



farm energy check-up

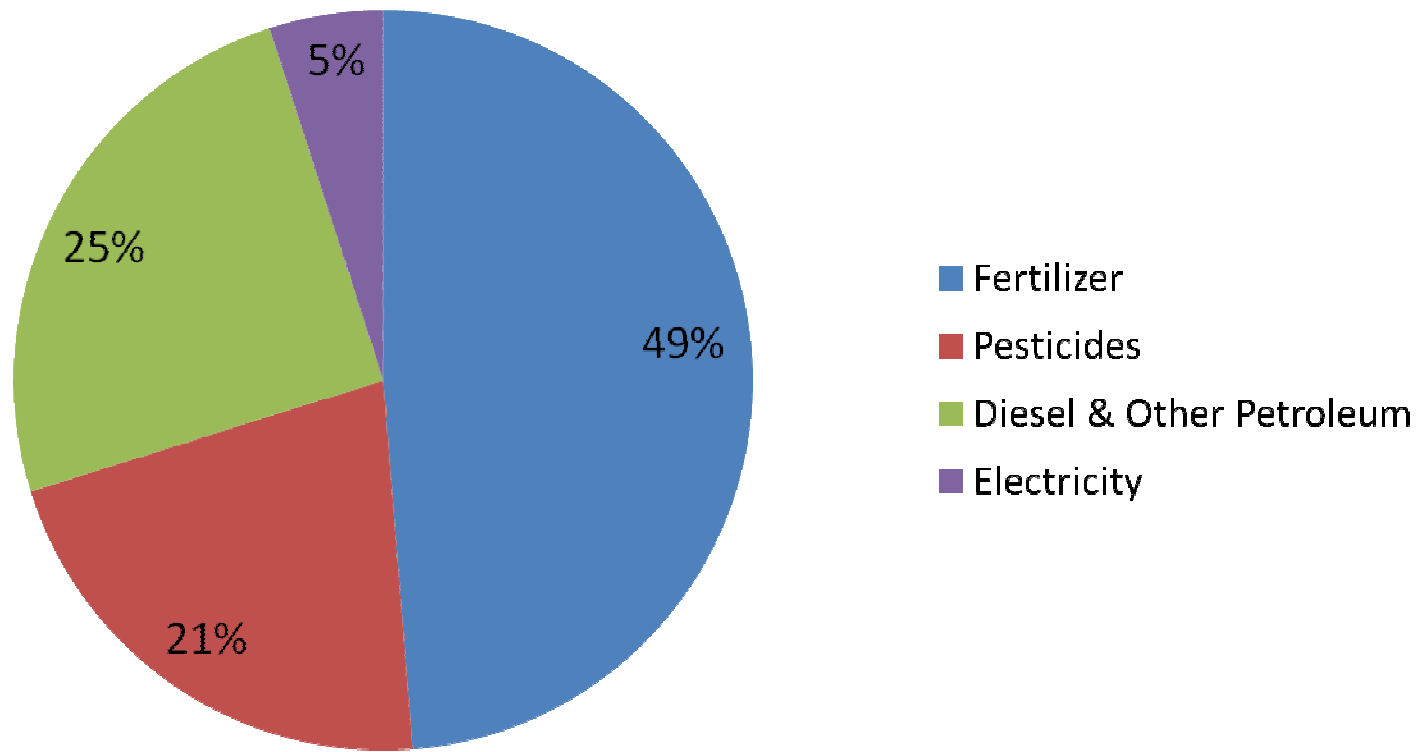
An All-Energy Audit for Iowa Ag Producers





