



ASSOCIATION OF
METROPOLITAN
WATER AGENCIES

*2015 Water Policy Conference:
Innovation in Utility Finance*

March 23, 2015



“Necessity is the mother of invention.”

- Unknown

“Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending 100 times more on R&D.”
- Steve Jobs

“I think that frugality drives innovation, just like other constraints do.”
- Jeff Bezos

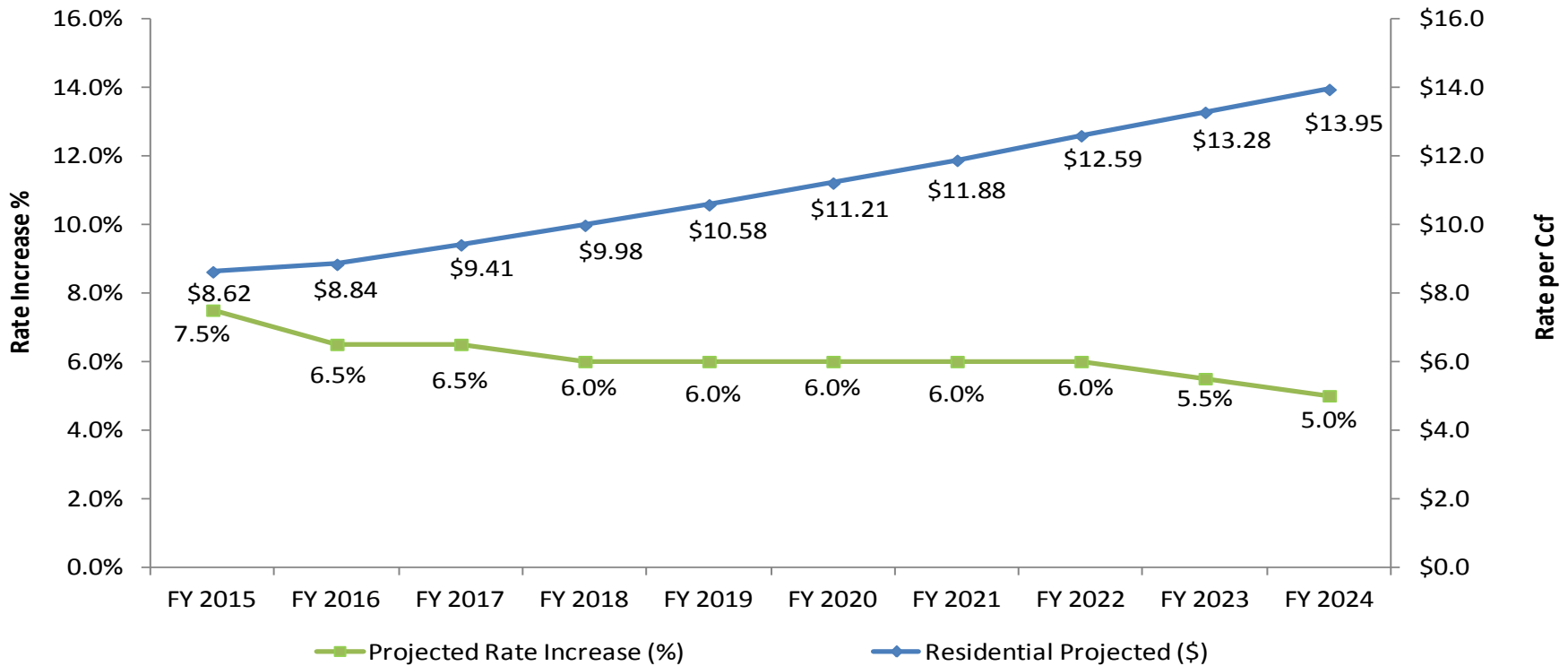
Necessity #1 – Funding

- DC Water has proposed a 10-year capital improvement program (CIP) budget of \$3.8 billion for FY15-FY24

