



New Data Further Illustrates the Revolution Happening in Today's Energy Sector

A study conducted by the Energy Research Council (ERC) and sponsored by ENGIE Resources, the third-largest non-residential electricity provider in the United States, is shedding new light on the changes taking shape in today's energy sector. The findings suggest that a rapid evolution is likely to occur in integrated management solutions, pointing to the strong possibility of a future beyond the buying and controlling of energy as independent functions.

This illustration of the progressive shift happening within the industry not only signals the emergence of a more informed, engaged consumer base, but also further validates what we at ENGIE Resources call the Energy Revolution – a new way of thinking about how consumers can use power more wisely to reduce bills, avoid shortages and blackouts, and enhance use of renewables.

ERC's research reflects the fact that the conversation about what constitutes customer value is changing, and ENGIE is well-positioned to be at the forefront of that movement.

BACKGROUND

Since the introduction of consumer choice, the electricity industry has viewed the market from three fundamental perspectives: the cost of acquiring customers; profit margins from serving those customers; and the ability to retain them. As a result, much of the emphasis has been on price.

But today's energy world is becoming much more complex, with new demands coming from customers, grid operators, regulators, and environmentalists. Although the perspectives of these different market stakeholders are distinct, participants are working toward the common goal

of understanding how customer value will be defined in the future – and how it can best be delivered.

Technology is playing a pivotal role in that conversation with the rapid progression of Wi-Fi connectivity. It's changed the scenario from what many originally envisioned for the industry – a hardwired network – to a much more open system concept that has allowed any company from virtually any industry to bring data-driven tools and smart devices to the market.

Advancements in Wi-Fi connectivity – combined with the fact that simply selling energy is not likely to be the

factor that will drive value to future consumers – are bringing the power of information to the forefront of competitive strategies.

ERC'S ENERGY PRODUCTS STUDY

While many industry stakeholders search for new products, tools, and technologies to support differentiation and new revenue streams, little empirical data exists concerning the market's awareness, interest, and potential demand for these offerings.

ERC's study, released in August 2016, addresses these issues with the goal of better understanding product development and technology trends,

as well as gauging the industry's awareness of, and interest in, next-generation products and services, as well as its likelihood of adopting them. It included a survey of more than 550 companies, interviews with a number of leading energy service companies, and a survey of more than a hundred energy brokers and consultants.

The research found that an emerging segment of energy supply companies is beginning to approach energy efficiency and management systems by building high-speed, integrated data networks that can seamlessly incorporate products and smart devices as needed. As the energy sector progresses from manual technologies, to those that operate on scheduling, to behavior-based devices, so will the industry's ability to deliver more sophisticated integrated-management solutions.

This critical conclusion suggests that companies, like ENGIE, who have already begun to shift their focuses to planning for the energy landscape ahead are at the forefront of the changes happening within the industry. Through the strategic acquisitions of OpTerra Energy Services, Green Charge Networks, and Ecova, ENGIE is enhancing its capabilities in efficiency, small-scale renewables, energy storage, and big data management, while broadening its ability to develop solutions that manage both price risks and the ways in which energy is consumed.

In addition to this finding, the study indicated that the next leap will be in the further integration of analytics – making smart devices even smarter – to optimize the consumer's entire environment. ERC's research points to the potential of integrated environmental solutions that bring together the management of things like security, air and water purity, and access, as well as temperature and lighting, into a single platform connected through an open Wi-Fi communications system.

ERC concluded that commercial and industrial customers are likely to be the early adopters of these devices and solutions, while the middle-market and mass-market sectors will be slower to pick up these trends.

OTHER KEY FINDINGS INCLUDE:

- The research supports that awareness and understanding of demand response remain among the most significant barriers to its adoption. Although the solution has been available for over a decade, most middle-market companies (61%) and small businesses (80%) say they are not knowledgeable on the concept. However, most large commercial and industrial consumers consider themselves to be either extremely (53%) or moderately (25%) familiar with demand response solutions.
- Relatively few mid-market (23%) and commercial and industrial (28%) consumers are familiar with smart or advanced meters that communicate real-time electricity use to the utility. Consequently, only 12% of the commercial market is interested in acquiring an automated demand response solution based on smart meters.
- Of all the demand management, efficiency, and distributed energy solutions assessed in the survey, companies of all sizes expressed the highest interest in acquiring energy audits (46%) and HVAC and/or lighting upgrades (45%). However, the research suggests that the biggest barriers to implementing these projects are upfront capital investment costs and payback periods. Sophisticated energy suppliers like ENGIE are responding with programs that convert the upfront capital costs of efficiency projects into operating expenses embedded in the companies' monthly energy bills. ENGIE Advantage™ provides these capabilities by combining the turnkey efficiency services of OpTerra Energy Services and the supply and billing expertise of ENGIE Resources.
- Almost all energy brokers and consultants said they currently offer (61%), plan to offer (7%), or are interested in offering (20%) energy products associated with demand management solutions, energy efficiency projects, or distributed energy generation/storage. However, only 9% of brokers and consultants surveyed

sell energy products, other than supply, consistently to their customers. Most sell only products, other than supply, to small subsets of their customers, primarily to competitively differentiate themselves (49%), or as defensive responses to competition (11%).

THE ENERGY REVOLUTION

In short, we at ENGIE believe that the energy world of tomorrow will look very different than it does today. Providers must choose whether to simply react to the changes taking shape in the current environment, or to lead what we call the Energy Revolution. This new way of thinking will drive solutions that enable consumers to use power more wisely to reduce bills, avoid shortages and blackouts, and enhance the use of renewables. ENGIE's vision is "to create a better world for our customers through innovative energy solutions."

ENGIE Resources is uniquely positioned to be that leader. We're part of a global group of energy companies that operates in 70 countries on five continents. In the United States, we serve commercial, industrial, and residential customers in 14 markets.

This broad geographic reach – coupled with the extensive energy expertise of the ENGIE group of companies – illustrates that we have the breadth, depth, and experience to provide integrated energy solutions tailored to customers' needs, while addressing the primary concerns of grid operators, utilities, and regulators.

By developing strategies that allow businesses and individuals to manage both energy price and quantity, we can support the electricity industry of the future – where a dependable supply of power is provided to customers, when they need it, without interruption, at a total cost that is both competitive and reliable.