Farm Energy Input \$ for 2008

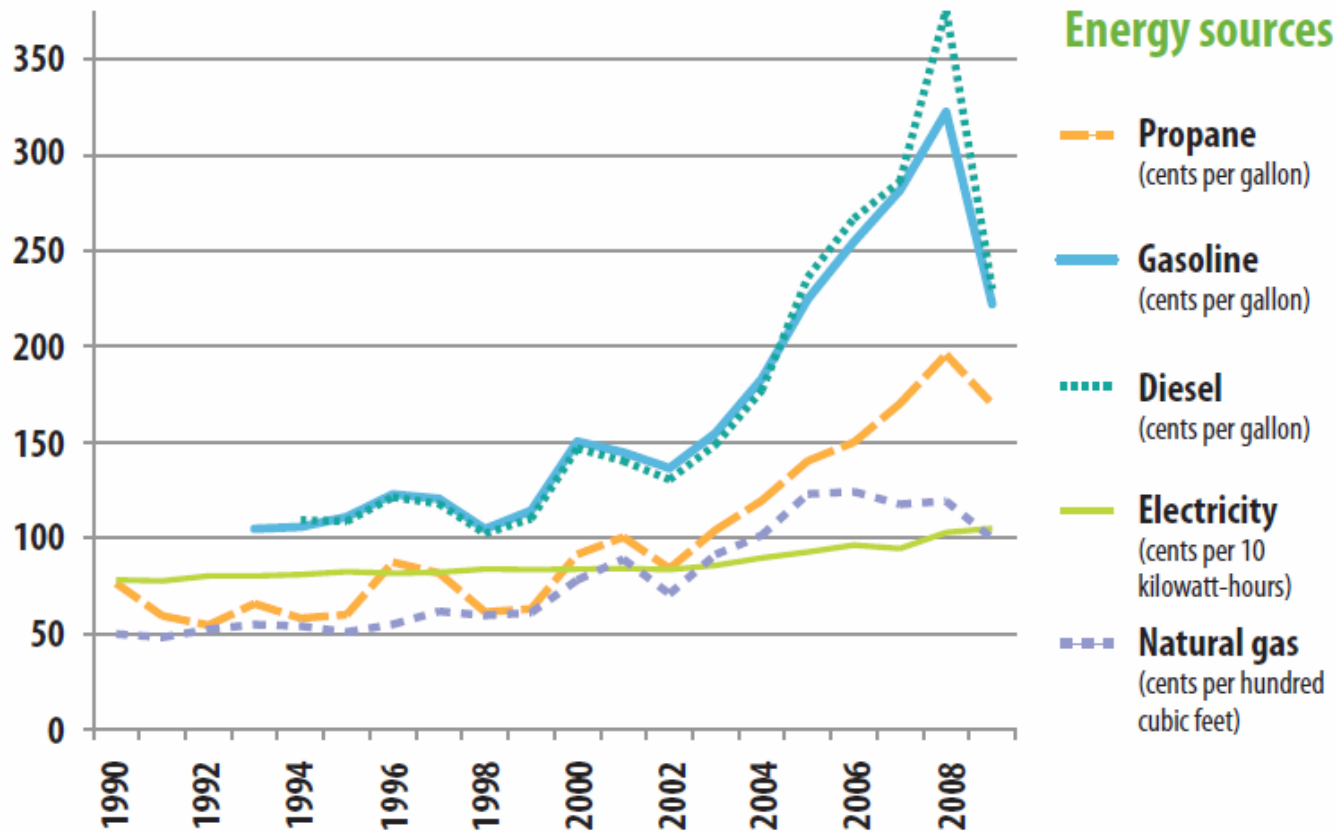
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Energy Cost History



Energy sources and costs since 1990. (Source: Energy Information Administration)



...Energy Efficiency ?

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EE is using less energy to provide or achieve the same level of service.

- Insulating a home allows you to heat and cool to same temperature with less energy.
- Installing new high efficient grain drying equipment to dry more corn with less energy.



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EE?

- **Efficient energy use** is achieved primarily by means of a more efficient **technology** or **process** rather than by changes in individual behavior.
 - You still want the same comfort in your home
 - You still want to increase drying capacity



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Farm EE Efforts

❖ March 2008

– ISUE and IFBF

- Pilot farm audits to evaluate potential for Iowa Ag Producers.
- Auditing performed by EnSave (Vermont).