Service Area (\$000's)	FY 2015 Revised	FY 2016 Proposed	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Wastewater Treatment	\$ 206,260	\$ 149,375	\$ 121,268	\$ 110,405	\$ 62,461	\$ 64,267	\$ 52,006	\$ 50,750	\$ 37,094	\$ 29,285	\$ 883,171
Sanitary Sewer	40,258	42,175	51,076	42,956	39,711	44,960	25,896	33,524	45,712	39,116	405,384
Combined Sewer Overflow	271,101	238,703	159,531	129,091	165,594	176,571	136,958	115,203	139,437	91,442	1,623,631
Stormwater	2,559	1,178	1,726	1,848	760	772	691	1,115	970	1,270	12,889
Water	65,006	67,546	58,968	50,862	48,795	61,249	68,201	61,153	59,828	68,645	610,250
Capital Projects	585,183	498,977	392,570	335,162	317,321	347,818	283,752	261,745	283,041	229,758	3,535,326
Total AMR / Meter /CIS	7,900	14,389	14,707	11,345	6,672	1,000	500	500	500	500	58,013
Washington Aqueduct	10,000	10,864	10,850	10,936	11,060	11,045	11,226	11,212	11,000	10,842	109,116
Capital Equipment	22,191	24,810	24,018	15,683	14,282	9,058	9,058	8,058	7,433	17,117	141,608
Sub-Total	40,091	50,063	49,575	37,964	32,014	21,103	20,784	19,770	19,014	18,359	308,737
Total CIP	\$ 625,274	\$ 549,040	\$ 442,145	\$ 373,126	\$ 349,335	\$ 368,921	\$ 304,536	\$ 281,515	\$ 302,055	\$ 248,117	\$ 3,844,063

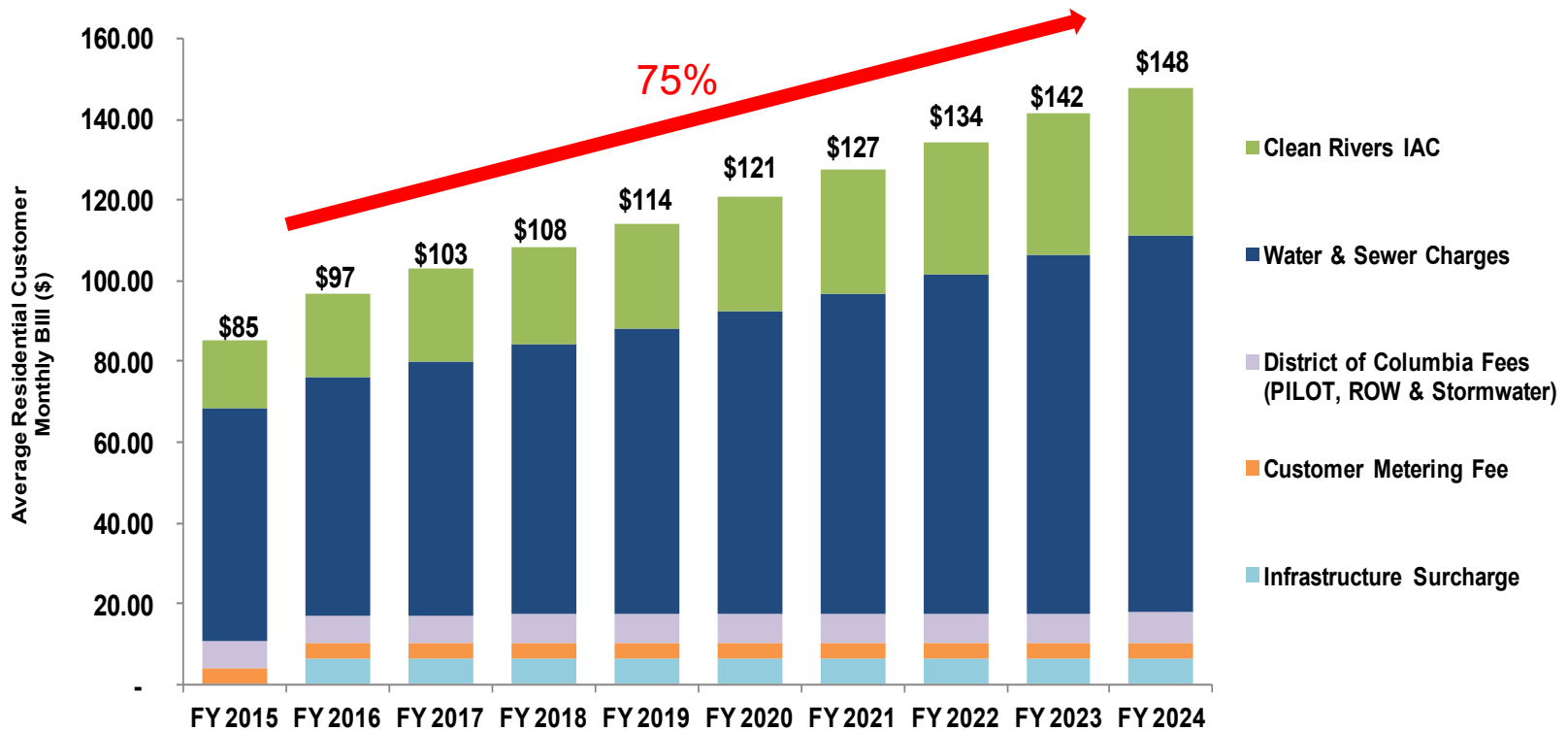
Necessity #1 – Funding (cont'd)

