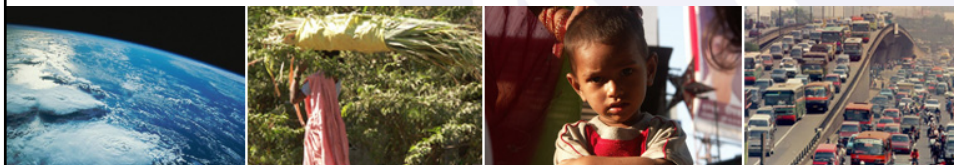


# The Sustainable Energy Utility Model

Shalini Gupta & Dr. Cecilia Martinez  
Center for Earth, Energy and Democracy  
At the Institute for Agriculture and Trade Policy

Milan, Minnesota  
July 29, 2009



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## What is an SEU?

- A Sustainable Energy Utility is a community governed not-for-profit entity that coordinates site-based renewables and energy efficiency programs, using a shared savings model.

The SEU model was developed by the Center for Energy and Environmental Policy at the University of Delaware – Director, Dr. John Byrne, PhD ([www.seu-de.org](http://www.seu-de.org))



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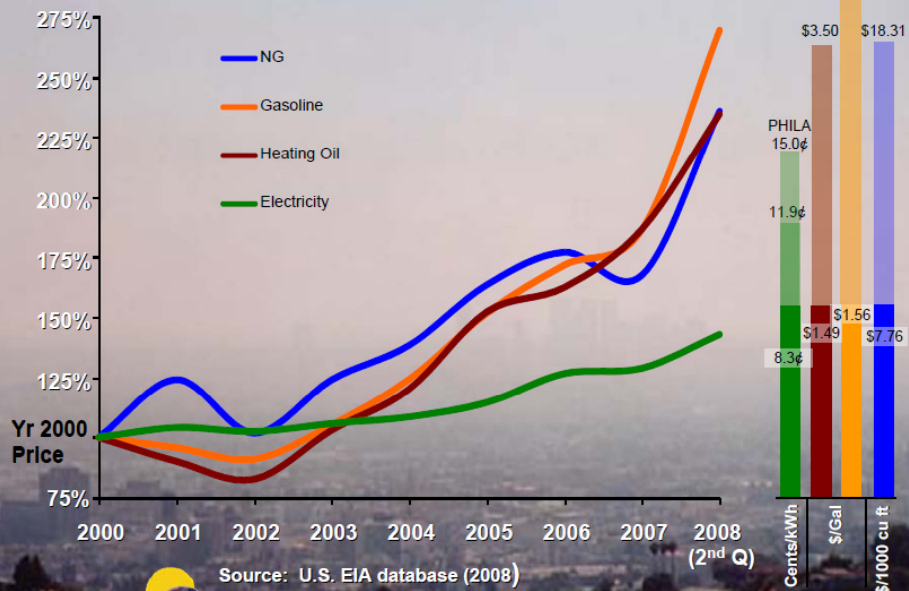
# SEU Goals

- 1) Build community assets.
- 2) Move from a centralized system of energy to one that is more local and community-based.
- 3) Work for multiple scale of energy consumers (commercial, residential, farm).



