



Virgin Islands Water and Power Authority

Presentation to
Governor Mapp



January 21, 2015



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Section 1

Overview of the Water and Power Authority





The Authority – Overview

General

- The Virgin Islands Water and Power Authority (the “Authority” or “WAPA”) was created in 1964 as an instrumentality of the Government of the U.S. Virgin Islands (USVI) for the purpose of developing an adequate electric and water supply system for the Virgin Islands.
- The Authority owns, operates and maintains electric generation, transmission, distribution and general plant facilities that provide electric power to nearly 55,000 customers on St. Thomas, St. Croix, St. John, Water Island and Hassel Island.
 - Except for a few commercial entities that produce electricity for their own use, the Authority is the only electric utility serving the Virgin Islands.
- The Authority also operates and maintains a system to produce and supply potable water to over 12,000 customers in the USVI, through reverse osmosis, a system of wells and desalination facilities. The Authority also purchases water, pursuant to a water purchase contract, for retail distribution.
 - The Water System is accounted for and financed separately from the Electric System, although certain common facilities and costs necessary for the production of electricity and water, as well as for general administration, are shared by the two systems and allocated between them.

Governance

- The Authority is administered by a Governing Board of nine (9) members appointed by the Governor of the Virgin Islands, six (6) of whom require the consent of the USVI Legislature.
- Management of the Authority is vested in an Executive Director and senior management team. Hugo V. Hodge Jr. was appointed Executive Director in January 2008.

Regulation

- The Authority’s electric and water rates and charges are regulated by the Virgin Islands Public Services Commission (“PSC”).
- The PSC is comprised of seven (7) members appointed by the Governor and confirmed by the Legislature.



The Authority – Senior Management Team

Hugo V. Hodge, Jr., Executive Director and Chief Executive Officer

- Joined the Authority in January 2008 after serving as the Director of Griffin Power in Georgia where he was responsible for strategic planning
- Former board member of Electric Cities of Georgia
- Experienced in alternative sources of generation

Julio A. Rhymer, Chief Financial Officer

- Joined the Authority as CFO in July 2012
- Former CFO of the Virgin Islands Housing Finance Authority and former Director of Business and Financial Management at the Office of the Lt. Governor and the 25th Legislature of the Virgin Islands
- 6 years of auditing experience

Gregory L. Rhymer, Chief Operating Officer

- Direct oversight of Directors for Plant Production, Water Distribution and Corporate Services, Environmental Affairs & Facilities Security
- Over 25 years of service to the Authority including serving as Coordinator of Environmental Affairs, Manager of Environmental Affairs, Director of System Planning and Environmental Affairs,
- Prior experience includes oversight duties of the Virgin Islands environmental programs for the Virgin Islands Department of Planning and Natural Resources

Clinton Hedrington, Director of Transmission and Distribution

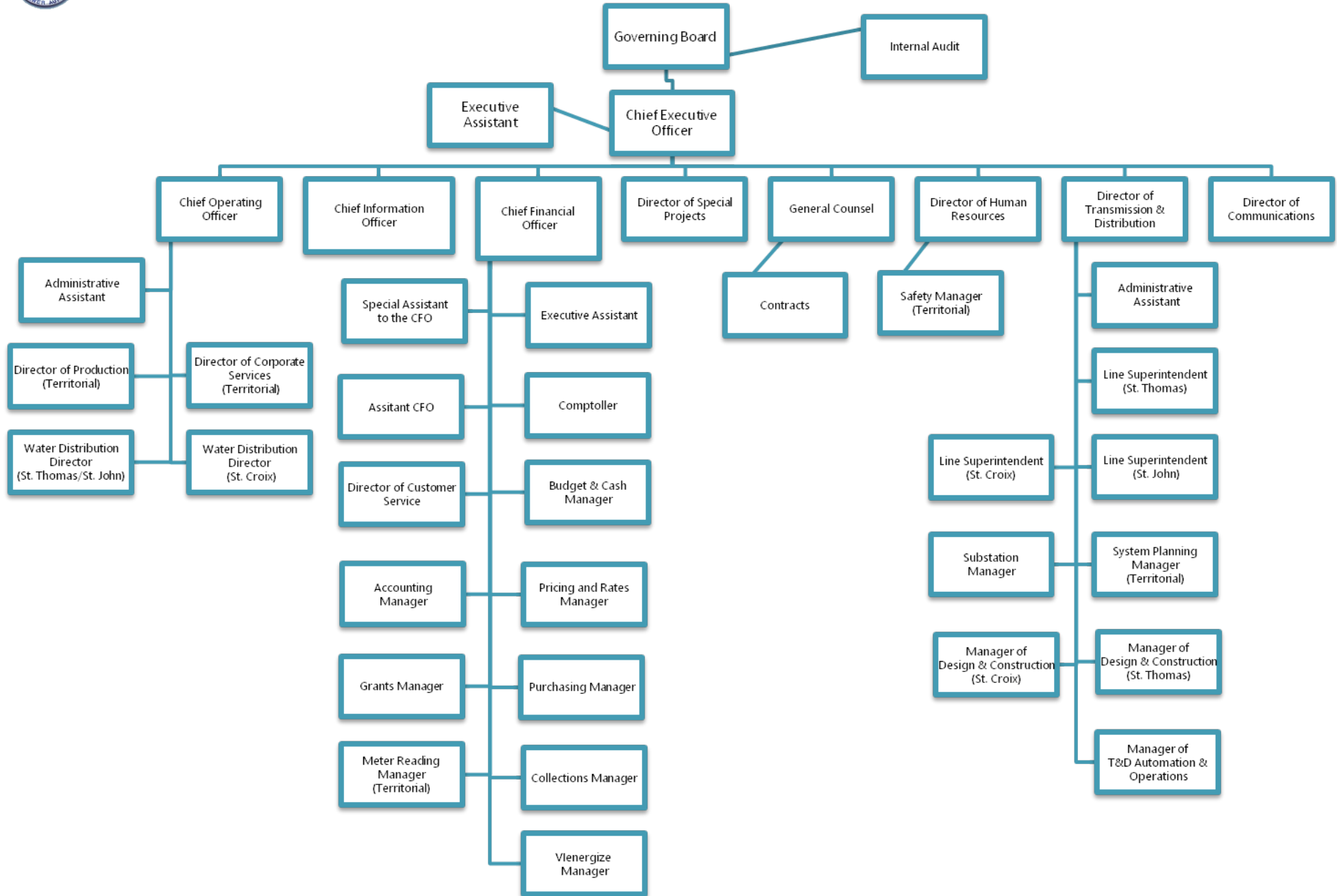
- Over 14 years of service to the Authority including serving as Electrical Engineer I, II and III and System Planning Manager.

Lorelei M. Farrington, General Counsel

- General Counsel and Officer in charge of the Authority's legal division since February 2009.
- Over 27 years of service as in-house counsel for other USVI governmental instrumentalities.



The Authority – Organizational Chart





The Authority – Governing Board

Governmental Appointees

- To be determined

St. Thomas / St. John District

Juanita R. Young (Vice-Chairperson and Chair of Finance and Audit Committee)

- Appointed April 17, 2007 (Reconfirmed 2014)

Donald Francois, P.E.

- Appointed April 17, 2007 (Reconfirmed 2014)

Cheryl Boynes-Jackson

- Appointed March 10, 2004 (Reconfirmed 2014)

St. Croix District

Gerald Groner, Esq. (Chairperson)

- Appointed April 21, 2008 (Reconfirmed 2014)

Noel Loftus (Secretary)

- Appointed April 17, 2007 (Reconfirmed 2014)

Elizabeth A. Armstrong

- Appointed April 11, 2013

Note: A Governing Board member whose term has expired may continue to serve until his or her successor is confirmed.



Electric System Service Area and Facilities

- The Authority's major generating facilities are located on the islands of St. Thomas and St. Croix, with limited backup facilities on the island of St. John.
- Except for emergencies, electric power for St. John is supplied by generating facilities on St. Thomas and transmitted to St. John by two underwater cables.
 - Additionally, customers on Hassel Island and Water Island are provided power from St. Thomas through underwater cables.
- The islands of St. Thomas and St. Croix are 36 miles apart and are not interconnected electrically due to the topography of the ocean floor.
- St. Thomas generating facilities are located at the Randolph E. Harley Generating Station at Krum Bay, on the southwestern end of the island.
- The St. Croix generating facilities are located at the Estate Richmond site on the north shore of the island, near Christiansted.
- Currently, all of the Authority's generating facilities are powered by fuel oil.



Randolph E. Harley Generating Substation (St. Thomas)



Heat Recovery Steam Generator (St. Croix)

Reported Net Continuous Capacity^[1]

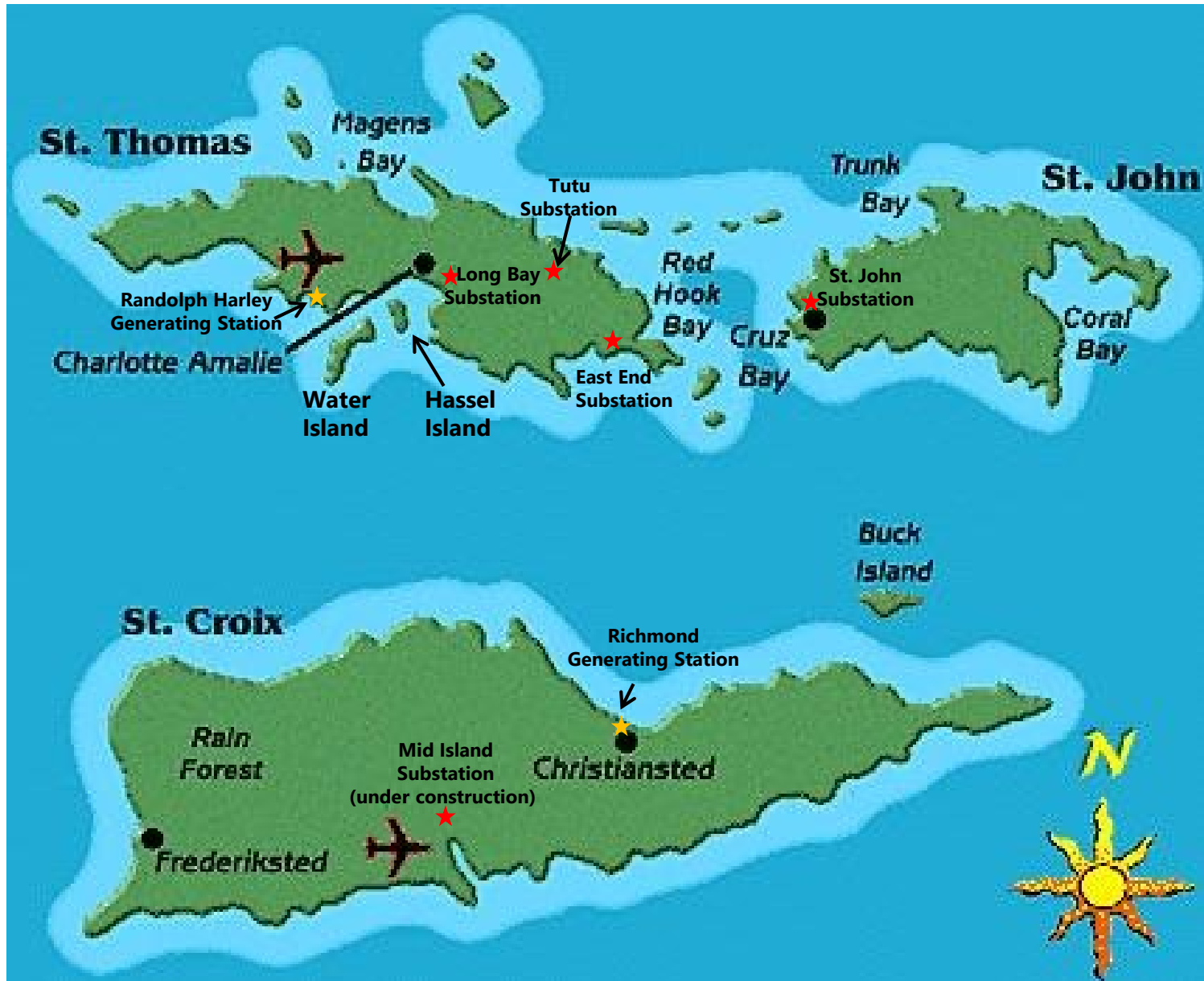
	Randolph E. Harley Generating Station St. Thomas		Estate Richmond Generating Station St. Croix		Combined	
	MW	Percent	MW	Percent	MW	Percent
Steam	55.4	29.0%	29.1	24.9%	84.5	27.5%
Combustion Turbine	132.9	69.7%	87.8	75.1%	220.7	71.7%
Diesel	<u>2.5</u> ^[2]	<u>1.3%</u>	<u>0.0</u>	<u>0.0%</u>	<u>2.5</u>	<u>0.8%</u>
Total	<u>190.8</u>	<u>100.0%</u>	<u>116.9</u>	<u>100.0%</u>	<u>307.7</u>	<u>100.0%</u>

[1] Amounts shown have not been reduced for units temporarily removed from service for major maintenance.

