Subcommittee Members

- Bob Hedden, Oil Heat Consultant and Educator (Vermont Fuel Dealers)
- Emily Levin, Efficiency Vermont (HERS Provider)
- Richard Faesy, Energy Futures Group (Energy Expert)
- Ward Smyth, Turtle Creek Builders (Home Builders)
- Ben Walsh, VPIRG (interested guest)
Overview

- Introduction (Ward)
  - Where we are
  - Objectives
- Core principles (Emily)
- Review of rating options (Richard)
  - Residential
  - Commercial
  - Scoring options
- Feedback (Bob)
Where we are

- Developed core principles
- Reviewed ratings
  - Demos and test drives
  - Presentations by experts and tool developers
- Preliminary recommendations
- Check-in with Working Group
  - Are we on track?
  - What have we missed?
  - Keep going?
  - Anyone want to join us?
Subcommittee Objectives

- Develop core guiding principles for rating selection
- Develop a matrix comparing audit/rating options
- Prioritize options based on core principles to provide preliminary recommendations to the full working group
Core Principles
Core Principles

1. Reasonable cost to end user ($0-300)
2. Rating can be presented as a single number or letter to allow market comparisons
3. Accurate
   a) Repeatable, predictable results
   b) Tool predicts energy use close to how an average occupant would use the house
4. Makes recommendations for upgrades to focus on high-priority areas
5. Smooth process to pursue upgrades based on rating
   a) Optional link to home inspection
Core Principles (con’t)

6. Residential: Asset rating – based on features of home rather than occupant behavior
7. Commercial/Institutional: Operational rating - occupant-based
8. HERS-compatible: If different than HERS, can be translated or linked to HERS (HERS-lite)
9. Tiered on-ramp - allowing drilling deeper if desired for more accuracy
10. Ability to customize and maintain for VT
Residential Tools
Tools Examined

- Online Screening
  - Home Energy Yardstick (U.S. EPA)
  - EnergySavvy (EnergySavvy)
  - EnergyMeasure View (Conservation Services Group)
- In-Home Survey / Diagnostic Home Survey
  - EnergyMeasure Home (CSG)
  - Home Energy Score (U.S. DOE)
  - Energy Performance Score (Earth Advantage Institute)
- RESNET Home Energy Rating System (HERS) Rating
  - REM/Rate (Architectural Energy Corp.)
Rating Tool Hierarchy

Online Screening
In-Home Survey
Diagnostic Home Survey
RESNET HERS Rating
Comprehensive Energy Audit

Home Energy Yardstick (U.S. EPA)
Home Energy Yardstick (U.S. EPA)
Home Energy Yardstick (U.S. EPA)

Potential Total Energy Savings for Homes in your Area: 23%

- Seal Air Leaks in Your Home
- Seal the Leaks in Your Ductwork
- Add More Insulation to Your Home
- Consider Replacing Your Heating and Cooling (HVAC) Equipment
- Consider Installing an ENERGY STAR Qualified Water Heater
EnergySavvy (EnergySavvy)

What's Your Score?
Are you overpaying for your utility bills?

Take our easy survey to get your home energy report.

You'll get an energy score, savings estimate and energy saving recommendations with the biggest bang for your buck.

It takes less than 2 minutes and there's no signup required.
EnergySavvy (EnergySavvy)

How much attic insulation do you have?
- No insulation
- Some insulation
- Thick insulation
- Not sure

Is your clothes dryer natural gas or electric?
- Natural Gas
- Electric
- No dryer

What fuel does your heating system use?
- Natural gas
- Electricity
- Oil

What kind of gas heater?
- Over 20 years old gas heating
- Modern gas heating
- Modern gas heating (92% or better)
- Not sure
EnergySavvy (EnergySavvy)

Your Energy Score

You scored better than 90% of the homes in Addison County, VT. Your home is extremely efficient!

There may be a few cost-effective efficiency upgrades that you can still make, but your home is a great candidate for getting the maximum benefits from solar, geothermal or wind.

