



LAKE WORTH BEACH

Electric
UtilitiesSM

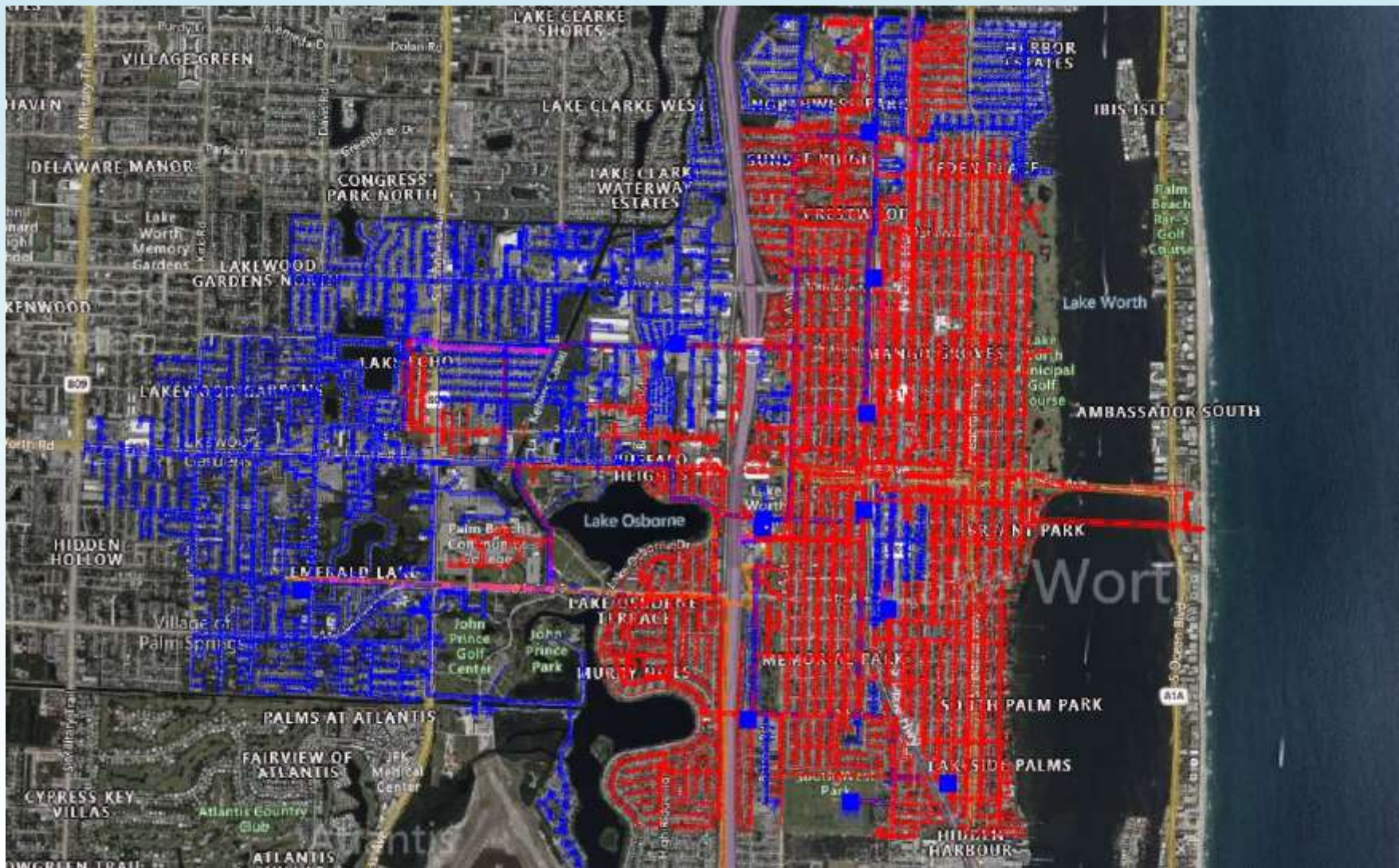
CITIZEN OWNED ENERGY

Agenda

- SHRIP (Progress Review)
- DOE Grant Topic Area 2 cost share; 1:1
- DOE Grant Topic Area 1 cost share; 1/3 (one third from the City)
- Series 2020 Bond and Series 2022 Bond Balances
- Series 2025 Bond