- Projected annual rate increases range from 5.0% to 7.5%
- Projected water and sewer rate increase from \$8.62 to \$13.95/Ccf



Necessity #1 – Funding (cont'd)

- Projected average monthly residential customer bill increase of almost 75% over next 10 years from \$85 in FY15 to \$148 in FY24



Innovation #1 – Sources of Funding

■ **CUT THE PIE BETTER**

- **Customer class-based water rates**
 - Residential, Multi-Family and Non-Residential classes
 - Rates based upon “peaking” factors of each class
- **Lifeline rate structure for residential customers**
 - Discounting “core” consumption of first 4 Ccf
 - Incentivizes conservation and promotes affordability



■ **GROW THE PIE BIGGER**

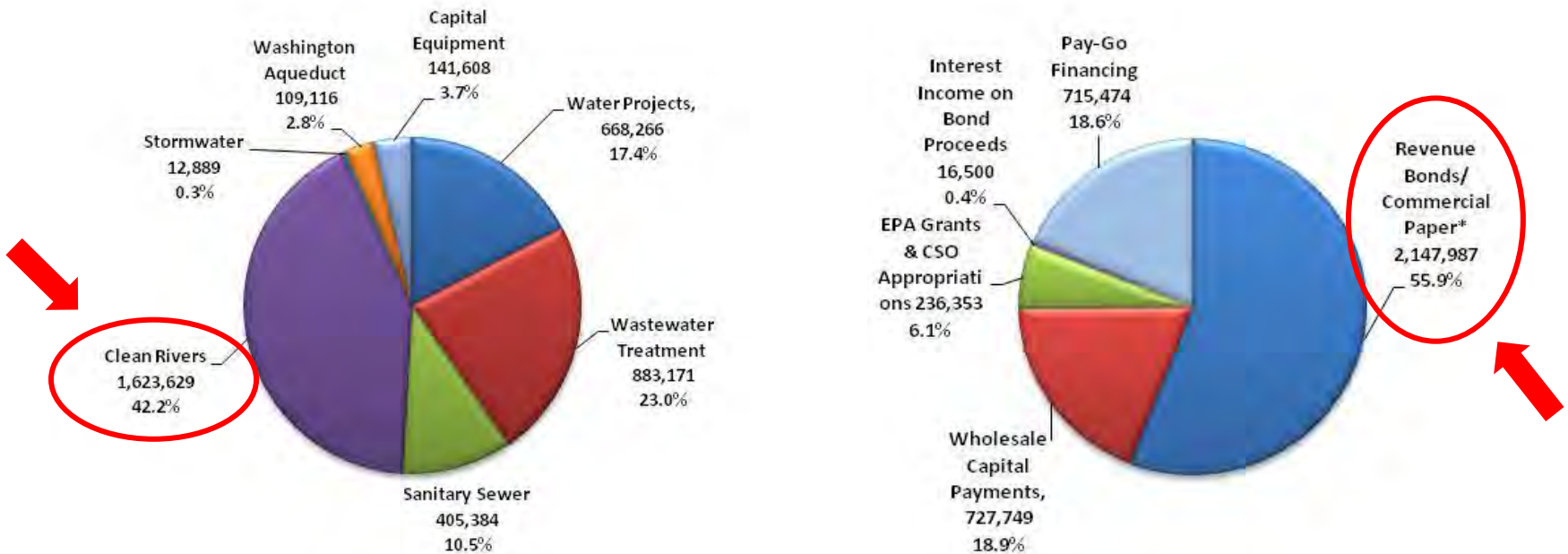
- **Water System Replacement Fee**
 - Designed to fund 1% replacement rate of water lines
 - Projected to raise approximately \$40 million in revenue
- **Development Impact Fee**
 - Designed to recover cost of accessing system capacity
 - Projected to raise approximately \$8-10 million in revenue



Necessity #2 – Financing

■ The Clean Rivers Project

- DC Water’s long term control plan for combined sewer overflows (CSOs)
- \$2.6 billion, 20-year project mandated by consent decree
- Tunnel system is designed to achieve a minimum 100-year service life



■ A story about an engineer, accountant, and finance director...