[2] Located on the island of St. John.



Electric System Service Area and Facilities (continued)





Comparison of other Caribbean Islands

- Nearly all of the large power producers are western or central Caribbean islands (Cuba, Jamaica, Dominican Republic and Puerto Rico)
- WAPA is a fairly large system when compared to other eastern Caribbean islands (only Trinidad & Tobago, Guadeloupe, Martinique and Barbados are larger based on peak demand)



Island(s)/Country	Installed Capacity	Peak Demand
Anguilla	24.0	15.0
Antigua & Barbuda	90.2	52.9
Aruba	266.0	100.0
Barbados	240.0	166.0
Bermuda	165.0	122.8
Bonaire	25.0	12.0
British Virgin Islands	44.0	32.0
Cayman Islands	151.0	102.0
Cuba	4,900.0	2,900.0
Curacao	165.0	105.0
Dominica	26.7	17.2
Dominican Republic	2,973.0	1,900.0
Grenada	48.6	30.2
Guadeloupe	440.0	250.0
Jamaica	1,198.0	637.0
Martinique	420.0	240.0
Montserrat	10.0	2.0
Puerto Rico	5,839.0	3,200.0
St. Kitts & Nevis	43.0	24.0
St. Lucia	88.6	59.8
St. Vincent & the Grenadines	49.0	21.0
Trinidad & Tobago	1,829.0	1,121.0
Turks & Caicos Islands	82.0	35.2
U.S. Virgin Islands	307.7	125.7

Note:
Excludes Bahamas, Haiti, St. Maarten/St. Martin and St. Barts
Installed capacity and peak demand are in MW



Overview of the Water System

- The Water system has over 12,000 customers with an average demand of nearly 2 million gallons of water per day (mgd) per district
- In April 2012, the Authority signed a 20-year agreement with Seven Seas Water Corporation to build, own and operate a seawater reverse osmosis plant (SWRO) on St. Thomas and St. Croix.
 - Water is produced through reverse osmosis (RO) with the capability to provide approximately 3.3 mgd for each district (St. Thomas/St. John and St. Croix).
 - Additionally, the switch to reverse osmosis for water production has decreased costs by 55%
- Because of the historical development of the Water System and certain characteristics unique to the U.S. Virgin Islands, the Water System serves only a small portion of the potential customers in the U.S. Virgin Islands.
 - Until recently, the USVI building code required all new residential and commercial buildings have cisterns to accumulate rainwater. Currently, new construction within the Water System no longer requires cisterns.
 - The mountainous, rocky terrain, especially on the islands of St. Thomas and St. John, has made construction of the water distribution system difficult and costly.
- The Water System's rates are also under the jurisdiction of the Virgin Islands PSC, unlike many other municipal systems.
- The Electric System and Water System share certain costs of the Authority, which costs the Electric System pays and seeks reimbursement from the Water System.
 - Expenses reimbursable to the Electric System are \$8.9 million through the end of fiscal year 2014.
 - Base rate increases approved by the PSC are expected to provide an additional \$1.6 million annually to assist the water system to meet Debt Service Coverage and basic operating cost.
 - Allowed more efficient use of electric system generation facilities since steam production is no longer required to produce water.



Overview of the Water System (continued)

- Completed Water System Strategic Business Plan in 4th Quarter 2014
 - Goal is to update the projected operating results associated with strategies to achieve financially viable and sustainable operations.
 - Five year capital improvement plan developed with major emphasis on:
 - Reducing line losses, particularly on St. Croix
 - Evaluating areas for distribution system expansion to determine feasibility of serving new large users.
 - Recent water system rate case resulted in a grant of an additional \$0.9 million annually in revenues related to a Line Loss Reduction Capital Surcharge (or \$0.71 per thousand gallons).
 - Surcharge was granted to fund the proposed capital improvement plan.
 - Major types of capital expenditures:
 - Pressure Management Phase II (St. Croix)
 - Water Line Upgrades
 - Meter Replacement and New Devices
 - Tank 2 Rehabilitation (Sara Hill)
 - Waterfront Main Rehabilitation (Charlotte Amalie)
 - Upgrade 12" to 24" Water Main from Kings Hill to Frederiksted
 - Renewal and Replacement of Lines



Section 2

Strategic Partnerships & Other Developments





Strategic Partnerships (Public Sector)

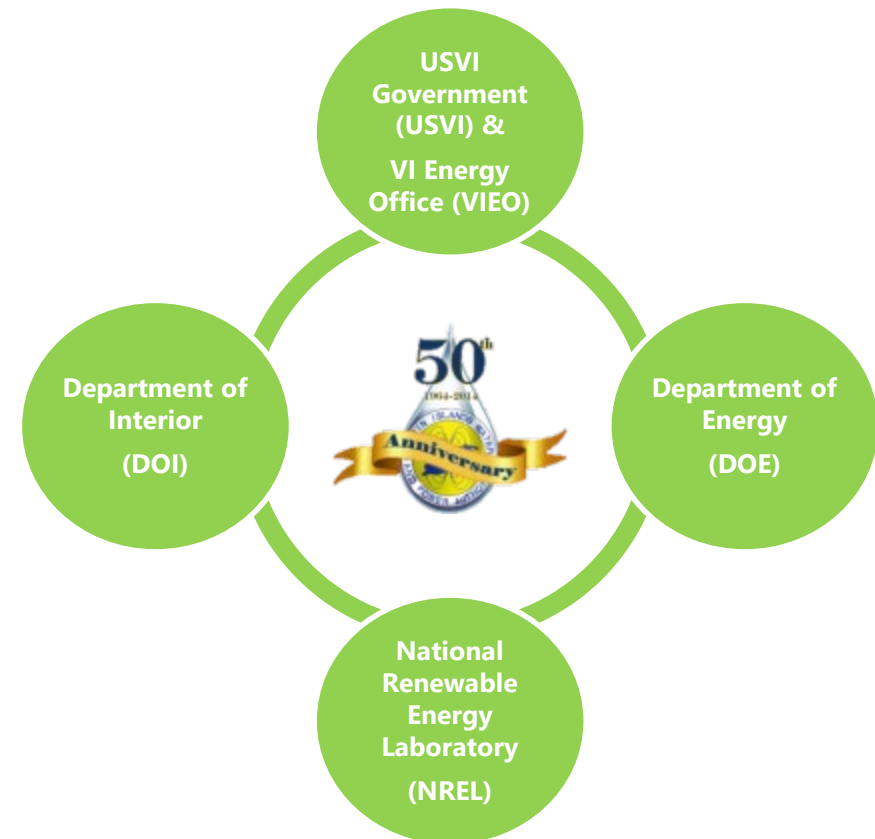
Collaboration with local Government and Governmental Offices, Federal Agencies and International partnerships has been key

USVI Government & VI Energy Office (VIEO)

- The Governor signed a memorandum of understanding with the Department of Energy and the U.S. Department of the Interior launching the Energy Development in Island Nations (EDIN) initiative's USVI pilot project.
 - As an EDIN project partner, the USVI was able to tap into a broad spectrum of technical assistance and project development support from DOE and NREL.

Department of Interior (DOI) and the Department of Energy (DOE) through its National Renewable Energy Laboratory (NREL)

- Helped to identify the Territory's baseline energy use and how the USVI could best meet its 60% goal.
 - Enabled WAPA to attract quality developers for solar projects
- EDIN is an international partnership focused on addressing the unique energy challenges islands face by:
 - Helping island nations and territories adopt energy efficiency measures and harnessing their indigenous renewable resources
 - Developing a holistic model for clean energy development that can be replicated by islands worldwide
- Provided a \$500,000 grant for an Integrated Resource Plan (IRP) that will provide a roadmap for responding to future generation needs. This detailed analysis will be thorough and include a wide range of options, prices, and growth scenarios.



WAPA continues to partner with the community to promote energy efficiency and education

Virgin Islands Community

- WAPA continues to partner with the community and support educational programs.
 - VI Energize, a separate WAPA business unit aimed at educating the community on becoming more energy efficient
 - Publications include: The Current Flow, WAPA Connect and Water Quality Report
 - Awarded \$160,000 for local students to pursue engineering degrees

Virgin Islands Next Generation Network (viNGN) – Broadband Initiative

- viNGN was established in 2010 as a public corporation; it is a wholly owned subsidiary of the Virgin Islands Public Finance Authority.
- The \$117 million broadband expansion project is funded by four federal stimulus grants plus a local match of \$32 million.
- The Authority entered into a 25-year MOA which can be automatically renewed for two additional consecutive 25-year terms
- The Authority provided in-kind contributions consisting of pole space and available conduit to make the project “shovel-ready” and to satisfy a portion of the non-federal cost share requirement of the Comprehensive Community Infrastructure “CCI” grant.
 - The Authority’s in-kind contributions were leveraged for a 25% interest in the venture and a seat on the Board.
- viNGN most recently met its first big deadline completing construction on the network by June 30.
- The Authority expects viNGN to come online in the next couple months.



Private sector provides solutions with no upfront costs to WAPA

Vitol Conversion to LPG/LNG

- July 2013, signed a turnkey master agreement with Vitol Virgin Islands Corp. (Vitol) for infrastructure construction, conversion of 7 existing combustion turbines, supply and delivery of propane to power plants on St. Thomas and St. Croix.
- Major benefits include:
 - A reduction of fuel costs by approximately 30% and greenhouse gas emissions by approximately 20%
 - No upfront capital costs for the Authority



Alternative Energy Power Purchase Agreements

- Signed agreements with three companies to provide up to 18MW of solar power
- Signed a 25-year agreement with Tibbar Energy to provide 7MW of power through a biogas plant on St. Croix



Seven Seas Water Purchase Agreements

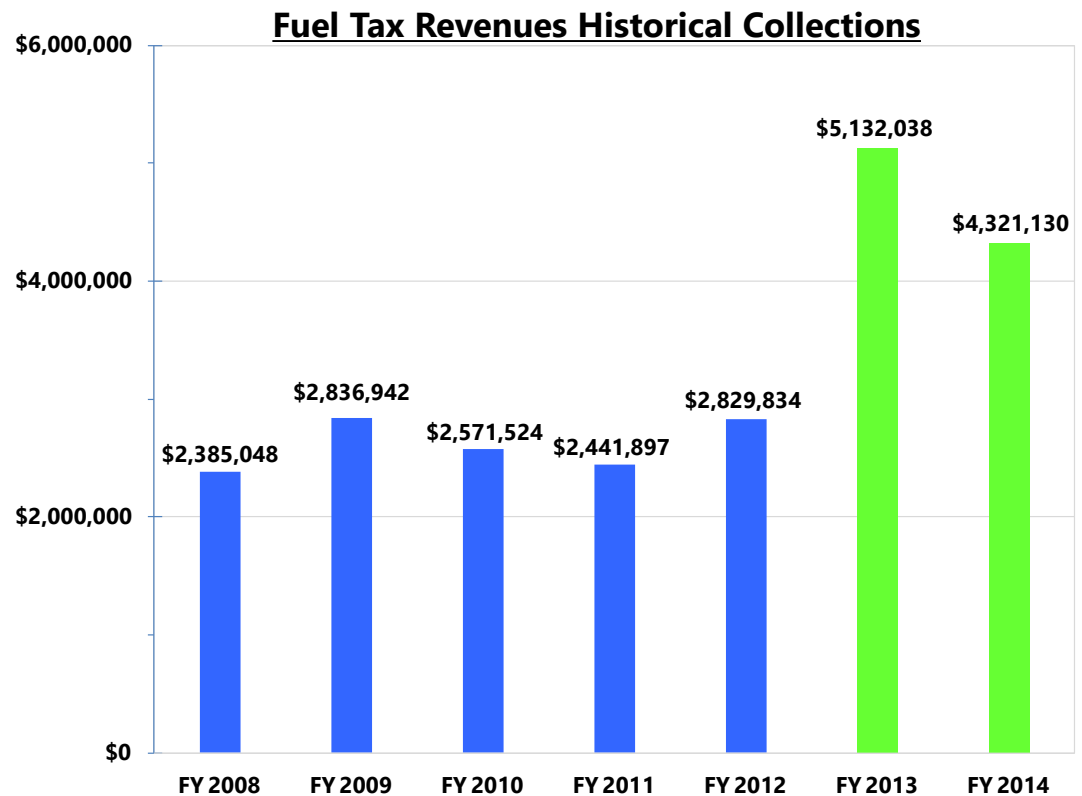
- Signed a 20-year purchase agreement to supply water
- Major benefits include:
 - A dependable supply of water
 - Lower production costs (less fuel)
 - No upfront capital costs for the Authority
 - Allows more efficient use of generating units



