

REPORT

PLATFORMS KICKOFF SUMMARY Energy Retrofit Market Opportunities



EEB HUB Platforms

PURPOSE & DESIGN

The Energy Efficient Buildings Hub Platforms were created and launched to provide an infrastructure connecting The EEB Hub with the regional marketplace. Since the beginning of the Hub's work, member investigator appetite for engagement opportunities with local market actors to understand the sector's current practices, tools, and readiness to innovate has grown. The stakeholder Platforms are intended to support learning, testing, and deployment of EEB Hub content by creating engagement opportunities. Thus, the Platform members serve as expert reviewers and form a first external audience for Hub content and inquiry. They are essential for Hub success, as they ensure that we are interacting with the market in an effective and organized manner.

The EEB Hub recognizes that a member's time spent in a Platform meeting is necessarily time taken away from their paid professional commitments, and so we strive to make time spent on platforms inherently productive. Platform participation will be a visible means of associating with the EEB Hub as an individual and/or company, and we will recognize participation in a variety of ways.

- Platform participation will provide an early look at EEB Hub content as it develops as well as an opportunity to contribute to that development.
- Platform participation will provide an interactive learning opportunity for both novice and informed participants. The Hub intends to provide a "TED talk" -like environment in which technology, production values and market content generate an effective venue for presentation, interaction and a meaningful path forward

In simple terms, the Platforms will be groups of market actors organized by integrated segments of building industry professionals. The four Platforms existing right now are Building Owners/Operators/Occupants; Architectural, Engineering, and Construction Firms; Retrofit Suppliers; and Education & Workforce. The Platforms consist of manageably sized groups (20-40 members) that commit to attending regular sessions. Each group is stratified in meaningful ways to the specific Platform: e.g., large and small design firms, single-building and portfolio managers, etc. Building industry professionals were asked to co-chair these groups and were recruited to help the EEB Hub members lead the Platforms from their externally situated positions.

May 1 & May 2 Kickoff Event

EVENT DESIGN

The overall purpose of the May Platforms Kickoff Event was for the Hub to gain a better understanding of the customer experience and the most relevant challenges to participating in the Energy Retrofit Market (ERM). The EEB Hub will use this meeting's results to more effectively tailor its' work to achieve a 20% increase in energy efficiency of commercial building stock by 2020.

This feedback will aid content and tool development going forward and help to sharpen EEB Hub-wide project agendas. The workshop focused on generating advantages and limitations and then mapping the top limitations to an impact matrix for prioritization of the limitations most important for the EEB Hub to address in the regional energy retrofit market.

Over the two days, 125 market actors participated from a diverse group of public and private organizations.. The agenda for both of the days separated the participants into four discussion groups focused on different components of the retrofit value chain:

1. Retrofit Project Initiation and Financing
2. Retrofit Design
3. Retrofit Construction
4. Retrofit Operations and Maintenance

The process technique we used to collect the input was ALUO. ALUO is an acronym for Advantages, Limitations, Unique Attributes, and Overcoming Limitations. This provided a structured approach to formulate input and feedback. For this workshop, we only focused on advantages and limitations to characterize the energy retrofit market. Perspective in this venue included everything from actual participation in the market to what has been heard and read about the market.

The break-out groups started by identifying advantages and then transitioned to identifying limitations. Next, they selected limitations to present to the entire group and accepted additional ones from the big group. Subsequently, the limitations were identified by the big group and then mapped to an impact matrix to select the most significant. The intention was to arrive at a set of items the group believed the EEB Hub should address. As a final step, participants selected limitations that, if addressed, would have the most impact on their ability to participate in the energy retrofit market. The lively conversations resulted in the conclusions summarized in this document.

Survey Results

All of the 125 members completed a survey which examined a number of key topics related to EEB Hub projects. In contrast to the remainder of the day, the survey provided the answer options and asked that respondents rank or choose among options provided in the survey. The surveys documented that the average number of years of experience in the room on both days was 16. The rest of the day consisted of guided, small group discussion with open conversation topics determined by the participants. Some of the Key Survey findings are included on this page.

Question 1: What are the most important things the Hub can provide for you? (responses below in ranked order of significance)

1. Ideas
2. Networking
3. Tools
4. Demonstrations
5. Training

Question 2: What are the most significant barriers to investments in energy efficient retrofits? (responses below in ranked order of significance)

1. Initial cost/projected maintenance cost
2. Capital Available/Allocated for work
3. Uncertainty about cost savings or payback
4. Owner/tenant split incentives
5. Uncertainty about equipment performance
6. Lack of knowledge about retrofit process
7. Legal barriers
8. Limited time window/scheduling
9. Limited sources of information on...
10. Loss of operating revenue during retrofit

Question 3: What are the most effective incentives to encourage investment during energy retrofits?

1. Other
2. Rebates
3. Energy prices
4. ESCO guarantee
5. Disclosure
6. Understanding
7. Code

Kickoff Findings

PRIORITIZED BY “VALUE CHAIN” SEGMENT

The top ten findings (listed above) from the May 1&2 Platform meeting provide a multi-faceted glimpse at the some of the main issues confronting professionals in the retrofit industry. As the results from the Platform kickoff sessions are laid out here, it is notable how many of the topics addressed in the interdisciplinary and multi-Platform breakout groups resonate with one another, even though the breakout groups were tasked with addressing different segments of the building delivery value chain. In other words, many of the group’s articulated priorities focus on a particular delivery point or market limitation pertinent to formative decisions and activities in other phases of a retrofit project, a finding that points to the heavily interdependent nature of high-quality outcomes in a building project.