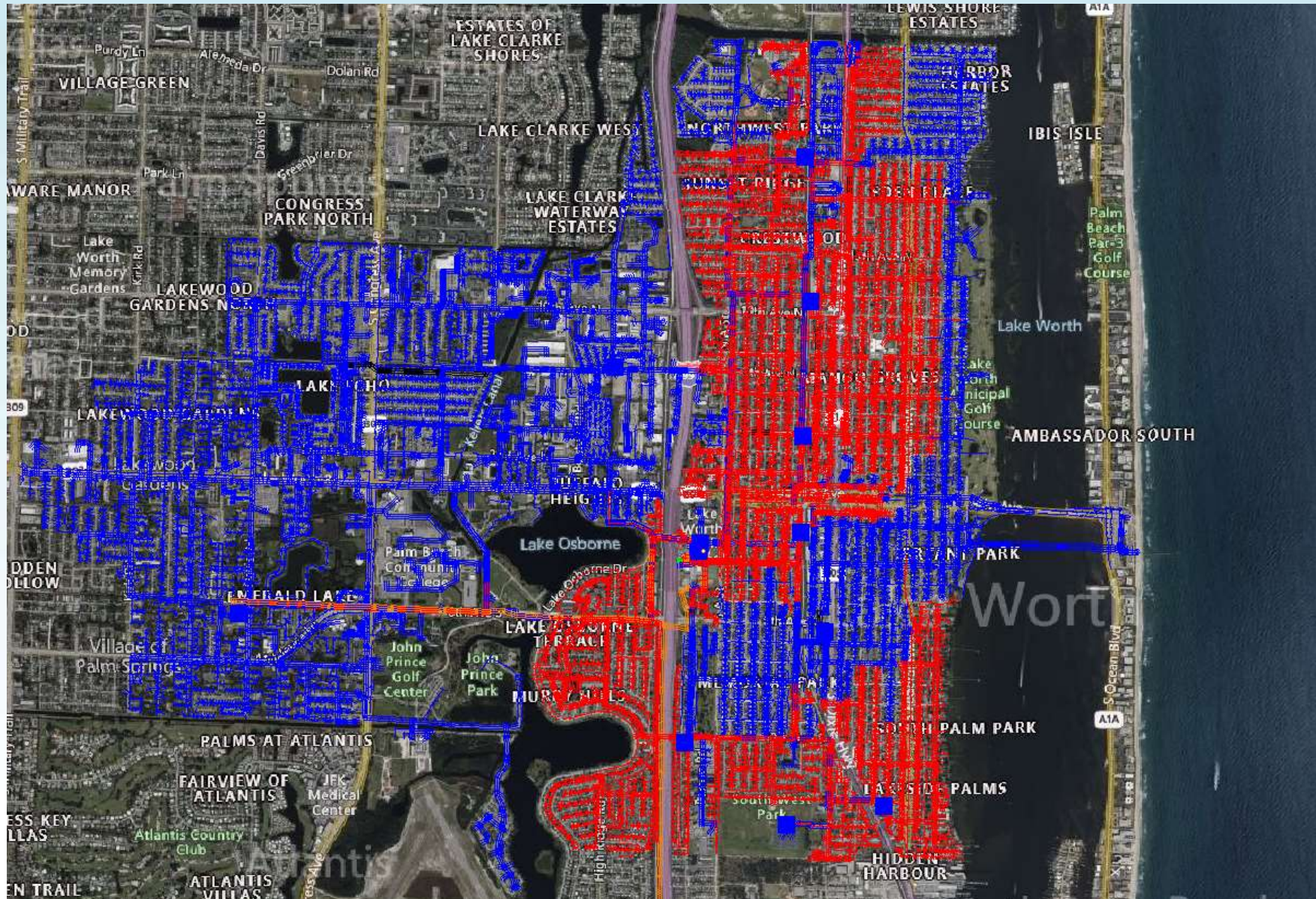
PRE-SHRIP



4kV

26kV

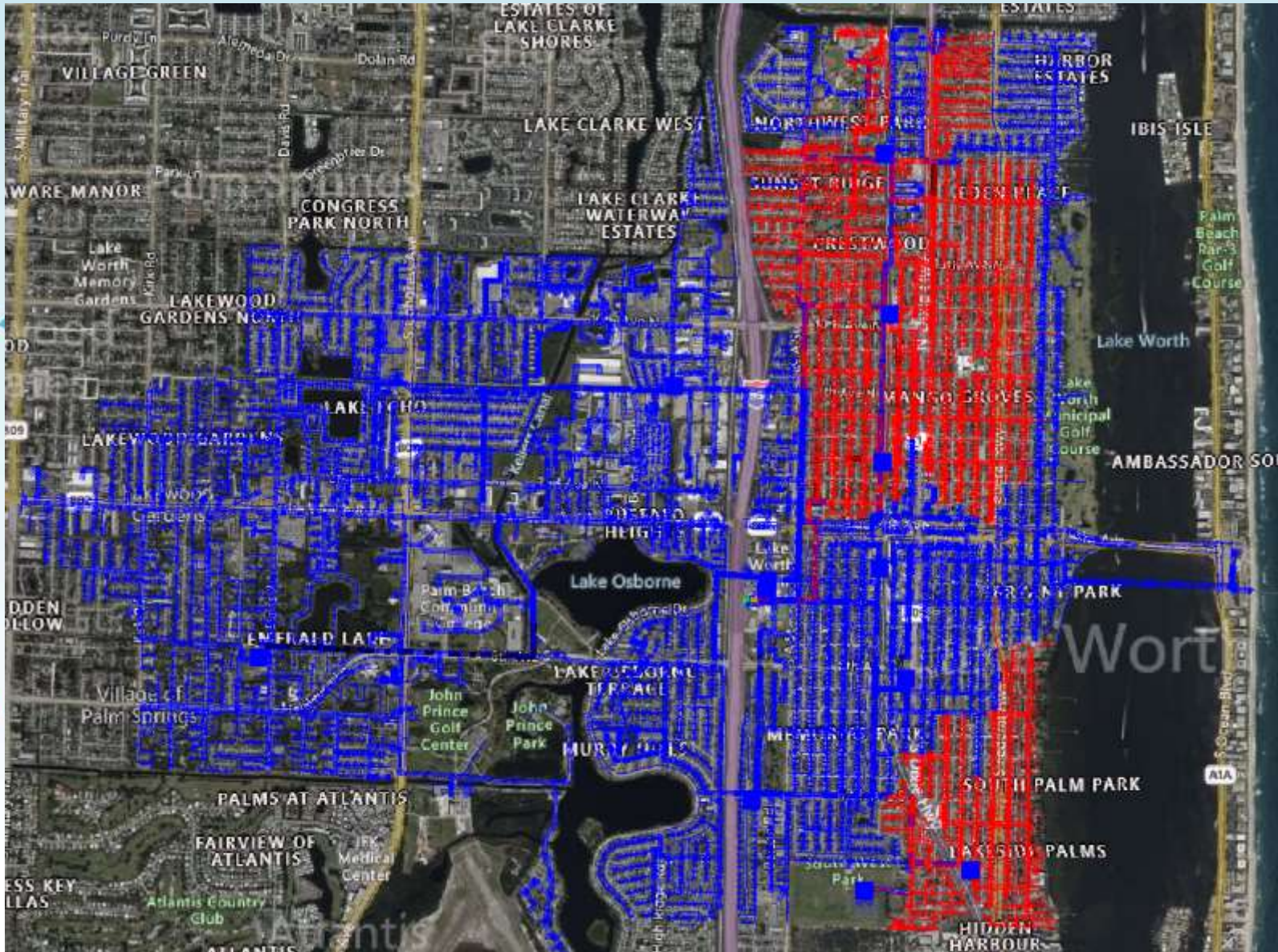
Post Series 2022 Bond



4kV

26kV

Post Series 2025 Bond



4kV

26kV

Historical Look Back

On 01/31/2023 City Commissioners approved the Electric Utility to apply for two highly competitive Department of Energy (DOE) Grid Resilience and Innovation Partnership (GRIP) grants.

