



VIWAPA Transformation Plan

RECOVER . REBUILD . RESTORE

August 10, 2021

VIWAPA 5-Year Transformation Plan FY 2020-2024

The Authority's 5-year transformation plan is designed to improve the reliability and efficiency of our operations by continuing our disaster recovery initiatives, rebuilding and improving our electrical and water infrastructure, and restoring our commitment to the community.



Transformation Plan (FY 2020 - 2024)

Improved Resiliency

Greater Renewable Penetration

Improved Efficiency

Mitigation Projects

- Underground projects - 50% of customers will have underground power.
- Composite pole projects in STX, STJ, STT and Water Island.
- Substation Upgrades, Submarine Cables, AMI Network Hardening.
- St. John Emergency Generators and Microgrid Projects.

Maximize Renewables with Battery Storage

- Currently 4 MW Utility Scale (STX)
- Target 25% Renewable Penetration by FY2024
- 5 MW Utility Scale Solar Generation (STT)
- 20 MW of solar generation on STX and 20 MW of battery storage
- 15 MW of wind generation on STT and 30 MW of battery storage

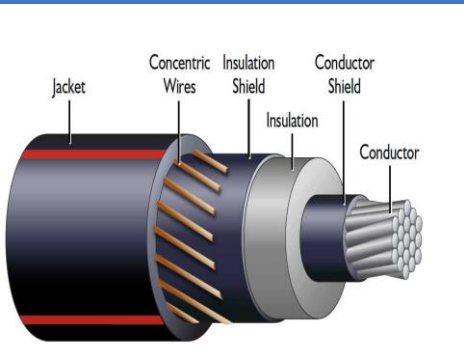
Efficient Generation

- The Authority's generation fleet will be upgraded to smaller, more efficient and renewable compatible generators using clean burning propane as primary fuel.
- 36MW of new generation on STT has already begun.



Hazard Mitigation Projects

Underground Infrastructure



STX / STJ / STT

- Primary Backbones
- Critical Facilities
- Densely Populated Areas

Composite Poles

STX / STJ / STT / WI

- Harden Remaining Overhead System
- Lightly Populated Areas
- Terrain Prohibitive Areas



New Generation



STX / STT

- Replace aging units with smaller more efficient generators per IRP
- Install Battery storage at Generation Site

Renewable Energy

STJ / STT / STX

- Integrate solar & wind
- Install smart controls
- Install Battery Storage



Disaster Recovery Funding to Date

FED AGENCY	PROGRAM	OBLIGATED AMOUNT	EXPENDED	AVAILABLE
FEMA	406	\$ 809,238,192.30	\$ 460,218,446.04	\$ 349,019,746.26
FEMA	404	\$ 4,486,720.23	\$ -	\$ 4,486,720.23
HUD	CDBG-DR	\$ 95,903,330.00	\$ 13,803,201.60	\$ 82,100,128.40
TOTAL		\$ 909,628,242.53	\$ 474,021,647.64	\$ 435,606,594.89



Electric System Major Capital Projects

- St. Thomas -

Projects	Proposed Start Date	Reliability	Efficiency Improvements	System Improvements	Fiscal Year 2022 Project Cost	Fiscal Year 2023 Project Cost
East End Substation Mitigation Project	July 2021	X	X	X	1,060,510.00	-
Donald C Francois Mitigation Project	January 2022	X	X	X	3,000,000.00	4,109,440.00
STJ Substation Mitigation Project	January 2022	X	X	X	5,125,668.00	5,125,668.00
Feeder 9A Underground Phase II	January 2022	X	X	X	500,000.00	665,000.00
Veteran's Drive Phase I	January 2022	X	X	X	220,000.00	-
Composite Pole Project (St. John)	August 2021	X		X	28,175,000.00	28,175,000.00
Composite Pole Project (St. Thomas)	July 2021	X		X	49,200,000.00	49,200,000.00
Cruz Bay Underground Project	February 2021	X	X	X	25,120,000.00	25,120,000.00
St. Thomas Underground Project	December 2021	X	X	X	5,100,000.00	75,050,000.00
Tutu Substation Mitigation Project	January 2022	X	X	X	850,000.00	7,650,000.00
GIS Mapping Post Storm	December 2021	X	X	X	2,500,000.00	2,500,000.00
Composite Pole Project (Water Island) - Project Completed awaiting payment	October 2018	X		X	5,640,131.05	11,995,125.53
Proposed Tutu Sub GIS Installations 34.5 & 15 kV (Engineering & Design)	January 2022	X	X	X	5,750,000.00	-
Install Underground Distribution System - St. Thomas (Engineering & Design)	Ongoing	X	X	X	29,795,777.68	29,795,777.68
Engineering Design for 69 kV Submarine Cable Project - RHPP to EE	Ongoing	X	X	X	100,000.00	100,000.00
Submarine Cable Project - St. Thomas	July 2022	X	X	X	-	26,400,000.00
Install Underground Distribution System - Cruz Bay (Construction) - Feeder 8E	June 2022	X	X	X	-	28,974,327.84
Install Underground Distribution System - Cruz Bay (Construction) - Feeder 9E	June 2022	X	X	X	-	28,974,327.84
Totals					\$ 162,137,086.73	\$ 323,834,666.88



Electric System Major Capital Projects

- St. Croix -

Projects	Proposed Start Date	Reliability	Efficiency Improvements	System Improvements	Fiscal Year 2022 Project Cost	Fiscal Year 2023 Project Cost
Composite Pole Project	July 2020	X		X	88,075,000.00	88,075,000.00
Construction for STX Underground Projects	September 2021	X	X	X	50,916,666.00	150,966,667.00
Queen Street Feeder 1A Underground Project	January 2022	X	X	X	25,000.00	1,975,000.00
Substation Emergency Generators	September 2021	X	X	X	316,050.00	316,050.00
				Totals	\$ 139,332,716.00	\$ 241,332,717.00





TERRITORY MITIGATION & REHABILITATION PROJECTS -WATER



■ St. Croix

- Clifton Hill Rehabilitation
- Hannah's Rest Rehabilitation
- Campo Rico Rehabilitation

■ St. Thomas

- Blackbeard's Hill Rehabilitation
- Mahogany Estate Waterline Rehabilitation
- Tank 2 Rehabilitation

**EPA Funded*



Water System Major Capital Projects

Projects	System Improvements	Fiscal Year 2022 Project Cost	Fiscal Year 2023 Project Cost
Clifton Hill Waterline Rehabilitation	Rehabilitation	3,285,000.00	215,000.00
Hannah's Rest Waterline Rehabilitation	Rehabilitation	2,200,000.00	550,000.00
Campo Rico Waterline Rehabilitation	Rehabilitation	2,200,000.00	550,000.00
Blackbeard's Hill Waterline Rehabilitation	Rehabilitation	1,125,000.00	1,125,000.00
Mahogany Estate Waterline Rehabilitation	Rehabilitation	750,000.00	750,000.00
Tank 2 Rehabilitation	Rehabilitation		3,000,000.00
Totals		\$ 9,560,000.00	\$ 6,190,000.00

