Kent County Home Energy Efficiency Program

Client: Area Community Services Employment and Training Council (ACSET) and the Kent County Essential Needs Task Force Energy Efficiency Subcommittee

Michigan State University Urban Planning Practicum
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Client Introduction
Background Information
Energy Efficiency Concepts Defined
Survey Analysis/Resource Catalog
Case Studies
Senior Citizen Winter Preparation Program Findings
Home Energy Efficiency Tool Kit
Conclusion
Client Introduction
Member of the Community Action Partnership for 35 years
- National non-profit Agency serving 17 million low-income US residents annually

Kent County Home Energy Efficiency Service Provider since 1974

Mission:
“Assuring access to affordable utility resources for Kent County’s most vulnerable residents while promoting a culture of energy efficiency for all” - 2009 Strategic Plan

Services Offered
- US Department of Energy Weatherization Assistance Program
- Energy Efficiency Workshops
- Partnerships with local resource providers
Project Goals

- Kent County Home Energy Efficiency Resource Catalog
  - Compiled from Home Energy Efficiency Survey

- Research countywide home energy efficiency program models in other communities

- Senior Citizen Winter Preparation Program
  - Implementation Ideas
  - Weatherization/Whole House Energy Efficiency Tool Kit
Background Information
Kent County, Michigan
Home Energy Efficiency Concepts Defined

- What is Home Energy Efficiency?
- Energy Audit
- Weatherization
- Whole-House Energy Efficiency Planning
Survey Analysis/Resource Catalog
Background of Survey

- Conducted in November 2009
- Approximately 100 businesses/organizations received survey
- Conducted to detail involvement of home energy efficiency practices of each organization
- Responses collected at SurveyMonkey.com
- Questions consisted of:
  - What services do you offer?
  - What are the eligibility requirements?
  - How is your program funded?
  - What gaps exist in home energy efficiency?
What services do you offer?

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<td>Survey Correspondence Question</td>
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<td>Q 7: Describe your home energy programs/activities</td>
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</table>

- **Government**
  - City of Grand Rapids
  - Kent County Dept. of Human Services
  - City of Grand Rapids Community Development Department
  - Kent County Housing and Community Development
  - County of Kent
  - City of Wyoming Utilities Department
  - Grand Rapids Housing Commission

- **Government Services**:
  - Rebates: x
  - CFL: x, depends
  - Energy Audit: x
  - Housing Rehab: x
  - Financial Assistance: x
  - Charge?: x
  - Interested in Senior Prep.: x
What are the eligibility requirements?

<table>
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<tr>
<th>Agency/Organization</th>
<th>Income</th>
<th>Age</th>
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<td>Salvation Army Booth Family Services</td>
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<td>Neighborhood Ventures</td>
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<td>Home Repair Services of Kent County, Inc</td>
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<td>DwellingPlace</td>
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<td>Rental Property Owners' Association</td>
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<td>Healthy Homes Coalition</td>
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<td>Steepletown Neighborhood Services</td>
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How is your program funded?

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<th>Agency/Organization</th>
<th>Funding</th>
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<td>Survey Correspondence Question</td>
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<td>Kent County Dept. of Human Services</td>
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<td>City of Grand Rapids Community Development Department</td>
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<td>County of Kent</td>
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<td>City of Wyoming Utilities Department</td>
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</table>
What gaps exist in home energy efficiency?

<table>
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<tr>
<th>Agency/Organization</th>
<th>Gaps</th>
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<tbody>
<tr>
<td></td>
<td>Education/Knowledge</td>
<td>Funding</td>
<td>Lack of Material/Resources</td>
<td>Human Capital</td>
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<tr>
<td>Non-Profit</td>
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<td>Alliance for Environmental Sustainability</td>
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<td>ASCET</td>
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<td>New Development Organization</td>
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<td>Sierra Club</td>
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<tr>
<td>Oakdale Neighbors</td>
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<tr>
<td>West Michigan Environmental Action Council</td>
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<td>x</td>
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<tr>
<td>Salvation Army Booth Family Services</td>
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</table>

Explanation:
- **Non-Profit**
  - **Alliance for Environmental Sustainability**: Indicates gaps in Education/Knowledge and Funding.
  - **Area Agency on Aging of Western Michigan**: Indicates a gap in Education/Knowledge.
  - **ASCET**: No gaps indicated.
  - **New Development Organization**: Indicates a gap in Education/Knowledge.
  - **Sierra Club**: Indicates a gap in Education/Knowledge.
  - **Oakdale Neighbors**: Indicates a gap in Lack of Material/Resources.
  - **West Michigan Environmental Action Council**: Indicates a gap in Human Capital.
  - **Salvation Army Booth Family Services**: Indicates gaps in Education/Knowledge and Funding.
Gap Analysis

An analysis was conducted of the survey results to identify where gaps in home energy efficiency exist

- **Gaps Identified:**
  - **Education:**
    - 15 respondents indicated education as a gap
  - **Funding:**
    - 8 respondents indicated a lack of funding was a gap
  - **Human Capital:**
    - 10 respondents detailed a lack of human capital as a gap
The Resource Catalog is compiled of agencies who indicated they wished to be included.

