



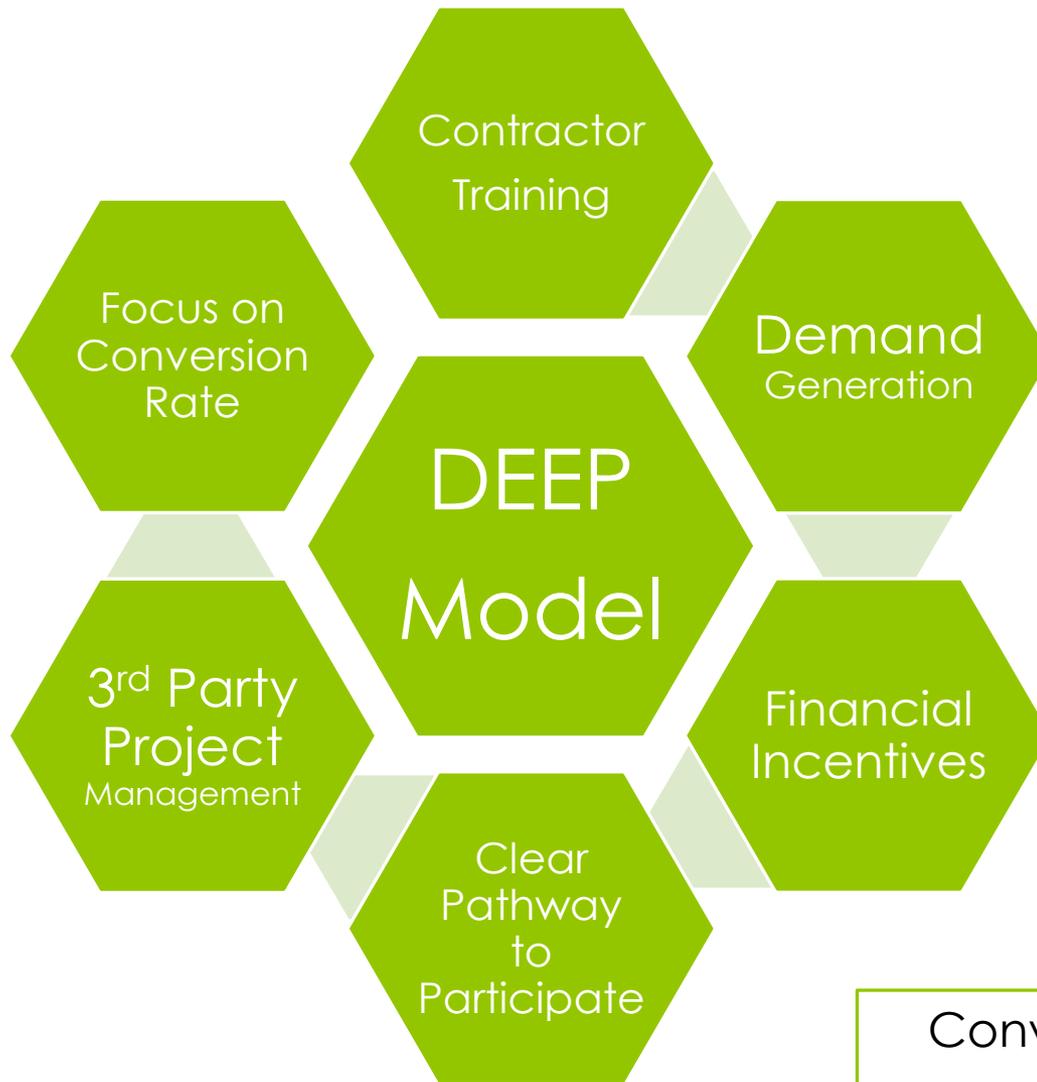
# Duluth Energy Efficiency Program



**ecolibrum3**

Jodi Slick

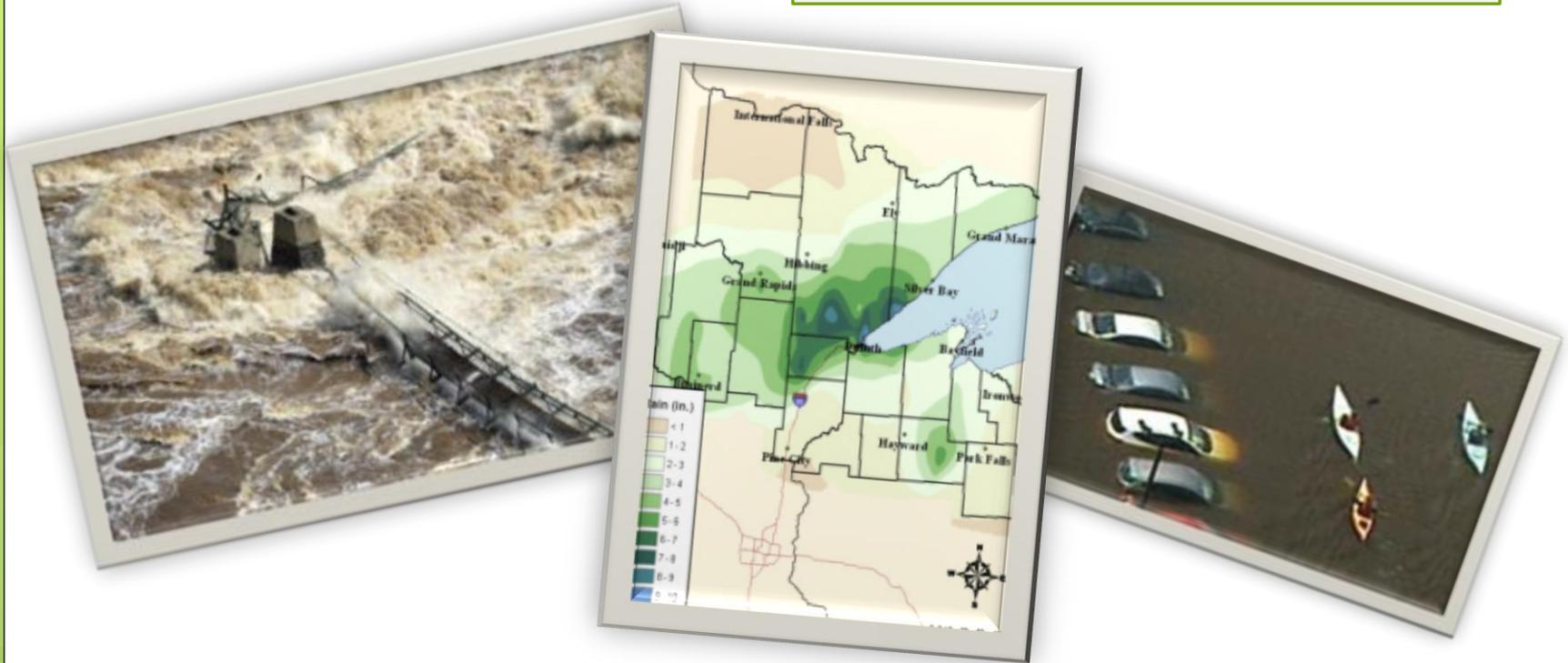
CEO, Ecolibrium3



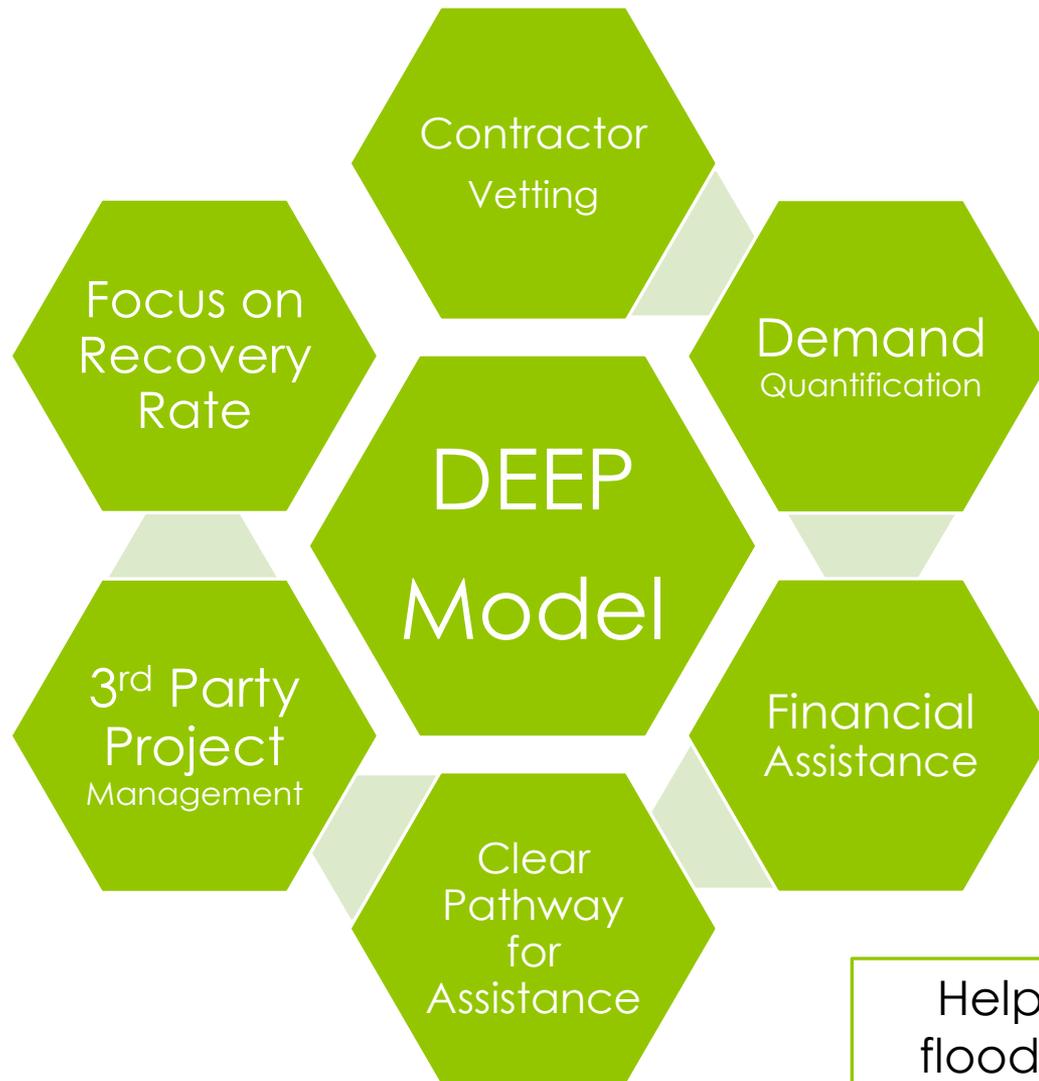
### DEEP Process

- Free Energy score
- Audit
- Counseling
- Bidding/  
Contracting  
Assistance
- Financial  
Bundling
- Quality  
Assurance

Conversion rate from less  
than 2% to 65%!



- 10+ inches of rain in 24 hours
- 3,145 homes damaged
- 72 homes completely destroyed
- 2 states, 7 counties, 1 tribal band
