Using HERS and HERS_{H20} Data for Environmental Impact Reporting

Ryan Meres, Program Director

RESNET Webinar Series
June 16, 2021

The Webinar Will Begin Shortly





Agenda

- Millennials!
- Sustainability Reporting
- SEC Developments on Climate Change Reporting
- The SASB Standard
- Using HERS and HERS_{H20} to demonstrate environmental impact
- A few builders already doing it



Millennials! (Gen. Y)

- Largest Generation
- Ages ~22 40
- 79% hold at least a Bachelor's Degree
- **38**% of all homebuyers (largest group)
- 63% found the home they purchased on the internet!



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WHO WE ARE

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Cracking the Millennial Code: What Home Builders Need to Know About Millennials

Feb 20, 2019

By Ryan Meres, RESNET Program Director

Recent <u>survey results</u> Z show that twenty-two percent of Millennials plan to purchase a home in the next year; the highest of any generation. Although there is little consensus on exactly what the cut-off years should be for Millennials, it's generally described as about 1981 through 1996. There are an estimated 75 million Millennials with ages of 22 to 38 and they're expected to become the largest generation, this year, surpassing Baby Boomers. Understanding this generation can help tap into an increasingly important customer for home builders.

Characteristics of Millennials

Millennials can be a difficult generation to crack because the oldest of this generation spent most of their childhood without knowing the internet, cell phones or computers. Meanwhile, the youngest in this generation can hardly remember a pre-September 11th world or a time without computers, internet, and cell phones.

The Pew Research Center reveals some <u>interesting statistics</u> ✓ on how Millennials use technology, today:

- · 92 percent own smartphones,
- · 85 percent use social media,
- 97 percent use the internet and 28 percent do so only on a smartphor





Millennial Culture

- 70% say a company's environmental practices impact their purchasing (Shelton Grp)
- 83% say it's important for company's they buy from to align with their values (5W Public Relations)
- Key takeaway: they care about your company, not just your product!

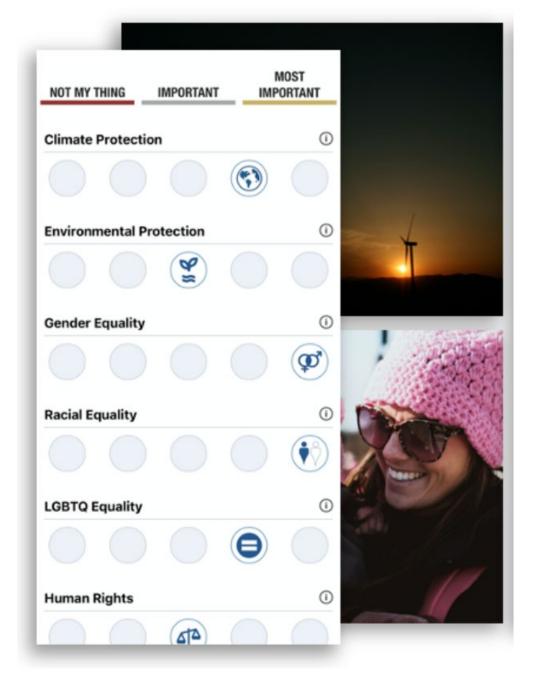




There's an app for that!

- New tech startup ecountabl
- Mission to "connect people with the companies that share their values".
- Among the values:

 - ➤ Environment
 - ▶ Business Integrity
 - ▶ Community Support
- Started by energy efficiency industry veterans



Millennial Investing

- 95% interested in sustainable investing
- 85% believe investment decisions can influence climate change
- 91% expressed interest in tracking impact of social/environmental return on investments

Morgan Stanley

INSTITUTE FOR SUSTAINABLE INVESTING

Sustainable Signals:

Individual Investor Interest Driven by Impact, Conviction and Choice

Executive Summary

Sustainable investing continues to make gains. Investor familiarity and enthusiasm is at an all-time high. More than 8 in 10 U.S. individual investors (85%) now express interest in sustainable investing, while half take part in at least one sustainable investing activity. As the market matures, reaching \$12 trillion in the United States alone, individual investors are also driving innovation. Increasingly proactive, they seek products and solutions across asset classes tailored to their interests. They also want to measure the environmental and social impact of their investments.

These are among the key findings of Morgan Stanley's third Sustainable Signals survey of individual investors, which reinforces a picture of a field coming into its own since 2015.

