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Izmir Near Zero Zone Project

Boosting the Bottom-Line Energy Efficiency Technical Services



Program Overview

- Share US and Turkish energy efficiency assessment technique and technologies
- Energy Audits of 4 initial companies
 - Focus on wide spectrum of industries
 - Target low cost improvements as well as capital cost
- Shaw will look to provide assistance through implementation phase

Foundry and Casting: Alloy Wheels

- Aluminum Alloy Wheels
- ECRM highlights
 - Chilled water generation from energy recover waste heat
 - Compressed air system improvements
- 2-4 years payback



Steel Processing: Cold Forming

- Fasteners (bolts)
- ECRM highlights
 - Waste heat recovery
 - Motor efficiency improvements
- 3 to 5+ years payback



Textile

- Fabric dyeing process
- ECRM highlights
 - Insulating paint
 - Heat recovery off drying furnace
- 2 to 5 years payback



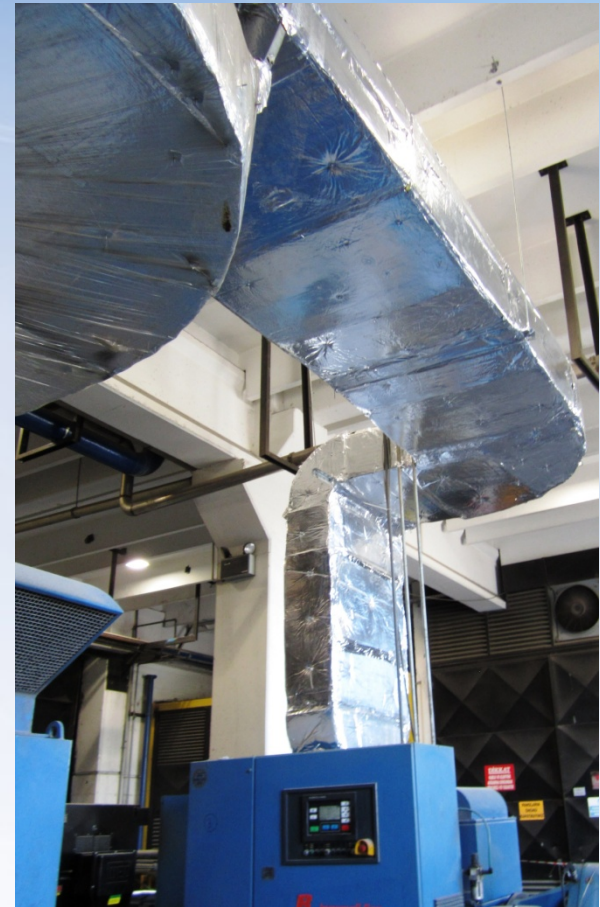
Plastic Packaging

- Packaging and printing
- ECRM highlights
 - Use cooling tower for process cooling
 - Compressed air
- 2 to 5 year payback



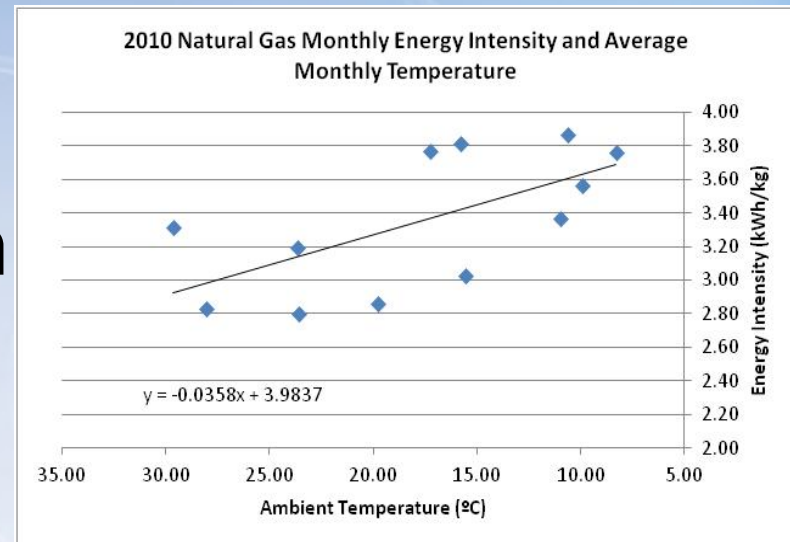
Energy Efficiency Opportunities in Turkish Industries

- Assess and improve existing energy efficiency installation
- Process heat recovery
- Chiller and chilled water system



Energy Efficiency Opportunities in Turkish Industries

- Boiler and steam system
- Compressed air system
- Power quality
- Insulation
- Process energy intensity characterization



Lessons Learned

- Strong interest in energy efficiency
- Staff are well educated with excellent understanding of the process
- Perceptive to input and willingness to help
- Longer payback projects will significantly reduce with the Turkish government energy efficiency incentive assistance

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