

Deploy a no-regrets approach to **integrating your energy strategy**



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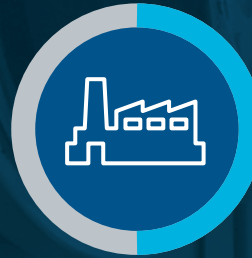


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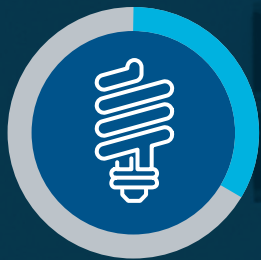
An **evolving energy** marketplace



97% of utility executives expect a medium to high amount of market disruption by 2020.¹



50% of the annual U.S. market will be attributed to the behind-the-meter segment by 2021.²



Up to 35% represents the projected growth of the renewable share of total generation.³

¹ 2015 Global Power and Utilities Survey, PwC.

² The Behind-the-Meter Energy Storage Landscape 2016-2016: Market Trends, Frameworks and Evolution, GTM Research, December 2016.

³ U.S. Energy Information Administration (EIA). Data url: [https://www.eia.gov/outlooks/aeo/pdf/0383\(2015\).pdf](https://www.eia.gov/outlooks/aeo/pdf/0383(2015).pdf)

Choice brings more pressure

Today's consumers have much more choice. And they're increasingly investing in energy options outside of their utility. In solar energy. In smart home devices, and energy-efficient products and services. In storage and self-generation. Even in electric vehicles.

These emerging technologies are reducing demand and utility energy sales. And because the regulatory model hasn't caught up fast enough, most utilities aren't taking advantage of potential revenue streams related to these new services. Yet, they still have to figure out how these new technologies and behaviors impact the grid now and in the future.

The trouble is, the impact of new technologies and consumer choices doesn't stop at the grid edge—it extends from power generation, transmission and distribution to grid management and long-term planning.



Traditional approaches to engage face challenges

The customer dynamic is changing from non-engagement to more engagement around specific behaviors aimed at supporting a reliable and an affordable grid. Today's utility customers expect personalized choice and control when it comes to both how they manage their energy usage and engage with you. They also want to understand "what's in it for them."

This shift is forcing utilities like yours to **think differently about how customer-facing programs are created** and program information is disseminated. Generic communications, or ones that disconnect offers, deals and bundles, can lead to limited uptake because your customers don't understand the value of their utility or the grid.

Further, you're facing regulatory pressure to build a smarter, safer grid that responds to a variety of customer needs. You're being asked to integrate non-traditional energy sources like renewables and other new technologies. And to increase reliability while keeping costs under control. But how can you build the future grid while you're still fixing the old one?



What if You Could...

You've been tasked to help your utility effectively support and profit from distributed energy resources (DER). Yet, you may be unsure where to begin or how that will be possible based on your current grid demands and all the requirements for new DER offerings.



But what if you could **increase the value of your grid and monetize more assets** for an improved rate of return?



At the same time, what if you could **make the best decisions about how to deploy, manage and operationalize DER** and other assets?



And what if you could **build a modern, mutually beneficial, more profitable relationship** with your customer?

If you could, you'd be able to work with your customers to redraw the lines of engagement, better align to their preferences and improve your business plans against grid realities. You'd also be able to influence and evolve the regulatory, rate and business environment to the mutual benefit of your business and your customers.

When you turn to ICF, you can.

With ICF, You Can

The ability to help utilities increase revenue, improve operations and build the utility of the future is why organizations like yours have chosen to work with ICF.