All of the breakout groups highlight the importance of recognizing the tangible and intangible value of energy efficiency from the very beginning of the retrofit process so that appropriate resources are unlocked early in the schedule and the most productive processes, tools, and technologies are enabled along the way. Simply stated, the entire platform audience understands that many of the most important steps necessary to bring about successful energy efficient outcomes in building projects occur at the start of the project as the initial decision making takes shape.

These results are both wide and deep, representing the material of focused discussions between many talented actors working in the building industry across the myriad professions involved in the building delivery process. There are ideas here in the form of single arguments; other ideas become clear as several priorities resonate with one another and point to common solutions. These results will be shared with all Hub investigators whose work is aimed at market transformation in different ways. Many of the prioritized limitations listed here may become project work for the Hub, especially where the priority implies market transformation through education and information creation. Other priorities will be incorporated into Hub work and the work of our affiliated organizations by informing research, retrofit demonstration projects, the creation of software tools, and policy initiatives.

Priorities

PROJECT INITIATION & FINANCE

Top Priorities

- Improve the return on investment for shorter-term energy-efficiency investments.
- Hold energy users accountable for their energy consumption.
- Educate energy retrofit service providers to ensure integrated solutions are selected.
- Better package and promote an incremental approach to energy retrofits, and change the culture to value energy efficiency.
- Change the culture to evaluate energy savings in light of lifecycle costing and IEQ (indoor environmental quality).

Additional Priorities

- Create a winning value proposition when energy prices are low.
- Create national, state, and local level energy policies that value energy efficiency.
- Create modeling applications that are faster, more accurate, and less expensive and a call for creativity and innovation to surmount the challenges.
- Quantify the intangible benefits of energy retrofits.
- Make the permit and approval processes for energy retrofits easier and help building owners compete for the most energy efficient buildings.

Priorities

PROJECT DESIGN

Top Priorities

- Reach out and educate building owners on clear benefits of energy retrofits.
- Avoid incorrect assumptions in building energy modeling leading to compromised results.
- Appropriate new union job cooperation for energy retrofit market.
- Recognize that the energy retrofit market needs to overcome inertia to move away from the "same old" towards innovation - this is recognition of the need for change management.
- Improve communication of integrated design results including a view of individual contributions to energy savings to accommodate busy decision-makers.

Additional Priorities

- Base design decisions on accurate building energy performance data.
- Overcome the over-emphasis on initial cost at the expense of life cycle cost.
- Ensure that building codes and behavior support integrated strategies for achieving energy efficiency performance.
- Provide adequate training so decision-makers can make informed decisions about technology and material decisions to improve energy efficiency.
- Create market pull for energy efficiency retrofits through education.

Priorities

CONSTRUCTION

Top Priorities

- Increase the conditions such as risk mitigation, experience base, and knowledge base in order to enable more new products and new technologies to be used in energy retrofit building projects.
- Reduce the complexity of retrofit financing from a construction standpoint.
- Understand the return on investment in terms of intangibles that impact building performance.
- Transition the market into true integrated design, project and delivery.
- Build confidence in the construction outcomes and future building energy performance.

Additional Priorities

- Demonstrate the correlation between occupant performance and a high performance building.
- Avoid cost-cutting of critical energy conservation measures followed by obtaining money to underwrite retrofit projects.
- Train building operators to use and optimize sophisticated technologies for energy efficiency.
- Complete low-cost, standardized audits for uniform results and project costs.
- Convince owners to invest in energy retrofit projects when tenants pay the bills.
- Introduce cutting-edge technologies and designs to a conservative building design community.
- Reduce the complexity of retrofit financing from a construction standpoint.

Priorities

OPERATIONS & MAINTENANCE

Top Priorities

- Enable media to have as much vigor as possible covering stories about improved energy efficiency in buildings as they do for use of renewable energy.
- Create consistent funding and incentive opportunities from the government.
- Share risks and benefits between owners and tenants.
- Allow individuals to control their workspace without adversely impacting energy performance.
- Implement incremental and continuous improvements in energy performance without having to wait for the big retrofit.

Additional Priorities

- Include operating cost impacts into decision-making and not just first costs.
- Ensure proper installation of equipment.
- Provide operations and maintenance information to optimize energy efficiency.
- Give maintenance staff better incentives to increase energy efficiency and reduce risk.
- Educate building operators on building science to optimize energy performance.
- Develop clear, concise, and accessible ways to communicate this energy retrofit work.
- Get continuous commissioning to be routinely practiced in existing commercial buildings.
- Make the business case to invest in effective energy metering of buildings.
- Train operations and maintenance personnel in the latest technologies for energy efficiency.
- Use energy performance diagnostics to drive operations & maintenance decisions.
- Educate about the dynamic nature of building energy efficiency.

Future Plans

2012 CONVENING PLAN

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The Platforms are organized to be semi-independent bodies that convene on their own schedules according to the needs of the different EEB Hub initiatives to interact with the region's market stakeholders. We envision two to three sets of follow-up meetings for the Platforms for remainder of the year, which means a set of Platform meetings during the summer, the mid-fall, and finally the winter.