- 0 FEMA Individual Assistance



### DEEP Process

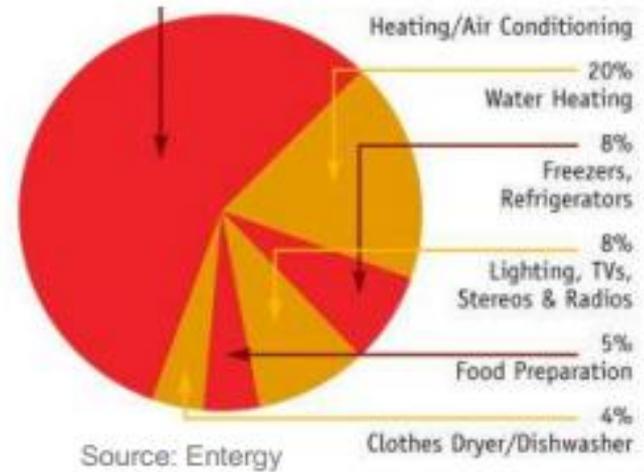
- Disaster Intake
- Scope of Work
- Counseling
- Bidding/ Contracting Assistance
- Financial Bundling
- Quality Assurance & Energy Audit
- Bridge Loan to Energy Grant

Helped 168 low-income flood families & changed state resources & process.

[2009]

## GUIDE FOR ENERGY EFFICIENT, RAPID REBUILDING OF SINGLE FAMILY HOMES

By Keith Canfield and Tammy Agard



[NOLA100 was an intense, 100 day rebuilding effort that renovated over 40 New Orleans housing units from June to October, 2008. The information contained in this outline is intended to provide those seeking to undertake similar projects with knowledge gleaned and lessons learned from that experience.]



## In the Path of the Storm

Global Warming, Extreme Weather and the Impacts of Weather-Related Disasters in the United States from 2007 to 2012



**4** out of **5**  
Americans live in  
a county that  
had a declared  
disaster in the  
past 5 years.

Nearly **half** of  
Americans live in  
a county that has  
had a flood.



