

Low Income Weatherization in Ohio

Mobility Conference 2016

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Agenda

1 Overview of EnergySavvy

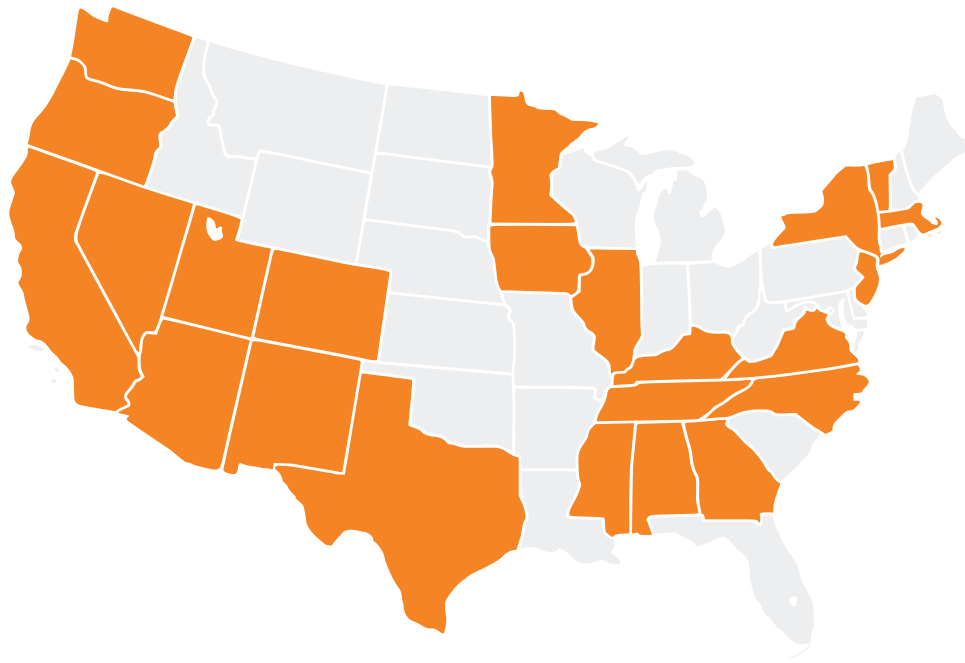
2 What is Low Income Weatherization?

3 Project Details

4 Lessons Learned

EnergySavvy at a glance

Cloud software company bringing DSM into the 21st century



Quick Facts

- 25+ utility/DSM clients
- 100% cloud software
- Offices in Seattle, Boston; Satellites in San Francisco, Chicago, Raleigh
- Founded in 2008
- > 475,000 completed online audits
- > 100,000 completed projects





The World is Changing



What We Do

optix ENGAGE

CUSTOMER ENGAGEMENT

- Outreach to passive customers
- Engagement of active customers
- Ongoing engagement

Segmentation &
Continuous Engagement

Customer Enrollment

optix QUANTIFY

MEASURE ACTUAL SAVINGS

- Energy usage changes
- Regulatory reporting
- Program optimization
- Capacity planning

optix MANAGE

PROGRAM AUTOMATION & PORTFOLIO TRACKING

- Mass market and C&I
- In house or outsourced
- Data aggregation & validation

Project Completion

Low Income Weatherization

with Columbia Gas of Ohio

What is low-income weatherization?

Columbia Gas of Ohio WarmChoice Program

- Cost-effective energy efficiency measures for existing residential and multifamily housing with low-income residents.
 - Target home's heating and cooling systems, electrical system, and electricity consuming appliances.
- Columbia Gas of Ohio runs a low-income weatherization program called Warm Choice.
 - Funds 4 different providers in Ohio that inspect and retrofit homes
- EnergySavvy was hired to automate this program with the goals of reducing paper, repeat data entry, and manual reporting. Our software provides the opportunity for more insights into the Warm Choice program, cleaner data and project management.