- Topic Area 2 - Smart Grid Grant requiring 1:1 cost share
 - LWB awarded **\$23,462,167!**
- Topic Area 1 - Grid Resilience Grant which requires 1/3 cost share from the City
 - LWB was not selected but is still in the running for this grant award
 - Application was resubmitted - DOE expected decision (~12/2024)



Applications align with City Values and Goals

The grant applications align closely to the City Values and Goals

- Reduce dependence on fossil fuels
 - Increase the Grid system capability to accept future solar additions at the landfill
- Reduce vulnerability to cyber attacks by adding fiber optic communications
- Create contracts for at least ten local, minority, small, women or veteran businesses
- Reduce electrical outage impacts in Disadvantaged Communities by 50%
- Increase the use of Smart Grid technology



Topic Area 2 Award

In November 2023, the DOE announced the City of Lake Worth Beach was awarded a Smart Grid grant (Topic Area 2) in the amount of \$23,462,467 which supports five highly critical projects.

The funding for these five projects is not directly included in either Series 2020 or Series 2022 Bond funding, however, these projects were being contemplated for future funding and elements of these projects are underway today.

The intention of the Topic Area 2 grant application was to request funding to complete these projects in their entirety.

- Deploy Sectionalizing devices to create a Mesh Grid
- Deploy Fiber Optic Connections to remote sub-stations
- Install Solar Interconnection and Battery Storage
- Replace Failing Advanced Metering Infrastructure
- Install Meter Data Management System



Topic Area 2 Cost Share Requirements

Topic Area 2 requires a 1:1 Cost Share between the DOE and the City
Cost Share by Budget Period (Project Year)

Organization	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
City of Lake Worth Beach	\$10,331,509	\$3,513,786	\$3,420,387	\$3,374,873	\$2,821,912	\$23,462,167
DOE Grid Deployment Office	\$10,331,509	\$3,513,786	\$3,420,387	\$3,374,873	\$2,821,912	\$23,462,167

Total Project Cost: **\$46,924,334**



Budgetary

The DOE Grant cycle does not align with the City budgetary cycle or fiscal year.

DOE Dates

- DOE Submittal date: February 2023 – **no guarantee of award**
- DOE Award Announcement: November 2023

City Dates

- FY2024 Budget final approval: September 2023
- City Budget spans October 1 to September 30

Hence the FY2024 Budget could not include the 1:1 cost share



Identify 1st Project Year Cost Share

Since the DOE award cycle did not align to the City budget cycle, there was a need to identify the source of funds necessary for the 1st Project Year cost share of \$10,331,509

- EU Staff performed a technical review of the Series 2022 Bond funded projects to determine which, if any, projects could be deferred to create the cost share
- EU Staff was successful in identifying projects which could be deferred, hence the source of funds for the 1st Project Year cost share has been identified using Series 2022 Bond funds
- The funds for the remainder of the Cost Share (\$13,130,958) are suggested to be included in a Series 2025 Bond

Cost Share

\$10,331,509	Project Year 1	(cost share has been identified using Series 2022 Bond funds)
\$ 3,513,786	Project Year 2	
\$ 3,420,387	Project Year 3	
\$ 3,374,873	Project Year 4	
<u>\$ 2,821,912</u>	Project Year 5	
\$23,462,167	Total	



Series 2020 & Series 2022 Bond Status

Status of Bond Fund Usage as of May 24, 2024

Series	Column 1 Total Bond Proceeds	Column 2 Total Encumbered	Column 3 Unposted FY23 Capitalization	Column 4 Grant Cost Share (1st year only)	Column 5 * Remaining Balance	Column 6 Percent Expended
2020 Bond	\$ 44,731,000	\$ 43,191,917	\$ 1,539,083	\$ 0.00	\$ 0.00	100%
2022 Bond	\$ 40,460,375	\$ 14,142,167	\$ 1,124,119	\$ 10,331,509	\$ 14,862,580	63.3%
Totals	\$ 85,191,375	\$ 57,334,084	\$ 2,663,202	\$ 10,331,509	\$ 14,862,580	82.5%