YOUR SCORE: 91
ESTIMATED 3 YEAR SAVINGS: $558

Take The Next Step

Your Customized Action Plan

Air seal your ducts
Sealing your duct work, especially if it isn’t located in your living space, can significantly reduce your HVAC system’s energy waste. (More info)

Go beyond efficiency and consider going solar

Typical 3 Year Savings: $558
EnergySavvy (EnergySavvy)
EnergyMeasure View
EnergyMeasure View

Your Results

RECOMMENDATIONS

Possible savings:
- $284: Seal areas of your home where air escapes
- $255: Insulate your attic
- $424: Insulate your walls
- $52: Insulate your basement ceiling
- $114: Replace your furnace with a high-efficiency model

Graphs showing estimated annual potential savings and annual electricity cost.
EnergyMeasure View

The above chart shows the Energy Performance Score (EPS) for your home, as well as other homes in your area. For your home with all recommended energy efficiency measures implemented, by comparing your score to the average score for other homes in your area and for your home with all recommended measures you can see the potential savings you may gain.

Estimated annual energy waste $_____ Please see your attached recommendations to improve your score.

Ratings based on U.S. Department of Energy data in your area.

Carbon Footprint Score

The savings are equivalent to removing the emissions of _____ cars or planting _____ trees.

Thank you for helping the environment by reducing your carbon footprint. For more information go to www.energystar.gov.

Source: Estimated carbon savings from electricity are based on the EPA's 2005 C40 study. Estimated carbon savings from fuel combustion are based on emissions factors from the U.S. Environmental Protection Agency USEPA 2005 Climate Indicators Report.
EnergyMeasure Home
EnergyMeasure Home
EnergyMeasure Home

Your Home's Estimated Energy Use Breakdown:
- Heating, 54.74%
- Mechanical Ventilation, 0%
- Refrigeration, 2.32%
- Appliances, 7.59%
- Lighting, 8.52%
- Water Heating, 11.16%

ActOnEnergy
Home Energy Performance Report

Your Energy Usage Before and After Recommended Work:
- After Retrofit
- Current

[Graph showing energy usage comparison]
EnergyMeasure Home

Scenarios

Multiple scenarios are easily created and compared
Home Energy Score

Home Energy Scoring Tool
Data Collection Sheet

Assessment Date: _______________ Qualified Assessor: ____________________________

Location Information
Address: ___________________________ City: ______________ State: ____ Zip: ______

House Information
Year Built: _______________ # of Bedrooms: _________ # of Stories Above Grade: _________
Conditioned Floor Area (sq ft): _______________ Average Ceiling Height (ft): _______________
Direction Front Door Faces: ________
Home Energy Score

**Air Tightness**

Air Leakage rate: ____________ cfm50      or      Has the House been air sealed?: Yes / No

**Roof**

Roof Construction: Standard Roof / with Radiant Barrier / with Expanded Polystyrene Sheathing (EPS)
Exterior Finish: Composition Shingles / Wood Shake / Clay Tile / Concrete Tile / Tar & Gravel
Insulation Level (on roof): R-0 / R-11 / R-13 / R-15 / R-19 / R-27
Roof Absorptance (number between 0.0 - 1.0): ________

**Attic**

Attic or Ceiling Type: Unconditioned Attic / Conditioned Attic / Cathedral Ceiling
Attic Floor Insulation: R0 / R-11 / R-13 / R-15 / R-19 / R-21 / R-30 / R-38 / R-49 / R-60

**Foundation**

Type: Slab-on-Grade / Unconditioned Basement / Conditioned Basement / Vented Crawlspace / Unvented Crawlspace
Foundation Insulation: None / R-5 (slab only) / R-11 (bsmt/crawl wall) / R-19 (bsmt/crawl wall)
Insulation over Basement or Crawlspace: R0 / R-11 / R-13 / R-15 / R-19 / R-21 / R-30 / R-38
Home Energy Score

**Skylights: Yes or No (circle one):**
Total Skylight Area (sq. ft.): ____________ Number of Panes: ____________
Frame Type: Aluminum / Aluminum with Thermal Break / Wood or Vinyl
Glazing Type: Clear / Tinted / Solar Control low-E / Solar Control low-E, argon gas fill / Insulating low-E / Insulating low-E, argon gas fill

**Wall Characteristics: Front or All (circle one)**
Construction: Wood Frame / Wood Frame with Insulated Headers / Wood Frame with Expanded Polystyrene Sheathing (EPS) / Wood Frame with Insulated Headers and EPS / Wood Frame with EPS and Optimum Value Engineering / Wood Frame with Optimum Value Engineering / Structural Brick / Concrete Block / Straw Bale
Exterior Finish: Wood Siding / Stucco / Vinyl Siding / Aluminum Siding / Brick Veneer
Wall Insulation: R-0 / R-3 / R-7 / R-11 / R-13 / R-15 / R-19 / R-21

