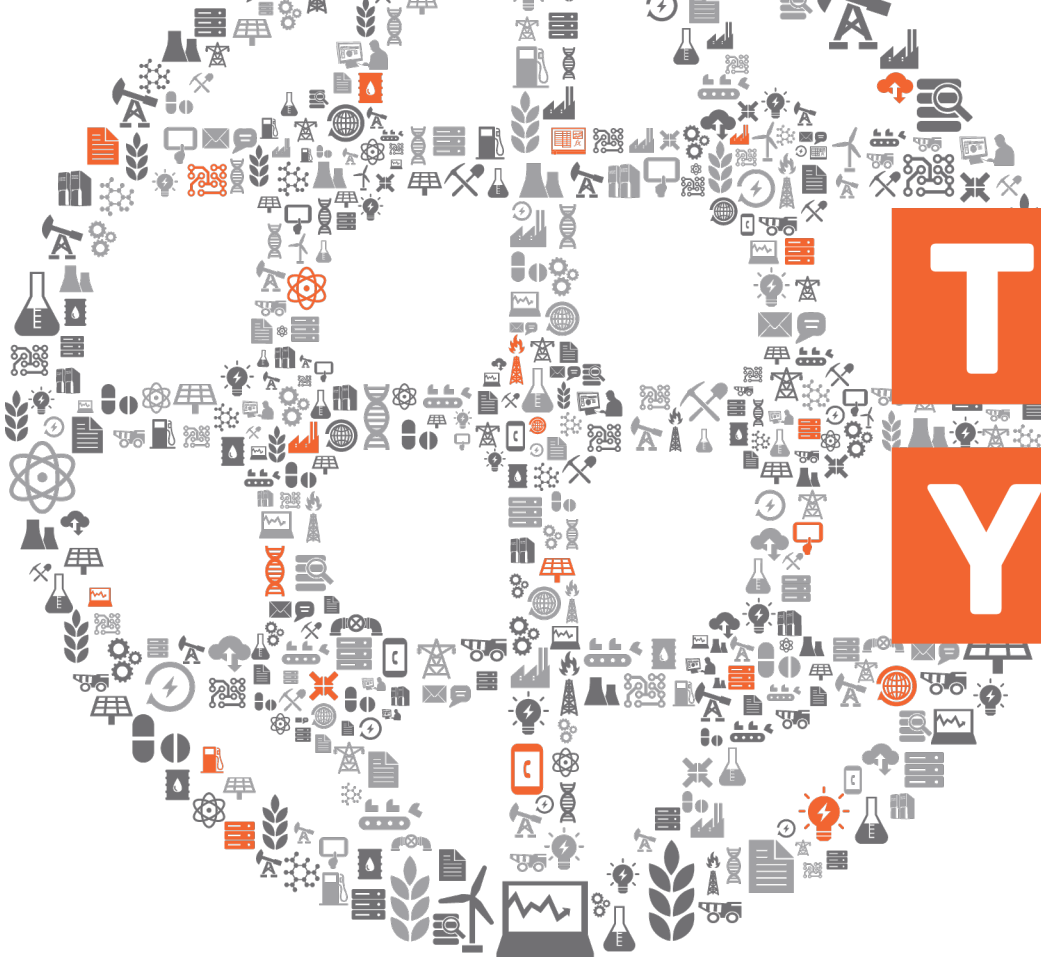

THANK YOU

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