

BACKGROUND

The Continental Automated Buildings Association (CABA) is an industry association dedicated to the advancement of intelligent homes and intelligent buildings technologies. CABA is an international association, with over 300 major private and public technology organizations committed to research and development within the intelligent buildings and connected home sector. 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.

The Connected Home Market is a fast evolving segment that is being influenced by a number of emerging industry trends. The recent developments in the implementation of end-to-end Smart Grid at the utility level, as well as the changes witnessed in the area of managed home devices and systems, are expected to further impact the dynamics of this market segment. The connected home suppliers catering to this fast evolving market are facing the challenges of keeping abreast with technology development in meeting new grid infrastructure requirements as well as innovating solutions that are compatible with changing standards and communication topologies.

In addition, there are uncertainties with regard to which technologies will remain current and adaptable to emerging changes in home area networks (HANS) requirements, energy dynamics as well as Smart Grid infrastructure deployment. For industry participants, it is critical to be well informed of the distinct challenges, the market gaps, the influence of key channels and the evolving market environment to execute a successful market strategy.

CABA's Smart Grid Working Group, under the Connected Home Council (CHC), is currently examining the deployment of residential Smart Grid, and the implications this will have on market prospects for connected home solutions. Committee members have developed a set of objectives and research areas that require validation. These include an understanding of the changing business models, technology commercialization prospects in the event of Smart Grid deployment, changes to communication standards, and time to market, amongst others.

PURPOSE OF THE RESEARCH

Against this background, the purpose of this collaborative Landmark Research study is to greatly improve the understanding of residential Smart Grid development and deployment in terms of: identifying market demand and growth areas for new products; comparing competing product strategies and communication of competitors; determining product preferences for end-users; developing messaging that resonates with the target audience; defining critical success factors to expand product offerings to end-user markets; and establishing a market approach and foundation for strategic decision-making efforts.

To this end, the research will create the foundation for potential next steps:

- Product/Services Research and Development
- Recommendations and business decisions
- Vertical market strategies and strategic alliances
- Training and coaching
- Providing information on product demand into other parallel market segments and other business areas

RESEARCH VENDOR

Frost & Sullivan, an international consultancy with deep industry expertise in all facets of Smart Grid, the Connected Home Market, and its various segments, will conduct the research study. From the inception of the CHC Smart Grid Working group, Frost & Sullivan have followed the direction of the group, and closely understand group developments and the research project needs. Having undertaken several complex Landmark Research studies for CABA, they have demonstrated expertise in a large array of different business challenges, such as market penetration, vertical market expansion and growth strategy – utilizing extensive contacts across the value chain, including suppliers, distributors, end-users, regulators and other industry experts. An international pool of experts and researchers supports Frost & Sullivan, using best in class consulting methodologies and experience in the field of smart technologies and general home and building automation technologies. From a unique cross-industry and cross-functional perspective, they have proven their ability to find growth opportunities for research study participants, across different industries in the Smart Grid and Connected Home technology sectors and adjacent markets.

STRATEGIC VALUE OF THE STUDY

The outcomes of the collaborative research project should:

- Improve participant vision and understanding of the connected home market
- Identify market demand and growth areas for new products
- Compare competing product strategies and communications of competitors
- Determine product preferences for end-users
- Determine optimal messaging for target audience
- Define critical success factors to expand product offerings to end user markets
- Establish market approach and a foundation for strategic decision-making efforts
- Identify key internal and external challenges to create a strong position for participants in the market
- Create the foundation for next steps by participant organizations
- Provide recommendations as a basis of business decisions

PROJECT SCOPE

The scope of the project should provide an examination of the following key areas:

- A connected home market solutions overview - in terms of leading product categories in the following segments: integrated solutions platform, safety, security, health, home monitoring, energy management, entertainment, home controls and automation
- Smart Grid and connected home next generation infrastructure - the transformation of conventional homes to connected homes, and the related transformation of the conventional grid to the “energy internet” (Smart Grid) via home automation controls, software, wireless sensors, AMI and demand response
- Key market growth enablers and obstacles – the integration of end-to-end solutions in terms of required key features, growth enablers and potential obstacles for the connected home, smart grid and smart infrastructure development

RESEARCH OBJECTIVES

By uncovering market opportunity in the development and deployment of residential Smart Grid, the study will be designed to enable study sponsors to:

- Increase awareness and generate demand for connected home solutions (i.e. smart meters, home gateways, home area networks, etc.)
- Understand the changing dynamics of the industry with Smart Grid deployment and the impact on connected home solutions
- Create successful business models and technology roll-out initiatives to meet changing demand
- Achieve standardization with regard to codes, communication protocols/standards and topologies that will be critical for market adoption of these solutions
- Understand the technology market curve and isolate hype elements from actual growth trajectory
- Create differentiating platforms for solutions - demonstrating added value through field trial
- Provide relevant data and case studies
- Define growth zones and prospects for market participants
- Assist participants to formulate and execute key initiatives for technology commercialization and positioning
- Align efforts in light of Smart Grid deployment initiatives

STUDY APPROACH and RESEARCH METHODOLOGY

Overall, the study will employ a “growth consulting approach”. The core objective of the Growth Model will be identification of a determined set of opportunities that have been optimized and validated - based on study participants own strategic objectives and capabilities. These will be weighed against the opportunities in the marketplace.

