

# Earth Advantage® New Homes Standard - Points Worksheet 2012 Site Built Residential – Oregon

Energy | Health | Land | Materials | Water

The Earth Advantage® program consists of individual measures that have been evaluated by using the five categories of the Earth Advantage program: Energy, Health, Land, Materials, and Water. This evaluation leads to measure scores in each of the five categories.

For a house to be certified under the Earth Advantage New Homes criteria, each house must achieve a minimum number of points in each category: Energy (15), Health (10), Land (10), Materials (15), Water (10) for a total of 60 points. In addition, there are a number of Prerequisites that must be met. Prerequisites are clearly indicated in the online Points Worksheet and can be downloaded from the website.

To complete the worksheet, select measures to install or implement in your project. The total number of points is automatically shown at the top of the page. To submit your project for certification, first complete the online Points Worksheet and upload your plans in PDF or CAD format. Printed plans may be delivered to the EAI office nearest you. In addition to the completed worksheet, each house must have appropriate documentation (when applicable), pass required performance tests (blower door and duct blast tests if appropriate) pass insulation inspection and a final inspection by Earth Advantage Field Technicians.

Most points in the Energy category are assigned by conducting an energy analysis of plans, called an energy model. Individual measures will show zero energy points on the Points Worksheet. After energy modeling has been completed by the EAI staff, points will appear under Measure 1.3.1. More information about modeling and energy points appears in the help text online and in the downloadable Measures Guide.

Also to be noted: measures marked with an Accountability Form name or icon require that an Accountability Form be signed and completed by the responsible party, and submitted upon final home review.

The online Points Worksheet can be saved at any point so you can stop working on it and come back later. Once you have completed the worksheet, click the Submit for Approval button.

Any questions can be directed to the New Homes Program staff.

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1 Planning and Design

1.1 Land Use		Acct. Form	Energy	Health	Land	Materials	Water
1.1.1	Infill Lot- Build home(s) on open lot in existing neighborhood		0	0	2	0	0
1.1.2	Lot Size (4300 sf / 2900 sf / 2000 sf)		0	0	1/2/3	1	0
1.1.3	Build on Greyfield or Brownfield (Greyfield / Brownfield)	General	0	0	1/3	0	0
1.2 Site Planning		Acct. Form	Energy	Health	Land	Materials	Water
1.2.1	Access to Public Transit- within 1/2 mile	General	0	1	2	0	0
1.2.2	Access to Community Amenities- Minimum 6 within 1/2 mile	General	0	1	2	0	0
1.2.3	Develop and Implement Erosion Control Site Plan	Erosion Control		Prerequisite			
1.2.4	Existing Trees of 4" Caliper or Larger Saved	General	0	0	1	0	1
1.2.5	Stormwater Control: Bio-retention system onsite- 100 percent of lot/development	General	0	0	2	0	1
1.2.6	Onsite Infiltration System: For roof drains		0	0	2	0	1
1.2.7	Compostable Erosion Control Amendment: 2- inch minimum, spread over all exposed soil at the beginning of the construction cycle	General	0	0	2	0	1
1.2.8	Preserve Natural Features	General	0	0	1	0	1
1.2.9	Protect Non-Grading Areas	General	0	0	2	0	1
1.2.10	Pervious Surface (25%-50% / >51%)	General	0	0	0	0	1/2
1.3 Building Design		Acct. Form	Energy	Health	Land	Materials	Water
1.3.1	Energy Modeling: Use EPS energy scoring system				Calculated		
1.3.2	House Size				Calculated		
1.3.3	Accessory Dwelling Unit (attached or detached)		0	0	3	2	0
1.3.4	House has detached or no garage		0	2	0	0	0
1.3.5	Green Team Meeting		0	1	1	1	0
1.3.6	Moisture Modeling: WUFI Condensation Point Analysis		0	0	0	1	0