With ICF, you'll be able to integrate your energy strategy so you become a faster and stronger player that succeeds amid constant change. Success starts with smart software, modern marketing and a flexible, data-driven response to address your biggest challenges, including:



**Increasing
the value of
your grid and
monetizing
more assets**



**Making the
best decisions
to deploy and
operationalize
DER**



**Building more
mutually
beneficial
customer
relationships**



**Here's
how...**





The Challenge: Understanding the rules for integrated grid planning, investments and resource procurement

Utility planning is no longer the predictable exercise it used to be. As the grid becomes more integrated and decentralized, grid planning and modernization efforts can be fraught with uncertainty and risk. The valuation of current and planned assets is much harder. Market dynamics are making a moving target out of things like load management and revenue planning.

It can be challenging for utilities to know where and how to build new assets, and when to incorporate more energy efficiency, electrification or DER into their plans. As more utilities move behind the meter, demand-side management (DSM) and customer programs must evolve, but how? And how do those changes impact your overall grid strategy?

With the lines between generation, transmission and distribution becoming less clear, **traditional planning needs to adapt**. In an integrated, interconnected market, utility planning—and utility success—can no longer happen in silos.

The ICF Solution:

Improve profits by investing in distributed grid assets

To succeed in your industry, you need a streamlined view of your operations so you can create a fully integrated plan for the management and modernization of your grid. Working with ICF, you'll tap into a wealth of operational and industry knowledge so you can understand how to make the right plan for an integrated grid. You'll know what resources to apply and how to minimize risks, allowing you to build a thorough business plan that withstands scrutiny.

For example, through ICF's **strong operational expertise**, you'll get guidance in analyzing and identifying traditional and non-traditional ventures with the most potential. This includes an integrated analysis of which steps will best meet your goals across the **energy value chain**, such as asset development. Or more flexible approaches like beneficial electrification and solar contracting.

Thanks to ICF's **comprehensive knowledge of regulatory policy**, you'll be able to develop a solid business case that shows the real value of a new venture—for your utility, your regulator and your customers. You'll also proactively address regulation safeguards to help ensure public policy goals are met. As a result, you'll be able to craft a compelling business case with testimony, more quickly, then file it with regulators to support program approvals and cost recovery.





The Challenge:

Traditional utility strategies and programs miss the fastest-growing energy segment

If you're like most utilities, you're seeing the effects of new technologies in your market. From new competitors to customers investing in products and services that you don't control, all these options are putting a dent in both demand and your bottom line. You need to be able to counteract these impacts with new, profitable offerings of your own, but where to begin?

The grid with high DER penetration is a two-way power flow. Intermittent resources, such as solar and wind, will be more difficult to match generation and consumption. On top of this, you need to figure out how to deploy new offerings with aging infrastructure and, in some cases, outdated interconnection and planning processes. Your dependency on volumetric sales and low visibility "to customer and third-party assets" located on the grid into the distribution system add further complications.

It's **more challenging than ever** to implement your future vision with programs that align to a more distributed future. To know how to value these resources. To invest and achieve an appropriate return on them. And to ensure your grid can properly support more distributed assets.



The ICF Solution:

Make the best decisions about how to deploy, manage and operationalize DER and other assets



You want to adopt DER as profitably as possible while boosting efficiency and reliability. Working with ICF, you'll know what's needed to leverage DER as part of your overall portfolio. This includes strengthening demand side management programs to minimize spikes in demand that can disrupt grid performance. You'll make better planning, investment, and operational decisions as well. And you'll be positioned to promote growth and deliver expected financial benefits from DER.

With ICF **DER grid investment and modernization services**, you'll understand the locational and temporal constraints, hosting capacity and DER value at the premise level. The insights from our 20+ years of programmatic experience also informs the model from a customer adoption standpoint. You'll be able to analyze both the potential participation and rate of adoption for these offerings. By doing so, you'll better assess when it's

profitable to own and monetize new DER assets, or if it makes sense to build services around another provider's assets.

You'll also be able to employ **DSM advisory and implementation services** to analyze and improve your current energy efficiency programs—and better respond to customer needs around renewables. Plus, you'll be

able to provide the right incentives to help shift and regulate demand to maintain a safe, reliable and affordable grid.