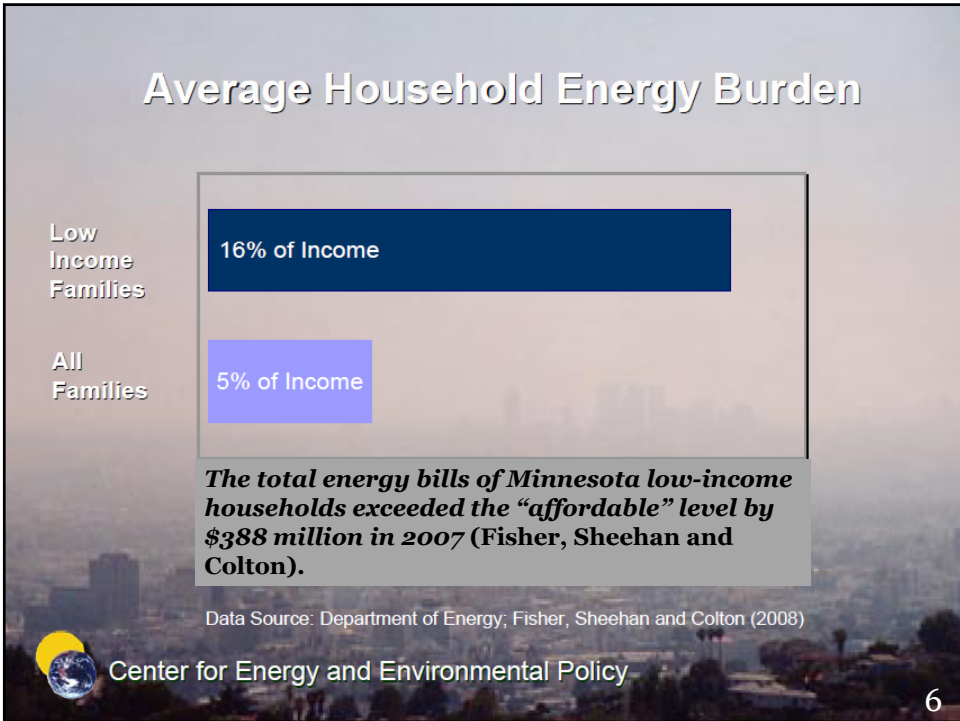
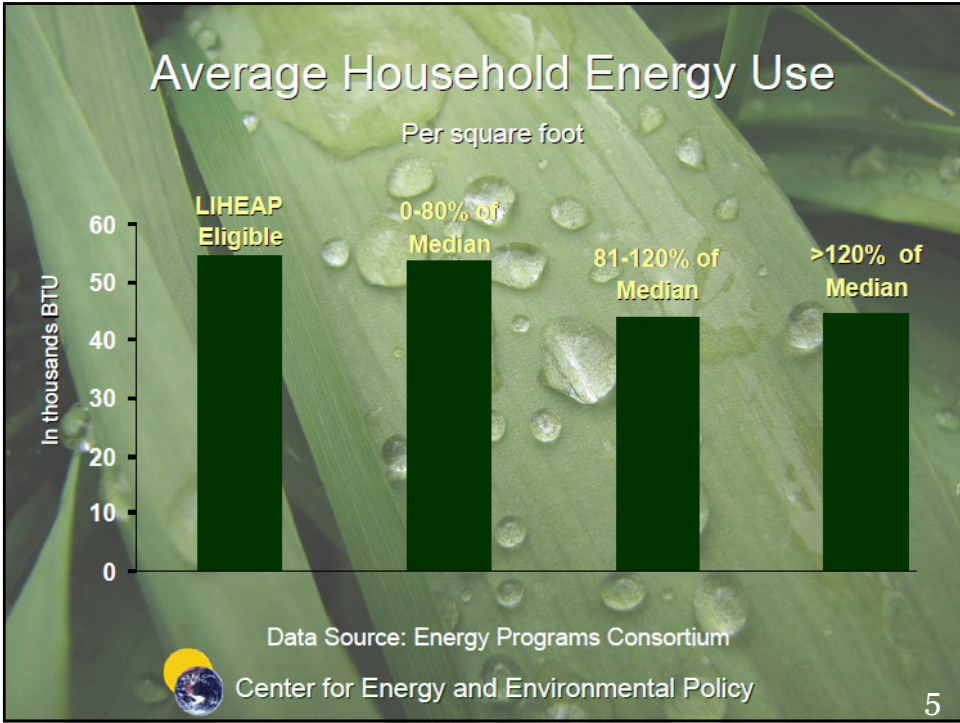
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## Climbing Conventional Energy Prices: U.S.



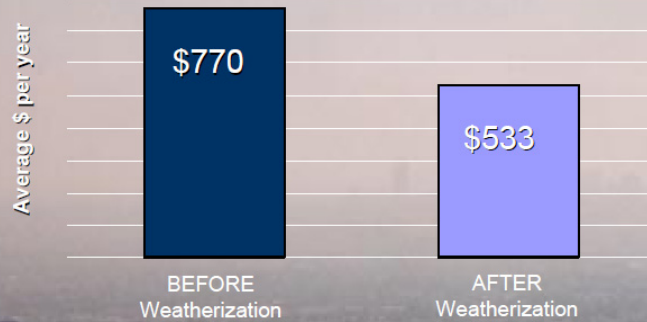
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## Average Energy Expenditure by Low Income Families

On average, weatherization reduces heating bills by 32%



Only 16% of eligible households have been weatherized

Data Source: Department of Energy



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## Barriers an SEU Tackles

- **High Initial Cost** to implement efficiency or onsite renewable technologies, even though payback might be quick.
- **Difficulties in Getting Information** on technologies and financing options available from currently fragmented federal grants, tax code, state dollars, private programs, etc...
- **Difficulties in Organizing smaller scale End-users.** Most energy investments tend to go to large users, not smaller businesses, residential and low-income end users.