## 2 Waste Management

2.1 Waste Management		Acct. Form	Energy	Health	Land	Materials	Water
2.1.1	Develop and implement waste reduction plan	General	0	0	1	2	0
2.1.2	Recycle 95% of clean wood and cardboard	General	Prerequisite				
2.1.3	Recycle drywall	General	0	0	1	0	0
2.1.4	Donating construction materials		0	0	1	1	0
2.1.5	On-site recycling and reuse	General	0	0	1	0	0
2.1.6	Concrete clean out pit		0	0	2	0	0

### 3 Building Envelope

3.1 Durability Strategies			Acct. Form	Energy	Health	Land	Materials	Water
3.1.1	Integrated Weather Barrier, Window & Door Flashing System: Installed Properly	General			Prerequisite			
3.1.2	Rainscreen Wall System: 3/8" airspace under masonry cladding	General			Prerequisite			
3.1.3	Rainscreen Wall System: 3/8" airspace under siding (whole house)	General	0	0	0	2	0	
3.1.4	Low-point Drain: Crawl space or basement				Prerequisite			
3.1.5	Third-Party Framing Lumber Moisture Test: 19% or lower				Prerequisite			
3.2 Foundation Systems			Acct. Form	Energy	Health	Land	Materials	Water
3.2.1	Basement Wall Insulation: R19 minimum fiberglass only/Rigid foam (w/fiberglass acceptable) (fiberglass insulation / rigid insulation)		0	0/1	0	0/1	0	
3.2.2	Slab in Unconditioned Space Insulated for Future Use	General	0	0	0	1	0	
3.2.3	Slab Insulation: R10 concrete slab fully insulated (R15 if radiant heat)	General	Calc	0	0	0	0	
3.2.4	Slab on Grade		0	1	0	0	0	
3.2.5	Unvented Conditioned Crawlspace: Insulated walls with rat slab		0	2	0	0	0	
3.3 Floor Framing and Insulation			Acct. Form	Energy	Health	Land	Materials	Water
3.3.1	Floor Insulation: R 38 Suggested (Fiberglass batt / Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify))				Prerequisite			
3.3.2	I-joists framing over crawlspace (Fiberglass batt / Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify))		0	0	0	1	0	
3.3.3	Open-web floor trusses - blown-in insulation (Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify))		0	0	0	2	0	

3.4 Wall Framing and Insulation		Acct. Form	Energy	Health	Land	Materials	Water
3.4.1	Intermediate Framing			Prerequisite			
3.4.2	Advanced Framing Techniques		0	0	0	1	0
3.4.3	Engineered Wood Studs		0	0	0	1	0
3.4.4	Insulating Concrete Forms (ICFs): Foam/Recycled		0	1	0	0	0
3.4.5	Wall cavity Insulation suggested R-23 blown-in (Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify))			Prerequisite			
3.4.6	Exterior Rigid Insulation		0	0	0	1	0
3.4.7	Structural Insulated Panels (SIPS): Expanded Polystyrene - Walls Only/ Walls & Roof		0	1	0	0	0
3.4.8	Panelized Wall Systems		0	0	0	1	0

3.5 Roof Framing and Insulation		Acct. Form	Energy	Health	Land	Materials	Water
3.5.1	Flat Ceiling Insulation: R49 Minimum (Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify) / Fiberglass batts)			Prerequisite			
3.5.2	Vaulted Ceiling Insulation: R 38 Suggested			Prerequisite			
3.5.3	Scissor Truss Sloped Ceiling: R 38 Minimum (Blown-in fiberglass / Blown-in cellulose / Low-density SPF / High-density SPF / Other (please specify) / Fiberglass batts)			Prerequisite			
3.5.4	Energy or Raised Heel Truss:			Prerequisite			
3.5.5	Extended Eaves: Minimum extension - 24" from vertical		0	0	0	1	0

3.6 Roofing Material		Acct. Form	Energy	Health	Land	Materials	Water
3.6.1	Eco-Roof: Vegetated/green roof (minimum 25% of roof area)		0	0	1	0	1
3.6.2	Durable Roof	General	0	0	1	1	0
3.6.3	Recycled Content: Metal or composition (50% recycled content)	General	0	0	0	1	0