**Window Area (sq. ft.):**
Front: ____________ Right Side: ____________ Back: ____________ Left Side: ____________

**Window Characteristics: Front or All (circle one)**
Number of Panes: ____________ Frame Type: Aluminum / Aluminum with Thermal Break / Wood or Vinyl
Glazing Type: Clear / Tinted / Solar Control low-E / Solar Control low-E, argon gas fill / Insulating low-E / Insulating low-E, argon gas fill
Alternative Values: U-Factor (between 0.01-5): ____________ SHGC (between 0-1): ____________
Home Energy Score

HOME ENERGY SCORE

Address: 555 Park Lane
Pittsburgh, PA 99999

Total Energy:
190 MBTUs / year

Home Size:
1,500 square feet

Air Conditioning:
Yes

Climate Zone:

Current Score: 6

Uses More Energy:
1 2 3 4 5 6 7 8 9 10

Uses Less Energy:

Score with Upgrades: 8

Estimated Annual Savings: $520

Top 20% of similarly sized homes score here or better

Energy use reported in Million British Thermal Units (MBTUs). Estimated savings reflect the amount a homeowner will save on their annual utility bill if all recommended improvements are made. Both energy use and savings estimates assume that 2 adults and 1 child live in the home. Your actual energy use and savings will depend on how you maintain your home, how many people live there, your day-to-day habits and weather. To learn more about how to save energy and money in your home, as well as more about the home energy score, visit: homeenergyscore.gov

Assessor # 85317  Assessment Date: 11/05/2010  Label # 0000063465
# Home Energy Score

## Home Upgrade Recommendations

**Address:** 555 Park Lane | Pittsburgh, PA 99999

**Improvements recommended now**

These upgrades can help you save energy right away.

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Estimated Utility Bill Savings ($/year)</th>
<th>Simple Payback Period (years)</th>
<th>Greenhouse Gas Reductions (lbs CO₂/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement: Add insulation to walls to R-11.</td>
<td>$230</td>
<td>2</td>
<td>1,680</td>
</tr>
<tr>
<td>Air tightness: Have a professional seal the gaps and cracks that leak air into your home.</td>
<td>$130</td>
<td>6</td>
<td>970</td>
</tr>
<tr>
<td>Attic: Increase attic floor insulation to R-38.</td>
<td>$120</td>
<td>6</td>
<td>890</td>
</tr>
</tbody>
</table>

**Recommendations for when you need to replace equipment**

These recommendations will help you save energy when it's time to replace or upgrade.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Estimated Utility Bill Savings ($/year)</th>
<th>Simple Payback Period (years)</th>
<th>Greenhouse Gas Reductions (lbs CO₂/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnace: Pick one with an ENERGY STAR label.</td>
<td>$160</td>
<td>3</td>
<td>1,150</td>
</tr>
</tbody>
</table>

It is important to consult a certified energy professional to ensure improvements are made properly and take into account health, comfort, and safety. Proper installation, including details such as complete coverage of rigid insulation and taping the seams, is critical to achieving energy savings. As with any major purchase, you should seek more than one cost estimate before making a buying decision.

How are savings calculated?

These estimates are based on standard energy use patterns of 2 adults and 1 child. Actual energy bills and projected savings will vary according to the number and type of appliances, the number of occupants and their behavior, and weather.

**What does payback period mean?**

For improvements recommended now, simple payback reflects the number of years it will take to cover your upfront costs. For recommendations concerning future equipment replacement, payback time is the number of years it will take for your savings to add up to your upfront cost if you buy an Energy Star, or high-efficiency unit, instead of a lower-efficiency one. Payback periods will vary depending upon local energy costs and the costs of improvements in your area. Only measures with paybacks of 10 years or less are included. If you take into account the opportunity cost of money, the payback time is longer.

**What do lbs of CO₂ mean in my everyday life?**

On average, a car generates about 11,000 lbs of CO₂ each year.
Energy Performance Score
Energy Performance Score

Energy Consumption:
- Measured in million BTU per year (MBTU/yr).
- A replacement for traditional EER.

Carbon Emissions:
- Measured in tons of carbon dioxide per year (Tons CO2/yr).
- New home: 0.2 Tons CO2/yr, This home built to code: 0.3 Tons CO2/yr, This home with energy from renewable sources: 0.17 Tons CO2/yr.