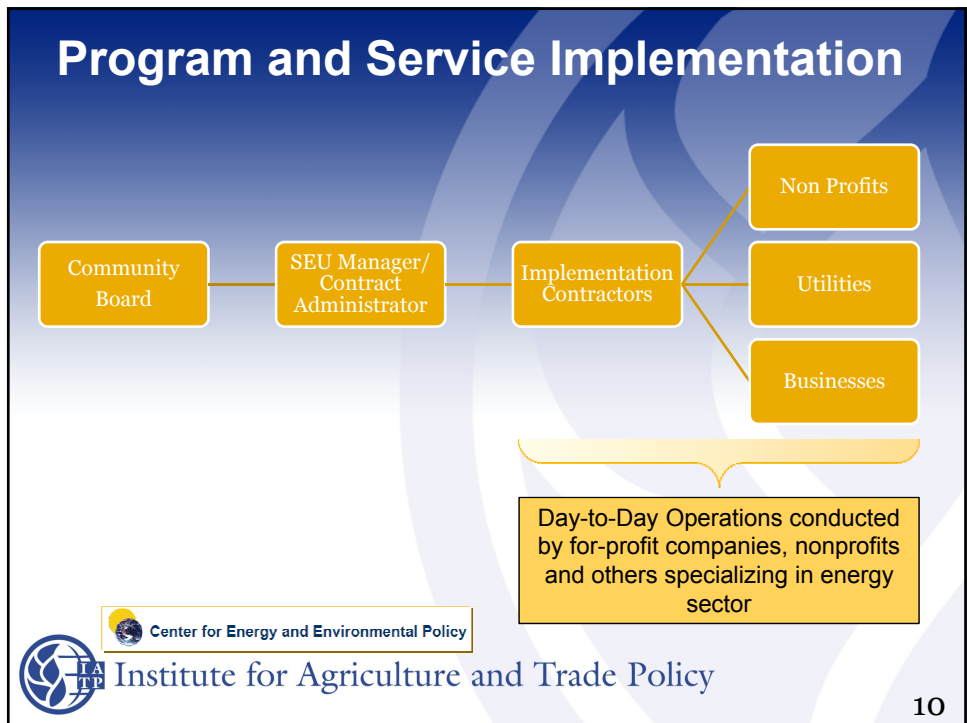
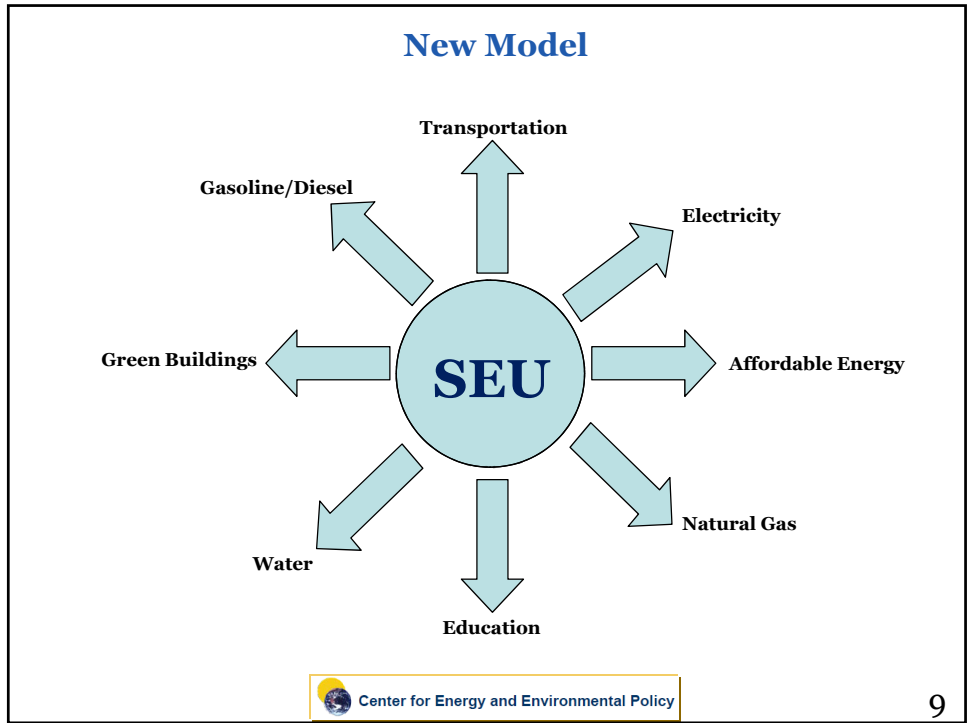


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## SEU Implementation Steps

- Establish organization/board
- Select Fiscal Agent/Program Manager (via RFP)
- Conduct analysis of end use and energy use demographics
- Target programs to match resources with use demographics
- Develop a suite of programs
  - Efficiency
  - Site-based renewable
  - Education
  - Research
- Develop evaluation, monitoring, and verification of established targets

OFFER ONE STOP SHOPPING FOR SUSTAINABLE ENERGY SERVICES



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## Community Governance

- **Community Board Established with Key Players**
- **Sets Community Performance Targets for SEU Manager**

