Water Affordability Needs Assessment Listening Session Summary

Water Associations & Utilities

Session 2 – Data and Analysis | April 4th, 2024

Background and Introduction

In the Infrastructure Investment and Jobs Act of 2021 (IIJA), Section 50108, [42 U.S.C. 300j-19a], Congress directed the U.S. EPA to produce a Water Affordability Needs Assessment Report to Congress. In producing the report and as directed in Section 50108 of the IIJA, EPA gathered stakeholder input from a diverse group of experts in the water affordability field, including utilities, associations, academia, nonprofits, community-based organizations (CBOs), advocacy groups, and the public. These stakeholders included experts who have spent decades working to address water affordability challenges across the U.S.

In March and April 2024, EPA hosted two series of targeted Stakeholder Listening Sessions, each series consisting of three sessions. One series focused on gaining perspectives from water associations and utilities, while the other focused on feedback from nonprofit and advocacy communities. EPA invited participants from water utilities and associations, including rural advocacy associations, as well as select nonprofits, non-governmental organizations (NGOs), and CBOs, to participate in these sessions. EPA provided the stakeholders with background on this report, solicited feedback from stakeholders on proposed data sources and EPA's data analysis approach, enlisted stakeholder assistance in case study development and review, and discussed recommendations for addressing affordability challenges nationwide.

This document summarizes the second listening session for invited participants from select water associations and utilities which was held on April 4, 2024.

EPA's objectives for the listening session included:

- Share the data analysis approach for the report.
- Provide an overview of datasets planned for inclusion in the report.
- Highlight data gaps that currently exist.
- Provide a preview of the Session 3 topic: Recommendations.

Definitions of Affordable Access to Water Services

Ellen Tarquinio (U.S. EPA) opened the session by welcoming participants and inviting them to use the meeting chat to share their responses to the question, "How is access to affordable water defined for you?" Some of the affordability definitions that participants mentioned are below.

- The ability for customers to access water and wastewater service at 2% of household income or less.
- Annual cost of water bills as a percentage of median household income (%MHI).
- Manny Teodoro's Affordability Ratio (AR): AR = (Cost of Basic Water + Sewer Service) ÷ (Household Income-Essential Non-Water Costs).
- Intra-service area approach that uses spatial analysis to capture a disaggregated picture of affordability within service areas (accounting for household typologies, cost of living, and climate vulnerabilities).
- Assessment of how many customers are paying their bills on time and in full.

Qualifying Households

Ellen Tarquinio provided an overview of the direction that Congress has given EPA to create the Water Affordability Needs Assessment and Report and explained the criteria laid out in legislation that defines qualifying households. Key highlights from her presentation are as follows.

- In the report, EPA is tasked to (1) provide the prevalence of utilities that service a disproportionate number of households in need (this is measured by the criteria of a 'qualifying household,' which is provided in the legislation) and (2) provide an estimate for utilities that have taken on an unsustainable level of debt due to customer non-payments.
- Legislation dictates four specific criteria used to determine "qualifying households":
    - Customers eligible for assistance through a utility low-income ratepayer assistance program.
    - Determination of low-income based on State Revolving Fund affordability criteria established by the state under the Safe Drinking Water Act.
    - Customers that experience drinking water or wastewater service costs that exceed the most recent EPA Financial Capability Assessment Guidance.
    - For rural service providers (serving 10,000 people or less), households whose income is less than the greater of [-150% of the poverty level of the state] or [60% of the state median income].

Facilitators invited participants to share thoughts on ways to document utilities taking on an unsustainable amount of debt due to customer nonpayment and qualifying households. Highlights of the participant discussion are as follows.

- *Congressional Language*. Some participants expressed that the Congressional language, "utilities taking on unsustainable levels of debt due to customer nonpayment," does not reflect the reality of how utilities make use of debt financing. Utilities take on debt to complete needed activities such as capital projects. Payment is then collected to cover the debt repayment and ongoing costs. High levels of nonpayment cause cash flow issues and jeopardize both existing and future commitments. Additionally, high levels of unpaid bills can cause issues with bond ratings and the ability to raise capital.
- *Need for a Customer Assistance Program*. Customer assistance is necessary to support the persistent portion of customers not paying their bills, and looming regulatory compliance costs that will necessitate rate increases. Water cutoffs can motivate customers into

entering into payment installment plans, however, these can result in public health risk due to house condemnations.

- *Multi-Family Dwellings*. It is important to note the distinction between households and customers. Many customers are renters living in multi-family dwellings, and there is no way to know how much of the actual cost of their water bill is getting passed on to them.
- *Arrearages and Bill Payments*. It was suggested to EPA to gather national data on arrearages and bill payment to better understand customer nonpayment and qualifying households.
- *Assessing Burden*. A participant encouraged EPA to avoid a one-size-fits-all approach to determining household eligibility and assessing burden, and instead recommend a multi-pronged approach that can reflect the unique circumstances of different communities.

Data Approach

Jean Ray (U.S. EPA) provided an overview of EPA's data analysis. Key highlights from her presentation are as follows.

- The base analysis for water affordability will include water rates, income data from the U.S. Census Bureau, and actual service areas or some approximation of service areas to geographically link the water rates to income. The cost of water will be compared to one or multiple affordability definitions. The generated value would reflect an annually required estimate to support a permanent low-income water program.
- Based on additional Congressional direction, EPA will also need to include information on arrearages, disconnections, and information on property tax liens. These represent separate analyses that could be combined with the water rates affordability analysis to provide a more comprehensive picture of need. There are some decision points that must be made for this analysis, like volumetric water use and household size. EPA is strongly leaning towards utilizing a hygienic level of water use in these calculations.