Farm EE Efforts

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❖ Iowa State University Extension

✓ April 2009 - Grant from Iowa Energy Center

Project Title:

“A New Generation: Farm Energy Conservation and Efficiency Initiative”

To develop and implement a comprehensive farm energy conservation and efficiency educational program.



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Farm EE Efforts

❖ Consumers Energy

- ✓ September 2009 – USDA Grant - Rural Energy for America Program (REAP)

Project Title: “**Farm Energy Check-Up**”

To perform Whole Farm Energy Audits for Iowa Ag Producers.



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Farm EE Efforts *In* perspective...

Two Separate Programs & Funding Sources

- ❖ ISUE - Educational Initiative

- ❖ Consumers Energy – Farm Energy Check-Up
 - Partners: ISUE & IFBF
 - Sponsors: ICGA, IPPA, IAEC, MEC



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What?

Whole Farm Audit

Identifies energy conservation and efficiency improvements for the whole farm.

Enterprise Audit

Focuses on single enterprise of the farm operation that may include grain drying, field crop production, or livestock.

Specific Technology Audit

Evaluates a specific technology to identify potential improvements in areas that may include lighting, variable speed drives, space heating, vacuum pumps or dairy pre-coolers.



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What?

State wide program.....





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Why?

Energy Efficiency Upgrades.....

Quantify & Prioritize Efforts

- ✓ Capacity Issues– grain drying, livestock production
- ✓ Facility Updates – new efficient technology
- ✓ Tool for obtaining USDA REAP Grant



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What is REAP?

“**R**ural **E**nergy for **A**merica **P**rogram”

- ✓ Grants & Loans for Energy Efficiency Improvements and Renewable Energy Systems.
- ✓ Grants for up to 25% of the project costs with a maximum of \$50,000 per award.
- ✓ Guaranteed loans

<http://www.rurdev.usda.gov/ia/rbs.html>



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Why?

Potential: 10% to 25% Energy Savings / 2 to 5 Year Payback

REAP Grant Application: EE Improvements / Recover 25%

Bankable: Can be utilized for improvement loan



FEC Cost Scenario

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- **Pricing for Whole Farm Audit**

Retail price \$1,450

Less:

- Qualified FEC Assistance \$ 500
- If Pork Producer \$ 250
- If Farm Bureau member \$ 100
- Out-of-Pocket \$ 600

- *REAP grant for EE improvements recovers 25%*
- *Cost of audit is also tax-deductible.*



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What's it Cost?

Grain Dryer or Enterprise or Whole Farm

\$ 900 to \$1,450

Qualified Incentives

\$100 to \$500 combining to maximum of \$850

- *REAP grant for EE improvements recovers 25%*
- *Cost of audit is also tax-deductible.*



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Who?

Consumers Energy owns, markets, administers, and performs the farm energy audit services.

FEC was developed in partnership with



IOWA STATE UNIVERSITY
University Extension

who are also assisting with promotion and education.



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Who?

Farm Energy Check-Up Sponsors



IOWA
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ASSOCIATION


www.iowacorn.org



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**Iowa Association of
Electric Cooperatives**

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Consumers Energy

Member-owned energy solutions cooperative in
Marshalltown, IA.

Rural Electric Provider for 5 counties in Central Iowa.

Providing energy assessments, audits &
advice since 1938.

Recipient of national, regional and state awards in
energy efficiency and renewable energy.



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How?

The Process.....

1. Information from outreach meeting – ICGA, IPPA, ISUE, etc.
2. Complete Pre-Audit Assessment and Send to Consumers Energy
3. Review of Potential of Energy Efficiency Improvement
4. Scope of Work and Pre-Site Assessment Agreement
5. Audit Interview via Telephone
6. On-Farm Site Visit – Final Data Collection and Verification
7. Preparation of Detailed Narrative Report of EE Improvements
8. Report Delivery and Follow Up



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How?

Fill Out a Pre-Audit Assessment on-line at:

www.farmenergycheckup.com



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