Process Efficiency
Achieving Significant Energy Savings in the Industrial Sector
Agenda

• Process Efficiency Program Overview
  – Methodology & Benefits
  – Growth and Success
• Customer Case Study
  – Terumo BCT
• Program Enhancements
Process Efficiency
Program Design

Phase 1: Customer Engagement

Phase 2: Scoping & Defining

Phase 3: Implementing Energy Improvements
Phase 1: Customer Engagement

• EnVinta One-2-Five diagnostic session
• Engages site team to gain consensus on priorities for addressing energy efficiency and achieving sustainable energy management
• Provides benchmarking against peers
Chiller Plant – 3D plot
Phase 2: Scoping & Defining

- Provides engineering and technical support for development of a flexible 2-5 year energy plan
- Customer contribution is 25% of study costs with a max out of pocket of $7,500
- Supports strategies for maximizing ROI and rebates available
Phase 3: Implementation

- Customized proposal detailing
  - Rebates & Bonuses
  - Payback
  - Energy Savings
- Application support
- Vendor proposal support
- Pre and post-monitoring
Program Results

- **Total energy savings (MWh)**
- **Benefit-Cost Ratio (TRC)**

- **Year**
  - 2010
  - 2011
  - 2012
  - 2013
  - 2014

- **Values**
  - 2010: 0
  - 2011: 5,000
  - 2012: 10,000
  - 2013: 25,000
  - 2014: 30,000

- **Benefit-Cost Ratio**
  - 2010: 0.5
  - 2011: 1
  - 2012: 1.5
  - 2013: 2
  - 2014: 3.5
Terumo BCT

• Blood Component Manufacturer
• Program Participation to date:
  – 13 projects
  – Total cost: $267,231
  – Xcel Energy rebates: $86,566
  – Annual energy savings: 789,011 kWh
  – Annual cost savings: $51,857
  – Cumulative payback: 5.3 years

“We have a corporate goal to incorporate energy efficiency into our operations.”

Chris Sirbin
Buildings Operations Manager, Terumo BCT
Program Enhancements

• Mid-tier Industrial Sector
  – Expansion of the process efficiency product to include mid-tier Industrial customers with a minimum annual consumption of 2GWh
    • Holistic approach to energy management
    • Technical and Study Support
Program Enhancements cont.

- Energy Information Systems (EIS)
  - Enables customers to add visualization and analysis of real-time energy data across their facility
  - Consulting Services
  - Financial Incentives
Resources

• Contact:
  – Michelle Beaudoin, Product Portfolio Manager,
    • michelle.m.beaudoin@xcelenergy.com, (303) 294-2133

• Links:
  – Program Information:
    • Process Efficiency Web Page
    • Terumo BCT Case Study