Energy Use:
- Annual Use: 27,900 kWh/yr
- After Upgrades: 22,300 kWh/yr
- Comparisons: 23,700 kWh/yr

Carbon Emissions:
- Annual Emissions: 20,100 lbs/yr
- After Upgrades: 16,900 lbs/yr
- Comparisons: 20,200 lbs/yr

Address: 1234 Elm St, Portland, OR 97212
Reference Number: 41000000
- Energy Use: 27,900 kWh/yr, $1,640
- Electric: 8,900 kWh/yr, $730
- Natural Gas: 850 therms/yr, $910
- Energy Use: 20,100 lbs/yr, $1,250
- Electric: 12,500 lbs/yr, $1,250
- Natural Gas: 7,600 lbs/yr, $1,250

For more information visit www.enerギratingeps.com.
Energy Performance Score

Energy Performance Score (EAS) Summary
The Energy Analysis and Upgrade report provides detailed explanations of the auditor's recommended upgrades and analyzes their impact on energy and cost reduction.

View Full EAS Report

<table>
<thead>
<tr>
<th></th>
<th>Current Home</th>
<th>After Upgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy (kWh)</td>
<td>Fuel Cost ($)</td>
</tr>
<tr>
<td>Heating</td>
<td>25,200</td>
<td>$1,296</td>
</tr>
<tr>
<td>Cooling</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Water Heating</td>
<td>2,500</td>
<td>$175</td>
</tr>
<tr>
<td>Lighting &amp; Appliances</td>
<td>5,300</td>
<td>$370</td>
</tr>
<tr>
<td>Total</td>
<td>37,000</td>
<td>$1,841</td>
</tr>
</tbody>
</table>

Next Step: Upgrade Your Home!
Now that you have the results of your home energy audit, the next step is to implement the recommendations.
Energy Performance Score

View Proposal

Casey Bradley at Earth Advantage Institute
16280 SW Upper Bayside Rd, Portland, OR 97224
Phone: 9999999999
Fax: 9999999999
Email: cmberry@earthadvantage.org

Profile submitted on 12/09/2010
Save For Later  Not Interested

Profile Summary

Notes to Homeowner
While I am providing an educated estimate of the costs associated with the work that your home requires, it will require an onsite estimate to provide you with an accurate bid. Most preliminary estimates that I proved are within $500 of final cost.

Response to Upgrades

Air Sealing
Based on the audit, noise I believe that with some targeted air sealing you can reduce your air leakage by $5000 to $10,000. This would put your home to a tightness level that is near that of Energy Star New Homes. We will seal the crawl from the home, weatherstrip doors and attic hatch, build boxes to air seal recessed lights, and foam any obvious and accessible voids and plumbing penetrations.
Cost: $1500

Wall Insulation
We could dense pack your walls with cellulose, providing you with an R15 insulation level. Provided there are no out of the ordinary buildings practices or architectural features this could be done for $3500. Energy Trust Rebates would apply.

Heating System Upgrade
Not Applicable

Duct Sealing
Not Applicable

Overall: ⭐⭐⭐⭐⭐
Service: ⭐⭐⭐⭐⭐
Value: ⭐⭐⭐⭐⭐
(1 review)
Energy Performance Score

Contractor Estimates

Estimate listings are based on your EPS audit performed by a certified EPS auditor. Please note, all estimates subject to change based on the final scope of work you agree to with a chosen contractor.
Energy Performance Score

Find a Project

Search Projects

Keywords:  Project Created:  All dates:

Sort list by:  Go

1 to 8 of 8

530001528 in Portland, OR 97230
Project Created: 12/09/2010
I would like to have air sealing performed on my home. I would also like to get quotes for blown in wall insulation.
Upgrades: Air Sealing, Wall Insulation, Heating System Upgrade, Duct Sealing
View Details  Submit a Proposal

530001879 in Portland, OR 97220
Project Created: 11/20/2010
Dear contractors,
Please bid on the insulation, ductwork and air sealing pieces of work described for my house. I will not be replacing the furnace and water heater at this time.

