

Energy and Environment Solutions

Energy Transformation: The Path to Sustainable Growth

Globally, the power and utility sector is undergoing unprecedented levels of change. New business models are extending into previously unexplored areas of the value chain, risk appetites are being stretched to bring focus to unregulated energy opportunities, and waves of digital and technological evolution are fundamentally rewiring long-held ways of working. The mantra of customer centricity is being more than just heard — it has become the foundation for transformation efforts to modernize a legacy and fundamentally shift the perspective that a utility is merely an array of assets providing a commoditized service.

In parallel, uncertainty remains throughout the political and regulatory landscape. Tension between environmental concerns and affordability continues to dominate the energy discourse. Absorbing increasing levels of decentralized generation is becoming a more profound technical (and strategic) challenge for the grid, and utilities have yet to determine the best way to serve a customer base that is anything but homogenous, spread typically over large and diverse geographic and economic footprints.

Facing these market realities head-on with pace is a strategic imperative for utilities, as their market role is now far broader than simply ensuring success within their own immediate value chain. Today, utilities sit at the intersection of a plethora of economy-wide opportunities, including smart cities, electrified transportation and an increasingly decarbonized economy, to name a few. This "responsibility" presents boards, executive leadership teams, and the investment community with significant risk and, more optimistically, significant waves of opportunity (Figure 1).

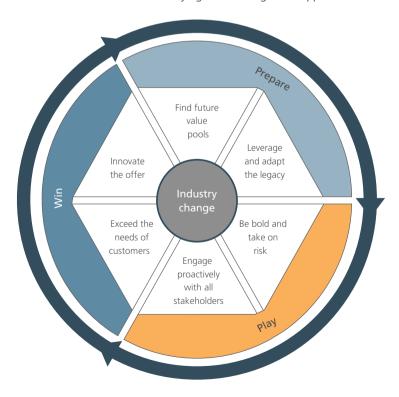


Figure 1 L.E.K.'s framework for identifying innovative growth opportunities



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Some continue to seek clarity and proof that the view will be worth the climb, while others question and raise concerns, often legitimately, around their ability to successfully transform. L.E.K. Consulting, however, believes the inherent fundamentals exist within a utility that demonstrate the potential of modernization and transformation to enable infra and intersectoral evolution.

Through our work with utilities globally, we have already seen:

- Bold portfolio moves and partnership models emerge to manage inevitable stranded asset risk and to capitalize on the momentum of customer-led change
- Investors take significant positions in regulated and unregulated business models, and embed a level of commercial acumen and awareness that was previously underdeveloped
- An increasing sense of ownership and accountability at all organizational layers
- Digital and technological innovation appear in the form of augmented reality, artificial intelligence, drones and robotic process automation
- An authentic shift toward customer centricity being agile and driven to meet the customer's unmet needs — rather than viewing customers as the "rate-payers"

• The "real" culture of a utility revealed, as cross-functional teams that typically work in siloes rally together to do the seemingly impossible

What's more, we have seen that the market rewards those who have taken risks and refocussed their business model. Between FY 2013 to FY 2018, L.E.K. analysis shows that certain utilities that made bold moves in the face of turbulent, volatile and disruptive market conditions have seen significant growth in revenue. For example, Sempra Energy has implemented a radical portfolio optimization strategy and has achieved sustained growth, with a growth rate generally of c.9% CAGR for 2013–2018. Similarly, utilities like Centrica and Next Era are establishing new portfolios of products and services to drive future growth, and are on track to realize those financial rewards. Meanwhile, others are navigating and surviving significantly challenged operating environments. For example, E.ON's profits have been affected by the rapid growth of renewables in Germany and the German government's 2011 decision to phase out nuclear power.

Top 10 strategic issues facing energy and utility executives

Of course, rewards are not easy to replicate. Change on an industry-wide scale does not happen overnight, and even entities that have progressed further in their transformations are learning as they go. We see 10 key strategic issues facing leadership teams today.

Strategic issue	Industry challenge	Key questions		
1. Market and identity	"The industry is being disrupted — the future is not as predictable as it once was."	 What do we believe will change in our industry and when, and how will we be impacted? How do we define our role today, and do our customers agree? How does our role need to change in the future? 		
2. Growth	<i>"The way a utility makes money and how it goes to market are changing."</i>	 Where will value (regulated, regulated-like, unregulated) be created in the future? What is the prize, and how will we play to win? Who are our future stakeholders, shareholders, partners, peers and competitors? 		
3. Customer and community	"The customer is driving profound change, yet most utilities remain largely asset- centric."	 What do our customers value, and how do we meet those changing needs? How can we empower customers who want greater independence, e.g., via stand-alone power systems (SAPS)? How do we differentiate on a commodity? What does product and service differentiation for our customers mean? 		
4. Portfolio management and restructuring	"The assets and capabilities creating value now could become liabilities or differentiators in the future."	 What assets can we continue to leverage to create value in the future? Which assets represent strategic risk and need to be divested? What investments do we need to make in order to expand and extend into new areas of the value chain? 		



