E-Conservation Home Energy Management Series

No-Cost and Low-Cost - Program Curriculum

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| **Program** | **Home Energy Self Assessment** |
| Segment Time |  |
| Purpose | To provide information about how energy is used in the home and ways to reduce energy consumption by changing behaviors, purchasing decisions, and making low-cost changes to a residence. |
| Audience | General consumer audience |
| Learning Objectives | Participants will accomplish the following:   * Knowledge: Identify ways to reduce home energy consumption through no-cost and low-cost changes. |
|  | * Comprehension: Recognize specific causes of home energy loss and understand the solution needed to improve energy conservation. |
|  | * Application: Change behaviors, resulting in energy/money savings. Reduce energy consumption by identifying energy conservation needs and making low-cost changes. |
| Lesson Materials | * Lesson guide * PowerPoint with speaker notes |
|  | * Handouts |
|  | * Pre/Post tests and evaluation forms |
|  | * Sign-in sheet, pens |
|  | * Energy kits (when ordered/available) |
|  | * Display (if available) |
| Participant Materials | * Pre/Post tests * Evaluation |
|  | * Pen or pencil |
|  | * Fact sheet with references |
|  | * Energy kit (1 per household) |
| Equipment | * Laptop with PowerPoint and websites loaded |
|  | * Internet connection |
|  | * LCD projector |
|  | * Speakers for computer (if showing video) |
|  | * Extension cord and power strip |
|  | * Microphone (if you have a large group) |
|  | * Energy kits |
|  | * Displays (if available) |
| Potential Partners | * Local utility company representative * City or County Sustainability Specialist |
|  | * Certified Home Energy Assessor |
|  | * Energy Star homebuilder |
| Marketing Materials | * Press release * Workshop announcement |
| Resources | * HEMS No cost low cost handout for powerpoint.pdf |