Sean
Upgrades: Air Sealing, Attic/Ceiling Insulation, Wall Insulation, Fibers, Heating System Upgrade, Duct Sealing, Water Heater Upgrade
View Details  Submit a Proposal

530001874 in San Francisco, CA 94117
Project Created: 11/29/2010
I'm looking for someone who will help me upgrade my home.
Upgrades: Air Sealing, Wall Insulation, Heating System Upgrade, Duct Sealing, Duct Insulation (in unconditioned space)
View Details  Submit a Proposal

530001116 in Austin, TX 78705
Project Created: 11/10/2010
Please bid on my job
Upgrades: Air Sealing, Attic/Ceiling Insulation, Wall Insulation, Fibers, Windows, Heating System Upgrade, Duct Sealing, Duct Insulation (in unconditioned space), Water Heater Upgrade, Appliances
View Details  Submit a Proposal
REM/Rate
## REM/Rate

### Above-Grade Wall Properties Summary

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Type</th>
<th>Gross Ar.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AGWALL/FRONT</td>
<td>R-11/AVG/CHAR/****</td>
<td>821.1</td>
</tr>
<tr>
<td>2</td>
<td>AGWALL/REAR</td>
<td>R-11/AVG/CHAR/****</td>
<td>221.0</td>
</tr>
<tr>
<td>3</td>
<td>AGWALL/LEFT</td>
<td>R-11/AVG/CHAR/****</td>
<td>680.0</td>
</tr>
<tr>
<td>4</td>
<td>AGWALL/RIGHT</td>
<td>R-11/AVG/CHAR/****</td>
<td>680.0</td>
</tr>
<tr>
<td>5</td>
<td>BSMT/STAIRS</td>
<td>R-13/CHAR/****</td>
<td>233.0</td>
</tr>
</tbody>
</table>

### Above-Grade Wall Properties

- **Name:** AGWALL/FRONT
- **Type:** R-11/AVG/CHAR/****
- **Gross Area (sq ft):** 821.0
- **Location:** Between conditioned space and ambient

### Analysis

- **Updated:** 09/18/2011
- **Design Loads (BBlu/hr):**
  - Heating: 13.7
  - Cooling: 8.4
- **Annual Loads (MMBtu):**
  - Heating: 19.5
  - Cooling: 8.9
  - Water Heat: 10.2
- **Annual Consumption:**
  - Heating: 48
  - Cooling: 1.7
  - Water Heat: 336
  - Lights and Vent: 479
- **Annual Energy Costs:**
  - Heating: 153
  - Cooling: 55
  - Water Heat: 60
  - Service Ch.: 60
**Home Energy Rating Certificate**

Lot 24 Thom Dush Road  
Hinesburg, VT 05461

![5 Stars Plus](image)

**General Information**
- **Conditioned Area:** 2146 sq. ft.  
- **House Type:** Single family detached  
- **Bedrooms:** 3  
- **Conditioned Volume:** 16479 cubic ft.
- **Foundation:** Unconditioned basement

**Mechanical Systems**
- **Heating:** Propane, 85.0 A.F.U.E.
- **Water Heating:** Integrated, Propane, 0.65 CF, 85.0 Gal.
- **Duct Leakage to Outside:** NA
- **Ventilation System:** Exhaust Only; 160 cfm, 54.6 watts.
- **Programmable Thermostats:** Heating: Yes; Cooling: No

**Building Shell Features**
- **Insulation R-Value:** R-37  
- **Exposed Roof:** R-39, R-41  
- **Exterior Ceiling:** NA  
- **Aperture Area:** 0.00  
- **Foundation Walls:** R-10.0  
- **Slab:** None  
- **Method:** Blower door test

**Lights and Appliance Features**
- **Percent Fluorescent Pre-Based:** 20.00  
- **Clothes Dryer Fuel:** Electric  
- **Percent Fluorescent CFL:** 0.00  
- **Range/Oven Fuel:** Propane  
- **Refrigerator (kW/hr):** 460.00  
- **Dishwasher Energy Factor:** 0.66

**Estimated Annual Energy Cost**

<table>
<thead>
<tr>
<th>Use</th>
<th>Use</th>
<th>Cost</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating</td>
<td>71.7</td>
<td>$2576</td>
<td>67%</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Hot Water</td>
<td>0.9</td>
<td>$135</td>
<td>4%</td>
</tr>
<tr>
<td>Lights/Appliances</td>
<td>0.6</td>
<td>$66</td>
<td>3%</td>
</tr>
<tr>
<td>Protractables</td>
<td>-0.6</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Service Charges</td>
<td>$119</td>
<td></td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$2589</td>
<td>100%</td>
</tr>
</tbody>
</table>

This home meets or exceeds the minimum criteria for all of the following:
- Vermont Energy Star Homes Criteria
- Vermont Residential Energy Code

