

# Annual Report

## Earth Advantage

# 2014

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Portland, OR 97205



**earth**  
advantage.



Image courtesy Hammer & Hand  
Karuna House

# Introduction

## 2014: A Year in Transition

The year 2014 was a year of transition for Earth Advantage. Streamlining an organization's focus and planting the seeds for new growth always takes time. The challenges are not just structural but often financial as well, and 2014 reflects that. Despite those challenges, we weathered the storm well and 2015 is poised to strengthen our capabilities as an organization due to our dedicated staff and the strategic planning efforts that took place in 2013.

In 2005 the thought of discussing building concepts like Passive House and Zero Energy homes was considered fringe thinking. Only a handful of real estate professionals had even heard of green building and there was no standard for energy labeling anywhere in the country. It is a testament to our work and our collaborators that most of the projects we now certify average 27% greater efficiency over a code built home. As a provider of LEED® for Homes we saw the beginnings of a market in multifamily development using the standard as urban density increases across the country. Our work with Passive House Northwest is producing greater PHIUS standard adoption than anywhere in the country and we continue to verify more Passive Houses each year. No longer seen as idealistic dreams, the Passive House standard and Zero Energy homes are beginning an upward trend that we expect to see increase over the next ten years as demand grows and builder adoption increases.

The energy efficiency market has changed considerably since 2005, demonstrating a shift toward industry consolidation and state-centered custom energy labeling solutions. Oregon passed state bill HB 2801 (2013) which provides rules for residential energy labeling that we hope will eventually be utilized on every home in the state. The United States Department of Energy (DOE) has created their own Home Energy Score along with centralized databases and platforms for reporting the energy efficiency of buildings across the country. Our CakeSystems™ software platform continues to gain traction in this realm, particularly with municipal and regional utility programs that require a nimble, off-the-shelf, affordable solution for their energy efficiency program needs.

In 2014 we renewed involvement with the Energy Trust of Oregon via their New Homes program and Manufactured Homes program, which will focus on education and labeling rather than program delivery in 2015. Earth Advantage will deliver a wide range of education training primarily focused on the real estate market in order to affect change in the way homes are bought and sold. Real estate brokers play a key roll at the point of sale in helping to educate consumers on the value of high performance and green homes. The more educated they become the greater the public understanding of the value of green homes. We also began working with a major lender, U.S. Bank, in order to provide a clear value pathway for homebuyers and homeowners to upgrade their homes. The relationship intends to foster the connection between homebuyer, real estate broker, appraiser and lender in the purchase of a green home.

Earth Advantage is poised to deliver knowledge to professionals and information to consumers across the state and the entire country over the next ten years as we see accelerated acceptance and implementation of high performance building standards. The warnings from climatologists are dire and the conversation around sustainability is reaching a fever pitch, and it is imperative that we all recognize that energy efficiency improvements in buildings are the most cost effective way to reach the greater goal of sustainability. The work this organization has done for the past ten years has positioned us well as a leader in providing certification, research, and training solutions to utilities, municipalities, and building industry professionals across the country. We are hopeful and excited about the future and look forward with dedication and enthusiasm in continuing our vital mission for the next ten years and beyond.

**Steven R. Schell**  
Board President



**David Heslam**  
Executive Director



"The Stone Age did not end because humans ran out of stones. It ended because it was time for a re-think about how we live."

WILLIAM MCDONOUGH



### Education

We provide information and training for professionals across the spectrum of the built environment from architects and builders to real estate brokers.



### Certifications

We provide a suite of green building certifications including our own residential and commercial certifications, as well as LEED® for Homes and Passive House.



### Research

We conduct specific, focused research in areas that reveal needs for market transformation such as home valuation, indoor air quality, high performance best practices, and residential energy labeling and benchmarking.



### CakeSystems™

Our energy efficiency SaaS (Software as a Service) tools help utilities and contractors to more effectively measure a home's energy use and implement energy efficiency programs.

# Why We Work

## Our Mission

### Our Mission

Earth Advantage is a Portland-based nonprofit whose mission is to accelerate the creation of better buildings. We provide knowledge to building professionals and information to consumers through certification, research, education, and product development to move the building industry towards more sustainable practices.

### Our Vision

A building industry that harmonizes the natural and built environment.