Fuel Tax

- In April 2012, the Senate approved an increase of the fuel tax from 7 cents to 14 cents per gallon and an allocation of all such revenue will go directly to the Authority.
 - The fuel tax increase became effective July 16, 2012.
- The fuel tax revenues are to be allocated by the Authority to purchase new, energy efficient generating units and/or heat recovery steam generators (HRSG) in both districts.
 - In FY2013, USVI Government collected \$5.1 million in fuel taxes.
 - Since the pledge of the fuel tax revenues to the Authority became effective, the Government has collected approximately \$9.4 million (through September 30, 2014) .

- Fuel tax revenues are deposited quarterly into an account held by WAPA.
- The graph on the right displays historical fuel tax collections
 - Blue bars represent collections at \$0.07 per gallon .
 - Green bars represent collections at \$0.14 per gallon.



Note: Based on fiscal year 9/30



Section 3

Impact of HOVENSA Refinery Closure





Impact on Closure of HOVENSA Terminal

- For decades until 2012, WAPA received all of its fuel needs for power generation directly from the HOVENSA Refinery
 - HOVENSA sold the fuel oil essentially at cost
 - Savings to WAPA, and hence the ratepayer, of approximately \$50 million per year realized in this incentive price
 - Assured supply, always available
- Closure of HOVENSA Refinery in 2012 forced WAPA to turn to the open oil market for its fuel supplies for power generation, hence exposing WAPA to complex logistics, and volatility, of the market
- WAPA has relied on HOVENSA's Storage Terminal, which remained in operation, for three types of fuel
 - Gasoline
 - Ultra Low Sulfur Diesel (ULSD) road diesel for our vehicle fleet on St. Croix
 - Storage for WAPA's current supplier of High Sulfur Diesel (HSD) No. 2 fuel oil for our power generating facilities in both Districts
- WAPA received notice from HOVENSA that the supply of vehicle fuels on St. Croix would not be replenished if the V.I. Legislature did not approve the operating agreement for the refinery
 - WAPA solicited proposals to address this supply cut-off and has engaged new supplier
- WAPA received notice from its current supplier of fuel oil for power generation that its supply contract would be terminated February 1, 2015
 - WAPA solicited emergency proposals from the three finalists in our previous bid solicitation
 - Evaluation Committee, having completed its work, will recommend selection of new supplier
 - Price potentially \$10-\$15 per barrel lower than current price approved by Public Service Commission due to recent oil market price decline, which will be passed on dollar-for-dollar to ratepayers, subject to PSC rate modification



Section 4

Key Capital Projects





Key Recent and Near Term Capital Projects

Gregory E. Willocks Substation \$12 million

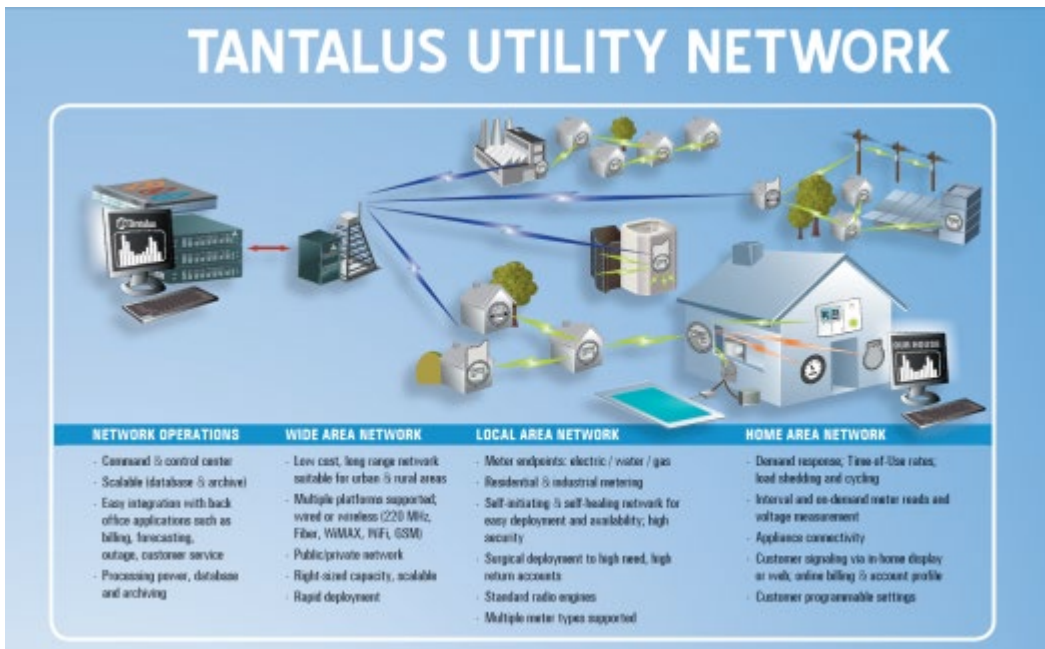
- This substation is the first transmission-voltage substation on St. Croix.
- Benefits include:
 - Shorter distribution loop to the West End of the island
 - Decrease in line loss
 - Greater degree of automation and a layer of protection to the system
- Mid-Island substation opened in October 2014.



Key Recent and Near Term Capital Projects (continued)

Automated Metering Infrastructure (AMI) \$13 million

- Benefits include:
 - Reduction in operational costs of the labor-intensive meter reading process. Reduction in employee labor costs.
 - Voltage monitoring – proactively address “electric blinks”
 - Reduce outage time – outage detection and restoration
 - Obtain customer load shape data for improved grid planning
 - Reduction in theft with new meters and identification of new theft post-AMI deployment.
- Implementation is 35% complete.



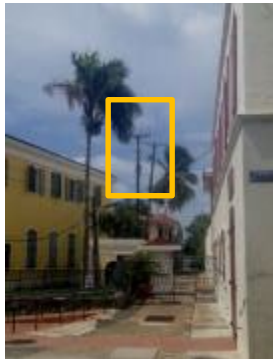
Key Recent and Near Term Capital Projects (continued)

Charlotte Amalie (Main Street) Underground Project \$3.2 million

- Involved the relocation of hazardous primary overhead distribution circuits in several areas of Main Street and Veteran's Drive



Before



After



Before

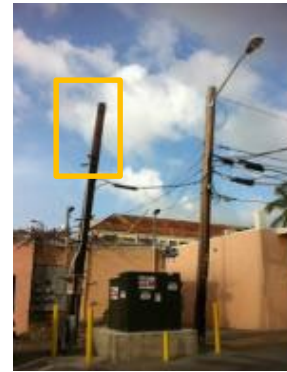


After

Christiansted Underground Project (Phase 2) \$3.2 million



Before



After

- Mitigates the destruction and lengthy restoration process in the event of a hurricane or major windstorm.



Richmond Substation 69/25kV Upgrade \$13.5 million



- The benefits of moving to a transmission and distribution system from just a distribution system include:
 - Decreased line loss and improved system reliability
 - Enhanced system protection and automation
 - Enhanced ability for future load expansion
 - Reduction of fault current at the Richmond Power Plant
 - Facilitating ease of interconnection by an independent power producer
 - Establishing a foundation for a transmission system on St. Croix



Key Recent and Near Term Capital Projects (continued)

- Resulting in improved efficiency, reliability and reduced cost of fuel

Project	Location	Cost (\$000's)	Completed	Description
Unit No. 24 HRSG Installation	STX	\$33,000	2010	The installation of this HRSG allowed the plant to operate in combine cycle with Steam Turbines #11 &10. It improved the operational efficiency and flexibility of the plant with annual saving of \$1.5 million monthly in fuel cost.
Unit No. 17 Gas Turbine Major Inspection	STX	\$2,873	1 st quarter 2015	Restore gas turbine, attached to an existing HRSG, to its specifications as designed by OEM, resulting in maintaining efficiency, reliability and available redundant combined cycle operation.
Upgrade of Maximo System	STT/STJ /STX	\$658	2 nd quarter of 2015	Improve maintenance management of the authority's assets in the power plants. (Plans preventive maintenance schedule for plant equipment and other resources - weekly, monthly, quarterly and annually)
Unit No. 21 HRSG Major Repairs/ Reconfiguration	STT/STJ	\$18,000 (estimate)	4 th quarter of 2015	Redesign and increase the existing HRSG's operational parameters to allow combined cycle operation with either Steam Turbines Unit 11 or 13. Upon completion it will improve overall plant efficiency, reliability, and stability of the boiler to include the overall power plant combine cycle operational mode, resulting in monthly fuel cost savings of approximately \$2 million.
Unit No. 6B HRSG Installation	STT/STJ	\$25,000 (estimate)	2 nd quarter of 2016	Allow for the dispatch of Unit 23 as a combined cycle unit. This configuration will allow for redundant combined cycle operation with either Steam Turbines Unit 11 or 13, resulting in improved reliability and continuous efficiency at the Plant and approximately \$1.1million in fuel cost savings.

Recent Water System Projects

Richmond Standpipe Building Upgrade



- The building houses the controls for the Richmond Standpipe, Richmond Pump Station (which is an integral part of the distribution system), and office space for operations and maintenance staffs.
- The Richmond Standpipe Building Upgrade was developed to create additional office space and to house the newly installed control system of the Richmond Pump Station.
- This project was completed on December 1, 2011 and was funded by WAPA's internal funds at a cost of \$174,345.

Rehabilitation of the Richmond Storage Tank



- WAPA was awarded \$1.6 million through the Drinking Water Capital Improvement Grant Program for the Rehabilitation of the Richmond Tank.
- The storage tank was upgraded by installation of a stairway, wind girder, valves, labeling, and recoating of the exterior, interior and other attachments to improve the tank.
- This project also included the installation of a Variable Frequency Drive (VFD) control system in the Estate Richmond pump station and civil work to improve the storm water drainage around the base of the tank.

Chlorine Generation System MIOX



- The Authority was awarded \$300,000 through the Drinking Water Capital Improvement Grant Program for the installation of a state-of-the-art mixed-oxidant (MIOX) chlorination generation system.
- The Chlorine Generation System was installed in February, 2011 to eliminate the use of calcium hypochlorite, which is potentially harmful to staff and the local community.
 - The MIOX Corporation designed, installed, and commissioned the new system. The revolutionary self-cleaning VAULT™ on-site generator is the first of its kind.