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Strategic issue	Industry challenge	Key questions
5. Policy and regulatory	"The industry will continue to be plagued by political and regulatory uncertainty."	• What changes should we anticipate, and how can we best influence market design policy or regulatory model evolution?
		• How do we balance our risk appetite with our growth ambitions to step outside of traditional value pools that are predictable and regulated?
6. Sustainability	"The value propositions of the future must embed sustainability at their core."	• What steps are needed to future-proof our assets, ensuring the ongoing security of our supply and superior customer service?
		• How do we predict and manage the potential unintended consequences of sustainability and decarbonization aspirations?
7. Core optimization	"The need to deliver safe, reliable, low-cost services remains a critical business imperative."	• What levers can we pull to sustainably enhance the efficiency and effectiveness of business-as-usual services to help fund growth?
		• Where do we already have an industry-leading or differentiated position that can be leveraged to drive new value creation?
8. Innovation	"The thinking of today is unlikely to be fit for tomorrow's purposes."	• What does innovation mean in the context of our industry and organization?
		• What capabilities, tools and talent do we need to invest in to drive incremental and / or breakthrough change in the way we create value?
9. Technology and digitization	"Technology will enable anything and everything in the future energy market / ecosystem."	• How will we leverage new technology and digitize our business to transform the way services are delivered through greater automation, connectivity and collaboration?
		• How can we use these technological and digital tools to attain deeper operational insights, increase our commercial acumen, and improve and accelerate decision-making?
10. Culture	"Culture is the hearts and minds that define an organization and enable it to sustainably win."	• Which organizational characteristics, traits and behaviors are most important today, and how do we best evolve these for the future?
		• How will we successfully marry our legacy with our future?

Figure 2 L.E.K.'s approach to energy transformation

	Strategic issues to consider			Organizational issues to consider	
	Make a call on the market	Understand the strategic implications	Determine how to play	4 Make the change and optimize	5 Self-disrupt to remain differentiated
SL	Industry-disruptive factors	Strategic ambition, objectives, priorities	Go-to-market model	Operating model	Innovation
Imensio	Global and local macro / mega trends	Financial targets	Portfolio positioning and investments	Change management and engagement	Digital and technology
	Scenario planning	Value pool composition (regulated vs. unregulated)	Customer value proposition	Performance / continuous improvement	Culture
1		Prepare		Play	Win



L.E.K.'s approach to energy transformation

L.E.K. has developed an analytical approach to help clients assess these questions, and to evaluate and implement the appropriate responses (Figure 2).

- 1. Make a call on the market. Explore the local and global macro trends disrupting the industry. Develop a fact base, and assess options through scenario planning.
- 2. Understand the strategic implications. Define the organization's vision, strategic priorities and financial targets in light of expected disruption. Reveal the priorities, investments and organizational evolution required to succeed.
- 3. Determine how to play. Refine the customer value proposition by targeting appropriate customer groups, understanding their needs and creating flexible, hybrid product / service solutions. Adopt the right partnership models and technology platforms.
- 4. Make the change and optimize. Implement strategy through supportive operating models and organizational choices. Optimize cost and functional performance to realize performance improvement. Increase interoperability.
- 5. **Self-disrupt to remain differentiated.** Apply digital best practices to unlock new potential within the organization and to enhance decision-making through the smart application of data and analytical techniques. Engage a broad team to generate the best ideas.

Take the plunge?

Given the rapid pace of change, it is tempting to sink resources into innovative pilots. However, ideation does not equal

innovation unless customers are willing to pay for it. Economic laws have not changed — technologies and information assets should be clearly focused on creating financial value. Product and service strategy must originate with customer needs and be tied to a strong ROI case.

Change often fails because it is difficult to modify how decisions are made. Fundamentally, many organizations are not built to make data-driven decisions quickly. Changing the way people work and behave takes time and focused effort, and is hampered by the fact that technology deployment and data generation always outpace an organization's ability to transform.

L.E.K.'s approach supports clients with transformation efforts and enterprise-wide change. We believe that technology deployment should fit into or support strategic choices, not the other way around. Our approach is unique in that it helps utility clients define both where to play (i.e., markets, customers, services, geographies) and how to win (i.e., business model, organization, operational execution). In uncertain times, success is determined by the ability to develop the right model for your strategy — and by cultivating an ecosystem of partners to help.

Contact

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