### Our Approach

At Earth Advantage we believe strongly in collaboration and meeting people where they are at in the green building spectrum. Sustainable building still suffers from misunderstandings and myths that linger despite years of advancements in the industry. We also understand that economic considerations often trump other motivations during the building process, so it is critical for us to provide a pathway toward accurate valuation of the green built environment. Our philosophy is pragmatic. We focus on key aspects of better buildings across a wide range of levels, from first-time efforts at creating a green building to the most sophisticated high performance buildings in the world. Our mantra is to not let the perfect be the enemy of the good.

**"Sustainability, ensuring the future of life on Earth, is an infinite game, the endless expression of generosity on behalf of all."**

Image courtesy InSitu Architecture

PAUL HAWKIN

"Even if producing CO<sub>2</sub> was good for the environment, given that we're going to run out of hydrocarbons, we need to find some sustainable means of operating."

ELON MUSK



Strategic Initiatives 2013 - 2016

Education Expansion

Grow our educational offerings and expand the territory outside of the Northwest.

Energy Labeling & Benchmarking

Serve as a national and regional consultant on the design and implementation of energy labeling and benchmarking.

Green Valuation

Help to define the way green buildings are valued and how that value is recognized through research and policy consulting.

Health Research (Indoor Air Quality)

Conduct research using our testing procedures in the field to bring awareness to the health benefits of high performance homes.

Zero Energy Leadership

Take a leadership role in advancing zero energy building as a strategy for meeting Oregon's climate goals.

2014 Year in Review  
Statistics

533

RESIDENTIAL

SINGLE FAMILY HOMES  
CERTIFIED GREEN

581

RESIDENTIAL

MULTIFAMILY UNITS  
CERTIFIED GREEN

1,338

RESIDENTIAL

LEED FOR HOMES UNITS  
CERTIFIED GREEN

77k

COMMERCIAL

EARTH ADVANTAGE  
COMMERCIAL SQUARE  
FEET CERTIFIED GREEN

494

EDUCATION

BUILDING INDUSTRY  
PROFESSIONALS TRAINED

110

EDUCATION

BUILDING INDUSTRY  
PROFESSIONALS  
ACCREDITED



# Indoor Air Quality

## Healthier Homes

Considering the increasingly air tight construction processes being used in high performance and green building, it is essential to provide advanced mechanical ventilation systems in order to maintain proper indoor air quality. Once these systems are installed in a home or building and correctly adjusted, the air inside a building is often cleaner than the air outside. These indoor air quality best practices provide a healthier living environment for the occupants, helping to reduce incidents of asthma and allergic reactions, which is especially important amongst children.

At Earth Advantage, our certifications department has developed and implemented more rigorous mechanical ventilation inspection testing than any other green building program in the U.S. In addition, we are working with contractors, builders, and regional energy efficiency programs to provide knowledge on the proper installation and use of these systems. The average American spends 90% of their lives indoors, and we believe indoor air quality in buildings is a critical part of our mission to create better buildings.

# Labeling Energy Efficiency

## Industry Benchmarks

Since Earth Advantage's involvement in the creation of the Energy Trust of Oregon's EPS® in 2008, we have assumed a leadership role in the development of energy labeling for single family homes. We currently collaborate with energy efficiency programs, the U.S. Department of Energy, Energy Trust of Oregon, and the Oregon Department of Energy on advancing energy labeling and benchmarking across the country.

We believe strongly in the need for a homeowner facing label that provides information on a home's energy usage and the associated costs, in order to provide a baseline comparison tool for people when purchasing or selling a home. Our work focuses on standards at both the national and the state level, and includes the design of energy labels and training of key professionals in the value and use of such labels. Our software product, CakeSystems, is designed to produce labels from each of the energy efficiency programs or the Better Buildings DOE national label, as well as our own proprietary energy label.

Energy labeling and benchmarking plays a key strategic role in advancing efforts to promote better homes in both new and existing construction.





## Zero Energy

The Future Home is Here

In 2013, the State of California put in effect the nation's most ambitious building codes with Title 24. In an effort to drastically reduce the energy usage of buildings as a result of the impact of climate change, the new rules mandate that all new residential construction in CA be built to Zero Energy standards by 2020. This initiative presents an opportunity for other states, especially in our Northwest region, to develop more advanced building codes and promote the use of zero energy construction methods.