Facilitators then invited participants to share thoughts on EPA's data approach. Highlights of the participant discussion are as follows.

- *Aggregation of Data*. Participants noted that much socioeconomic data is aggregated, without distinction to reflect the differences in localities, such as variation in housing markets and climate risk.
- *National Map of Water Service Territories*. The Environmental Policy Innovation Center (EPIC) and partners developed a comprehensive national dataset of water service area boundaries. That tool, and the data behind it, could be useful for EPA's analysis.
- *Direct Input from Customers*. EPA's data-gathering should include direct data from ratepayers regarding what they find affordable.
- *Projected Increases in Rates*. Future costs associated with climate change responses, regulatory requirements, and aging infrastructure are all going to impact rates, and thus affordability. Solely measuring current rates without estimating future rates will paint an outdated picture of affordability in the U.S.

Dataset Sources and Data Gaps

Jean Ray provided an overview of gaps that currently exist in the available data. Key highlights from her presentation are as follows.

- Datasets that EPA currently plans to use include Duke University and University of North Carolina Environmental Finance Center (UNC EFC) Dashboards, AWWA/Raftelis Water Rates Surveys, and state-specific water data. For state-specific water datasets, some are posted on state governmental websites while others are available from university sources or consultants. EPA aims to highlight publicly available data to aid in the Water Affordability Needs Assessment data-gathering effort.
- Participants were encouraged to reach out to EPA to flag any state-specific datasets they are aware of that are not reflected in the presented list that can help fill data gaps.

Facilitators then invited participants to share other data sources that they recommend EPA should investigate. Highlights of the participant discussion are as follows.

- *Climate Risk*. A participant encouraged EPA to gather data on risks of climate impacts and assess any correlation with data on arrearages.
- *Small and Rural Utilities*. Small and rural utilities should be included in data analysis in a representative way, avoiding over-extrapolation of this category. States that require all communities to produce publicly-available audited financial data will be a valuable source that can contribute to a holistic view of these utilities.
- *Multifamily Households*. In urban areas, most of the impact of affordability is borne by the poorest people living in multifamily housing. The concept of water budget billing has been tried in some places, which entails varying rates based upon income. Administration of those programs is challenging because it can be hard to know how many persons live in a household.
- *Lower Income Households*. Lower income households *on average* use less water than other households; however, some low-income households have high usage due to high occupancy, old inefficient appliances and fixtures, and leaky plumbing. There are examples of utility conservation programs that have targeted lower income households for conservation improvements to drive down the total usage and thus the total cost.

Data sources that participants shared are listed below.

- California Heat Assessment Tool (Four Twenty Seven, Argos Analytics, Habitat Seven, and the Public Health Institute)
- Comparative Rate Studies for Indiana Utilities (Baker Tilly Municipal Advisors)
- Living Wage Calculator (MIT)
- Low-Income Water Customer Assistance Program Assessment (NACWA)
- National Map of Water Service Area Boundaries (Environmental Policy Innovation Center)
- New Jersey Benchmark Hub (Jersey WaterCheck)
- Tap Water Survey Finds Communication is Key in Consumer Perception of Safety (AWWA)
- Water and Sewer Affordability in the United States (Manny Teodoro)
- Wisconsin Water Rates Dashboard (UNC)

Affordability Metrics

Jean Ray provided an overview of the many ways that affordability can be defined. Key highlights from her presentation are as follows.

- EPA must produce a definition for "affordable access to water services" and "lack of affordable access to water services." How these are defined in the report will directly affect the cost estimates for methods of increasing access to water services, including the cost estimate for a permanent federal low-income water program.
- Affordability has been defined in various ways over the years and in different programs. The following table shows some affordability definitions that have been used previously.

Name	Abbreviation	Source
State Revolving Fund Affordability Criteria and Disadvantaged Community Definitions		CWA and SDWA; State defined
Percentage of Lowest Quintile Income	% LQI	Raucher et al. 2019
Poverty Prevalence Indicator	PPI	Raucher et al. 2019
Affordability Ratio	AR	Teodoro 2018
Hours of Labor at Minimum Wage	HM	Teodoro 2018
Expanded Financial Capability Assessment Matrix	Expanded FCA	EPA 2023
Percentage of Median Household Income	% MHI	EPA 1997
Residential Indicator	RI	EPA 1997
Financial Capability Indicator	FCI	EPA 1997

Facilitators then invited participants to share thoughts on affordability metrics. Highlights of the participant discussion are as follows.

- *Median Household Income Challenges*. There are serious limitations using median household income as a metric, and there is movement across the sector to find alternatives.
- *Context on Rates*. A participant expressed that the report should not lead toward the conclusion that utilities are setting rates are too high. Context on how rates are set should be provided.
- *Customers' Ability to Pay*. A participant suggested that the question should not just be "Are water rates affordable?" but "Are customers able to afford paying what the utility needs to charge to sustain itself?" Note that customers who are paying their water bills are not necessarily able to afford their water bills; they may be forgoing other necessary costs in order to pay that bill.

- *Microeconomic Impacts*. It is worth examining the local microeconomic impacts of rising water rates. For example, fewer funds might be spent on other discretionary activities that can have ripple effects in local economies (e.g., breweries, restaurants, etc.).

Ellen Tarquinio ended the session by thanking participants for attending and inviting them to return for the third and final listening session.

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