



AEG Washington 2021 Stakeholder Challenge:

Critical Infrastructure, Equity & Resilience

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Water and Sewer utility for the District of Columbia and 2.2 million residents of DC/Maryland/Virginia

Largest Single Entity in DC Using Electrical Power

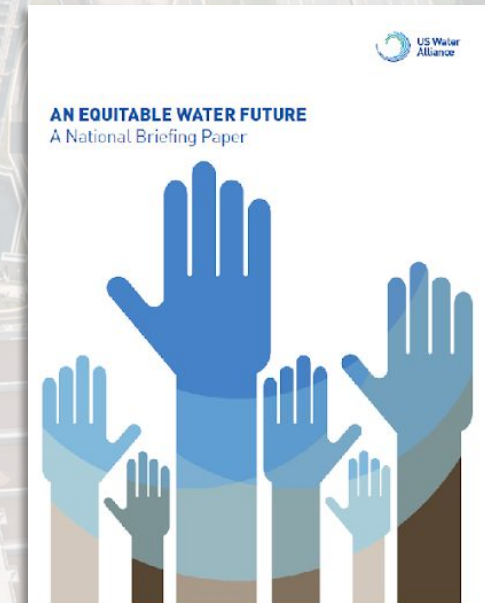
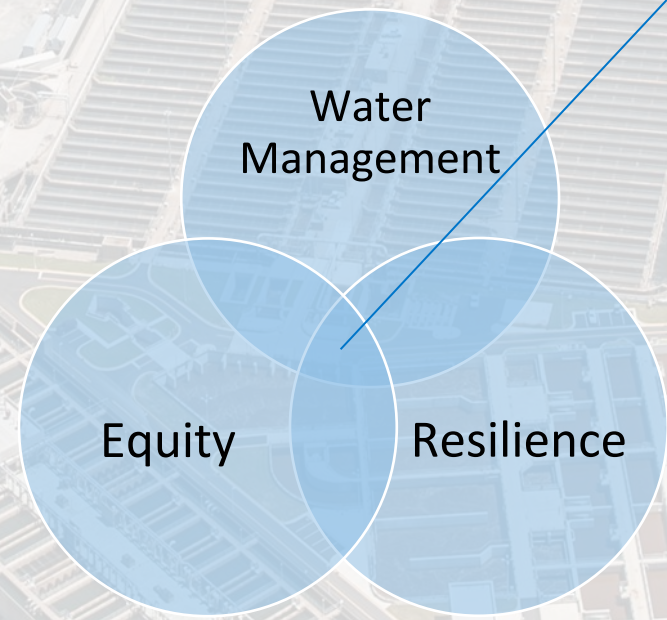
- 28 MW – 85% at Blue Plains
- 38 MW – during Wet Weather events

Significant Green Energy Potential

- 13 MW on-site CHP generation
- 3 MW on-site Solar generation
- 16 MW Solar in planning at Blue Plains
- 1.8 MW Proposed Community Solar Brentwood Reservoir
- Additional Solar opportunities under review across DC Water Facilities
- 1+ MW of additional power potential from District food waste
- Potential to extract energy from multiple sources

Water Equity is at the intersection and occurs when all communities:

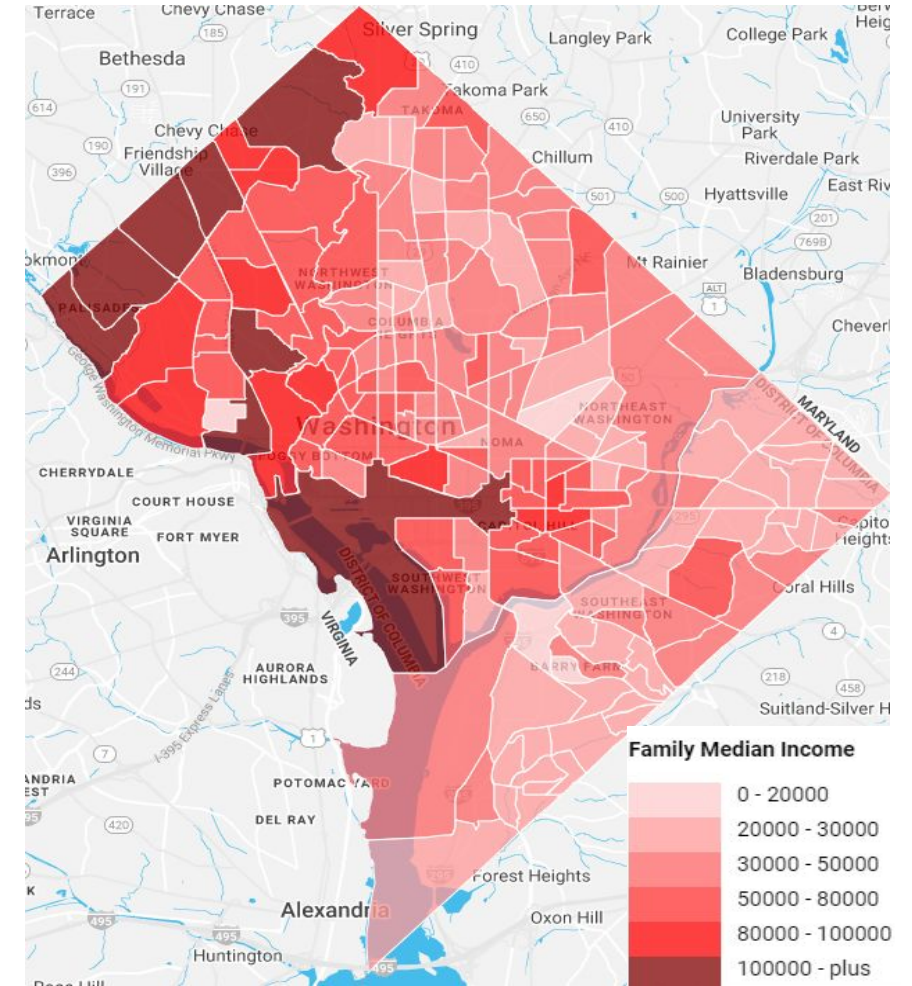
- Have **access** to safe, clean, affordable drinking water and wastewater services
- Are **resilient** in the face of a changing climate – floods, drought, and other risks
- **Share** in the economic, social and environmental **benefits** of water systems
- Have a **role in decision-making** related to water management in our communities





General Root Problem: Equitably Translating Opportunities into Action

- Opportunities for decarbonization **exceed available funding** for initial investments
- As a water utility, our project opportunities to decarbonize are **outweighed by mandates and the need to invest in critical infrastructure**
- Regional GHG Emissions lead to **more significant precipitation events**, urban flooding and ultimately more power use to pump stormwater and combined sewage
- Impacts of climate change, critical infrastructure investment and a push for carbon neutrality disproportionately **impacts our most vulnerable communities**



\$80,723 Required Median Household Income in DC Source: Washington Post



Key Obstacle & Our Role as Collaborator

Key Obstacle/Gap:

- A unified district-wide portfolio of project opportunities prioritized (by cost/benefit, resilience, carbon and equity goals) that aligns collaborators and expedites funding from investors.

Our Role in Collaboration With Others to Overcome this Obstacle:

- Provide access to a large carbon source that can be converted to energy
- Allow access to land to site projects
- Leverage CIP projects
- Serve as the public entity in public-private partnerships; leverage funding programs
- Offer flexibility to partner through Blue Drop; DC Water's all-purpose arm for non-ratepayer revenue, and engage in innovative projects





Benefits/Consequences

An aerial photograph of a solar farm under construction. The image shows rows of solar panels being installed on a large, flat roof. A large, semi-transparent blue cross is overlaid on the center of the image. The background includes industrial buildings, a parking lot, and some trees.

Benefits

- Reduce energy burden
- Offset operating costs
- Invest savings in critical infrastructure
- Create jobs
- Ensure reliability and resilience
- Achieve water equity and environmental justice

Consequences

- Greater vulnerability to flooding (\$\$, property, safety)
- Increased social inequities
- Missed opportunities for job creation
- Falling short of Carbon and Equity goals

dc ENERGIZED

DC Water's Energy Opportunities

DC Water has identified opportunities to add renewable generating capacity, enhance energy resiliency, and reduce carbon emissions in the District. This map highlights potential locations.

Regarding Critical Infrastructure & Resilience, to achieve DC's Carbon & Equity goals, the most critical obstacle to overcome is coalescing around a unified district-wide portfolio of project opportunities.