Innovation #2 – DC Water’s 100-year Green Bond



\$450,000,000

District of Columbia Water and Sewer Authority



\$350,000,000

**Public Utility Senior Lien Revenue Bonds
Series 2014A
(Federally Taxable)
(Green Bonds)**

\$100,000,000

**Public Utility Subordinate Lien Revenue Bonds
Series 2014B
(Tax-Exempt)
(Variable Rate Bonds)**

- **1st U.S. municipal water/sewer utility to issue green bonds**
- **1st certified green bond issued with an independent opinion in the U.S.**
- **1st 100-year green bond issued globally**

What are Green Bonds?

■ Green bonds are used to finance projects with environmental benefits

- Potential use of proceeds can vary widely by issuer and sector
- Transparency and disclosure is key concern for “green” investors
- Independent 3rd party verification and assurances enhance transparency and credibility

■ Green Bond Principles:

Use of Proceeds	Process for Evaluation / Selection	Management of Proceeds	Reporting / Assurance
<ul style="list-style-type: none">▪ Clean water▪ Clean energy▪ Energy efficiency▪ Sustainable waste management▪ Sustainable land use▪ Climate change mitigation/adaptation	<ul style="list-style-type: none">▪ Review of investment’s overall environmental profile▪ Establish process for determining how investments fit within Green Project categories▪ Determine and document investment’s eligibility▪ Investors consider overall environmental, social and governance framework	<ul style="list-style-type: none">▪ Proceeds tracked by issuer▪ Proceeds balance reduced to match investments▪ Public disclosure▪ Integrity enhanced if an external 3rd party verifies the internal tracking method for flow of funds	<ul style="list-style-type: none">▪ Annual reporting on investments made with Green Bond proceeds▪ Report on performance indicators to measure impact▪ Levels of independent assurance:<ul style="list-style-type: none">– Second party consult– Make public recommendations of expert– Third party, independent verification/certification

What is a “Certified” Green Bond?



■ DC Water’s Inaugural Green Bond Issue

- Dedicated use of proceeds exclusively financing Clean Rivers Project
- Expand and diversify the Authority’s investor base by targeting SRI (socially responsible investment) funds
- Alignment with DC Water’s mission and purpose as a steward of the environment

■ Independent 3rd Party Opinion

- Vigeo is one of the leading sustainability consultants and green bond opinion providers
- Evaluated Clean Rivers Project eligibility against core outcomes:
 - **Water Quality** – projected 96% reduction in CSOs from current level of 2 billion gallons/year
 - **Climate Resilience** – overland flood mitigation in low lying areas of the District of Columbia (e.g., Bloomingdale)
 - **Quality of Life** – promotion of biodiversity, removal of harmful nutrients from waterways, waterfront restoration



Why Issue a Green Bond?

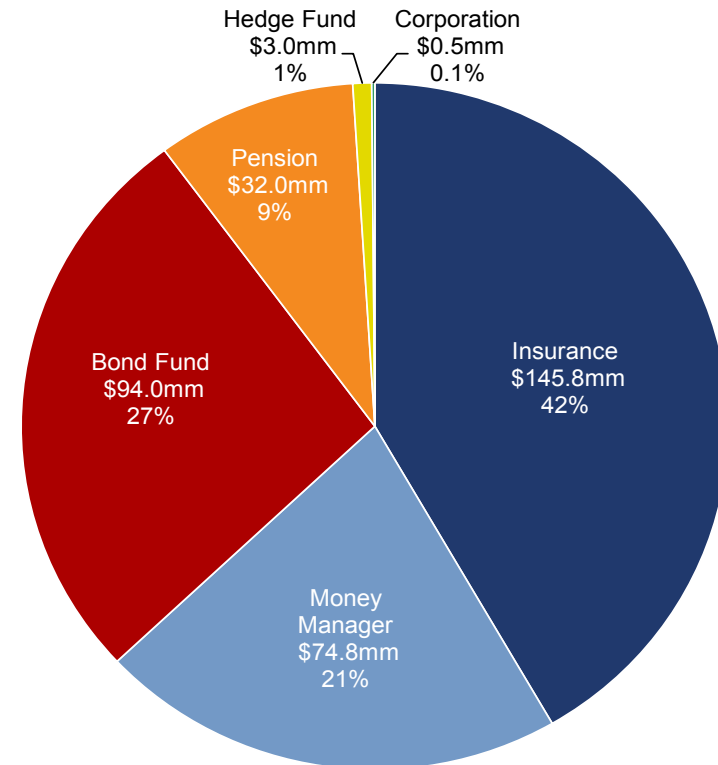
Marketing Strategy

- 6 “one-on-one” investor meetings
- 10 telephonic meetings
- Group presentation to 7 different investors
- 37 separate investors viewed Net Roadshow
- Types of investors include: bond funds, hedge funds, money managers, insurance companies, pension funds and corporations