Section 5

Alternative Energy Initiatives

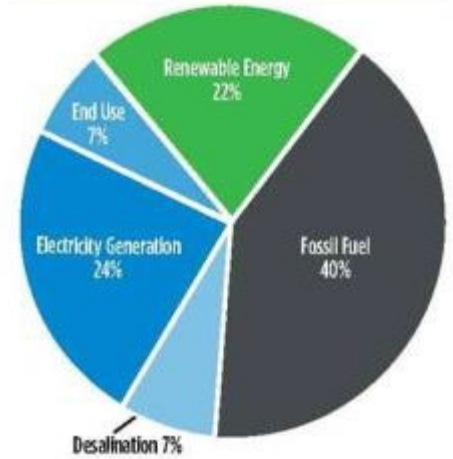




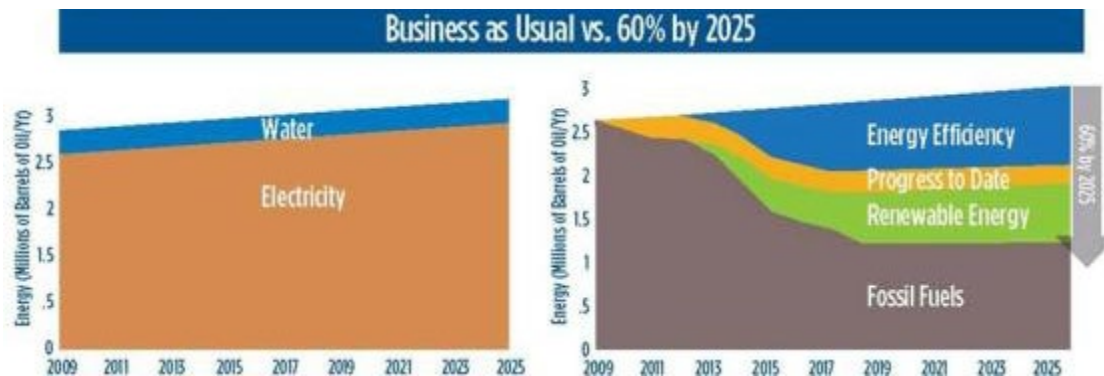
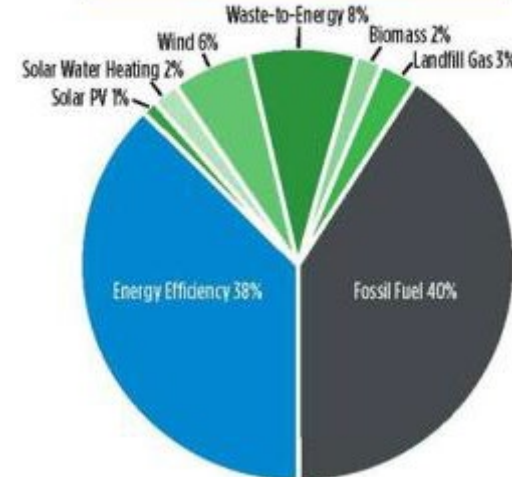
Alternative Energy – Overview

- Energy Development in Island Nations (EDIN)-USVI (www.edinenergy.org) is a global collaborative effort between the U.S., Iceland and New Zealand. One of the intended purposes is to minimize the Territory’s dependence on oil and enhance energy affordability and reliability.
- Through careful analysis and modeling using the Hybrid Optimization Modeling Tool (HOMER), the Renewable Energy working group, a subgroup of EDIN-USVI, is working to identify the most cost-effective combination of technologies for attaining that goal.
- The USVI Government is committed to reducing the Territory’s reliance on fossil fuel and signed a memorandum of understanding between the USVI, Department of Energy and U.S. Department of Interior.
- The goal is to reduce the use of oil in production of electricity and desalination of water to 60% of total production by 2025.
 - The conversion of the Authority’s electric generation from oil to LPG and LNG as it becomes available in small markets, may reduce or eliminate the Territory’s use of oil in the production of electricity.
 - The conversion from desalination to reverse osmosis to produce water has already reduced the Authority’s production costs, including fuel costs, by approximately 55%.

Energy Efficiency Goal



Renewable Energy Goal





Liquefied Petroleum Gas (LPG) – Overview

- In July 2013, the Authority entered into a 7-year power purchase contract (now revised to 10-year contract) with Vitol.
 - The project entails the conversion of 7 gas turbines, the supply of propane in conjunction with the design, construction and operation of the required infrastructure to receive, store, vaporize, measure and deliver LPG on the Islands of St. Thomas and St. Croix.
- Vitol is responsible for engineering, procurement, construction (EPC), and commissioning of the projects
- Project costs are approximately \$150 million
- All upfront costs are paid by Vitol.
 - WAPA repays Vitol over a 10-year amortization (option to repay in 7 years), built into the fuel cost.
- The switch to propane is expected to reduce fuel costs approximately 30% as well as reduce NO_x, SO_x, and CO₂ emissions
- The 30% reduction in fuel cost is still expected based on agreed adjustments to the contract between WAPA and Vitol to both the amortization (from 7 years to 10 years) and the decreased interest rate from 12.5% to 8.0%



LPG Project Highlights

- First class project
 - Safety
 - Industry practices
 - Economics
 - Environmental benefits
- Economic benefits underpinned by the fuel savings derived from low propane prices compared to diesel and savings in working capital for WAPA as inventory is carried by Vitol
- As of December 2014, more than 200,768 man hours expended on both STT and STX, with approximately 130,000 hours of local USVI man hours.
- Project has contracted directly or indirectly numerous contractors for various parcels of scope.
 - Grade All - Demolitions works STX and earthworks STT
 - Environmental Concepts - Lead Abatement and Demolition STX
 - Pro-Mar - Pile Removal STX and installation temp mooring at WAPA STT
 - O'Reilly - Sewer installation STX
 - APEX - Rebar Installation and building works STT
 - KER - Survey works STT and some on STX
 - Nations Industrial Services - Bullet installation STX, structural pipe supports and foundations STX and STT
 - Patrick Senhouse - Earthworks and transportation STX
 - Tropical - Shipping and Logistics STT and STX
 - CSC - Security on STT and STX
 - Bateman - Survey works STX and Off-Shore
 - Brian Mosely - Survey works STT
 - Julian Welding - Fencing STT
 - Marco STX - Transportation STX
 - Monarch - Transportation STX
 - STX Marine - Warehousing STX
 - UVI - Marine Survey Works for Off-Shore Mooring System (Benthic Survey)
 - VIPA - Staging and Handling of LPG Storage Tanks
 - VIQC - Survey works and QA/QC surveys



LPG Project Highlights (continued)

- Project actively recruiting local personnel for the operations and maintenance teams.
 - 10 terminal operators and 2 supervisors selected for hire
- Procurement of long lead items completed: 80% delivered 20% in transit
- \$100 Million invested by Vitol to date
- Contract signed with WAPA on July 2013
- Construction duration was scheduled at 12-14 months after initial FEED and permitting provided.



LPG Project – Summary of Significant Changes

- Process & Engineering:
 - Changes in the process conditions; higher design pressures and temperatures required to meet the requirements for Frame 6 Unit
 - Relocation of the STT mound to mitigate the volume of rock removal.
 - ❑ Relocation resulted in a reduction of 40 to 50 % of rock removal.
 - ❑ Final number was still higher than foreseen in the estimates and budget.
 - Redesign of the NW and NE Corners on STT
- Demolition & Earth Works
 - Significant additional works due to adverse soil conditions and unforeseen UG obstacle on STX
 - Removal of significant quantities of burned sugar cane
 - Lead abatement of the metal warehouse
- Civil Works
 - Local high prices for concrete, limited capacity to handle locally production of large volumes of concrete combined with additional volumes of concrete for the slabs required to support the storage tanks
 - Significant additional works due to adverse soil conditions
 - Based on the FEED study it was determined that seismic zone requirements and soil conditions would require significantly larger foundations to support the storage tanks
- Piling on STX
 - Design and installation of 900 piles and all associated earthworks
- Marine Works
 - Installation of additional fenders and bollards to moor the feeder vessels
 - Jetty works on STX - additional breasting dolphins



LPG Project – Summary of Significant Changes (continued)

- Shipping and Installation of Storage Tanks
 - Additional logistics was required as bullets had to be landed first at storage location at STX, then mobilize by barges to plant sites
 - Demobilization and mobilization of Mammoet
- Mechanical
 - Additional equipment not foreseen and required after completion of FEED studies, such as boilers, metering, and higher pressure LPG pumps.
- Off-Shore Mooring System
 - Design, supply and installation of a single buoy mooring system for the VLGC
- GE services
 - Additional scope of work on turbine compartments and additional safety features to minimize and control any potential hazards



LPG Project Construction Activity – St. Thomas



Project site prior to blasting and construction activity

Current project site



LPG Project Construction Activity – St. Thomas

Construction Activity on Vaporizer Building



Construction Activity on Control Room



Construction Activity on Tank Mound Walls



Raising utility lines for LPG tanks transport



LPG Project Construction Activity – St. Croix

View of project site before construction activity



Current view of project site



LPG Project Construction Activity – St. Croix

Control building



South mound being backfilled with crushed stone



Vaporizer area – boilers set on slab, pipe supports, excavation for flare foundation



Jetty area pipe support foundation





LPG Project Construction Activity – St. Croix

North mound top wall forms and rebar



North mound west wall rebar installation






Reverse Osmosis – Water System

- In April 2012, WAPA executed a 20-year contract to purchase water from Seven Seas Water (SSW).
 - The agreement provided for the installation of an Ultra-Pure Water System (UPW) and Salt Water Reverse Osmosis Plant (SWRO).
 - Additionally, the scope of work provided for upgrades to the existing sea water intake infrastructure and the installation of three new pumps.
- Water production costs have been reduced by approximately 55%.
 - No upfront capital costs to the Authority and provides consistent and high quality water supply
 - Provides the Authority flexibility to use more efficient generating units
- The RO system is capable of producing a guaranteed supply of up to 3.3 million gallons daily (MGD) of water for potable use on both St. Thomas and St. Croix
 - Current demand for water is approximately 2 MGD on each island.
- The RO system is capable of expanding to 4.4 MGD with an additional 500,000 gallons per day (GPD) of UPW for plant internal processing and applications.
- The St Thomas RO plant was completed in August 2013; the St. Croix RO plant was completed in November 2013

Seven Seas Water (SSW)

- Industry leader throughout the Americas and the Greater Caribbean in water production
- Similar projects operational in St. Maarten and Trinidad & Tobago





Water Quality Mitigation Measures

- In June 1987, the responsibility of distributing potable water was transferred from the Department of Public Works to WAPA under Act 5265.
- With this transfer, WAPA inherited the water distribution system that was primarily comprised of cast iron and ductile iron pipes some of which were installed as early as in the 1930s.
- Many of these pipes have suffered extensive interior and exterior corrosion. Since WAPA took ownership of the water distribution, it has undertaken an aggressive capital improvement program to rehabilitate its aging water distribution infrastructure.
- WAPA now replaces all of its corroded metal pipes with polyvinyl chloride (PVC) and high-density polyethylene pipe (HDPE).
- The replacement of the aged iron piping in the distribution system is the ultimate long term solution to the “colored water” being observed from time to time in limited areas.
- WAPA recently completed a Water Business Case and Five Year Capital Improvement Plan. Both the business Case and Capital Improvement Plan focused and addressing 5 key areas to provide residents with the highest quality of water available.
- The areas of focus were public safety and health, water loss reduction, system efficiency and system expansion.
- WAPA’s current five year capital improvement plan for the water distribution systems in both districts are available.



Water Quality Mitigation Measures (continued)

- WAPA customers are experiencing discoloured water problems due to the presence of old, unlined cast iron pipe, which is highly susceptible to corrosion and iron release.
- Hydraulic disturbances such as those caused by fire hydrant use, flushing, and water main breakage can cause red water events by dislodging iron from the pipe wall.
- Changes in distributed water quality can cause re-equilibration of existing scales, resulting in iron release and occurrence of red water. This is because permeate from seawater desalination plants contains almost no minerals and is highly aggressive in nature.
- When released into a distribution system, it may result in the dissolution of existing carbonate scales. Those scales may contain iron, and exposing metallic pipe surfaces results in red water.
- Post-treatment of permeate is required to increase pH and alkalinity in the finished water, thereby reducing the corrosion potential in the distribution system.
- After much consultation it was determined that the best approach to finding a solution in the near term make the permeate less aggressive.
- The process involves increasing the alkalinity of the permeate by introducing lime (CaCO_3) into the RO plant effluent.
- In order to increase the solubility of the CaCO_3 the pH must be lowered or made acidic. This is accomplished by the injection of CO_2 . (From basic chemistry, CO_2 + water makes a weak acid).
- The addition of CO_2 is preferable to H_2SO_4 , which would be adding more impurities to the water, is a much more hazardous, and more costly as well.