Finally, using **advanced planning and modeling tools**, you'll see how to treat and value customers differently so that individual DER offerings are less costly and support revenue growth.



The Challenge:

Decentralized outreach **misses opportunities** to connect customer value to the grid and move beyond safety, reliability and affordability



For years, utilities have successfully provided their end customers with safe, reliable power at an affordable price. After you turned on their service, they paid their bills and counted on you to quickly respond to any outages.

Today, your customers have increasingly more energy options, such as solar and storage, and accessible control of their usage via offerings such as smart thermostats. These energy management choices are complex. As their trusted energy provider, your customers are looking to you to educate them about and deliver new offerings that match their needs. But it can be difficult to bring programs and offerings to customers at the right time and across their preferred channels. The reason? Legacy systems, siloed programs, evolving IOT technology and a lack of centralized data compromise a complete customer picture and undermine the ability to meet the customer's need.

It's critical to understand the journey from your customers' point of view—in other words, what they're experiencing or looking for as they interact with you. **Only then can you translate those insights** into viable programs or offerings that are presented when they benefit your customers the most.



The ICF Solution:

Build a modern, mutually beneficial, **more profitable relationship** with your customer



With centralized tracking, analytics and engagement systems, you can improve engagement now and fend off longer-term threats to your business. With ICF, you'll see the surest path to sustained growth is through building high-quality relationships with valued customers rather than client products. By knowing what's happening at every touchpoint in their experience, you can address customer pain points in a way that easily communicates business value. Leveraging machine-learning insights, you'll more rapidly understand your customers and be able to create personalized interactions with them through digitally integrated offerings in the form of programs, goods and services. The result? Customer relationships that are more rewarding, profitable and long-lasting.

With **Journey mapping**, you'll go through a discovery process using ICF's cross-industry **Journey+** methodology to accurately identify and map key customer interactions and pain points—then build an actionable roadmap to address them.

Using **Sightline™**, ICF's customer analytics platform, you'll be able to bring true personalization to your outreach programs thanks to a 360-degree view of customer data from all front- and back-office activities. Armed with better understanding and insights, you can build campaigns that align the right offer with the right customer at the right time, across the right engagement channel.

Tally®, ICF's industry-leading and award-winning loyalty and customer relationship management platform, helps you manage customer interactions, create and target promotions, uncover actionable insights, and drive online, offline, mobile or text experiences. So, you'll be able to reward and motivate customers along every step of their journey.



Why ICF?

With ICF, you can **deploy a no-regrets approach** to your energy strategy.

Improve profits by investing in distributed grid assets:

Working with ICF, you'll tap into a wealth of operational and industry knowledge to assess and understand how to make integrated grid planning a reality. You'll know what resources to apply and how to minimize risks. Build a thorough business plan that withstands scrutiny.

Make the best decisions about how to deploy, manage and operationalize DER and other assets:

Extend your business model and investment strategies to participate in the growth of services and revenues around DER and other assets. Implement programs with greater confidence. Leverage your DSM programs—which are in essence distributed resources themselves—to improve your customer satisfaction and expand new services and offerings.

Build a modern, mutually beneficial, more profitable relationship with your customer:

While changes in customer choice can be disruptive, they can also be an opportunity. New technologies and tracking systems can help you map the customer experience at every touchpoint, and move customers along a journey that's more rewarding for them and more profitable for you.



Ready to deploy a no-regrets approach to integrating your energy strategy?

Visit us at **icf.com/energy**

About ICF

ICF (NASDAQ:ICFI) is a global consulting services company with over 5,000 specialized experts, but we are not your typical consultants. At ICF, business analysts and policy specialists work together with digital strategists, data scientists and creatives. We combine unmatched industry expertise with cutting-edge engagement capabilities to help organizations solve their most complex challenges. Since 1969, public and private sector clients have worked with ICF to navigate change and shape the future. Learn more at **icf.com**.

