



Development of the Energy Efficiency Reference

Presented by:

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Previous Proposal

Develop collaborative knowledge database for information sharing between IACs

- Wikis & web-based tools allow for easy collaboration between distributed teams

Resource for the public

- Make extensive work of the IACs available for general consumption

Presented at 2009 Lead Student meeting by:

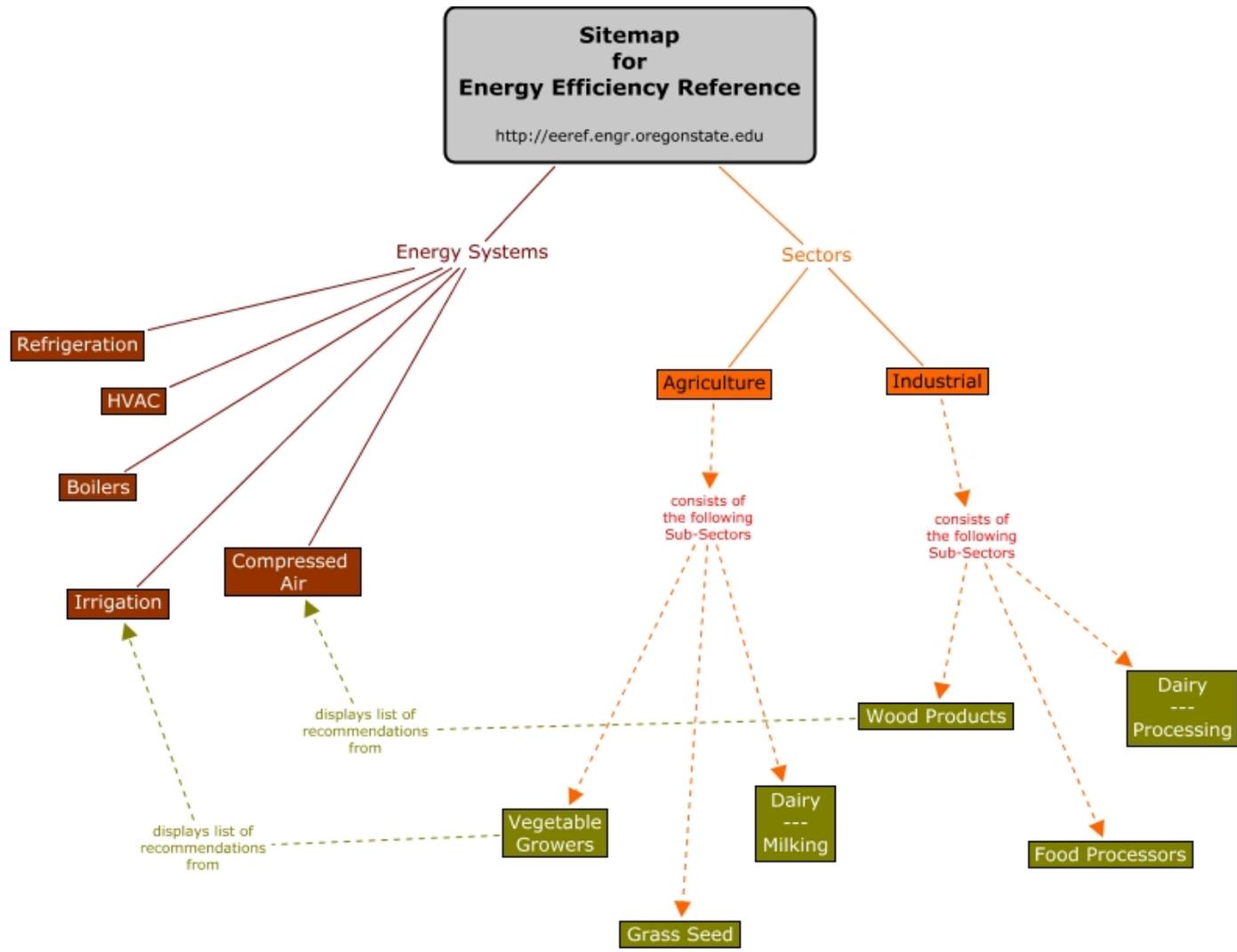
- Michael Koch – Oregon State University IAC
- Kevin Ng – San Francisco State IAC

Current Work

What has been done thus far?