Working Together

- September 2020
- Five different reporting organizations working together
- Better alignment of standards
- Easier to report on corporate sustainability

Statement of Intent to Work Together Towards Comprehensive Corporate Reporting

Summary of alignment discussions among leading sustainability and integrated reporting organisations CDP, CDSB, GRI, IIRC and SASB

Facilitated by the Impact Management Project, World Economic Forum and Deloitte

44-CDI









A Framework for Sustainability Reporting

- November 2020: International
 Integrated Reporting Council (IIRC) and Sustainability Accounting Standards
 Board (SASB) announce intention to merge into Value Reporting

 Foundation.
- Finalized in May

 GOAL: work toward a single coherent system of corporate disclosure.





Recent SEC Changes

SEC Announces Enforcement Task Force Focused on ESG and Climate Change

- March 2021
- New climate and ESG task force in their enforcement division
- Facilitating disclosure of consistent, comparable and reliable information on climate change.

- What does this mean?
 - More scrutiny around climate impact reporting
 - Builders will need data to back their reporting

SASB Standard

- Topic areas and accounting metrics that are likely to impact corporate ability to create value over the long term.
- Can be used in communicating to investors on sustainability issues relevant to each home builder



INFRASTRUCTURE SECTOR

HOME BUILDERS

Sustainability Accounting Standard

Sustainable Industry Classification System® (SICS®) IF-HB

Prepared by the Sustainability Accounting Standards Board

October 2018

INDUSTRY STANDARD | VERSION 2018-10



Asset Managers

- Reference SASB Standards in their proxy voting guidelines:

 - ▶ Black Rock
 - ▶ Neuberger Berman
 - State Street Global Advisors
- SSGA created their own system for scoring company's commitments to ESG
 - Called R-Factor

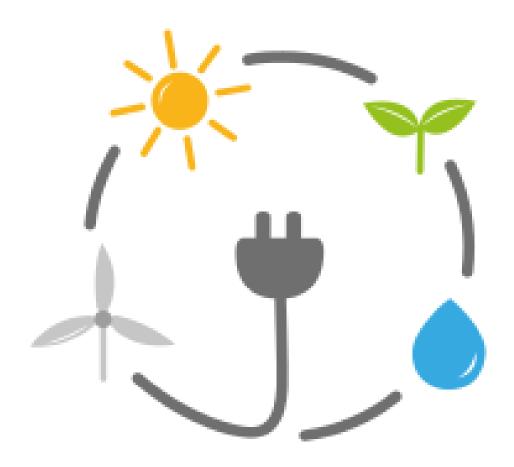


NEUBERGER BERMAN

STATE STREET GLOBAL ADVISORS SPDR®

Topic Areas in SASB Standard

- 1. Land Use and Ecological Impacts
- 2. Workforce Health and Safety
- 3. Design for Resource Efficiency
- 4. Community Impacts of New Developments
- 5. Climate Change Adaptation



Accounting Metrics for Reporting



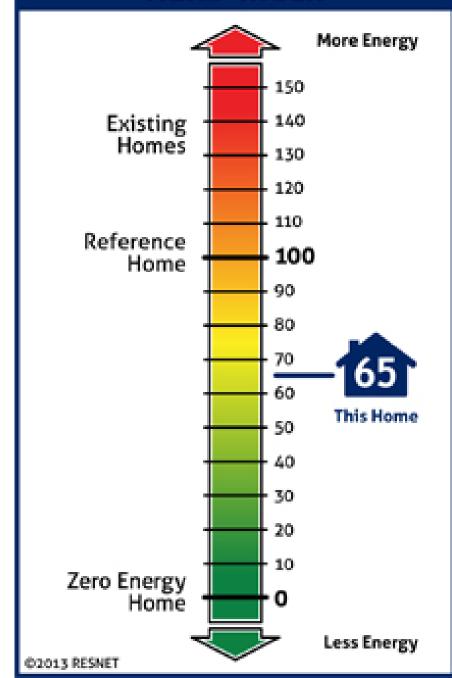
| TOPIC | ACCOUNTING METRIC | CATEGORY | UNIT OF MEASURE |
|--------------------------------------|---|----------------------------|---------------------|
| Design for Resource Efficiency | (1) Number of homes that obtained a certified HERS® Index Score and (2) average score | Quantitative | Number, Index score |
| | Percentage of installed water fixtures certified to WaterSense® specifications | Quantitative | Percentage (%) |
| | Number of homes delivered certified to a third-party multi-attribute green building standard | Quantitative | Number |
| | Description of risks and opportunities related to incorporating resource efficiency into home design, and how benefits are communicated to customers | Discussion and Analysis | n/a |

Also, optional to submit number of ENERGY STAR homes.

