Developing an Energy Education Program

Friday, September 1, 2017

Presenter: Angela Bivens
First State Community Action Agency
Georgetown, DE
This workshop will cover:

• Energy Education 101
• The Need for Energy Education
• The Benefits of Energy Education
• Components of an Energy Education Program
• Types of Energy Education Program
  – Single-time Energy Education Program
  – Reoccurring Energy Education Program
• Next Steps
What is Energy Education?
What is Energy Education?

QUIZ TIME!!!!
Question #1

What electronic device(s) consume(s) the most power when in standby mode?

A. TV
B. Printer
C. Laptop
D. DVR w/digital cable box
Question #2

Which among the following is most energy efficient?

A. Incandescent bulb
B. Compact fluorescent lamp (CFL)
C. Light emitting diode (LED)
D. All are equally efficient
Question #3

True or false:

It cost more to wash your clothes in hot water than washing in cold water.
Question #4
The biggest use of energy in the typical US home is:
A. Home electronics
B. Cooking
C. Heating/Cooling
D. Lighting
Question #5

True or False:
Caulking your windows and doors is the easiest way to save energy?
How many did you get right?
What is Energy Education?

• teach about energy consumption
• encourage households to reduce their home energy needs
• thereby reducing the need for energy assistance
Who is the target audience for Energy Education programs?
Target Audience for Energy Education

Low-income households spend, on average, 7.2% of their income on utility bills, which amounts to about $1,700 annually out of $25,000 in median household income.

That is MORE THAN TRIPLE the 2.3% spent by higher-income households for electricity, heating and cooling.

Lifting the High Energy Burden in America's Largest Cities
4/2016
<table>
<thead>
<tr>
<th>Type of Driver</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Inefficient and/or poorly maintained HVAC systems</td>
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<tr>
<td></td>
<td>Heating system and fuel type</td>
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<td></td>
<td>Poor insulation, leaky roofs, and inadequate air sealing</td>
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<td></td>
<td>Inefficient large-scale appliances (e.g., refrigerators, dishwashers) and lighting sources</td>
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<td>Weather extremes that raise the need for heating and cooling</td>
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## Drivers of Household Energy Burdens

<table>
<thead>
<tr>
<th>Type of Driver</th>
<th>Example</th>
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<tbody>
<tr>
<td>Economic</td>
<td>Chronic economic hardship due to persistent low income</td>
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<tr>
<td></td>
<td>Sudden economic hardship (e.g., severe health event or unemployment)</td>
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<td></td>
<td>Inability or difficulty affording the up-front costs of energy efficiency investments</td>
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_Lifting the High Energy Burden in America's Largest Cities_

4/2016
### Drivers of Household Energy Burdens

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<th>Type of Driver</th>
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<tr>
<td>Behavioral</td>
<td>Lack of access to information about bill assistance or energy efficiency programs</td>
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<td></td>
<td>Lack of knowledge about energy conservation measures</td>
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<td></td>
<td>Increased energy use due to age or disability</td>
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*Lifting the High Energy Burden in America's Largest Cities*

*4/2016*
# Benefits of Energy Education

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<th>Type of Benefit</th>
<th>Examples</th>
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<tbody>
<tr>
<td><strong>Physical</strong></td>
<td>Access to additional programs or services for household repairs to improve energy efficiency</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>Decrease in utility bills giving the opportunity for savings or budget reallocations</td>
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<td></td>
<td>Decrease the number of disconnects</td>
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<td></td>
<td>Decrease in the need/request for bill assistance from government programs and non-profit agencies</td>
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<tr>
<td><strong>Behavioral</strong></td>
<td>Access to information about bill assistance or energy efficiency programs</td>
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<tr>
<td></td>
<td>Increased knowledge and execution of energy conservation measures</td>
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<td></td>
<td>Awareness about the correlation of energy usage to the energy bill</td>
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</table>
How to execute an Energy Education programs?
Program Components

- Intake Process
- Energy Education
- Energy Advocacy
- Energy-related Referrals
- Data Collection
- Workshops
Intake Process

• Fill out forms completely & accurately
• Build relationship with client
• Make copies and scans for additional resources/referrals

Key to advocacy component:
• Clear and precise forms
• Good filing system
Energy Education

The topics covered include:

• Age of the home
• Insulation of Windows & Doors
• Attic temperature & insulation
• Lighting
• Heating & Cooling

Key to education component:
• Training and educating the Energy Educator(s)
Energy Advocacy

- Utility bills frequently delinquent and/or facing disconnection
- Call Utility Provider with the client in the office
- Payment plan, budget billing and/or utility’s energy programs (i.e. Beat the Peak)

Key to advocacy component:
- ****Create relationships with Utility Providers****
Energy-related Referrals

Energy-related programs include:

- Housing Repairs
- Fuel/Utility Bill Assistance
- Heating Repair/Replacement Program
- Weatherization Program
- LIHEAP (Low Income Home Energy Assistance Program)

Key to referral component:

- Energy Directory of energy-related services and programs
- Relationships with outside agencies for referral process
Data Collection

Areas of Data Collection:

– Client’s Basic Information *(for validation/billing)*

– Pre-assessment Information

– Monthly Data Usage *(optional)*

Key to data collection component:

• If collecting usage data, a partnership with the local utility providers is primary

• Properly and completely filling out all forms
Energy Conservation Workshops

- Focus on low-income communities (i.e. community centers, PTA meetings, houses of worship, state service centers)
- Open to the public and no charge
- Topics include both behavior changes and basic weatherization tips

Key to workshop component:
- Attendance boosted through incentives
- Instructor has expertise in weatherization and conservation
# Types of Energy Education Programs

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<th></th>
<th>Single-Time Energy Education Program Model</th>
<th>Reoccurring Energy Education Program Model</th>
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<tr>
<td><strong>Description</strong></td>
<td>One-stop-shop for energy related needs or concerns</td>
<td>Comprehensive approach for monitoring usage</td>
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<tr>
<td><strong>Energy Education Duration</strong></td>
<td>Single office visit (possible follow-up)</td>
<td>6-12 months</td>
</tr>
<tr>
<td><strong>Energy-related Referrals</strong></td>
<td>One-time available resources</td>
<td>Given as needed through available resources</td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td>Information entered at point of intake</td>
<td>Usage information gathered on monthly basis</td>
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## Types of Energy Education Programs

<table>
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<th>Single Time Energy Education Program</th>
<th>Reoccurring Energy Education Program</th>
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<tbody>
<tr>
<td>Pros</td>
<td>Able to reach more clients</td>
<td>Education is more sustainable</td>
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<tr>
<td></td>
<td>Less paperwork</td>
<td>Data allows more detailed analysis</td>
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<tr>
<td>Cons</td>
<td>Less measurable outcome data</td>
<td>Time spent entering and receiving data</td>
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<td></td>
<td>Less education available</td>
<td>Larger staff; more administrative cost</td>
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Funding Sources

Commonly utilized funds for Energy Education Programs include:

- Utility Provider funds
- RGGI (Regional Greenhouse Gas Initiative) funds
- Addition into current Energy Assistance Program (example Assurance 16 within LIHEAP)
- Researching online grants
Thinking of Starting an Energy Education Program?!?!

www.FirstStateCAA.org

https://www.energizedelaware.org/community-energy-centers

https://www.ecasavesenergy.org/resources/neighborhood-energy-centers

http://www.energyoutreach.org/what-we-do/energy-education-and-behavior-change