- Mindtouch Deki – flexible wiki with easy to use interface
- Content has been added for the Industrial and Agricultural pages
- <http://eeref.engr.oregonstate.edu>

Current Work



Current Work – Energy Systems

Energy Systems (New) - Energy Efficiency Reference - Mozilla Firefox

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http://eeref.engr.oregonstate.edu/Energy_Systems_(New)

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mindtouch SEARCH:

Log in

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Energy Systems (New)

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For detailed information about the systems described below, click on the corresponding link.

COMBUSTION SYSTEMS

Combustion systems present large opportunities for energy savings due to the high costs of fossil fuels. As with any systems involving heat production, there is usually a considerable amount of energy lost due to lack of proper insulation....



Subsystems

- Furnaces, Ovens and Directly Fired Operations
- Boilers
- Fuel Switching

THERMAL SYSTEMS

Overview



Subsystems

Current Work – Sectors

Sectors (New) - Energy Efficiency Reference - Mozilla Firefox
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http://eeref.engr.oregonstate.edu/Sectors_(New)
Sectors (New) - Energy Efficiency Re...

- Other Animal Production

INDUSTRIAL

Now more than ever, promoting energy efficiency is critical in a time of faltering economy. The industrial section mainly focuses on issues that would be found in a manufacturing setting. The majority of the knowledge in this sector is derived from the research performed at the Oregon State and San Francisco State Industrial Assessment Centers.



Manufacturing

- Food Manufacturing
- Beverage and Tobacco Product Manufacturing
- Textile Mills
- Textile Product Mills
- Apparel Manufacturing
- Leather and Applied Product Manufacturing
- Wood Product Manufacturing
- Paper Manufacturing
- Printing and Related Support Activities
- Petroleum and Coal Product Manufacturing
- Chemical Manufacturing
- Plastic and Rubber Products Manufacturing
- Nonmetallic Mineral Product Manufacturing
- Primary Metal Manufacturing
- Fabricated Metal Product Manufacturing
- Machinery Manufacturing
- Computer and Electronic Manufacturing
- Electrical Equipment, Appliance and Component Manufacturing
- Transportation Equipment Manufacturing
- Furniture and Related Product Manufacturing
- Miscellaneous Manufacturing

Mining

- Oil and Gas Extraction
- Mining (Except Oil and Gas)
- Support Activities for Mining

Utilities

- Electric Power Generation, Transmission and Distribution
- Natural Gas Distribution
- Water Sewage and Other Systems

COMMERCIAL

Overview

Done 

Current Work – Specific Sector

Cattle Ranching and Farming - Energy Efficiency Reference - Mozilla Firefox

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http://eeref.engr.oregonstate.edu/Sectors_(New)/Cattle_Ranching_and_Farming

Cattle Ranching and Farming - Energy...

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Cattle Ranching and Farming

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This guide serves as an aid for assessing energy efficiency at cattle ranching and farming agricultural operations.

INDUSTRY PRIMER

Cattle ranching and farming as the name implies, are part of an agricultural industry that focuses on the production of cattle based products.

Subsectors of Cattle Ranching and Farming

- Beef Cattle Ranching and Farming
- Cattle Feedlots
- Dairy Cattle and Milk Production
- Dual-Purpose Cattle Ranching and Farming



Raw Materials

- Feed stock
- Silage

Principal Products

- Dairy products
- Beef

COMMON OPPORTUNITIES

Following is a list of common energy efficiency opportunities found at cattle ranching and farming operations including background information and tools to make simple and detailed calculations of energy savings.

System	Opportunity and Background Info	Analysis Tools
Vacuum Pump	VSD Vacuum Pump	VSD Vacuum Pump.doc
Irrigation	VSD Irrigation Pump	VSD Irrigation Pump.doc
	Low Pressure Irrigation	Low Pressure Irrigation.doc
	Irrigation Scheduling	Irrigation Scheduling.doc
Tractors	Tractor Operation	Tractor Operation.doc
	Tractor Maintenance	Tractor Maintenance.doc

ADDITIONAL INFORMATION

Following are additional resources regarding energy efficiency in the cattle ranching and farming sector.

Websites

-

Reports

-

Done

zotero

Financial Support

- USDoE - Industrial Assessment Center
- OSU Sun Grant
- Oregon Processed Vegetable Commission
- USDA

Future Work

How to manage content & structure with contributors outside from OSU IAC

- Other IACs, particularly

Continued development of site

- More information on assessment processes

Defining internal view and user views

Questions?

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