ENERGY STAR® Certified Homes
RaterPRO App
Agenda

- History of Apps
- Why ENERGY STAR is pursuing an App
- Live demonstration and not live admin site
- Next steps and timeline
History of Apps
History of Apps

• The first App was launched in July of 2008
• Since that time over 2 million iOS apps and 2.2 million Droid apps have been developed
• Apps are problem solvers
History of Apps

- Problem: Desire to hear the top 30 million songs ever recorded
- Solution: Sonos paired with Apple Music has made my dinner experiences wonderful
- Problem: Kids and wife like horrible music
- Solution: Playlists to sandwich good music between Justin Timberlake and Taylor Swift
History of Apps

- Problem: Dean keeps showing this picture of me at conference presentations.
- Solution: LoseIt App to make the picture look dated
- Problem: Actually have to use the app
History of Apps

- **Problem:** Taxi’s have a monopoly, and they don’t serve the suburbs
- **Solution:** People will drive their car for money
- **Problem:** Humans have too many accidents
- **Solution:** Robots drive cars in Pittsburgh
History of Apps

- Apps are problem solvers
- They prevent clients from taking advantage of their consultants
- They spur innovation beyond the app itself
Why ENERGY STAR is Pursuing an App
Goal

- Provide a useful tool to facilitate field data collection amongst pre-drywall and final inspections that is verifiable and increase confidence in the rating process, and the industry.
Issues that need to be addressed

• App for everyone
• Granite – not granite
• Need for higher standard to ensure inspection and improvement
What a field app should have

• Built upon existing technologies in industry: i.e. Retrotec or The Energy Conservatory blower door app
• Capturing photos, signatures, bar codes, geotagging
• Ability to work offline
• Ability to communicate with rating software – preload design values and house specific information
• Report back to rating software with field verified data points
• Provide instant reports, and aggregate reports to builders
A Better way

1. Download App

- HERS Rating Companies, HERS Raters, field inspectors download the app.
During the REM file design, minimum rated features are connected with the app, so that HERS Raters, and field inspectors are able to see them when performing on site inspections.
A Better way

1. Download App
2. REM/Rate Communicates with App
3. HERS Rater Pre-Drywall

- The HERS Rater now has access to minimum rated features at pre-drywall for insulation, duct blaster test, window values, square footage.
A Better way

- Final inspection, rater comes to house, with the app filled with all the information.
  - Verifies minimum rated features HVAC equipment, attic insulation, lighting and appliances, water heater.
A Better way

- Plug in allows blower door and duct blaster to be controlled by iPad and geo-tag the information proving critical tests were performed on site.
  - Photo verify test results if app doesn’t connect.
A Better way

Rater finalizes inspection, and the following process occurs:

- App uploads field collected features into REM/Rate or other software
- Company has ability to internally QA all submissions prior to submittal to Provider
- REM file along with geo tagged information are sent to QAD/Provider for posting on RESNET registry
Answers to your questions?

• How much will the monthly fee be to use the RaterPRO app?
  – $0

• Will EPA or ICF have access to information in the RaterPRO app?
  – NO!

• Will the RaterPRO app be required for ENERGY STAR?
  – NO!
Answers to your questions?

• Is this just for ENERGY STAR homes?
• No, this can be used for any HERS Rated home
• Rick, Can you explain whether it is an Open Source, Cross Development Platform, HTML5, Apache Cordova, AngularJS, Node.JS, Docker Containers, Amazon Web Services, Jenkins, EC2 Container Service?
• I have a slide at the end with all of this IT Jargon, and definitions, I don’t know any of it, and don’t want to steer you down the wrong path.
Live Demo, or Pre-recorded Videos
Field App Video
Field App Video
Field App Video
Field App Video
Field App Video
Admin Site Screen Shots
Administrator: Home

ENERGY STAR Certified Homes

Jobs

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<tr>
<th>Status</th>
<th>Count</th>
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<tr>
<td>Active</td>
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Administrator: Create a Job

Create A Job

Sample Set

House Plan

Builder

Rating Type

ENERGY STAR Rating
HERS Rating Only

Location

Street address
City State Zipcode
Community name Lot #

Manual identifier

House Front Photo

Placemark Photo

HVAC Design Report

Add

Rater Design Review Checklist

Add

Create Cancel

House Plan

Add

From Computer
From House Plan Library

Search

House Plan Name A - subplan xyz
Builder: ABC Company Community: Name AAA
House Plan Name A - subplan xyz
Builder: ABC Company Community: Name AAA
House Plan Name A - subplan xyz
Builder: ABC Company Community: Name AAA
Administrator: Load a REM XML File

House Plans

Search

Add a House Plan

Showing 1 - 20 of 185 results

House Plan Name AAA - Subplan XYZ
Builder: ABC Company Community: Name AAA
Rater Design Review Checklist: Checklist_File_Name.pdf

House Plan Name AAA - Subplan XYZ
Builder: ABC Company Community: Name AAA
Rater Design Review Checklist: Checklist_File_Name.pdf

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EPA
### Administrator: Internal Review

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<tr>
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#### Internal Review Jobs

1. **House ID:** 10241235  
   **Status:** ENERGY STAR  
   **Details:** Last updated: 10:20am, 1/10/2016, by Jon Doe (unsynced)

2. **House ID:** 10240351  
   **Community Name:** A Lot 12  
   **Details:** Last updated: 10:20am, 1/1/2016, by Jon Doe

3. **House ID:** 10240356  
   **Manual ID:** 01052016001  
   **Details:** Last updated: 10:20am, 1/5/2016, by Jon Doe (unsynced)

4. **House ID:** 10240332  
   **Community Name:** B Lot 6  
   **Details:** Last updated: 10:20am, 1/4/2016, by Jon Doe

5. **House ID:** 10240335  
   **Community Name:** B Lot 6  
   **Details:** Last updated: 10:20am, 1/3/2016, by Jon Doe
Administrator: Review a Job

If the posting company has only one provider company, directly submit the job to the provider company.

If the posting company has multiple provider companies, hover over or click “Submit to provider” to display a list of providers for users to select from.

Reuse the Provider Review screen.
Timeline and Next Steps
The RaterPRO app should be completed for internal testing December of 2016
Internal testing will occur up until the RESNET conference
RESNET Conference will unveil the beta version of the RaterPRO app
Beta testing will be spring 2017 through the summer
Full Launch will occur Autumn of 2017
IT Glossary

- Cross Development Platform – developing apps to work on multiple operating systems with a single code base.
- Apache Cordova – Apache Cordova wraps your HTML/JavaScript app into a native container which can access the device functions of several platforms.
- AngularJS – a complete JavaScript-based open-source front-end web application framework mainly maintained by Google and by a community of individuals and corporations to address many of the challenges encountered in developing single-page applications.
- HTML5 – the latest evolution of the standard that defines HTML. The term represents two different concepts: It is a new version of the language HTML, with new elements, attributes, and behaviors, and a larger set of technologies that allows more diverse and powerful Web sites and applications.
- Node.JS – is a JavaScript runtime built on Chrome’s V8 JavaScript engine. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient.
- Docker Containers – wrap a piece of software in a complete filesystem that contains everything needed to run: code, runtime, system tools, system libraries – anything that can be installed on a server.
- Amazon Web Services (AWS) - a subsidiary of Amazon.com, offers a suite of cloud-computing services that make up an on-demand computing platform.
- Jenkins – is an award-winning, cross-platform, continuous integration and continuous delivery application that increases your productivity.
- EC2 Container Service – is a highly scalable, high performance container management service that supports Docker containers and allows you to easily run applications on a managed cluster of Amazon EC2 instances.