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| **Optional Student Materials and Resources:**  (Select most appropriate materials for your audience)  E-Conservation **-** HEMS No cost low cost handout for powerpoint.pdf  Windows and doors:  eXtension Resources: Find the articles below by clicking on them or going to:  <http://www.extension.org/category/energy_efficient_existing_homes:_windows_and_doors>   * [Selecting Energy Efficient Windows for Homes](http://www.extension.org/pages/33334/selecting-energy-efficient-windows-for-homes) * [Measures of Window Performance for Energy Efficiency](http://www.extension.org/pages/58573/measures-of-window-performance-for-energy-efficiency) * [New Window Technology for Energy Savings](http://www.extension.org/pages/58546/new-window-technology-for-energy-savings)   HVAC:  eXtension Resources: Find the articles below by clicking on them or going to: <http://www.extension.org/category/energy_efficient_existing_homes:_hvac>   * [Duct leakage tester](http://www.extension.org/pages/25753/duct-leakage-tester) * [Exhaust Vents for Energy Efficient New Homes](http://www.extension.org/pages/26363/exhaust-vents-for-energy-efficient-new-homes) * [Installation of Air-to-Air Heat Exchanger](http://www.extension.org/pages/25712/installation-of-air-to-air-heat-exchanger) * [Why is Home Ventilation a Concern](http://www.extension.org/pages/28058/why-is-home-ventilation-a-concern) * [Home Heating Safety](http://www.extension.org/pages/28877/home-heating-safety) * [Home Air Filter Changes and Cleaning for Energy Efficiency](http://www.extension.org/pages/28059/home-air-filter-changes-and-cleaning-for-energy-efficiency) * [Thermostat Settings for Home Energy Conservation and Energy Savings](http://www.extension.org/pages/27955/thermostat-settings-for-home-energy-conservation-and-energy-savings) * [Understanding Air Flow in Homes for Energy Efficiency](http://www.extension.org/pages/26407/understanding-air-flow-in-homes-for-energy-efficiency)   Sealing And Insulation:  eXtension Resources: Find the articles below by clicking on them or going to: <http://www.extension.org/category/energy_efficient_existing_homes:_insulation>   * Low-Cost and No-Cost Actions to Save Home Energy and Money   + <http://www.extension.org/pages/25638/low-cost-and-no-cost-actions-to-save-home-energy-and-money> * Questions and Answers about Caulking and Weatherstripping Your Home   + <http://www.extension.org/pages/25635/questions-and-answers-about-caulking-and-weatherstripping-your-home> * Insulating Knee Walls in Homes   + <http://www.extension.org/pages/27324/insulating-knee-walls-in-homes> * [Proper Installation of Home Insulation for Energy Efficiency](http://www.extension.org/pages/26276/proper-installation-of-home-insulation-for-energy-efficiency) * [Questions and Answers about Home Insulation](http://www.extension.org/pages/25628/questions-and-answers-about-home-insulation) * [Questions and Answers about Radiant Barriers for Energy Efficient Homes](http://www.extension.org/pages/25626/questions-and-answers-about-radiant-barriers-for-energy-efficient-homes) * [Understanding Heat Flow in Homes for Energy Efficiency](http://www.extension.org/pages/30798/understanding-heat-flow-in-homes-for-energy-efficiency) * [Home Insulation Systems with Good “Whole Wall” R-value](http://www.extension.org/pages/26343/home-insulation-systems-with-good-whole-wall-r-value)   Energy Star Resources:   * <http://www.energystar.gov/index.cfm?c=diy.diy_locating_leaks> * <http://www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_insulation_table>   Water Conservation:  E-Conservation Pinterest:   * Landscaping to Save Energy Board - <http://pinterest.com/econservation/landscaping-to-save-energy/>   EPA Resources:   * Water Efficient Landscaping - <http://www.epa.gov/WaterSense/docs/water-efficient_landscaping_508.pdf> * Water Sense - <http://www.epa.gov/watersense/outdoor/landscaping_tips.html>   State of North Carolina:   * Save Water NC - <http://savewaternc.org/homeindex.php>   Appliances and Electronics:   * eXtension Resources: Find the articles below by clicking on them or going to: <http://www.extension.org/category/energy_efficient_existing_homes:_appliances_and_electronics> * [EnergyGuide Label](http://www.extension.org/pages/26067/energyguide-label) * [ENERGY STAR® Rating and Home Appliances](http://www.extension.org/pages/25645/energy-star-rating-and-home-appliances) * [Considerations for Buying Home Appliances](http://www.extension.org/pages/27066/considerations-for-buying-home-appliances) * [How to Recycle Your Old Home Refrigerator](http://www.extension.org/pages/61151/how-to-recycle-your-old-home-refrigerator) * [Questions and Answers about Saving Energy in the Home Laundry Area](http://www.extension.org/pages/25625/questions-and-answers-about-saving-energy-in-the-home-laundry-area) * [Energy Efficient Home Clothes Dryers](http://www.extension.org/pages/25766/energy-efficient-home-clothes-dryers) * [Household Laundry Tips for Saving Money and Home Energy](http://www.extension.org/pages/26856/household-laundry-tips-for-saving-money-and-home-energy) * [Basic Information to Consider for Home Water Heating](http://www.extension.org/pages/28782/basic-information-to-consider-for-home-water-heating) * WxTV Video: <http://wxtvonline.org/2011/09/baseload/>     Lighting:  eXtension Resources: Find the articles below by clicking on them or going to:   * <http://www.extension.org/category/energy_efficient_existing_homes:_lighting> * [Passive Solar Energy for Homes: Daylighting](http://www.extension.org/pages/29081/passive-solar-energy-for-homes:-daylighting) * [Lighting for Southern Homes (to save money and stay cool)](http://www.extension.org/pages/31656/lighting-for-southern-homes-to-save-money-and-stay-cool) * [Safe Disposal of Fluorescent Lamps in Homes](http://www.extension.org/pages/28062/safe-disposal-of-fluorescent-lamps-in-homes) * [Energy Efficient Home Lighting Using Layers of Light](http://www.extension.org/pages/29956/energy-efficient-home-lighting-using-layers-of-light) * [Compact Fluorescent Lighting -- CFL](http://www.extension.org/pages/27170/compact-fluorescent-lighting-cfl) * [Questions and Answers about Fluorescent Lighting for Your Home](http://www.extension.org/pages/25630/questions-and-answers-about-fluorescent-lighting-for-your-home)   Energy Star: <http://www.energystar.gov/index.cfm?c=cfls.pr_cfls_savings>  Landscaping:  eXtension Resources: Find the articles below by clicking on them or going to:   * <http://www.extension.org/category/energy_efficient_existing_homes:_landscaping> * [Using Greywater Systems for the Home](http://www.extension.org/pages/25629/using-greywater-systems-for-the-home) * [Using Landscaping Shade to Reduce Home Energy Costs](http://www.extension.org/pages/27420/using-landscaping-shade-to-reduce-home-energy-costs) * [Landscaping Your Home for Energy Efficiency](http://www.extension.org/pages/25639/landscaping-your-home-for-energy-efficiency) * [Using Landscaping Vines and Structures to Reduce Home Energy Costs](http://www.extension.org/pages/29080/using-landscaping-vines-and-structures-to-reduce-home-energy-costs) * [Questions and Answers about Shading Your Home for Energy Efficiency](http://www.extension.org/pages/25624/questions-and-answers-about-shading-your-home-for-energy-efficiency) * [Questions and Answers about Efficient Home Irrigation Systems](http://www.extension.org/pages/25634/questions-and-answers-about-efficient-home-irrigation-systems)   Rebates and Incentives:  Energy.gov Resources:   * <http://energy.gov/savings?rebate_eligibility=435541&rebate_savings_for=769465&rebate_provider=0&rebate_state=2689>   eXtension Resources: Find the articles below by clicking on them or going to:   * <http://www.extension.org/category/energy_efficient_existing_homes:_tax_credits_and_incentives> * [ENERGY STAR® Rating and Home Appliances](http://www.extension.org/pages/25645/energy-star-rating-and-home-appliances) * [Payback and Savings on Your Energy-Related Home Improvements](http://www.extension.org/pages/28769/payback-and-savings-on-your-energy-related-home-improvements) * [Tax Credits for Home Energy Efficiency](http://www.extension.org/pages/61152/tax-credits-for-home-energy-efficiency) | |
| Helpful videos and websites | U.S. Department of Energy:  Energy 101: Lighting Choices <http://www.youtube.com/watch?v=lP_KcsVtng0>  Energy 101: Lumens <http://www.youtube.com/watch?v=kZWiT_NVouA>  Energy 101: Home Energy Assessment <http://www.youtube.com/watch?v=YolBP0-vkBU>  Maine Cooperative Extension:  How Do I Do A Home Energy Audit? <http://www.youtube.com/watch?v=Mn3hSOtbDcQ>  How to Seal Windows for Winter and Summer <http://www.youtube.com/watch?v=Jvyp5e1rJMc>  How Do I Insulate my Attic? <http://www.youtube.com/watch?v=GdkDY0xnjXg> | |