Water Quality Mitigation Measures (continued)

- The equipment needed include storage tanks for both carbon dioxide and calcium carbonate
- Injection skid for carbon dioxide (pumps and injection controller)
- Refrigeration system
- VIWAPA would need to supply the CaCO_3 and CO_2
- Bids were solicited to find a supplier of both products and the most competitive bidder selected
- Installation cost: \$800,000.00
- Refrigeration rental: \$750.00/month
- CO_2 tank rental: \$750.00/month
- Last month the Governing Board approved the project which will allow Seven Seas to install calcium carbonate and carbon dioxide injection equipment at both Randolph Harley and Richmond Plants to mitigate the colored water in the Authority's distribution system. Funding for the project will be through the water LEAC during the last 10 years of the Authority's water purchase agreement with Seven Seas at \$0.15 per/1000 gallons.
- Additionally, the Authority is pursuing other avenues utilizing other procedures and technologies to help improve the water quality to include the following:
 - Aggressive flushing program at problem spots, particularly in low-lying and low-flow areas.
 - Sleeving of pipes in distribution system with delicate walls until they can be replaced.
 - Reline the pipes with smooth, protective coating.
 - Perform system-wide analysis to determine which combination of programs would be most effective
 - Bench testing chemicals for potable water system

- In June 2012, the Authority signed solar power purchase and interconnection agreements (PPA) totaling \$65 million with three companies (Toshiba, Sun Edison and Lanco Virgin Islands now Main Street Morgan Stanley)
- The combined solar installations are expected to produce a total of 18MW of solar power which represents approximately 15% of the territory's peak load demand.

Toshiba International Corporation (TIC)

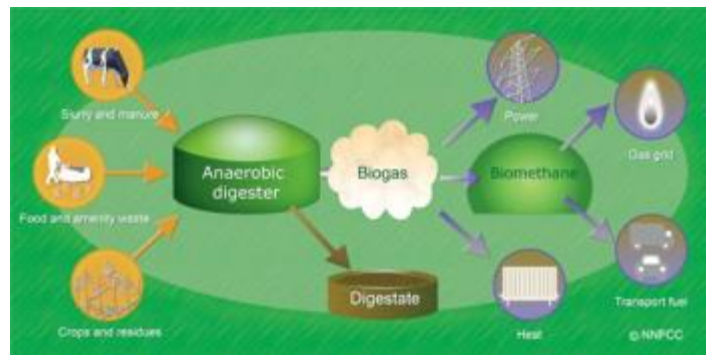
- Under its PPA, TIC will engineer, procure and construct a 4MW AC ground mounted photovoltaic power plant and connect this plant directly to the new Midland Substation at Estate Spanish Town on St. Croix.
- This plant is currently designed to include approximately 19,600, 255W photovoltaic modules connected to eight 500kW inverters.
- Construction and operation of the plant is expected to:
 - Reduce greenhouse gas emissions in the Territory since no fuel is needed to generate those 4 megawatts of power.
 - Reduce the Authority's carbon footprint at the Richmond Plant and improve air quality for the surrounding community
- The construction, operation and maintenance of the plant will utilize local labor and technical services which will be an asset to the struggling job market on St. Croix.
- The project was completed and commissioned in October 2014.

Other Solar projects

- Construction on the 4.2MW Main Street Morgan Stanley solar project began in March 2014 is expected to be completed by early Q1 2015
- The Authority has re-bid the contract originally won by Sun Edison (3MW on St. Thomas; 6MW on St. Croix) and expects to sign a PPA Q1 2015



- In June 2013, the Authority entered into a 25-year power purchase agreement with Tibbar Energy USVI LLC to provide 7MW of energy on the island of St. Croix.
- Project costs are estimated at approximately \$80 million for construction and interconnection to the WAPA grid.
- The power plant will utilize anaerobic digestion technology, which harnesses gasses from decaying organic matter and burns them to power a generator.
 - The main source of fuel for the project will be giant king grass, which is grown and harvested at several locations around St. Croix.
 - WAPA has an option to extend the contract for an additional five years
 - If for any reason electricity is not available through Tibbar, WAPA can activate an additional generator at its Richmond Power Plant and Tibbar will be forced to pay liquidated damages to compensate for the increased cost.
- The project was approved by the PSC in 2015 and is projected to be completed in early 2016.



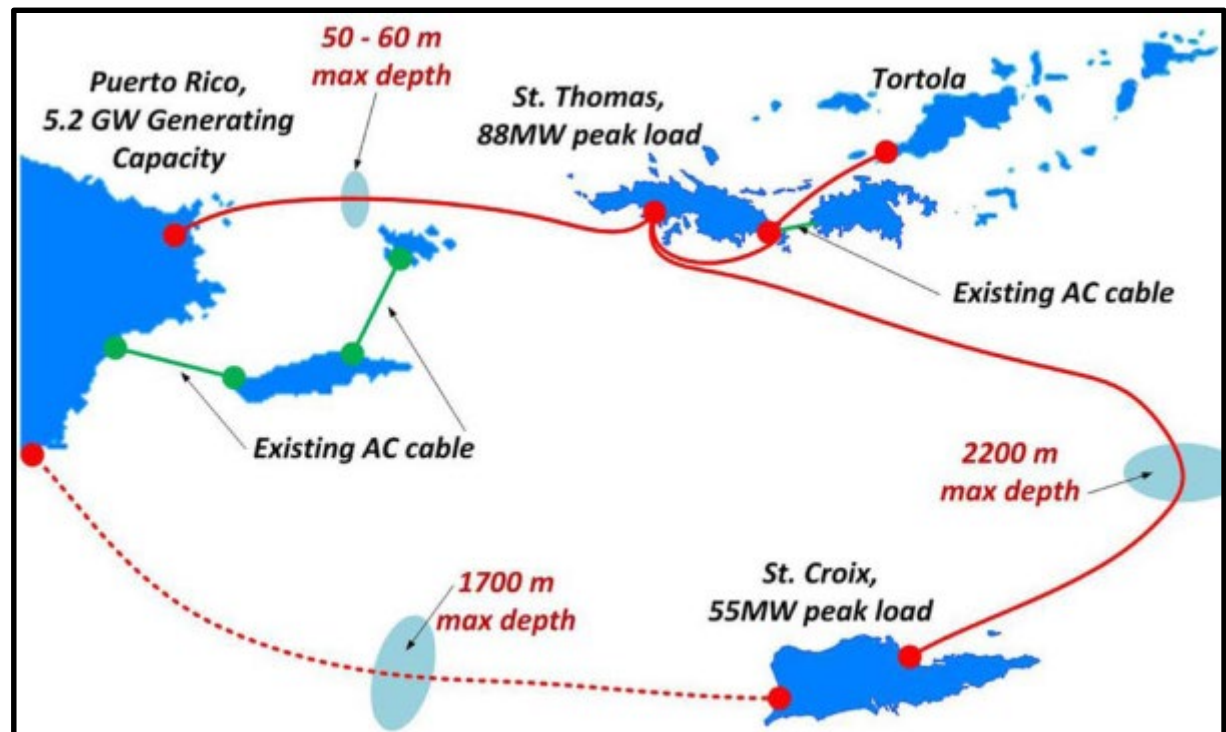
Tibbar Energy USVI LLC

- Tibbar Energy is a renewable energy development company that focuses on biomass projects that range in size from 2 and 10MW.
- Other biomass projects completed by Tibbar or its strategic partners include:
 - Biokraft, Denmark (2MW)
 - Kurana, Lithuania (4MW)
 - Allter Power, Poland (1.6MW)



Interconnection (Puerto Rico → USVI → BVI)

- The Authority is proposing a transmission project that interconnects the electrical power systems on the islands of Puerto Rico (PREPA), USVI (WAPA) and the British Virgin Islands (BVI).
- Phase I report of a feasibility study commissioned by WAPA and funded by the Department of Energy to determine the feasibility of the proposed interconnection was completed in June 2011.
- The study, which was funded in part by a Department of Energy (DOE) grant administered by the Virgin Islands Energy Office (VIEO), confirmed that the project is feasible and would greatly improve service reliability, lower utility rates and reduce carbon emissions in the USVI.
- The study determined that the most advantageous interconnections would be from Puerto Rico to St. Thomas and from St. Thomas to the British Virgin Island of Tortola.
 - Another cable could run from Puerto Rico to a new substation that will be located on St. Croix's west end.
- Interconnecting utilities in the Caribbean, all of which are highly dependent on fossil fuel for power generation, would reduce costs by accessing Puerto Rico's diversified grid (oil, liquefied natural gas, hydroelectric).
- Phase II, currently in process, is a study of the penetration level of renewable energy with or without the interconnection.
- The next deliverable is an environmental impact study of proposed interconnection.





Other Alternative Energy Updates

Wind

- The Authority has completed the feasibility study through the VI Energy Office
- Currently negotiating a power purchase agreement for 7.5MW for the St. Thomas/St. John district

Liquefied Natural Gas

- Conversion to tri-fuel capability will allow the use of LNG once it becomes available in small markets





Section 6

Financial Review



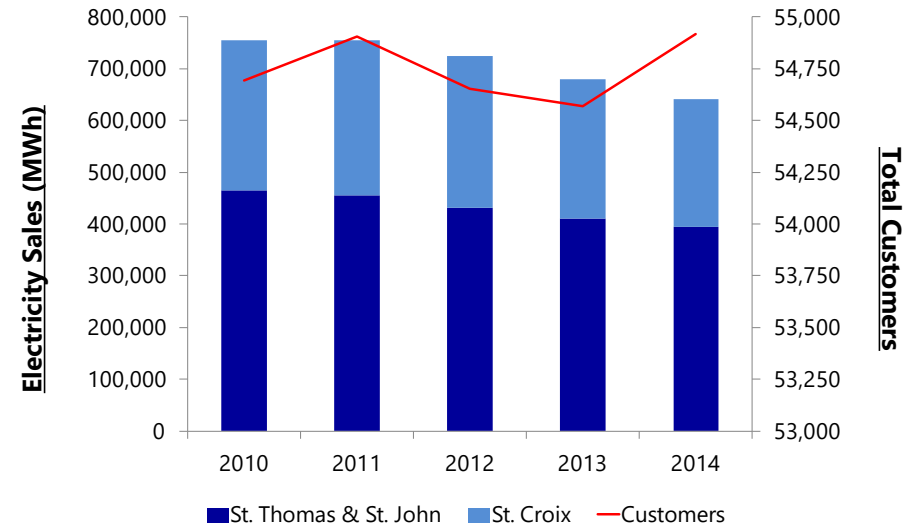


Fiscal Year 2014 Electric System Financial Summary

2014 Summary Statistics

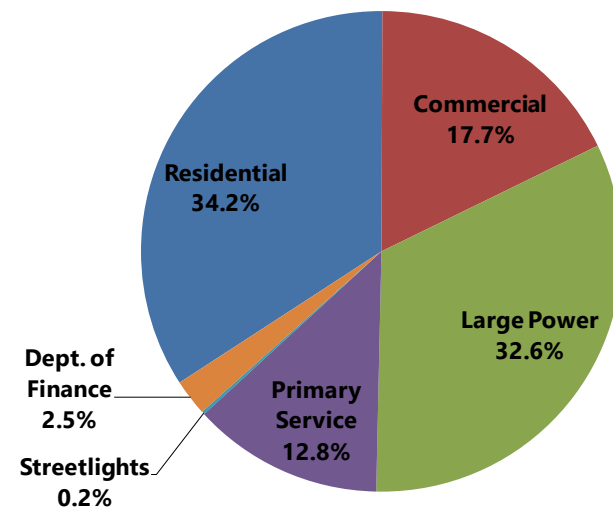
- 54,917 customers
- Total electricity sales of 641,038 MWh
 - 5.8% decrease from FY2013 due to high prices and conservation
- Top 10 largest customers represented 7.7% of total usage
- Operating revenues \$321.2 million
- Operating expenses \$321.8 million

Electricity Sales (MWh) vs. Total Customers



Customer	Usage (kwh)	Revenue
Westin St. John Company, Inc.	9,810,750	\$4,949,023
Yacht Haven USVI LLC	7,162,800	\$3,433,291
Caneel Bay Plantation	5,871,210	\$2,988,712
Marriott Ownership Resorts Inc.	4,627,880	\$2,315,506
Ritz Carlton Club	4,611,370	\$2,310,593
Plaza Extra (Sion Farm)	4,051,920	\$2,027,301
Plessen Enterprises	3,985,600	\$1,994,972
Plaza Extra (Charlotte Amaile)	3,326,400	\$1,666,296
Pricemart, Inc.	3,192,600	\$1,603,125
Marriott Hotels International	2,174,240	\$1,452,127
Total	48,814,770	\$24,740,945

Customer Classes





Summary of Historical Revenue, Expenses and Coverage

- The Authority has consistently maintained strong senior and subordinate debt service coverage above its targeted 1.75x and 1.50x levels.
- The Authority failed to meet 1.0x debt service coverage for all debt in fiscal year 2011 due mainly to an unfavorable adjustment (approximately \$2.5 million) to LEAC revenue.

