

CABA Research Program

Energy Roadmap for the Connected Home

Connected Home Council (CHC) Landmark Research 2017

TERMS OF REFERENCE/PROSPECTUS

1. BACKGROUND

The Continental Automated Buildings Association (CABA) is an industry association dedicated to the advancement of connected home and intelligent building technologies. CABA is an international association, with over 350 major private and public technology organizations committed to research and development within the intelligent building and connected home sectors. Association members are involved in the design, manufacture, installation and retailing of products for home and building automation. CABA is a leader in initiating and developing cross-industry collaborative research, under the CABA Research Program.

CABA has two councils, the Connected Home Council (CHC) focusing on residential homes and the Intelligent Buildings Council (IBC) focusing on larger commercial buildings. Each council produces one collaborative “Landmark Research” project per year which is fully funded by CABA members. These projects are approximately US\$150,000 in scope. Each Landmark Research project is directed by a steering committee made up of the project funders. The steering committee provides feedback and input throughout the course of the research to help define the scope, direction, and methodology. CABA and the project steering committee commission a research firm to conduct the research while CABA provides project management and leadership.

The connected home market is a fast evolving industry segment that is being influenced by a number of emerging industry trends and pressing “hot button” issues. CABA’s Connected Home Council (CHC) participated in several research ideation sessions to generate topics and select the next CHC Landmark Research project for 2017. Several excellent ideas were generated, the top three topics were voted on by the CABA membership, and “Energy Roadmap for the Connected Home” was selected as the Landmark Research topic for 2017.

2. PURPOSE OF THE RESEARCH

The purpose of this research is to create an Energy Roadmap of the Connected Home. The roadmap will provide a comprehensive examination of all the major aspects of energy in the smart home, including: state of the market, key industry players, business opportunities, technical barriers and opportunities, future market direction, issues, case studies and industry recommendations, etc.

3. RESEARCH VENDOR QUALIFICATIONS

Overarching criteria will be determined by the Steering Committee, Council Executive Committee and CABA, via competitive bid criteria and process. At a minimum, the research firm will have a history of working and conducting research relating to connected homes.

4. STRATEGIC VALUE OF THE STUDY

The outcomes of this collaborative research project should provide the Steering Committee members a clear understanding of the Energy Roadmap in connected homes and the opportunities and solutions in relation to this roadmap. This study will assist organizations to make sound business decisions using reliable third party qualitative and quantitative data.

5. PROJECT SCOPE

There is a renewed interest in the Connected Home Energy sector which is driven not only by the dramatic increase in the Internet of Things, but also by the large projected increases in home energy costs throughout North America. IHS Markit predicts that the global market for Connected Home Energy devices and services will reach US\$4 billion by 2025. This research would address the many challenges and opportunities surrounding the need for more energy efficient homes. This research will utilize both qualitative (In-depth interviews) and quantitative (Consumer or industry questionnaires) research to provide actionable data relevant to: business opportunities, technical barriers and opportunities, future market direction, issues, case studies and industry recommendations, etc.

Topics that might be covered in this research include, but are not limited to, the following:

- Sustainability and renewables
- Battery storage and bi-directional power systems
- Electric Vehicles
- Role of IoT devices
- Zero Net Energy Homes
- Micro and nano-grids
- Energy efficient technologies and solutions
- The role of utilities and energy pricing
- Energy integration
- Government mandates, rebates, incentives and energy policies
- Energy management systems
- Energy management device and services market analysis
- Smart grid and alternative sources of energy
- Demand response
- Smart metering and sub-metering
- Retrofit vs new construction

- Energy use scheduling
- Platforms (Nest, HomeKit, etc.)
- Return on investment (ROI) of energy solutions
- The new role of solar energy generation
- Data ownership and privacy
- Real-time energy usage monitoring and control
- Barriers towards adoption
- Business analysis and value proposition for each stakeholder group

Disclaimer: The topics mentioned above are meant to be a general outline of this research project. The final research may not address all the topics outlined above, and additional topics may be added. The scope of the final research will be narrowed down or expanded further in the RFP submission process, and later by the Steering Committee. The research scope and prospectus is designed to be only a general outline, this allows for more freedom and creativity in the RFP submissions.

6. STUDY APPROACH and RESEARCH METHODOLOGY

This Landmark Research will leverage several different methodologies to maximize the value of and validate the deliverables

Review and Analyze Existing Applicable Industry Research:

The research will leverage relevant industry research and thought leaders to create a base from which the Steering Committee and research firm can begin to develop concept hypotheses for testing.

Methodologies to be considered for opportunity identification and vetting:

Qualitative Research (in-depth interviews) and Quantitative Research (consumer or industry questionnaires) will be used.

