

SHORT TAKE

A framework for the utility customer of the future

The journey to a smart
platform

BIG TECHNOLOGY COMPANIES have redefined customer roles and expectations and raised the bar for utilities. The line between consumer and producer appears to be blurring, communication friction dissolving, and content being personalized. Can utilities strengthen and grow their relationship with customers by developing an energy platform that can deliver an elevated human experience?

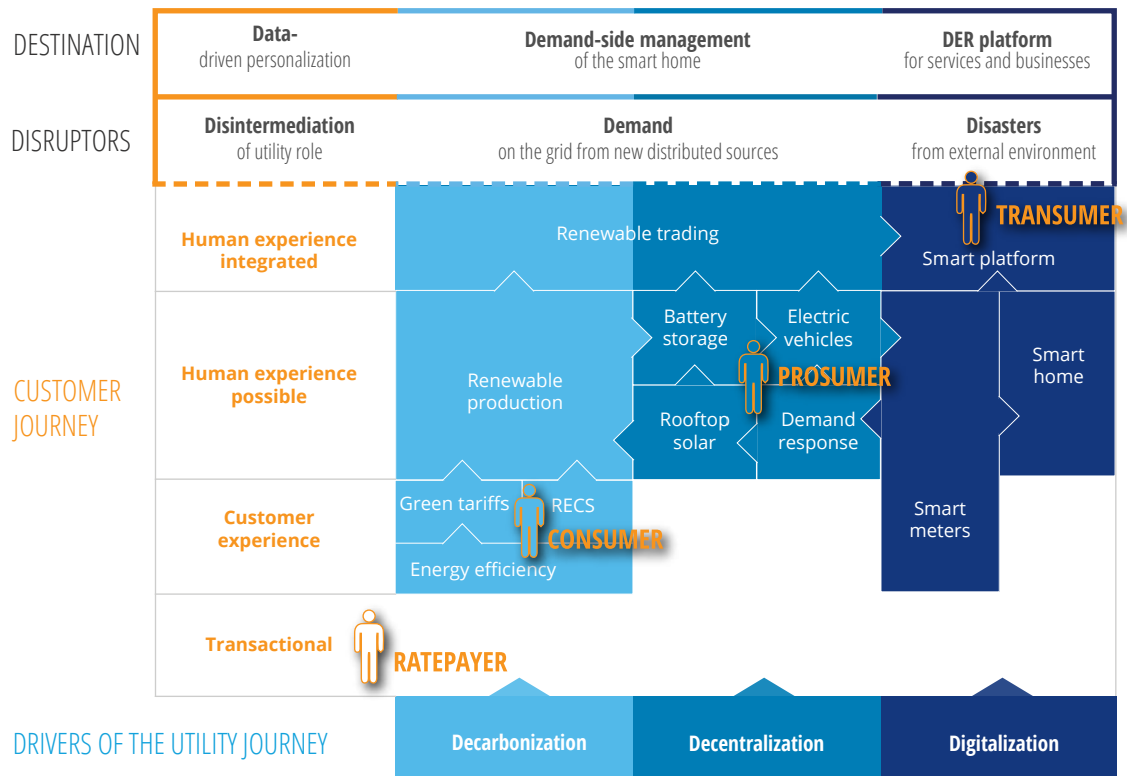
The 3D framework

Our analysis is structured around a 3D framework that interrelates the customer's journey with three sets of drivers, disruptors, and destinations that could transform utilities.

The customer's relationship with utilities is evolving as three key industry drivers reshape the power industry and transform customer expectations: **digitalization**, **decentralization**, and **decarbonization**. However, this relationship and emerging new utility platform face potential disruption related to **demand**, **disintermediation**, and **disasters**. Successful customer engagement can help forestall these disruptors. In order to reach a destination where they are profitably leveraging new technology while enhancing the human experience, utilities should consider three capabilities: **data-driven** personalization, customer engagement in demand-side management (**DSM**) of the smart home, and a distributed energy resource (**DER**) platform for energy services and businesses.

FIGURE 1

The 3D framework



Source: Deloitte analysis.



The customer's journey from ratepayer to transumer

The utility customer's journey typically starts with a unidirectional commodity transaction between **ratepayers** and the utility. As energy choice grows and electrons gain attributes such as “greenness” and time-varying rates, utilities can start offering **consumers** a customer experience. The most significant development in the journey often occurs when a smart home's resources enable a bidirectional flow of energy and data between the utility and **prosumers**. Finally, some utility pilots are exploring peer-to-peer trading among customers we refer to as **transumers** in transactive markets. Beginning with prosumers, the wealth of data can enable a more personalized approach, accounting for the different values that people assign to various energy attributes. By connecting these attributes to individual stories during key moments that matter, the utility can deliver elevated human experiences.

The 3D drivers: Decarbonization, decentralization, and digitalization

Utility and customer expectations are evolving in response to key industry drivers.

Decarbonization is occurring as clean technologies become more competitive with fossil fuels. Customers expect utilities to support their adoption of renewables with green tariffs and energy efficiency incentives. In addition, prosumers expect support for producing renewables.

Decentralization results from connections of rooftop solar, storage, and dispatchable demand response to the grid. As prosumers deploy these energy resources behind the meter, they are increasingly expecting incentivized load shifting.

Digitalization refers to the deployment of digital infrastructure, which is creating new data streams. As utilities deploy smart meters on the grid, and customers deploy smart home technologies, expectations are growing for more real-time and actionable energy data to maximize convenience and savings.

The 3D disruptors: Disintermediation, demand, and disasters

Disruptors detrimental to the utility may jeopardize the customer-utility relationship, the decarbonization and decentralization processes, and the digitalization process.

Utilities face disintermediation risks in their relationship with customers. If they do not meet expectations, some customers might develop stronger relationships with new entrants competing with utilities or become independent of the grid.

Second, the decarbonization and decentralization processes have created new sources of demand from and on the grid, requiring customer engagement to help prevent load spikes from EV charging and to gain greater visibility into, communicate with, and integrate with rooftop solar.

Third, the utility's digital infrastructure is at risk from disasters in the utility's external environment, such as cyberattacks.

The 3D destination: Data, DSM, and DER

Utilities can profitably leverage technology in three ways to help overcome disruptors and elevate the human experience of their customers.

They can deliver a data-driven experience by building analytical capabilities that harness the power of smart meter data to personalize offerings. Personalization could strengthen the utility relationship with customers and thereby minimize the risk of disintermediation.

A next step could be to engage customers in smart-home DSM by bringing real-time energy data to customers, communicating via voice assistants, and connecting to customized product bundles from energy marketplaces. This customer engagement could help avoid demand disruption.

Finally, utilities can create a DER platform for energy services and businesses that empowers customers while creating a self-healing grid that is more resilient to disasters.

It behooves utilities to make a platform play that can profitably provide an elevated human experience in smart homes seamlessly integrated with smart grids.

To learn more, read the full report, *The utility customer of the future: Operating an energy platform built for elevated human experiences.*

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