3.7 Exterior		Acct. Form	Energy	Health	Land	Materials	Water
3.7.1	Fiber Cement Siding: (50-100%)		0	0	0	1	0
3.7.2	Durable Exterior Trim	General	0	0	0	1	0
3.7.3	Durable Exterior Surface not Painted: Masonry or other durable surface (25-50%/51-100%) (20-50% / 51-100%)		0	0	0	1/2	0
3.7.4	Outdoor Decking: Recycled plastic lumber (50% post-consumer)	General	0	0	1	1	0
3.7.5	Outdoor Patio: Concrete or Pavers	General	0	0	0	1	0
3.7.6	Plywood sheathing for walls and roof		0	0	0	1	0

3.8 Exterior Coatings		Acct. Form	Energy	Health	Land	Materials	Water
3.8.1	Exterior Paint/Stain: Low VOC (150 gpl or lower)/Lifetime warranty (Standard / Lifetime)		0	1	0	0/1	0
3.8.2	Exterior Paint: Recycled content (50% post-consumer)		0	0	1	1	0

3.9 Windows, Skylights and Doors		Acct. Form	Energy	Health	Land	Materials	Water
3.9.1	Window Efficiency Suggested: U-0.30		0	0	0	0	0
3.9.2	Window framing Material: Composite or Wood with clad exterior		0	1	0	1	0
3.9.3	Skylight or tubular skylight (Traditional / Tubular)		0	1	0	0/1	0
3.9.4	Exterior Doors: Steel and /or Fiberglass: R-5		0	0	0	1	0

3.10 Other Shell Measures		Acct. Form	Energy	Health	Land	Materials	Water
3.10.1	Recycled Content Insulation: Cellulose, Cotton or Fiberglass (25% - 50% / 51% and greater Post-consumer) (20-50% / 51-100%)	General	0	0	0	1/2	0
3.10.2	Blown-in Vaulted Ceiling or Floor Insulation		0	0	0	1	0
3.10.3	Certified No Added Urea Formaldehyde Insulation (100%)		0	1	0	0	0
3.10.4	Concrete with Fly Ash or Slag (15% - 24% mix) (> 24%) (15-24% / 25-60%)	General	0	0	1/2	1/2	0

3.11 Air Sealing		Acct. Form	Energy	Health	Land	Materials	Water
3.11.1	Building Air Leakage (Blower Door Test 5.0 ACH50 or lower)			Prerequisite			
3.11.2	Thermal Enclosure Checklist			Prerequisite			
3.11.3	Insulated Ceiling is Free of Recessed Lights		0	0	0	1	0
3.12 Resource Efficient Materials		Acct. Form	Energy	Health	Land	Materials	Water
3.12.1	Local Materials: Within 500 miles - 1 point each - up to 4 items (1 material / 2 materials / 3 materials / 4 materials)	General	0	0	0	1/2/3/4	0
3.12.2	FSC Wood Guidance: Walls equal 50%, roof framing is 25% and floor framing is 25%.				Calculated		
3.12.3	Reclaimed Wood (see Materials table) Guidance: Walls equal 50%, roof framing is 25% and floor framing is 25%.				Calculated		
3.12.4	Cradle-to-Cradle Certification: Product receives minimum Silver certification (1 / 2 / 3 / 4)		0	0	1/2/3/4	1/2/3/4	0

