

ECONOMIC



Utility Revenue



In the next 10 to 20 years, disruptive challenges like utility revenue may continue to impact the ability of water utilities to meet their committed levels of service for their ever-changing service areas. How can utilities provide capital-intensive and critical services in the face of increased costs, limited resources, and economic uncertainty?

CRITICAL FUTURE DISRUPTORS

For the purposes of this effort, a disruptor is defined as something that interrupts an event, activity, or process by causing a disturbance, problem, or opportunity. Disruptors can arise as barriers to normal operations or may present opportunities to do things differently/innovate.

The following items were chosen by a diverse group of water leaders and experts as the most significant future disruptors that water utilities must anticipate and plan for.



REGULATORY

The regulatory and economic environment for water utilities could shift significantly as the dialogue regarding access to clean and safe water as a human right continues to evolve. These regulatory changes could include potential changes in water rights doctrine, new rules on disconnections and recovery of unpaid water bills, and new approaches to preserve equity in water rates.



CHANGING DEMOGRAPHICS

For many utilities, service area population densities could change, affecting the demographic makeup of the customer base. Equity issues around water as a human right could potentially affect how utilities plan their rate structures. Revenue flexibility will be necessary.



ECONOMY

Economic drivers such as unemployment in the customer base and increases in the rate of inflation could impact how utilities consider revenue requirements and are able to make rate decisions.



CONSOLIDATION

Going forward, utilities may be pushed to offer a variety of “a la carte” water rates, like the telecommunications sector (i.e., individual businesses could sign up for a particular type of water service and rate that aligns more closely with their needs). In addition, there may be a push for water providers to consolidate on a state or regional level and bundle various services.

RESEARCH OPPORTUNITIES

Based on these critical future disruptors, experts prioritized the following targeted research areas:



EDUCATION OF STAFF, CUSTOMERS, POLICY MAKERS, COMMUNICATION

It is often unclear to customers and policymakers how the “hidden” costs associated with the provision of safe and reliable drinking water and wastewater treatment services impact the revenue needs of the water utility (e.g., climate impacts, repair and replacement of deteriorating infrastructure). Research is needed on how best to communicate about these hidden costs and risks, and why water systems must be funded adequately to address them. From an internal utility perspective, research is needed on innovative risk mitigation strategies that could increase value to customers.



FINANCIAL PLANNING

Research is needed on ways that utilities could share information about their rates, e.g., what factors are included in utility rates and the average levels of water consumption within the service area. Benchmarking finance requires leveling the playing field of the underlying costs and factors for the cost of water. Research is also needed on innovative, “out of the box” financing approaches that are responsive to changing customer expectations.



RATE DESIGN

Research is needed on creative and innovative utility rate designs (e.g., gradualism in rate adjustments, stormwater rate approaches that consider the co-benefits that accrue, peak hour pricing, etc.). Research should be conducted to inform how laws or policies could be put in place to provide greater flexibility in the development of innovative rate structures, including alternative approaches to oversight of rates from city councils to broader commissions.



ALTERNATIVE REVENUE STREAMS

Research is needed on ways that utilities can diversify their revenue streams, including potential opportunities for utilities to develop revenue streams from green infrastructure investment; innovative tax, pricing, and fee mechanisms; and other services beyond the traditional utility role.



TECHNOLOGY

Research is needed on technologies that could improve utility revenue collection, including use of a variety of the more flexible payment platforms that are currently commercially available. Research is also needed to explore how use of emerging technologies could impact utility revenue (e.g., blockchain, cybersecurity considerations, etc.).



CUSTOMER SEGMENTATION

Research is needed to better understand water usage among various customer categories, as well as how these water use trends are affected by other factors like extreme weather events.



NON-REVENUE WATER

Research is needed on new and innovative approaches to limit revenue loss due to non-revenue water. Specific areas to investigate could include limiting metering set up errors, implementing remote sensing to identify water loss from the distribution system, and minimizing hydrant water theft.