* Funds which are not yet encumbered but needed to ensure completion of Critical Projects



Results of the Technical Project Review

Can be deferred	Estimated \$	Cannot be deferred as they have critical impacts on electric system reliability	Estimated \$
12 th Ave S Substation (Design)	\$ 1,000,000	Canal 26kV new Substation and Circuits Hardening	\$ 5,714,000
12 th Ave S Substation (Circuits Design)	\$ 555,000	6 th Ave S Substation Relocation Construction	\$ 3,700,000
Aging Underground Cable Replacement	\$ 500,000	6 th Ave S Distribution Feeders Conversion	\$10,136,000
Main Yard Capacitator Banks	\$ 500,000	Intracoastal Waterway Lagoon Crossing	\$ 3,000,000
1E05 Phase 1	\$ 3,000,000	French Ave, 1W13, OH to UG Conversion	\$ 1,325,000
1E05 Phase 2	\$ 1,479,690	I-95 at 7 th Ave N crossing - OH to UG conversion	\$ 458,019
1E05 Phase 3 - Engineering	\$ 250,000	New 1W18 Circuit Design	\$ 2,500,000
6 th Ave S Distribution Circuits	\$ 3,046,819	Line Truck Replacements	\$ 580,500
Can be deferred Total	\$ 10,331,509	Cultural Plaza, 1900 Renovation, EV Chargers	\$ 2,046,375
		Engineering Support Services	\$ 160,000
		NERC CIP, Security Cameras	\$ 33,972
		Dissolved Gas Analyzers, System Reclosers	\$ 475,000
		Total which cannot be deferred	\$ 30,128,866 **
** Column 2 + Column 3 + Column 5 from slide 12		Can be deferred Total	\$ 10,331,509
		Grand Total	\$ 40,460,375

Anticipated Series 2025 Bond Request

The following funds are being included in the Series 2025 Bond request

Topic Area 2, 1:1 Cost Share	\$ 13,130,958
SHRIP Round 3	\$ 41,000,000
Subtotal	\$ 54,130,958
Capital Improvement Projects	\$ 4,118,234
Total	\$ 58,249,192



Series 2025 Bond Request SHRIP Projects

#	Project Title	Rounded for Request
1	E03 OH/UG Replacement/Hardening/Capacity Increase	\$ 800,000.00
2	E05 OH/UG Replacement/Hardening/Capacity Increase	\$ 4,500,000.00
3	E09 OH/UG Replacement/Hardening/Capacity Increase	\$ 1,700,000.00
4	5002 Harden / Capacity Increase	\$ 1,000,000.00
5	5003 Harden / Capacity Increase	\$ 800,000.00
6	W12 Hardening/Capacity Increase	\$ 3,400,000.00
7	4A3N11 to 0703 Conversion / Hardening	\$ 2,800,000.00
8	4A3N12 to 0703 Conversion / Hardening	\$ 1,800,000.00
9	4A3N13 to 0702 Conversion / Hardening	\$ 3,700,000.00
10	12th Ave S Substation - Metal-Clad	\$ 7,100,000.00
11	4R1201 Conversion / Hardening	\$ 2,800,000.00
12	4R1202/1200 Hardening	\$ 1,300,000.00
13	4R1203 Conversion / Hardening	\$ 2,300,000.00
14	4R1204 Conversion / Hardening	\$ 2,900,000.00
15	Hypoluxo CT/PT Combo Installation	\$ 600,000.00
16	Hypoluxo Referesh (Wire Trap, SS, etc.)	\$ 200,000.00
17	Automatic Substation Cap Main Yd for East Bus	\$ 800,000.00
18	Automatic Substation Cap Main Yd for West Bus	\$ 800,000.00
19	TPTL3 - Transformer Purchase	\$ 1,400,000.00
20	Turbonet Replacement (Vehicle Tracking and Radio Records)	\$ 300,000.00
		\$ 41,000,000.00