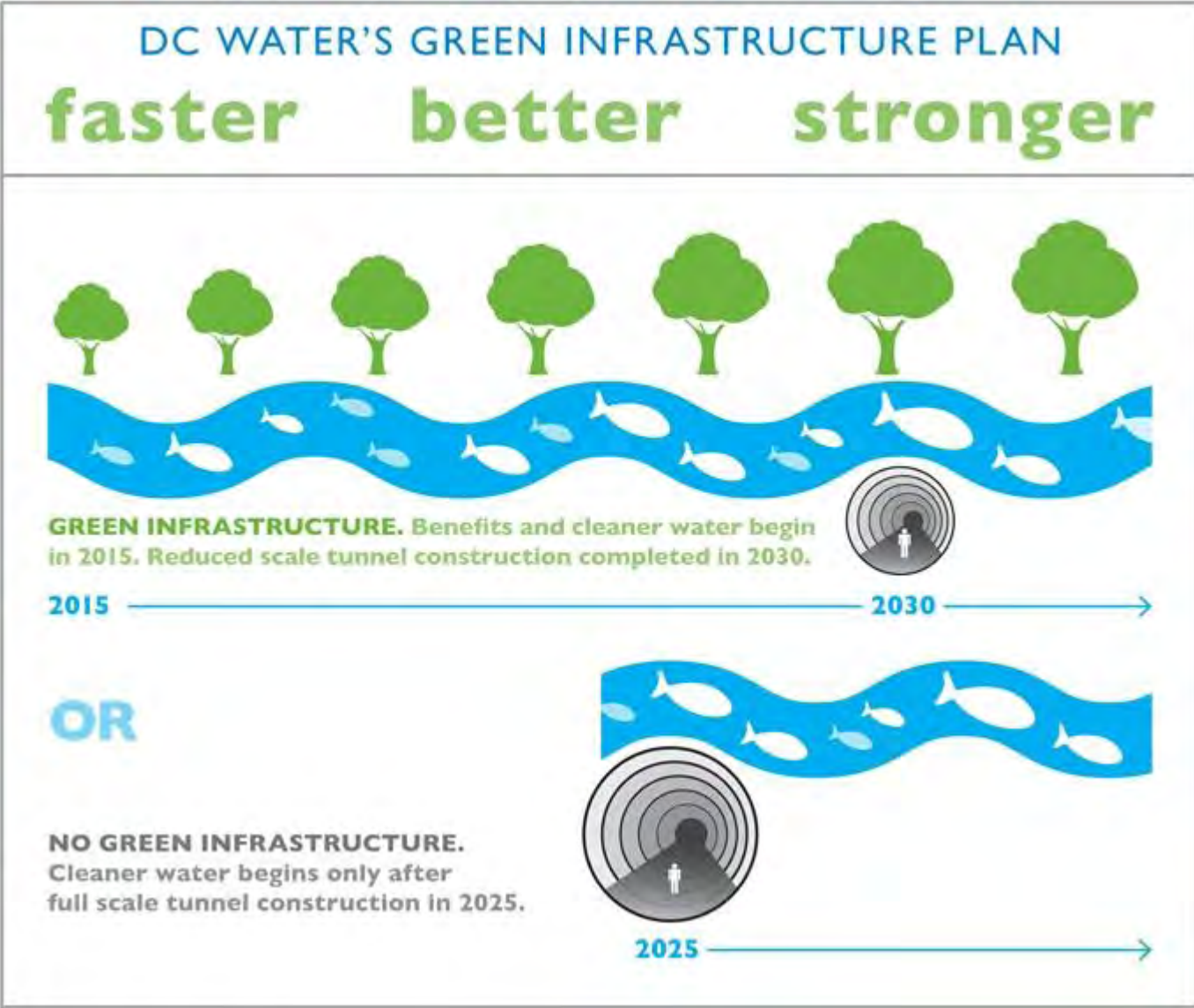
Investor Highlights

- Over \$1 billion of orders from 36 investors
- Top 10 accounts (by order size) totaled \$751 million
- More than \$600 million of orders from non-traditional municipal investors
- **Nearly \$100 million of orders from investors with Socially Responsible Investment (“SRI”) funds**

Summary of Distribution



Innovation in Utility Finance – What's Next?





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Questions?

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