## 4 Heating and Cooling

4.1 Fireplace		Acct. Form	Energy	Health	Land	Materials	Water
4.1.1	Gas Fireplace/Heater/Sealed Combustion, Direct Vent with electronic ignition			Prerequisite			
4.1.2	No Fireplace or Wood Burning Stove Installed in House		0	1	0	0	0
4.2 High Efficiency Equipment		Acct. Form	Energy	Health	Land	Materials	Water
4.2.1	Forced Air Gas: Minimum 92% AFUE furnace			Prerequisite			
4.2.2	Heat Pump: central system min. HSPF 8.5 (9.0 east of Cascades) with SEER 13+			Prerequisite			
4.2.3	Ductless Heat Pump System: Min. HSPF 8.5			Prerequisite			
4.2.4	Heat Pump: Ground Source or Water Source, Minimum 3.0 COP		0	0	0	0	0
4.2.5	Heat Pump Commissioning: Documentation Required			Prerequisite			
4.2.6	Integrated Space / Water Heating System: Turbonic/Hydronic equipment		0	0	0	1	0
4.2.7	Alternate Cooling System: No capacity to use refrigerants		0	0	0	1	0
4.2.8	Gas Furnace and A/C Commissioning		1	1	0	0	0
4.3 Ductwork		Acct. Form	Energy	Health	Land	Materials	Water
4.3.1	Duct Leakage Test: Max Leak < .06 CFM per sq. foot OR 75 CFM loss @ 50 Pa or whichever is greater, and all ducts sealed with water based mastic			Prerequisite			
4.3.2	No HVAC in Garage, Crawlspace or Attic		0	1	0	0	0
4.3.3	Ductwork and Air Handling Equipment in Heated Space		0	2	0	2	0
4.3.4	Air Balancing Forced Air System: Performance Test		0	2	0	0	0
4.3.5	Protect Duct Vents: Cover supply boots in floor during construction and install temporary filter on cold return			Prerequisite			
4.3.6	House Dry-out: No central heating or propane used	General	0	1	0	2	0
4.3.7	Hard Ducting: All ducting is metal		0	0	0	1	0
4.3.8	Forced Air Zoning System		1	0	0	0	0
4.3.9	Non-ducted System		0	3	0	3	0
4.3.10	Zonal Pressure Relief (ZPR) for ducted systems			Prerequisite			
4.3.11	Pre-fabricated Sealed Boot		0	1	0	0	0



4.4 Air Quality		Acct. Form	Energy	Health	Land	Materials	Water
4.4.1	Combustion Appliance Zone Safety (CAZ): Pressure test required for combustion within shell			Prerequisite			
4.4.2	Air Filter: minimum MERV 8		0	1	0	0	0
4.4.3	Humidity Control System: Permanently installed		0	1	0	1	0
4.4.4	Central Vacuum: Provide rough-in for future use		0	0	0	1	0
4.4.5	Central Vacuum: Install and vent to exterior of conditioned space		0	1	0	0	0

## 5 Ventilation

5.1 General Ventilation		Acct. Form	Energy	Health	Land	Materials	Water
5.1.1	Premium Package - HRV/ERV system		0	3	0	2	0
5.1.2	Supply Only - Forced air system		0	2	0	1	0
5.1.3	Balanced System - Exhaust and supply balanced w/o heat recovery.		0	2	0	1	0
5.1.4	Spot HRV/ERV		0	2	0	1	0
5.1.5	Exhaust Only		0	1	0	1	0
5.1.6	Ventilation Make-up Air - Meets ASHRAE 62.2		0	1	0	0	0
5.1.7	Energy Star Ceiling Fans	General	1	0	0	0	0

5.2 Spot Ventilation		Acct. Form	Energy	Health	Land	Materials	Water
5.2.1	Bath Fans: ENERGY STAR labeled			Prerequisite			
5.2.2	Bath Fan Air Flow Test: Meet ASHRAE 62.2		0	1	0	1	0
5.2.3	Kitchen Exhaust Performance Test: Meet ASHRAE 62.2		0	1	0	0	0
5.2.4	Exhaust Fan for Attached Garage		0	1	0	0	0