A HERS Rating

- Home Energy Rating System
- Like an MPG rating for a home
- Ratings completed by certified HERS
 Raters
- Requires Quality Assurance Oversight
- All ratings housed in the RESNET National Buildings Registry

HERS* Index



RESNET National Buildings Registry

- Source for all HERS Rating Data
- Started in 2013
- Homes rated in 2013 or later must be in Registry to be considered a HERS Rating
- Data available to builders doing ratings
- All Ratings subject to Quality
 Assurance Oversight



HERS Rating Data

- Number of HERS Ratings
- HERS Scores
 - For all homes and averages by state or market
- Energy Savings
- CO2 Reductions
- SOx and NOx reductions
- Use of Solar
- Can estimate energy and CO2 savings compared to typical existing homes



Climate Change Adaptation

Fifth topic area in the SASB Standard

"The entity shall describe the significant risks and opportunities that are presented to its business by climate change scenarios"



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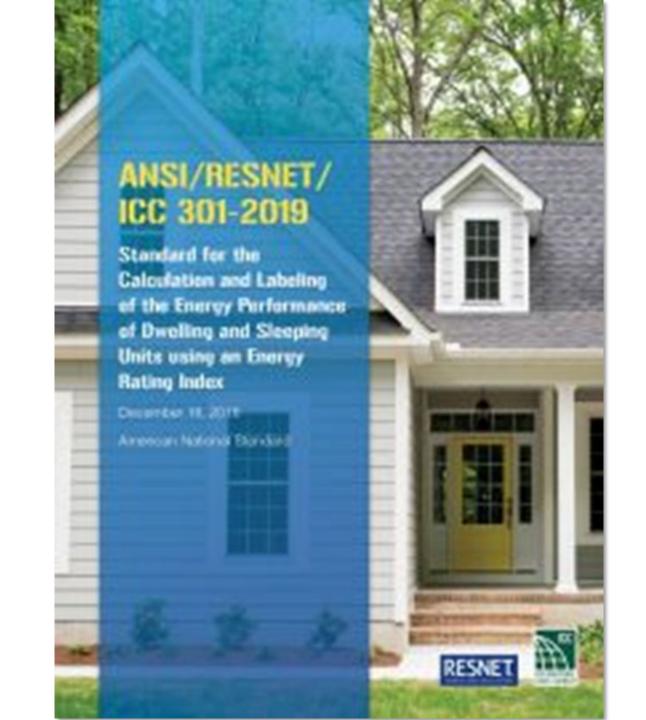
Climate Change Adaptation

- Risks and opportunities may include:
 - availability of water
 - extreme weather events
 - □ evolving regulation and legislation
 - ► home permitting processes
 - ► timelines and approvals
 - impacts to local economies and infrastructure.

- Adaptation strategies may include:
 - ▶ lot design
 - ▶ home design for physical resiliency
 - contingency plans
 - maximizing energy and water efficiency of homes

What about carbon emissions?

- CO2 emissions are calculated for each HERS Rating
- Calcs based on national standard (ANSI/RESNET/ICC 301)
- Demonstrate commitment to addressing climate change



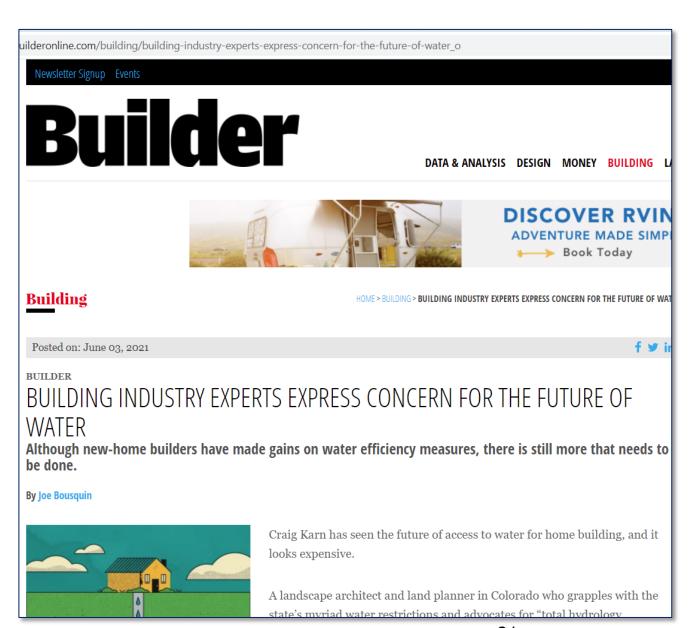
CO2 Reductions for HERS Ratings

- Estimated CO2 emissions from the rated home, compared to:
 - ▶ Reference Home
- National Average reduction in CO2 per HERS point reduction: 0.08 tons of CO2
 - * can vary significantly, depending on specific state



What about water?