Examples Include:

- 30% Reduction in electricity and thermal energy usage by 2020.
- 1/3 Residential
- 20% Customer-sited Renewable by 2015 (Solar targets)
- X% Community Jobs/Training for each Implementation Contract
- Low Income Goals
- Green Vehicles/Transport/Tractor targets
- Living wage criteria



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# Funding Options

- Bonds
- Green Energy Charges
- Renewable Energy Credits
- Tax Credits
- State and Federal Grants (Stimulus Funding)
- Philanthropy
- Carbon Auction
- Shared Savings

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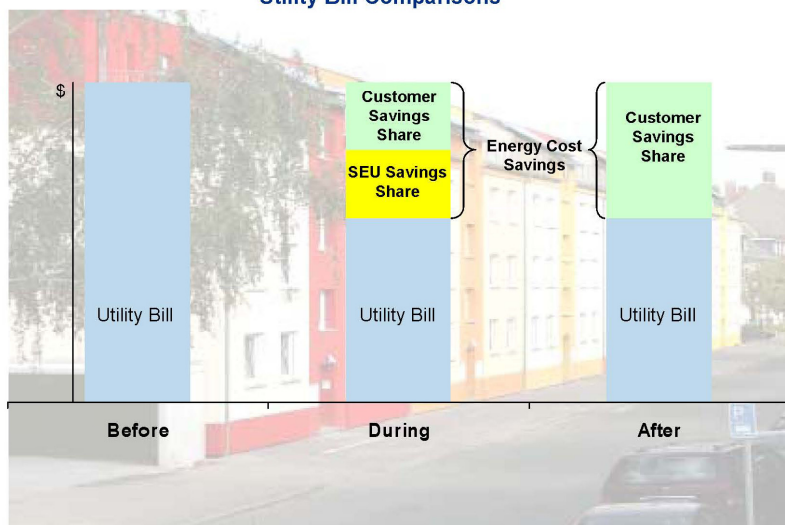


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## Green Energy Contracting

Utility Bill Comparisons

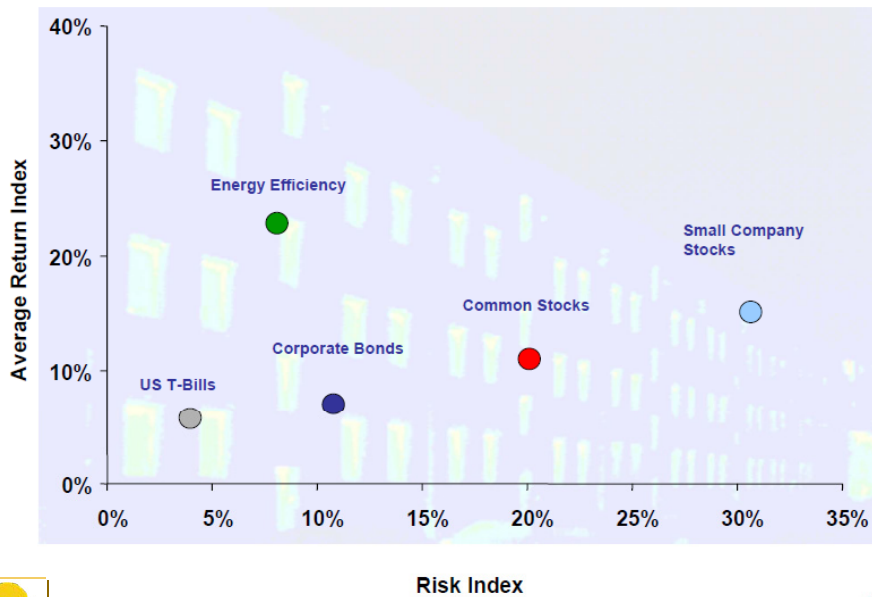


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## Comparative Risk / Return of Typical Investments



Source: "The Size of the US Energy Efficiency Market: Generating a More Complete Picture." Karen Ehrhardt-Martinez and John. A. "Skip" Laitner (ACEEE), May 2008



## Green Jobs: The Sustainable Energy Advantage

Investments in sustainable energy technologies create more permanent jobs than traditional energy supply

Permanent Jobs Created per Million \$ Invested	
<b>ENERGY EFFICIENCY &amp; CONSERVATION</b>	
Residential Buildings	8.2
Commercial Buildings	6.3
<b>RENEWABLE ENERGY</b>	
Wind	5.7
Solar PV	5.7
<b>COAL PLANTS</b>	4.0

Sources: Ehrhardt-Martinez & Laitner, *The Size of the U.S. Energy Efficiency Market*. ACEEE, 2008. Singh & Fehrs, *The Work that Goes into Renewable Energy*. REPP, 2001.



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# Thank You!

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