As the fourth largest LEED® for Homes provider in the country and the largest residential green certification provider in the Northwest, we are pursuing collaboration with other regional and state entities to move Oregon toward a Zero Energy future. We believe it is imperative that homes be built to either Zero Energy or Zero Energy Ready (pre-built for solar capacity) in order to meet the State of Oregon's 2030 Climate Plan. Our work is focused on research, policy consultation, and education in order to advance the cause of Zero Energy building in our state and the region.

## Green Valuation

Money Moves the Market

A common misconception about green building is that it is more expensive to build green than otherwise. This is only true if analyzed outside of market dynamics and cost of ownership. It also does not take into account the societal impacts of energy use and the potential health problems related to poor indoor air quality in homes that do not meet a certification or energy label standard.

In 2014, we created a green and high performance home tour that focused specifically on educating the real estate and appraiser community on the real value of owning a green home. Nearly 200 participants toured homes around the greater Portland area and were trained on the features, benefits, and value of selling or owning a green home. In addition, we staged our first PDX FutureGreen event that same evening to discuss the shifting needs of a rapidly growing Portland housing market and possible positive future outcomes to work towards. Panelists representing developers, builders, and government officials joined us to speak about the future of housing in Portland.

In the future we will continue to focus on raising awareness and studying the market value of green and high performance homes in the Northwest.



# Partnerships

## Collaboration Maximizes Impact

One of our core values at Earth Advantage is collaboration. As a small nonprofit working to move an industry toward better buildings across a spectrum of different disciplines and points of reference, it is essential that we emphasize working with partners to advance our initiatives. The partners represented here are key to our success and represent the different areas in which we work to move the industry forward.

Some of our key collaborators in 2014

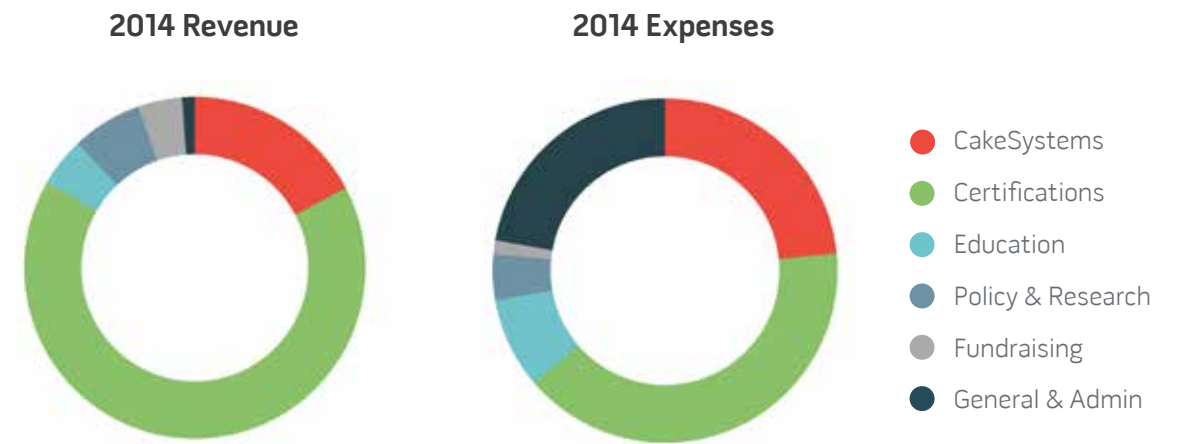


"U.S. buildings' energy use costs more than Medicare, but their energy efficiency opportunities offer \$1.4 trillion net savings with a juicy 33 percent internal rate of return."

AMORY LOVINS

# Financials

## Auditor's Report



Revenue	2012	2013	2014
CakeSystems	892,480	1,121,398	356,433
Certifications	1,617,221	1,110,023	1,362,598
Education	189,490	165,656	95,007
Policy & Research	0	51,229	136,863
Sponsorship	69,300	55,175	86,445
Product Development	337,283	26,574	0
General & Administrative	26,318	32,240	24,877
Expenses	2012	2013	2014
CakeSystems	1,036,031	892,662	571,007
Certifications	974,723	762,638	983,303
Education	196,074	154,534	208,580
Policy & Research	0	0	104,938
Sponsorship	12,440	16,429	31,402
Product Development	347,654	194,373	236
General & Administrative	947,884	696,620	541,143
Total	(382,714)	(152,961)	(378,387)

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