Historical Debt Service Coverage (000's)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014P</u>
Operating Revenues	\$267,483	\$253,818	\$280,470	\$331,414	\$339,001	\$321,216
Less: Operating Expenses ¹	244,031	227,687	257,777	305,300	309,181	297,672
<u>Net Operating Revenue</u>	<u>23,452</u>	<u>26,131</u>	<u>22,693</u>	<u>26,115</u>	<u>29,820</u>	<u>23,544</u>
Other Income	\$1,003	\$725	\$1,166	\$440	\$119	\$8,695
Water LEAC Revenues (Term Loan)	936	1,604	1,212	984	366	209
Build America Bond Interest Subsidy	-	223	884	884	845	884
<u>Total Available for Debt Service</u>	<u>\$25,391</u>	<u>\$28,683</u>	<u>\$25,954</u>	<u>\$28,423</u>	<u>\$31,151</u>	<u>\$33,331</u>
Debt Service:						
Senior Bonds:						
Series 1998	\$9,207	\$8,169	\$899	\$450	-	-
Series 2003	5,000	5,000	5,000	5,000	5,002	5,000
Series 2010A,B,C	-	1,187	9,121	9,124	9,120	9,124
Series 2012A	-	-	-	112	696	696
Subordinated Bonds:						
Series 2007	2,879	2,879	2,879	2,879	2,879	2,879
Series 2012B,C	-	-	-	442	5,691	5,689
Other Debt:						
Interest on the Line of Credit	1,489	851	832	602	557	348
Term Loan	5,348	9,169	8,970	9,243	2,678	2,860
<u>Total Debt Service</u>	<u>\$23,923</u>	<u>\$27,256</u>	<u>\$27,702</u>	<u>\$27,852</u>	<u>\$26,623</u>	<u>\$26,595</u>
Debt Service Coverage:						
Senior Bonds	<u>1.79x</u>	<u>2.00x</u>	<u>1.73x</u>	<u>1.93x</u>	<u>2.10x</u>	<u>2.25x</u>
Senior and Subordinated Bonds	<u>1.49x</u>	<u>1.66x</u>	<u>1.45x</u>	<u>1.57x</u>	<u>1.33x</u>	<u>1.43x</u>
All Debt	<u>1.06x</u>	<u>1.05x</u>	<u>0.94x</u>	<u>1.02x</u>	<u>1.17x</u>	<u>1.25x</u>

Notes:
1 Excludes depreciation, amortization, OPEB Expense, PILOT expense and bad debt expense.



Liquidity Position

- The Authority has gradually improved its liquidity position since 2010.
 - Series 2012C bond proceeds were used to repay:
 - Working capital lines of credit (which were fully drawn for several years)
 - Overdraft line of credit
 - Fuel hedge line of credit
- The Authority has renewed and extended its working capital and capital lines of credit with Banco Popular and FirstBank.
- The Authority currently is averaging 19 days cash on hand vs 3-4 for the last several years.
 - The goal is to get to 30 days cash on hand

Summary of Available Liquidity (\$000's)

	<u>6/30/2010</u>	<u>6/30/2011</u>	<u>6/30/2012</u>	<u>6/30/2013</u>	<u>(Preliminary)</u> <u>6/30/2014</u>	<u>(Preliminary)</u> <u>10/31/2014</u>
Cash	\$4,115	\$8,441	\$9,674	\$9,112	\$10,826	\$10,377
Working Capital Line of Credit	0	0	8,000	8,000	2,000	2,000
Overdraft Line of Credit	6,214	5,155	7,323	5,108	4,987	3,458
Total Available Liquidity	\$10,329	\$13,596	\$24,997	\$22,220	\$17,813	\$15,835



Deferred Fuel Balances

- Through June 30, 2014 the Authority has reduced the deferred fuel balance by \$22.3 million or 43.0% from \$51.7 million to \$29.5 million since the end of FY2013.
- Through October 31, 2014 the deferred fuel balance is approximately \$22.2 million.

Summary of Deferred Fuel Balances (\$000's)

	<u>6/30/2010</u>	<u>6/30/2011</u>	<u>6/30/2012</u>	<u>6/30/2013</u>	(Preliminary) <u>6/30/2014</u>	(Preliminary) <u>10/31/2014</u>
Deferred Fuel ¹	\$46,229	\$47,053	\$51,081	\$51,724	\$29,464	\$22,200
Fuel Oil - Inventory	\$9,965	\$12,462	\$10,935	\$15,254	\$14,819	\$12,874
Fuel Escalator (LEAC) Revenues	\$171,606	\$201,665	\$255,102	\$242,865	\$227,237	\$70,890
Fuel Expenses	\$174,900	\$199,488	\$242,948	\$240,875	\$231,711	\$72,239
Total Operating Expenses	\$253,286	\$283,602	\$334,140	\$338,879	\$330,722	\$100,900
Fuel Expenses / Total Operating Expenses	69.1%	70.3%	72.7%	71.1%	70.1%	71.6%

¹ Total deferred fuel figures include the Term Loan



Accounts Receivables

- As of October 31, 2014, the Government receivables were \$34.3 million.
 - The largest components were street lighting (\$13.4 million), Juan Luis Hospital (\$8.4 million) and Schneider Hospital (\$3.5 million)
- On July 16, 2014 the Senate approved a \$50 million borrowing for the USVI Government of which \$12 million was used to pay a portion of the Government's receivables (\$5.25 million for each hospital and \$1.5 million for the Bureau of Corrections)

Summary of Accounts Receivables (\$000's)

	<u>6/30/2010</u>	<u>6/30/2011</u>	<u>6/30/2012</u>	<u>6/30/2013</u>	<u>(Preliminary)</u> <u>6/30/2014</u>	<u>(Preliminary)</u> <u>10/31/2014</u>
Customer Receivables						
- St. Croix	\$5,109	\$5,575	\$5,134	\$5,841	\$5,279	\$3,702
- St. Thomas	6,414	5,628	6,862	7,754	7,866	8,665
Total	\$11,523	\$11,203	\$11,996	\$13,595	\$13,145	\$12,367
Major VI Public Sector Receivables:						
Streetlights	\$8,742	\$9,970	\$6,079	\$9,338	\$9,990	\$13,416
Juan Luis Hospital	1,777	3,416	5,755	7,166	12,052	8,412
Schneider Hospital	406	548	786	2,549	6,947	3,528
Subtotal	\$10,924	\$13,934	\$12,620	\$19,053	\$28,988	\$25,356
Total VI Public Sector Receivables	\$14,829	\$19,130	\$13,441	\$25,459	\$35,742	\$34,318
Total Receivables	\$39,573	\$43,539	\$42,194	\$52,159	\$58,716	\$55,365
VI Public Sector Receivables % of total	37.5%	43.9%	31.9%	48.8%	60.9%	62.0%



Summary of Current Customer Electric Charges

Current Price: \$0.391928/kWh

Base Rate \$0.073599/kWh (18.8%)

- Funds the cost of producing and delivering electricity plus investment in the power plants and facilities.
 - Labor Expense \$0.056702/kWh (14.5%)
 - Administrative Costs, Debt Service etc. \$0.016897/kWh (4.3%)

Fuel Charge / LEAC: \$0.279991/kWh (71.4%)

- The cost of fuel consumption collected from customers and paid directly to the fuel supplier.

Line Loss Surcharge \$0.002196/kWh (0.6%)

- Funds projects geared towards reducing line loss.

Self Insurance Surcharge \$0.001925/kWh (0.5%)

- Funds the self insurance fund.

OPEB Surcharge \$0.008668/kWh (2.2%)

- Provides funds to cover the OPEB accrued liability.

Maintenance Surcharge \$0.024863/kWh (6.3%)

- Funds maintenance projects.

PILOT Surcharge \$0.000686/kWh (0.2%)

- Payment in Lieu of Taxes to VI Government



Detailed Summary of Fuel Charge / LEAC

Fuel Charge / LEAC: \$0.279991/kWh (71.4%)

- Fuel \$0.209719/kWh (53.5%)
 - Projected cost of fuel over the 3-month period
- LPG Infrastructure and O&M Fee \$0.025123/kWh (6.4%)
- Finance / Regulatory Costs \$0.005082/kWh (1.3%)
 - Principal and interest on the Term Loan
 - PILOT (credit) for any previous period of over collection
 - PSC charges passed on to customers for LEAC related matters
 - Working Capital Line of credit interest for fuel related expenses
- Renewable Energy Cost \$0.003708/kWh (0.8%)
- UltraPure /RO Charge \$0.003364/kWh (0.9%)
 - Operating costs associated with RO production
- Rate Financing Mechanism \$0.018000/kWh (4.6%)
 - Operating costs of the leased emergency GE units and funds to service existing units
- Under-recovery / Deferred Fuel \$0.014995/kWh (3.8%)
 - Amounts paid for fuel but not yet collected from customers

Note: Percentages are based on overall total electric price of \$391928/kWh

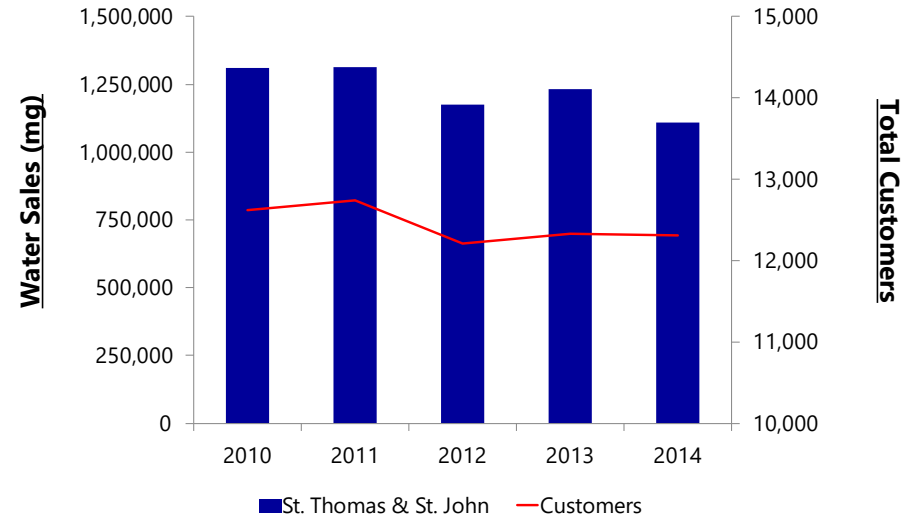


Fiscal Year 2014 Water System Financial Summary

2014 Summary Statistics

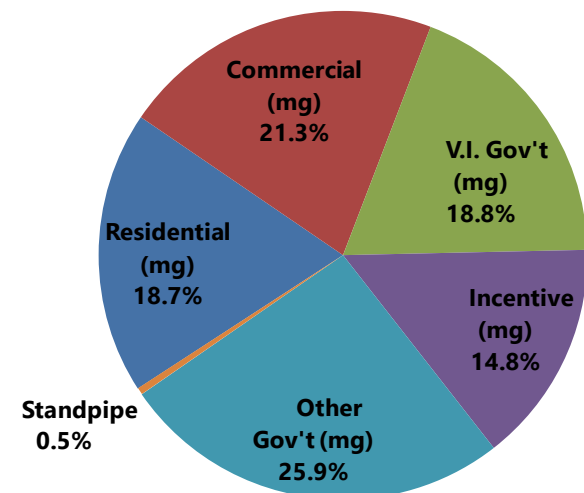
- 12,311 customers
- Total water sales of 1,110,400 (mg)
 - 5.8% decrease from FY2013 due to high prices and conservation
- Top 10 largest customers represented 7.7% of total usage
- Operating revenues \$31.5 million
- Operating expenses \$30.6 million

Water Sales (mg) vs. Total Customers



Customer	Consumption	Revenue
WICO	19,025,000	\$638,196
STX Labor	10,543,000	\$354,670
Lorraine Village	8,642,900	\$291,739
Four Winds	7,663,800	\$258,194
Harborview Apt.	6,183,500	\$208,276
Bluebeards	5,353,500	\$181,894
Pearson Garden	4,649,000	\$166,539
Crown Bay Marina	4,213,300	\$141,544
VI Community	3,800,500	\$128,207
Grande Bay	2,137,130	\$71,668
Total	72,211,630	\$2,440,927

Customer Classes





Water System – Improved Financial Condition

- The Water System financial condition improved in FY2013 as it posted a \$1.6 million net operating surplus compared to a \$3.5 million loss in FY2012.
 - Operating surplus of \$890,000 in FY2014.
- However, sales were lower than expected because of increased rain fall.
 - Until recently, the USVI building code required all new residential and commercial buildings have cisterns to accumulate rainwater. Currently, new construction within the Water System no longer requires cisterns.
- Water system receivables due to the Electric System have continued to decrease through FY2015.
- Mitigating factors to further decrease the balance due to the Electric System include:
 - Reduced water production costs of approximately 55%
 - Total net base rate increases approved by the PSC that are expected to provide \$1.6 million annually
 - Negotiating long-term commitments with several new large customers (condo and timeshare complexes and hotels) to connect to the Water System
 - The introduction of a customer charge for all water customers connected to the Water System.