- "Water has gotten so expensive, it is stopping annexation and development in a lot of jurisdictions here."
 - ➤ Craig Karn, landscape architect and planner in Colorado
- Denial of permits is a very real concern
- Tap fees \$40k+ per home!

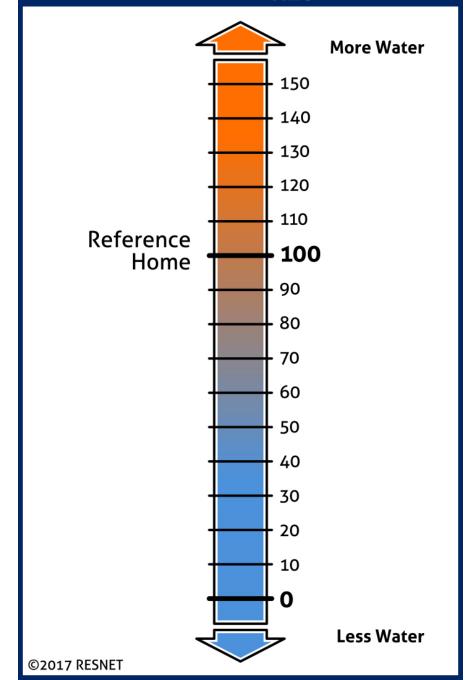




Water Efficiency with HERS_{H20} and **WaterSense**

- New program launched in Sept. 2020
- Whole-house water efficiency rating
- Verification done at same time as HERS Rating
- Verification done by HERS Raters or Rating Field Inspectors
- Use it to achieve the WaterSense Label

RESNET HERS_{H20} Index



Water Efficiency Data

- HERS_{H20} Scores
- WaterSense Certification (V2)
- Water Savings (gallons/Dollars)
- Use of WaterSense Fixtures
- Irrigation System Flow Rates
- Appliance efficiencies
- Fixture flow rates



Other Ways to Demonstrate Environmental Leadership Using HERS and HERS_{H20}

- Avg. Score reductions over time
- Do 100% Ratings
- Third Party Verification of Energy and Water
- ENERGY STAR Certification
- WaterSense Labeled Homes

- Setting net-zero energy goals
- Demonstrate net-zero achievements

KB Home

- References the GRI Standard
- Alignment with UN Sustainable
 Development Goals
- HERS Ratings
- HERS_{H20} Ratings
- Carbon Emissions
- ENERGY STAR
- Many more topic areas

2019 KB Home Sustainability Report









Taylor Morrison

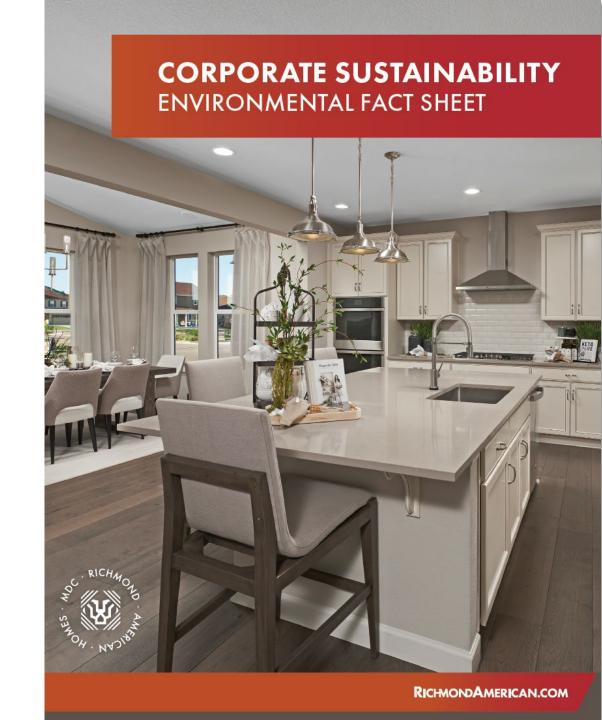
- References the SASB Standard
- Alignment with UN Sustainable **Development Goals**
- **HERS Ratings**
- **ENERGY STAR**
- Percent WaterSense Labeled Fixtures Installed



TaylorMorrison.

Richmond American Homes

- First environmental fact sheet
- HERS Ratings
- ENERGY STAR
- Carbon Emissions
- Solar



How to get started

- Builders doing ratings:
 - ► Contact: ryan@resnet.us to get your data
 - ► Assistance with data analysis available
 - ► Are you doing 100% ratings?
- Builders not doing ratings:
 - Contact: <u>ryan@resnet.us</u> for information on how to get started



Thank You!

- Ryan Meres, Program Director,
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