7. PROJECT DELIVERABLES

The general deliverables for this project consist of the following:

- Introductory webinar (1 hour) to help promote the project to existing members and potential funders.
- Kick-off webinar to the Steering Committee to outline the research purpose, scope, objectives, approach, and timelines.
- Regular Steering Committee meetings (via webinar) to communicate; progress, preliminary findings, approvals of research methodologies, and next steps. Depending on the stage of the study, email updates may at times replace webinar meetings.

- Delivery of five (5) draft documents in a format that CABA will provide through past CABA Landmark Research.
 - (1) Full report (Microsoft Word format)
 - (2) Executive summary (Microsoft Word format)
 - (3) Full report presentation (Microsoft PowerPoint format)
 - (4) Executive summary presentation (Microsoft PowerPoint format)
 - (5) Raw Data

- Delivery of five (5) final documents
 - (1) Full report (Microsoft Word format)
 - (2) Executive summary (Microsoft Word format)
 - (3) Full report presentation (Microsoft PowerPoint format)
 - (4) Executive summary presentation (Microsoft PowerPoint format)
 - (5) Raw Data

- Final group webinar (1.5 – 2 hours) will be presented to all the funders, after the final documents have been delivered.

- Individual Steering Committee organization webinars (1 hour) for each organization on the Steering Committee, unlimited attendance per organization. These webinars will be presented after the final documents have been delivered to the funders. Steering Committee members have one month to arrange for these presentations.

- Public Webinar (1 hour) to all CABA contacts to present the high level executive summary findings only. This occurs after the four (4) month embargo period.

8. PROPOSED TIMELINE

Timeline details will be finalized during the initial planning session by a selected research firm, CABA and the Steering Committee. This timeline is tentatively based on the scope of the project as defined in this document. Depending on the breadth of agreed specification, estimated project duration is 18 weeks, from prospectus development to final report delivery. Steering Committee members will be asked to provide valued input to project development. The selected research firm, in conjunction with CABA, will prepare detailed timelines, project milestones, responsibilities, and action/delivery dates; as agreed to by the Steering Committee. Bi-weekly webinars with the Steering Committee will serve to keep funders abreast of progress, developments, and key findings.

The following outline may be adjusted, pending confirmation of tasks and timing:

CHC Landmark Research 2017: Energy Roadmap for the Connected Home – DRAFT/ESTIMATED	
Activity	Anticipated Date
Research set-up and kick-off meeting	TBD
Secondary research	TBD
Primary research	TBD
Analysis and reviews	TBD
Draft report delivery	TBD
Final report delivery	TBD
Final Group Webinar (1.5 – 2 hours) with all the funders to highlight the findings of the research.	TBD
Individual Steering Committee Webinars (1 hour each), one (1) webinar for each organization on the Steering Committee.	TBD
Public Webinar (1 hour) to all CABA contacts to present the high level executive summary findings only. This occurs after the four (4) month embargo period.	TBD

9. PARTICIPATION OPPORTUNITIES

Bronze Funder (\$5K):

- Name and logo will be placed on the front page of the research report, slide deck, media releases, and marketing material.
- Opportunity to participate in the final webinar with all the funders which will highlight the findings of the research in detail.
- Ability to ask the questions to the research analysts.
- Final report, executive summary and presentations.

Silver Funder (\$10K):

- All benefits of the Bronze Funder.
- Will be on the Steering Committee and allowed to: define the research scope and methodology, provide feedback and input regarding the direction of the study, and participate in Steering Committee webinars.
- Will have a special one (1) hour webinar specifically for your organization. Anyone from your organization can attend and receive a detailed overview of the research findings that relate to your organization.
- Will receive bonus research reports that the vendor may provide.

Gold Funder (\$15K):

- All benefits of the Silver Funder.
- Will receive a case study within the research to highlight the work your organization has been doing in the area. Case studies are typically supplied by the funder, but in some instances research firms have developed case studies on the funder's behalf. This case study will be included with the executive summary, which will be distributed to all CABA member contacts.

Note: All funds are in US dollars.

10. PREVIOUS CABA RESEARCH

CABA has undertaken a number of Landmark and Multi-Client Boutique research projects. To better understand the connected home research that CABA has completed, please review the following executive summaries in the CABA Members Library, <http://www.caba.org/member-research-library>:

Cybersecurity and the Connected Home (2016)

Connected Consumer Roadmap: Driven by the Internet of Things (2015)

Monetization of the Connected Home (2014)

Impact of Smart Grid on Connected Homes (2012)

State of The Connected Home Market (2011)

Connected Home Roadmap (2010)

Energy as a Managed Service (2010)

If you do not have access to the CABA Members Library, please contact CABA to receive your passcodes.

11. CONTACT INFORMATION:

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