Water System Receivables due to the Electric System (\$000's)

	<u>6/30/2010</u>	<u>6/30/2011</u>	<u>6/30/2012</u>	<u>6/30/2013</u>	<u>(Preliminary)</u> <u>6/30/2014</u>	<u>(Preliminary)</u> <u>10/31/2014</u>
Receivables:						
Due to Electric	\$9,533	\$8,208	\$9,404	\$11,794	\$8,860	\$8,111
Due to Electric for Term Loan	5,917	4,000	3,203	-	-	-
Total Water System Receivables	\$15,450	\$12,208	\$12,607	\$11,794	\$8,860	\$8,111



Summary of Current Customer Water Charges

Current Price: \$18.56/1,000 gallons

Base Rate \$10.63/1,000 gallons

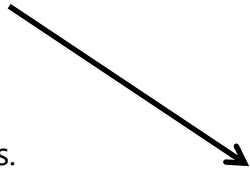
- Funds the cost of producing and delivering electricity plus investment in the power plants and facilities.

Fuel Charge / LEAC: \$7.22/1,000 gallons

- The cost of fuel consumption collected from customers and paid directly to the fuel supplier.

Line Loss Surcharge \$0.710/1,000 gallons

- Funds projects geared towards reducing line loss.



Current LEAC \$7.22/1,000 gallons

Components:

- Finance / Regulatory Costs (\$0.037)
 - Principal and interest on the Term Loan
 - PILOT (credit) for any previous period of over collection
 - PSC charges passed on to customers for LEAC related matters
 - Working Capital Line of credit interest for fuel related expenses
- Electricity Charge (\$4.194)
- Water Production Charge (\$5.865)
- Base Rate Recovery (-\$2.88)
 - Operating costs associated with RO production
- Under-recovery / Deferred Fuel (\$0.030)
 - Amounts paid for fuel but not yet collected from customers



Section 7

Summary of Electric System Debt Outstanding





Summary of Outstanding Electric System Bonds

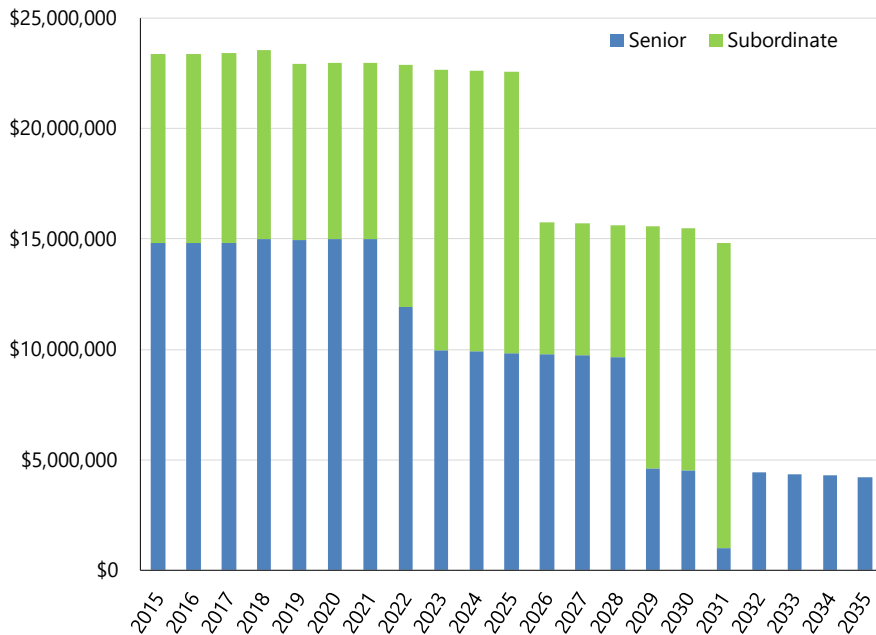
- As of January 21, 2015, the Authority had \$238.2 million Electric System bonds outstanding

Debt Portfolio Summary Statistics

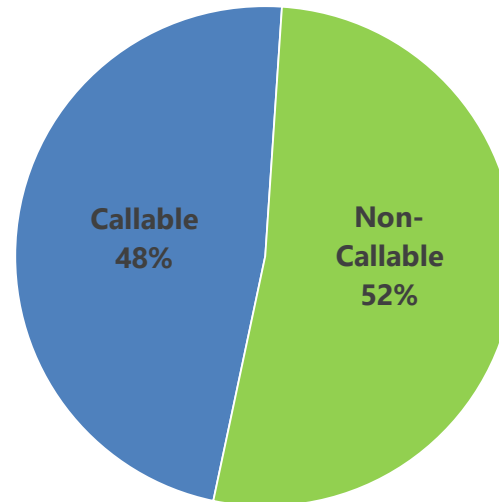
- Senior Bonds: \$134.9 million
- Subordinate Bonds: \$103.3 million
- Maximum annual debt service: \$23.5 million
- Average annual debt service: \$17.3 million
- Final Maturity: 2035

Debt	Amount Outstanding (\$000's)	Final Maturity	Call Status	Call Date	Tax Status
Senior:					
Series 2003	\$50,930	7/1/2028	Callable	7/1/2013	Tax-Exempt
Series 2010A	20,285	7/1/2018	Non-Callable	N/A	Tax-Exempt
Series 2010B	8,925	7/1/2022	Callable	7/1/2020	Tax-Exempt
Series 2010C	37,330	7/1/2035	Non-Callable	N/A	Taxable (BABs)
<u>Series 2012A</u>	<u>17,390</u>	7/1/2021	Non-Callable	N/A	Tax-Exempt
Total	134,860				
Subordinate:					
Series 2007A	\$57,585	7/1/2031	Callable	7/1/2017	Tax-Exempt
Series 2012B	13,680	7/1/2018	Non-Callable	N/A	Taxable
<u>Series 2012C</u>	<u>32,065</u>	7/1/2022	Non-Callable	N/A	Taxable
Total	103,330				

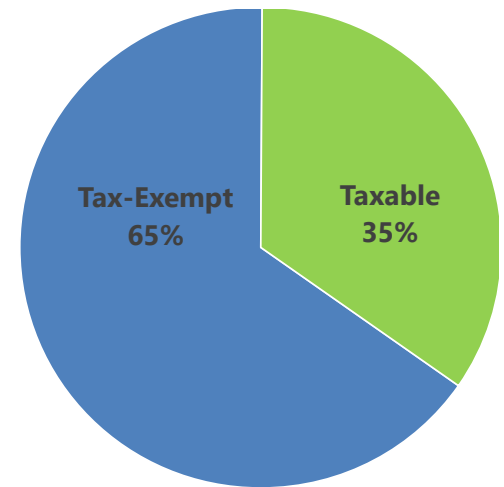
Annual Bond Debt Service (\$000's)



Callable vs. Non-Callable



Tax-Exempt vs. Taxable





Summary of Electric System Bank Obligations

- The Authority currently maintains lines of credit with Banco Popular of Puerto Rico (“Banco Popular”) and FirstBank of Puerto Rico (“FirstBank”) for capital projects, working capital and an overdraft facility.
 - The Authority has renewed and extended its capital projects and working capital lines of credit through June 25, 2016.
- In November 2008, the Authority entered into the \$40 million Term Loan with FirstBank to purchase fuel from HOVENSA. The Term Loan was initially amortized over 5-years with a balloon payment due at the end of 2011.
 - In December 2010, the Term loan was modified to increase and extend the loan from \$24.6 million back up to \$40 million loan with a balloon payment due in December 2013. Proceeds were used to pay fuel invoices.
 - In May 2012, the Authority refinanced the balloon payment of \$18 million with a portion of the proceeds of the Series 2012B Bonds.
 - In August 2012, the Authority restructured and extended the final maturity of the remaining balance to August 2016.

Summary of Bank Obligations (\$000’s)

	Banco Popular			FirstBank			Total	
	Capacity	Drawn/ Outstanding	Expiration/ Maturity	Capacity	Drawn/ Outstanding	Expiration/ Maturity	Total Capacity	Total Drawn/ Outstanding
Line of Credit:								
Capital Projects	\$8,125	\$0	6/25/2016	\$4,875	\$4,875	6/25/2016	\$13,000	\$4,875
Working Capital	10,000	9,000	6/25/2016	10,000	9,000	6/25/2016	20,000	18,000
Overdraft	<u>N/A</u>	<u>N/A</u>	N/A	<u>10,000</u>	<u>5,789</u>	See note	<u>10,000</u>	<u>6,542</u>
	\$18,125	\$9,000		\$24,875	\$19,664		\$43,000	\$29,417
Term Loan	N/A	N/A		N/A	\$6,084	8/1/2016	N/A	\$2,217

Current Rates:			
Capital Projects		90-day LIBOR + 3.50%= 3.74%	greater of 90-day LIBOR + 1.50% or 4.25%
Working Capital		90-day LIBOR + 3.50%= 3.74%	greater of 90-day LIBOR + 2.50% or 4.25%
Term Loan		N/A	5.50%

Note:
Can be terminated by the Bank at anytime upon 60 days notice



Summary of Outstanding Water System Bonds

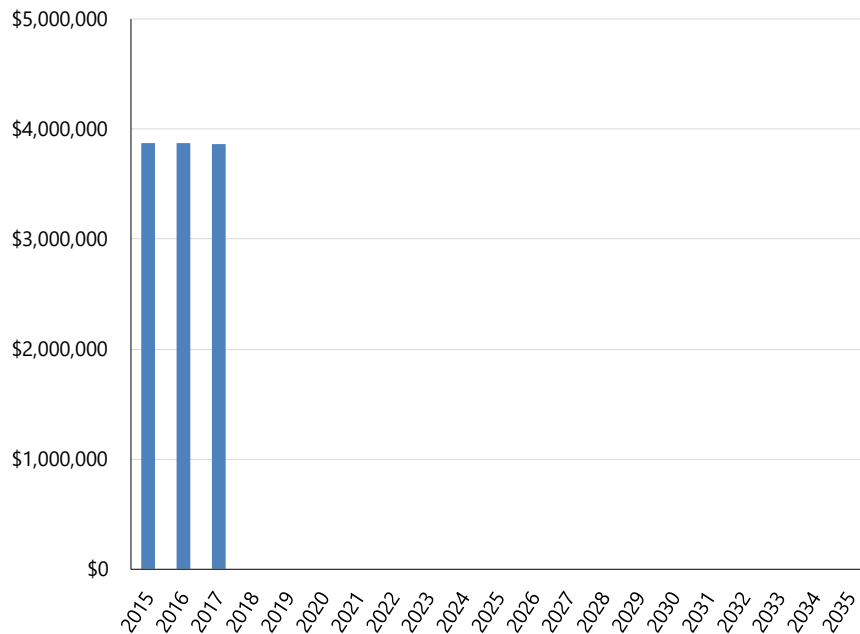
- As of January 21, 2015, the Authority had \$10.4 million Water System bonds outstanding