Home Inspections

Offline Forms Use Case

- Inspectors visit the home for a pre-work audit
 - Take multiple measurements and make recommendations
 - Approximately 100 inspectors in Ohio
- Inspections are often taking place in rural neighborhoods with sparse internet access
- Based on inspection data inspectors generate recommended work orders
- Final inspections are completed post upgrade to verify work was completed correctly



Form Tool Requirements

- Large scale data collection – 500+ fields ✓
- State required data standards ✓
- Offline capabilities ✓
- Multi- Platform ✓
- System Integration ✓
- Data Validation ✓



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Final Inspection: Applicant Info

Project ID
 Inspection Type
 Type of Final Inspection

First Name

Last Name

Street Address

Street Address two

City

State

Zip Code

Phone
 Back up contact number
 Email

Inspector Name

Eligible Programs

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Heating Final: General

Date of Heating Inspection *
 Name of Heating Contractor *
 Was a Contractor Sticker Installed onto the HU or WH? *

Heating Unit(s) present? *
 Water Heater(s) present?
 Non-electric stove(s) present?

Required if heating unit present (up to 4):

TYPE	FUEL	MAKE	MODEL	SERIAL	RATE	IN	OUTPUT	TEMP	RISED	LOCATION	N/C	LIVE	AC

[Add Heating Unit](#)
[Edit Heating Unit](#)
[Delete Heating Unit](#)

Required if water heater present (up to 3):

TYPE	TANK	TYPE	MAKE	MODEL	SERIAL	CAPACITY	RATE	IN	MEETS	CODE	CODE	COMMENT

[Add Water Heater](#)
[Edit Water Heater](#)
[Delete Water Heater](#)

Required if stove present (up to 2):

FUEL	MAKE	MODEL	REPLACED	TESTED	NOT TESTED	MEETS	CODE	CORR	CORF	COLOR	C

[Add Stove](#)
[Edit Stove](#)
[Delete Stove](#)

Design of Forms

How to create two new forms (65 & 35 pages)?

- Previous pen and paper form – hundreds of sheets of paper
 - Often required duplicate data entry – very cumbersome
 - No way to validate data in forms, each office was collecting a unique set of information
- During implementation of Mi-Forms solution, forms were designed from the ground up
 - Mi-Forms Developer tool allowed us the flexibility for multiple iterations
 - Ability to synchronize the data that is collected across all providers
- New forms included data validations and calculations directly within the app
- Shana greatly supported initial content design process

Multi-Platform Use

Forms used on Windows, iOS, and Android

- Validation rules automatically generate operating system specific code
- Customized code:
 - Creation of 'sub-forms' on all operating systems using reuse page function
 - Calculations
 - Page navigation
- David and Chris available and highly responsive for technical form design support



Integration with Optix – The “Session Uploader”

REST API

- Mi-Forms directly integrates with our enterprise software via REST API
 - Forms are generated automatically as tasks are created in Optix
 - When a form is completed, the information is directly uploaded into our system in both PDF and XML
 - Critical XML data is then available for reporting purposes
 - Old forms are cleaned up when the status changes in Optix
 - This makes for a smooth experience for our customers
- Making form data available online gives program managers greater insight into how projects are doing into the program at any given point – no more waiting on the mail or for monthly status report

User Guides

How to guide user adoption

- EnergySavvy created in-depth user guides for multi-platforms
- Content:
 - How Mi-Forms connects to the IMS
 - Platform functionality
 - Form functionality
 - Form Content
- Launching with many of users simultaneously



Challenges and Lessons Learned

- Computer literacy of user is important
 - Robust documentation
 - Easy download package
 - Lots of training
- Designing a very large form can be a challenge
 - Form configuration in code for multi-platform is extensive
 - Many functions to replicate in Visual Basic and Javascript
 - Larger amount of components and validation rules can slow down functionality
 - Forms have to 'think' more
- Integration of distinct software for the first time has its challenges
 - Run into unexpected user scenarios when product is live
 - Need to work in an agile environment in cooperation with Mi-Forms

Questions?

Thank You

ENERGYSAVVY