Dwelling Place
101 Sheldon Blvd. SE, Suite 101
Grand Rapids, MI 49503
Contact: Scott Page
(616) 454-0928
spage@dwellingplacegr.org
Website: www.dwellingplacegr.org

Dwelling Place:
• We performed a study on green energy including: LEED Gold and Platinum certified buildings
• HUD, Michigan financing, non profit organizations, philanthropists, and the City of Grand Rapids provide funding
• Persons in assisted living and affordable housing are eligible
• We completed renovations on buildings with installation of “Green Roofs”, high energy efficient windows, insulation, remodeling, and heat gain/loss protection

- Contact Information
- Services offered
- Funding sources
- Eligibility requirements
- Other important aspects of program
Case Studies
Successful Home Energy Efficiency Programs in Other Counties

- Counties studied:
  - Macomb County, Michigan
  - Milwaukee County, Wisconsin
  - Ramsey County, Minnesota

- Why we chose these counties
  - Purpose was to identify effective strategies that may be of use to Kent County in their efforts to promote home energy efficiency
  - EPA and DOE’s Region #5
  - Climate
  - Topography
  - Population
Case Study Common Features

- Analysis of county case studies revealed that each of these counties are engaged in:
  - Education Outreach
  - Connecting residents with resources
    - Organizations/businesses engaged in home energy efficiency services
    - Organizations providing low-income energy assistance and loans for energy efficient improvements
    - Organizations providing education
    - Utility company’s benefits to consumers
      - Energy audits, energy saving tips, rebates

- Home Performance with Energy Star program is used to efficiently facilitate home improvements
Home Performance with Energy Star (HPwES)

- Adopted by utility companies, state energy agencies, municipalities, and non-profit organizations

- Provides a program structure to assist HPwES Program Sponsors with developing a comprehensive home energy efficiency program

- HPwES provides a template for:
  - Home Performance Protocols
  - Contractor Recruitment Plan
  - Contractor Training
  - Contractor Participation Requirements
  - Marketing/Media Plan
  - Incentive/Financing Plan
  - Quality Assurance Plan
Summary
Countywide Structure

- Establish countywide goals for what constitutes home energy efficiency
- Connect with other organizations involved with home energy efficiency
- Create educational outreach tools
- Adopt a comprehensive home energy efficiency program similar to HPwES to oversee home improvement efforts
Senior Citizen Winter Preparation Program Findings
Senior Citizen
Winter Preparation Program

- Goals:
  - Raise community awareness of surrounding poverty and the importance of energy efficiency
  - Provide weatherization and whole-house energy efficiency planning measures

- Researched five agencies that either:
  - Featured a weatherization program
  - Targeted senior citizens
  - Organized/facilitated a weatherization volunteer day
## Senior Citizen Winter Preparation Program

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Non-Profit</th>
<th>Utility Company</th>
<th>Local Government</th>
<th>Program Exclusive to Seniors</th>
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<td>Community Energy Project</td>
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<tr>
<td>Riverside Public Utilities</td>
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<td>CCOA</td>
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<tr>
<td>Westchester County, NY DSPS</td>
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<td>HEET: Home Energy Efficiency Team</td>
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<table>
<thead>
<tr>
<th>Eligibility</th>
<th>Senior Citizens</th>
<th>Low-Income</th>
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<th>General Public</th>
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<tr>
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- X indicates availability for the program.
Common Features of Senior Weatherization Programs

- Of the five programs researched:
  - Funding
    - Primarily supported by the Federal Government
    - Comprehensive programs leveraged additional dollars
  - Program Structure
    - Weatherization Professionals
    - Volunteers
    - Energy Audit/Visit with Household
  - Accessing Clients
  - Most Common Procedures
    - Storm Window/Door Installation
    - Weatherstripping
    - CFL Replacement
    - Window/Door Caulking
    - Insulation Installation
    - Furnace Repair
Home Energy Efficiency Tool Kit
Weatherization Procedure and Whole-House Energy Efficiency Tool Kit

- Procedures are divided into three categories according to difficulty

  - Beginner Procedures
    - No-cost
    - Mostly changes in behavior

  - Intermediate Procedures
    - Low-cost
    - Moderate savings in energy costs
    - Do-it-Yourself Repairs

  - Professional Procedures
    - Relatively expensive
    - Significant savings in energy costs
    - Repairs completed by professionals
Beginner Procedures

- Turn the heat down during the winter
- Wash laundry in cold water
- Turn off lights
- Clean coils in the back of the refrigerator
- Turn off the dishwasher’s heated dry setting
- Close doors and vents to underutilized rooms
- Turn down hot water heaters
- Unplug 24/7 gadgets
- Clear obstacles blocking heating vents
- Clean the lint trap in the dryer before every load
Intermediate Procedures

- Ceiling fans
- Caulking
- Filter Replacement
- Chimney Flue Pillows
- Door Sweeps
- Lighting Replacement
- Window Sealing
- Low-Flow Shower Heads
- Programmable Thermostats
- Hot Water Tank Insulation
Professional Procedures

- Heating system repair or replacement
- Roof replacement
- Window repair or replacement
- Outside door repair or replacement
- Insulation of attics and walls
- Duct maintenance
Conclusion
Conclusion

- Countywide Program Structure
  - Target Renters
  - Formulate Goals and Objectives
  - Collaboration
  - Implementation
Conclusion

- Senior Citizen Winter Preparation Program
  - Involve Local Aging Agencies
  - Client Outreach
  - Recruit an existing organization to:
    - Organize countywide volunteer day(s)
    - Offer home energy efficiency community leader trainings for non-profits, faith-based groups, etc interested in conducting a volunteer day at a more local level
Thank you for your time!

Questions?