Debt	Amount Outstanding (\$000's)	Final Maturity	Call Status	Call Date	Tax Status
Series 2003	\$10,435	7/1/2017	Callable	Currently Callable	Tax-Exempt

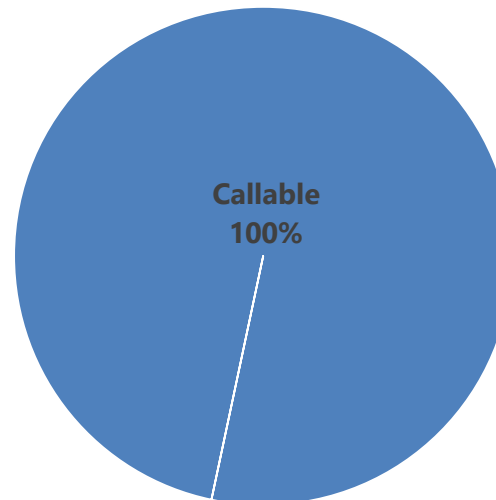
Debt Portfolio Summary Statistics

- Bonds: \$10.4 million
- Maximum annual debt service: \$3.9 million
- Average annual debt service: \$3.9 million
- Final Maturity: 2017

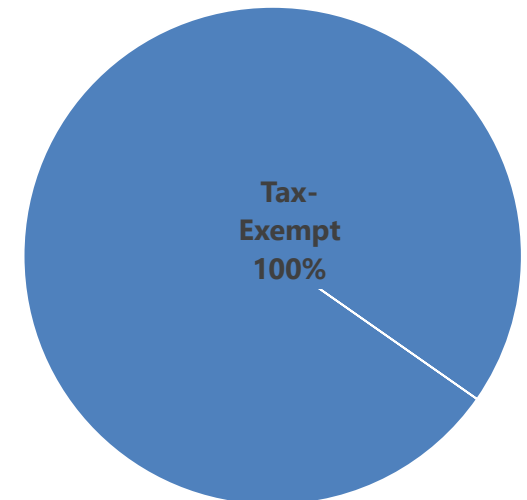
Annual Bond Debt Service (\$000's)



Callable vs. Non-Callable

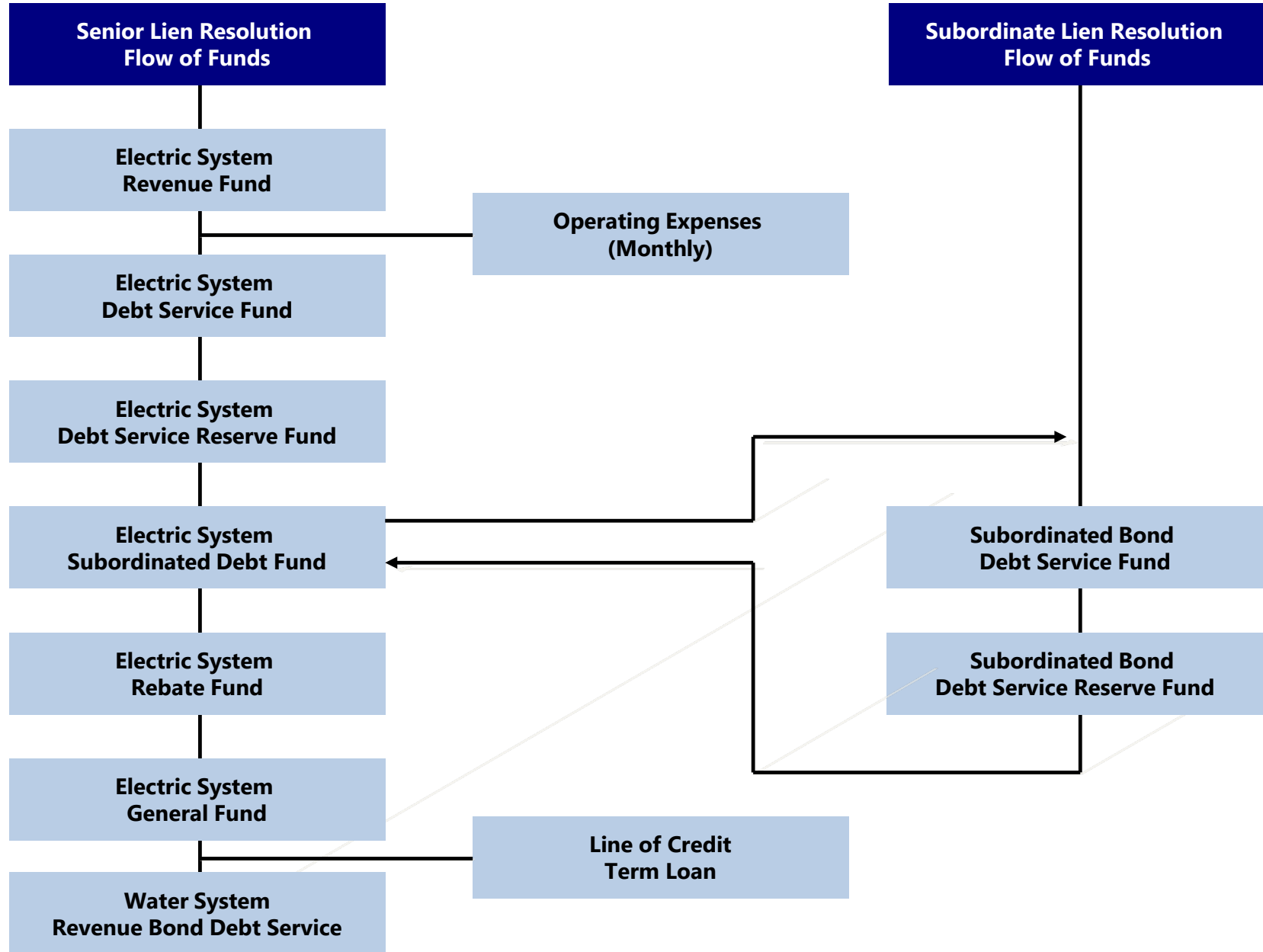


Tax-Exempt vs. Taxable





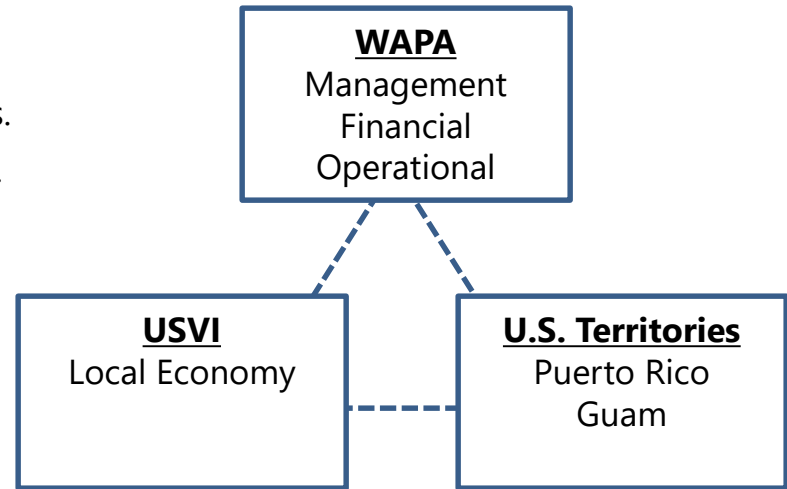
Flow of Funds





Bond Ratings

- WAPA’s main source of funding for capital projects comes from either internal funds or public issued tax-exempt and/or taxable municipal bonds.
- WAPA’s bonds are rated by all three major rating agencies as shown below.
- When assessing WAPA’s risk the rating agencies generally include the USVI finances and local economy as well as a comparison of other U.S. territories.
- A summary of the most recent rating and highlighted challenges and concerns is highlighted in the table below:



	<u>Moody's</u>	<u>S&P</u>	<u>Fitch</u>
Electric			
Senior Lien	Baa3	BBB-	BB
Subordinate Lien	Ba1	BB+	BB-
Water System	NR	NR	NR
Outlook	Negative	Stable	Stable
Last Review	8/29/2013 (last report) 7/29/2014 (last meeting)	1/15/2015 (last report) 3/29/2014 (last meeting)	1/29/14 (last meeting) 4/14/2014 (last report)
Challenges/Concerns:	<ul style="list-style-type: none"> • Slow paying Government • Low income population • Lack of rate-setting autonomy 	<ul style="list-style-type: none"> • Limited economy based on tourism • Accounts receivable remain a credit concern 	<ul style="list-style-type: none"> • Weak local Government credit quality • Inadequate and regulated cost recovery mechanisms



Section 8

Recent Accomplishments & Goals and Forward Outlook





Recent Achievements and Near Term Goals

- The Authority's primary objectives:
 1. Restore internal liquidity
 - ✓ Electric System full base rate increase case approved effective November 2013 and expected to provide \$15.7 million annually which includes new surcharges to cover OPEB, maintenance and self-insurance
 - ✓ Renewed and extended the working capital lines of credit through June 2016
 - ❑ Recover prior year's deferred fuel balances; reduced by over \$21 million in FY2014
 - ❑ Reduce Government accounts receivables; legislation approved to provide WAPA \$12 million toward receivables
 2. Improve efficiency and reliability
 - ✓ Line loss reduced from 6.9% in 2010 to 6.2% in 2013 on St. Thomas and from 12.5% in 2010 to 8.0% in 2013 on St. Croix
 - ✓ Conversion of water production from desalination to reverse osmosis (RO)
 - ✓ Mid-Island substation became operational in 4th quarter 2014 (funded by 2010 Bonds)
 - ❑ Advanced Metering Infrastructure projected to be funded by the end of 2014 (Rural Utilities Service loan)
 - ❑ Ongoing major overhauls and upgrades of existing units
 - ❑ Conversion of seven generating units to tri-fuel (oil, liquefied petroleum gas and liquefied natural gas) underway
 3. Improve disclosure
 - ✓ 2013 audit completed within 180 days (December 30, 2013)
 - ❑ Compliance with continuing disclosure requirements
 4. Diversify Fuel Mix
 - ✓ Renewable energy sources (solar, wind, biofuel) 4MW of solar completed and operational October 2014 with another 4.2MW to be completed and operational in 1st quarter 2015
 - ❑ Conversion to tri-fuel capability; liquefied petroleum gas (LPG) projected to be completed and operational by the end of first quarter 2015
 - ❑ Interconnection (Puerto Rico – U.S. Virgin Islands – British Virgin Islands) under negotiation to access Puerto Rico's diversified grid (oil, liquefied natural gas, hydroelectric), seeking funding for the final environmental study
 5. Address Water System cash flow deficiencies
 - ✓ Water purchase agreements for RO complete
 - Reduce operating costs to permit more efficient operation of electric generating facilities and less efficient generating units required for desalination will be "mothballed" or retired
 - Permanent plants completed in August 2013 (St. Thomas) and November 2013 (St. Croix)
 - ✓ Water System full base rate case increase approved and expected to provide \$1.6 million



Forward Outlook

- The Authority is well positioned moving forward due to :
 - Efforts to diversify the Authority's operating efficiency and the Territory's fuel sources
 - ❑ Addition and modification heat recovery steam generators (HRSG)
 - ❑ Solar
 - ❑ LPG coming online in 1st quarter 2015
 - ❑ Biomass coming online in 2015
 - ❑ Interconnection with Puerto Rico and British Virgin Islands

- Strong governmental support federally and locally
 - Collaborations with the DOE, DOI, VIEO

- Strengthened finances:
 - Funding through fuel tax revenues specifically allocated to purchase and/or finance newer generating units and base rate increases which will allow the Authority to continue to implement its capital improvement plan
 - Specific surcharges that provide funding for maintenance and line loss
 - A stronger Water System that will continue to reduce its liability to the Electric System and provide greater operational flexibility with its generating units after the switch to RO