The “growth consulting approach” takes the following key growth processes into consideration: the growth pipeline, opportunity evaluation, go-to-market-strategies, planning and implementation, and monitoring and optimization. For this project, the consulting methodology will concentrate on “Opportunity Evaluation” aspects of the growth process, providing a deep analysis of prioritized opportunities.

The suggested methodology will consist of a combined primary and secondary research approach:

- Secondary Research – market reports, databases, journals/literature, and other publications and searches. Leverage of Frost & Sullivan ongoing primary consumer research projects pertaining to perceptions and demand analysis in the ‘Connected Home’ area - with regard to adoption behavior, smart appliances, demand response, targeted advertisement and marketing. As well, CABA’s ‘Energy as a Managed Service’ research study will be leveraged for the project
- Primary Research – Frost & Sullivan will undertake development of study questionnaires and sample design, nature, structure, interview length and target respondents for primary research pertaining to all aspects of residential Smart Grid - in conjunction with, and

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with the final approval of, the project Steering Committee. It is proposed that interviews with key stakeholders, decision-makers, and industry experts involved with residential smart grid development and deployments are undertaken for this study

- Research Information and Data Analysis – collation and analysis of all primary and secondary research data and information, in accordance with, and meeting, stated project Research Objectives. Research and Analysis will also be subject to the purview of an internal Frost & Sullivan Strategic Review Committee
- Reporting – study sponsor presentation, provision of complete study report and recommendations

PROJECT DELIVERABLES

It is suggested that the deliverables for this project should consist of the following:

Suggested Research Report Components:

- Market dynamics
- Smart Grid deployment and impact on connected home solutions
- Analysis of macro indicators and external variables
- Smart grid and technology innovation
- Technology transfer protocols
- Market and business model
- Implementing the model
- Evaluation of costs
- Incorporating the utility services
- Incorporating the consumer/customer into the model
- Incorporating third parties
- Market timeline and major issues
- Technology adoption and opportunity horizon
- Actual adoption rates and key influencing factors
- Actual connected home solutions acceptance rates vs. market noise/hype
- Short- and long-term capitalization opportunities for key market participants
- Analysis of key influencing factors on business models, technology adoption, commercialization timeframe, compliance issues and meeting unmet market needs – to determine how players can respond to potential opportunities

Presentations/Other:

- Presentation of complete project findings by webinar/teleconference at project conclusion for all study sponsors, with a feedback period for final reporting
- “Print Ready” electronic color full report in Microsoft Word including executive summary, detailed findings, conclusions, recommendations and Level 1 case studies

Level 1 Participant Case Study

Level 1-study participants will have featured case studies of leading examples of connected home innovations included for analysis. The case studies will reflect “real-world” goals, application and benefits, as spearheaded by technology providers and integrators that have advanced the connected home market. All case studies will demonstrate the value derived from incorporating these technologies. Level 1 case studies will be similarly structured in reporting and will be included in the final study report. For samples of similar case studies from previous CABA research, please go to: www.CABA.org/brightgreen.

PROPOSED TIMELINE

Timeline details will be finalized during the initial planning session by Frost & Sullivan and the project Steering Committee. This timeline is based on the scope of the project as defined in this document. Depending on breadth of agreed specification, estimated project duration is twelve (12) weeks. Frost & Sullivan, in conjunction with the study Project Manager, will prepare detailed timelines, project milestones, responsibilities, and action/delivery dates - as agreed to by the project Steering Committee. Bi-weekly conference calls with the project Steering Committee will serve to keep study sponsors abreast of progress and key findings.

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Activity	Anticipated Date
Project Set-up and Kick-off Meeting	Week 1
Secondary Research	Weeks 1 - 4
Primary Research	Weeks 2 - 8
Analysis and Reviews	Weeks 6 - 9
Draft Final Report Delivery	Weeks 8 - 10
Report Presentation - Project Team Conference with Steering Committee/Project Manager, review and incorporation of feedback	Week 10
Final Report Delivery and Closure	Weeks 11 - 12

SPONSORSHIP OPPORTUNITIES

Level 1: \$15,000 per participant

Benefits: Featured case study, Study Steering Committee participation, study scope definition, survey design, study presentation and final reports

Level 2: \$10,000 per participant

Benefits: Study Steering Committee participation, study scope definition, survey design, study presentation and final reports

Level 3: Contributor: \$5,000 per participant

Benefits: Study presentation and final reports



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PREVIOUS CABA RESEARCH

CABA has undertaken a number of landmark and boutique research projects. To better understand the research that CABA has completed, please review these Executive Summaries:

- Connected Home Roadmap 2010:
<http://docs.caba.org/documents/research-promos/connected-home-promo.pdf>
- Energy as a Managed Service 2010:
<http://docs.caba.org/documents/research-promos/energy-managed-service-promo.pdf>

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