**Extended Activity:**

Have participants list 10 low-cost and no-cost things they plan to do to lower their utility usage. Discuss lists, setting of priorities, materials needed, total cost vs monthly savings to estimate pay-back projection, and have each participant leave workshop with a “to do” list, including materials needed.

**Potential Partners:**

Local utility company representative

Professional Home Energy Assessor

County or City Sustainability Director/Coordinator

Homeowner who has conducted a home assessment

North Carolina Weatherization Program Leader (for low-income audiences)

**Preparing for this Lesson:**

Promotional Materials

Promotion Strategies

**Several Weeks Prior to Workshop:**

* Secure location and set time for workshop
* Identify and book guest speakers or subject matter experts
* Promote workshop
* Request Home Energy Kits from E-Conservation
* Request home assessment materials from E-Conservation (caulking and insulation, tools, etc)

**One Week Prior to Workshop:**

* Create handouts and reference materials
* Review handouts and reference materials – ensure all web links work properly
* Select videos you will use and watch them, noting the best way to use them to enhance learning
* Read the lesson guide and powerpoint materials
* Review powerpoint speaker notes and become comfortable with the content
* Make/Add notes if applicable
* Familiarize yourself with demonstration tools, Home Energy Kit, and other teaching aids
* Confirm speaker(s) and be sure they are clear about their role in the presentation
* Send e-mail to participants, reminding them of the upcoming workshop and ask them to do any prep work you choose to enhance learning (ie: note certain things about their house like lighting choices, bring their utility usage history for the past several months, notes on energy issues they believe exist in their home.

**One Day Prior to Workshop:**

* Confirm with participants
* Confirm with speakers
* Confirm room reservation
* Assemble snacks, materials, etc.
* Assemble hands-on materials and other materials
* Review the presentation and have any links already uploaded and ready to share