*Compliance with criteria for this program is determined by the builder.*

**Rating Number:** 60934085  
**Export Build Run No:** 19729  
**Certified Energy Rating:** 5.0  
**Rating Date:** December 13, 2008  
**Rated By:** Colleen Nadeau

**Vermont Energy Investment Corp.**  
230 South Cherry St  
Burlington, VT 05401  
802-658-6099  
Fax: 802-658-1451  
www.veic.org

*The Home Energy Rating Standard Disclosure for the purposes described in the rating program.  
REM/Rate - Residential Energy Analysis and Rating Software v2.6 Vermont  
This information does not constitute any warranty of energy cost or savings.  
REM/Rate

HERS® Index

- Existing "Typical" Home
- EPA ENERGY STAR New Home
- Net Zero Energy Home (ZEH)

This Home: 70
Commercial & Public Buildings
Rating Options

- EPA’s Portfolio Manager
  - Most widely used, including all other cites with disclosure
  - DOE is now supporting and developing resources
- IMT provided several other recommendations:
  - ASHRAE Building EQ
  - ASTM Building Energy Performance Assessment (BEPA) standard
- Subgroup didn’t have time to evaluate these tools but could consider if the full group wants us to
Portfolio Manager Overview

Portfolio Manager is an interactive energy management tool that allows you to track and assess energy and water consumption across your entire portfolio of buildings in a secure online environment. Whether you own, manage, or hold properties for investment, Portfolio Manager can help you set investment priorities, identify under-performing buildings, verify efficiency improvements, and receive EPA recognition for superior energy performance.

How can Portfolio Manager help me?

- Manage Energy and Water Consumption for all Buildings
- Rate Building Energy Performance
- Estimate Your Carbon Footprint
- Set Investment Priorities
- Verify and Track Progress of Improvement Projects
- Gain EPA Recognition
Portfolio Manager

- Commercial buildings eligible to receive a rating, representing over 50 percent of US commercial floor space, are:
  - Bank/Financial Institution
  - Courthouse
  - Data Center
  - Hospital (acute care and children’s)
  - Hotel
  - House of Worship
  - K–12 School
  - Medical Office
  - Municipal Wastewater Treatment Plant
  - Office
  - Residence Hall/Dormitory
  - Retail Store
  - Senior Care Facility
  - Supermarket
  - Warehouse (refrigerated and non-refrigerated)
## Residence Hall/Dormitory:

**Required:**
- _______ Gross floor area (SF)
- _______ # of rooms
- _______ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)
- _______ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)

**Optional:**
- _______ Computer lab on-site – yes or no
- _______ Dining Hall on-site – yes or no

## Senior Care Facility:

**Required:**
- _______ Gross floor area (SF)
- _______ # of units
- _______ Average Number of Residents
- _______ Total Resident Capacity
- _______ # of workers on the main shift
- _______ # of PCs owned by the community (does not include PCs owned by residents)
- _______ # of commercial refrigeration/freezer units
- _______ # of commercial washing machines
- _______ # of residential washing machines
- _______ # of residential electronic lift systems
- _______ Percent of floor area that is cooled in 10% increments (10%, 20%, 30%, etc.)
- _______ Percent of floor area that is heated in 10% increments (10%, 20%, 30%, etc.)
Recommendations & Outstanding Issues
Preliminary Tool Recommendations

- Residential
  - EnergySavvy
  - EnergyMeasure
  - Energy Performance Score
- Commercial
  - Portfolio Manager
Outstanding Issues

- Additional tool research and selection
  - Residential
  - Commercial

- Score format
  - Absolute vs. normalized
  - 1-10 vs. A-F
  - The choice of tool/rating does not (in most cases) lock us into a particular score format

- Residential/commercial threshold
  - Ex.: doctors’ office that used to be a house

- Who can perform and issue ratings?
Working Group Discussion
Feedback

- Are we on track?
- Core principles: ok?
- Tools: Are we headed in the right direction?
- New subcommittee members?
- Next steps
Core Principles

1. Reasonable cost to end user ($0-300)
2. Rating can be presented as a single number or letter to allow market comparisons
3. Accurate
   a) Repeatable, predictable results
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10. Ability to customize and maintain for VT
Preliminary Tool Recommendations

- Residential
  - EnergySavvy
  - EnergyMeasure
  - Energy Performance Score

- Commercial
  - Portfolio Manager