## 6 Lighting, Appliances and Water Heating

6.1 Lighting		Acct. Form	Energy	Health	Land	Materials	Water
6.1.1	Efficient Lighting Package: 80 percent of fixtures are fitted with ENERGY STAR products			Prerequisite			
6.1.2	Lighting Controls: Interior and/or exterior. minimum two lighting zones		1	0	0	0	0
6.2 Appliances		Acct. Form	Energy	Health	Land	Materials	Water
6.2.1	Dishwasher: ENERGY STAR specs			Prerequisite			
6.2.2	Clothes Washer: ENERGY STAR specs		1	0	0	0	1
6.2.3	Refrigerator: ENERGY STAR specs		1	0	0	0	0
6.3 Water Heating		Acct. Form	Energy	Health	Land	Materials	Water
6.3.1	Gas High Efficiency: Minimum .61 EF			Prerequisite			
6.3.2	Electric High Efficiency: 70 gal. or less - .93 EF, 71 gal. or larger - .92 EF			Prerequisite			
6.3.3	Tankless Gas: 0.82 EF or greater		0	0	0	1	0
6.3.4	Heat Pump Water Heaters: minimum COP 2.0		0	0	0	0	0
6.3.5	No supply or waste pipes in exterior walls.		0	0	0	1	0
6.3.6	Direct or Power Vented Water Heater: If in conditioned space			Prerequisite			

## 7 Interior Materials

7.1 Interior Surface Coatings			Acct. Form	Energy	Health	Land	Materials	Water	
7.1.1	Wall and Ceiling Latex Paint: Low-VOC (< 150) grams per liter				Prerequisite				
7.1.2	Wall and Ceiling Latex Paint: Low-VOC (< 50) grams per liter (0 grams per liter / < 50 grams per liter)			0	2/1	0	0	0	
7.1.3	Paint meets recognized environmental standard: Additional points to measure 7.1.2			0	0	1	0	0	
7.1.4	Interior Wall and Ceiling Surface: Requires No Paint			0	1	1	1	0	
7.1.5	Trim Paint: Low VOC (150 grams per liter or less)			0	1	0	0	0	
7.1.6	Clear Wood Finish: Low VOC (150 grams per liter or less)	General		0	1	0	0	0	
7.1.7	Recycled Content Paint: (min 50% post-consumer)	General		0	0	1	1	0	
7.2 Cabinets and Countertops			Acct. Form	Energy	Health	Land	Materials	Water	
7.2.1	Exterior Plywood: Base cabinet (Kitchen OR Bath Vanities / Kitchen AND Bath Vanities)	General		0	0	0	1/2	0	
7.2.2	No added Urea-Formaldehyde (25-50% / 51-75% / 76-100%)	General		0	1/2/3	0	0	0	
7.2.3	Recycled Content Countertop: 25% Post-consumer content	General		0	0	0	1	0	
7.2.4	Built-in Recycling Center: Minimum 2 major receptacles			0	0	1	0	0	
7.3 Millwork and Interior Trim			Acct. Form	Energy	Health	Land	Materials	Water	
7.3.1	No added Urea-Formaldehyde Trim Material	General		0	1	0	0	0	
7.4 Flooring			Acct. Form	Energy	Health	Land	Materials	Water	
7.4.1	Hard Surface: Finished floor (25-50% / 51-75% / 76-100%)			0	1/2/3	0	1/2/3	0	
7.4.2	Finished Structural Floor			0	0	0	1	0	
7.4.3	Carpet: Post-consumer recycled content (20-50% / 51-100%)	General		0	0	1/2	1/2	0	
7.4.4	Carpet and Pad: Carpet & Rug Institute (CRI) Green Label Plus	General		0	2	0	0	0	
7.4.5	Low urea-formaldehyde underlayment below flooring	General			Prerequisite				
7.4.6	Renewable Materials: Linoleum, Cork, Bamboo, or Wool (5-20% / 21-100%)			0	0	0	1/2	0	
7.4.7	Low VOC Construction Adhesives: VOC content 70 gpl or less	General		0	1	0	0	0	

