Communicating the Value of EE Research Results
- Las Vegas Case Study -

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Context

- Taking a research project from the pilot phase to broader scale deployment can be problematic.
- Scaling beyond community to a communication program can be even more daunting.
- Often times several of the factors that work on one or two homes do not scale across 100 or 200 homes, let alone thousands.
- This is especially true in retrofit applications that usually involve individual homes that don't have many of the same energy inefficiencies.

Context

- The Las Vegas outreach plan is designed to use BA program homes to launch a city wide communication initiative.
- The desired outcome is <u>Change in Practice.</u>
- 2 to 20, 20 to 200, 200 to 2,000

Technical Approach

- Deployment of a community-scale retrofit strategy in the greater Las Vegas area designed to streamline and economically advance energy-efficient retrofit strategies within the City of Las Vegas' Housing Stabilization Program (CLV-HSP).
- Using the retrofit packages successfully piloted in earlier phase as a guideline, the goal of the community-scale initiative is to advance energy retrofit upgrades across several CLV-HSP homes and achieve savings across neighborhoods, communities, and the city at large.

Research Home – 50% Efficiency

7224 Carmen Blvd., Las Vegas, NV

- Built in 1986
- Purchased by the City of Las Vegas utilizing NSP funds and successfully retrofitted as a pilot home during TO2
- Achieves a 51% improvement over the pre-existing home conditions.

Research Home – 30% Efficiency

Example Home: 1824 Sierra Hills, Las Vegas, NV

- Built in 1991, during initial phases of EPC
- Purchased by the City of Las Vegas utilizing NSP funds and successfully retrofitted as a pilot home during TO2
- Achieves a 48% improvement over the pre-existing home conditions.

Technical Approach

- Change city emphasis from aesthetic upgrades to energy efficiency.
- Take results of research and broaden to other areas of city.
- The results of the community-scale program will be compiled in a report to be published for the benefit of the Office of Mayor Goodman.
- Ultimately, the program is designed to reach far beyond housing stabilization and into owner-funded energy upgrade initiatives.

Recommended Guidance

Research, Validate, Engage, Promote

- Sound research must be the foundation of any community scale effort (Phase I).
- Research results need to be validated across several homes (especially in retrofit applications) (Phase II).
- Community stakeholders (Mayor Goodman and Las Vegas City Council) need to be engaged (Phase II).
- The value of research results need to be promoted to homeowners outside the program area (Phase III) for broad-scale adoption.

Recommended Guidance - Research

- Two program homes provide basis for broad scale deployment.
- Pilot demonstration homes are used to prove efficiencies and track costs.
- Program homes are used as an education “lab” during retrofit.

Recommended Guidance - Validate

- Take the results of the two research homes into six wards within the city – one in each council member's district.
- This phase validates what we achieved in the pilot program.

Recommended Guidance - Engage

- Engage city leaders and other stakeholders to adopt energy efficient strategies.
- Program homes are open to public for tours.

Recommended Guidance - Promote

- Neighborhood meetings, community forums, press events and public relations strategy.
- Deploying radio campaign and targeted marketing emphasis to home owners that can benefit the most from upgrades.

Value

- By categorizing the homes and validating the prioritization list with BEopt modeling the program will assist large-scale retrofitters to aim their remodeling resources to energy efficient options.
- The value of EE upgrades to CLV outweighs aesthetic retrofit in their revitalization areas because of payback and cost savings to the owner.
- Once proven, the model is designed to be replicated outside CLV and neighborhood stabilization and through community outreach efforts to each of the “category” home owners.
- The final metric for success will be the percent of homes remodeled with the expected EE outcome documented.

Market Readiness

- The overall plan to categorize homes is for broad-scale implementation.
- Market trends indicate homeowners in the area prefer lower energy bills over aesthetic upgrades.
- Requirements by City code can help drive preference to EE upgrades.
- Determining payback period should help facilitate broader adoption.
- Final communication program will be adopted through city outreach initiatives.

Pros and Cons

- Pros
  - Routing existing resources to energy efficiency
  - Allow lower income levels to qualify
  - Create broader scale community outreach
- Cons
  - Funding resources aren't always stable
  - Differing city administrators may change priorities
  - Certain homes won't qualify for upgrades