DOE Better  
Buildings  
Residential  
Program  
Solution  
Center





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## Challenges & Opportunities

- Heat-or-eat winter
- Less than 2% conversion from audit to upgrade
- Home inspectors wouldn't call out energy detailing
- Investor owned utility for electric
- Municipal owned gas company
- Conservation Improvement Programs lack of fuel neutrality
- No conservation programs for delivered fuels
  - No consistency in energy audit or cost projections
  - Lack trained contractors/trust in contractors
  - Windows and solar



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Identifying unmet needs in the marketplace that can be filled through a well-designed organizational business model that balances costs and revenues.

## Essence of Program

- Identified barriers to upgrades
  - Not knowing what should be prioritized
  - Not knowing how to pay for it
  - Not knowing who can (or how to) do the work
  - Not trusting work will be done right
- Created a “trusted third-party” community-based project management model
  - Provide audit, counseling, financial bundling, bidding, contract management, and quality assurance
  - High touch process that changed conversion from 2% to %65.



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Designing and implementing an integrated residential energy upgrade program that provides a positive experience to customers.

## Demand Generation

- Time bound incentives (ARRA rebates 25% of improvement up to \$1,500)
- Matrix of assistance
- Focus on prioritized improvements
- Mass market
- Utility bill marketing
- MOU with defined work scope-Wx

- Preload buckets
- Hotlist management
- Green canvass
- Workshops driven by funding design of another

Changed strategy overtime from “free energy score” to direct to audit approach.



Inspiring homeowners to action through effective marketing and other strategies for driving consumer demand for home energy upgrades.

## Funding & Financing

- Operational Expenses
  - Stimulus funds through July 2012
  - EPA Climate Showcase through February 2014
  - CDBG funds in 2011, 2013-2015
  - HUD Section IV funds through LISC
  - Earned income from audits (auditor/counselor)
- Audit and Upgrade Incentives
  - \$300 per audit in utility rebates
  - Miscellaneous utility rebates (i.e. ecm motors, refrigerators)
  - \$1,500 ARRA rebates
  - CDBG grants ranging from \$1,000 to \$9,000
  - Low-income weatherization
  - 4.9% secured loan program



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Ensuring that consumers have access to affordable financing that will enable them to pay for energy upgrade activities.

## Contractor Development

- 50% scholarships for BPI training
- Additional mentoring for unemployed, underemployed, and marginalized communities
- Uniform tool for calculations
- Equipment lending library
- Quality assurance and access to auditor
- Access to a market (must be on list to bid)



- Improvement standards aligned with utilities
- Report-based bidding to open house to commitment from homeowner that a contractor will have access
- Funding-based process decisions



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Recruiting, training, and working in partnership with the energy efficiency contractors who will complete energy upgrade work in customers' homes.

## Data Challenges & Evaluation

- Funding requires different slices of information
- Process designed to make most of work invisible to homeowner
- Who owns the data and work product became an issue
- Data pushed by other issues (City effort to combine agencies)
- Initial co-benefits can disappear when partners change programs
- Understanding program evaluation criteria faced by partners can assist in program design to leverage resources



- Document calculation assumptions and units
- Design data into process and be consistent
- Determine how to tell your story!

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Devising and implementing plans for continuously and periodically evaluating program efforts to identify successes and areas of weakness that require attention.

## Partnerships

- City of Duluth (ARRA, EPA, CDBG funder, pass through)
  - Minnesota Power (audit rebate, direct installs, rebates)
  - Comfort Systems (audit rebate, energy improvement loan program)
  - Fond du Lac Tribal and Community College (BPI trainer)
  - Community Action Duluth (green canvass)
  - Housing agencies (Housing Resource Connection)
  - Contractors (36)
  - Local retail partners and Best Buy (DIY discounts)
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- Foundations
  - EPA, DOE, HUD
  - Low-income weatherization
  - Duluth LISC

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Determining how to leverage existing programs and community capacity to accomplish a task by establishing strategic partnerships.

## Accomplishments

- 885 households assisted with improvements
- 157 fuel-oil conversion projects
- Average savings of \$608 per household
- Lead disaster recovery efforts
- Created fuel-oil conversion program, interfaith pilot program, DIY pathway and retail partnership
- Integrated energy reductions in all low-income housing projects
- Trained and worked with 36 contracting firms
- Developed essential partnerships, credibility for integrated approach to community resilience, and are moving forward on developing a Community Energy Futures Project



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Our work would not have been possible without the support of the EPA Climate Showcase Communities Program, EPA staff, and fellow Showcase Communities!