## 8 Water Efficiency

8.1 Indoor Water Efficiency		Acct. Form	Energy	Health	Land	Materials	Water
8.1.1	Whole-House Pressure Regulating Valve		0	0	0	0	1
8.1.2	Efficient Showerheads: 2.0/1.75 gpm (2.0 gpm / 1.75 gpm)		1	0	0	0	1/2
8.1.3	Efficient Lavatory Faucets: 1.5 gpm or less or Water Sense label		1	0	0	0	1
8.1.4	Efficient Kitchen Faucets: 1.5 gpm or less or Water Sense label		1	0	0	0	1
8.1.5	Refrigerator: Through the door water and ice unit		0	0	0	0	1
8.1.6	High-Efficient Toilets: WaterSense qualified toilet, 1.28 gpf (WaterSense)		0	0	0	0	3
8.1.7	Whole-House On-Demand Hot Water Delivery System		1	0	0	0	3
8.1.8	Short Hot Water Piping Runs: 20 feet one story - 10 feet for each additional floor		1	0	0	1	2
8.1.9	Home Run Plumbing Distribution System: Plumbing manifold and PEX piping		1	0	0	0	1
8.1.10	Rainwater Collection: For non-potable indoor water use	Landscape	0	0	1	0	4
8.2 Irrigation		Acct. Form	Energy	Health	Land	Materials	Water
8.2.1	Low-Volume Irrigation System	Landscape	0	0	0	0	2
8.2.2	Hydro Zoning: Grouping of plants and lawn for watering	Landscape	0	0	0	0	1
8.2.3	Weather Based Irrigation Controller	Landscape	0	0	0	0	3
8.2.4	No Permanent Irrigation Installed: All landscaping	Landscape	0	0	0	1	6
8.3 Landscaping		Acct. Form	Energy	Health	Land	Materials	Water
8.3.1	Low Water-Use Plants: Drought tolerant or Climate Appropriate	Landscape	0	0	0	0	1
8.3.2	Limited Lawn/Turf: 25%-1% / 0% of landscape covered by turf (0% / 1-25%)		0	0	0	0	2/1
8.3.3	Organic Matter: Added to soil - 2" tilled to 6-8" depth	Landscape	0	0	1	0	3
8.3.4	Test Soil: Implement Recommendations	Landscape	0	0	1	0	1
8.3.5	One Tree per 1000 sq. ft. of Developed Landscape Area		0	0	2	0	0
8.3.6	Install On-Site Storage for Rainwater: Used for landscaping	Landscape	0	0	1	0	1
8.3.7	Design the Landscape with WaterSense Water Budget Tool	Landscape	0	0	0	0	2
8.3.8	4:1 Slopes shall be vegetated		0	0	1	0	1
8.3.9	No irrigation over-spray on to house			Prerequisite			

## 9 Solar Measures

9.1 Solar Energy		Acct. Form	Energy	Health	Land	Materials	Water
9.1.1	Sun Tempered Design: South windows equate to at least 7 percent of floor area		0	1	0	0	0
9.1.2	Passive Solar Design: South windows equate to at least 10 percent of floor area		0	1	0	0	0
9.1.3	Photovoltaic (solar electric system)	General	0	0	0	0	0
9.1.4	Photovoltaic: Planning for future hookup		0	0	0	1	0
9.1.5	Solar Water Heater System		0	0	0	0	0
9.1.6	Solar Water Heater: Pre-plumbed piping for future hookup	General	0	0	0	2	0

## 10 Innovations

10.1 Innovations		Acct. Form	Energy	Health	Land	Materials	Water
10.1.1	EA Certified Professional: SHP or STAR		0	1	1	1	1
10.1.2	Green Power: Builder utilizes local utility green power options for own office operations (<50% / 51-100%)	General	0	0	1	0	0
10.1.3	Alternative Construction System: Points determined by analysis	General	0	0	0	0	0
10.1.4	Innovative Heating / Cooling System: Points by analysis				Calculated		
10.1.5	Innovative Measure: Propose a new measure				Calculated		
10.1.6	Innovative Measure: Propose a new measure				Calculated		
10.1.7	WaterSense Certification		2	0	0	0	10
10.1.8	EPA Indoor airPLUS	General	0	1	0	0	0