

North Plant Incinerator 2, Internal Modifications and Refractory Repairs

Needed internal hearth replacement, hearths 1, 2 and 3 with modifications allowing hearth 1 and 2 to become "zero hearths". These modifications will allow enhanced burning profiles to insure compliance with air regulations.

Existing Project

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)								
Appropriations		0.650						0.650
Private Investment								
NYSERDA								
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	-	0.650	-	-	-	-	-	0.650

Capital Committee Recommendation: Complete as scheduled.

Waste Heat Recovery/On Site Electric Generation

Install a system that recovers waste heat from the North Plant Multiple Heat Incinerators to generate electricity which will reduce consumption from grid by 33% on an annual basis. Total co-generation is predicted to be 3.2 million kwh's/year with a value of \$370,000. Also the system will use a heat exchange to offload heating load with an annual value of \$92,000. The equipment of choice will be an organic ranking cycle system. Project was commissioned in March 2013

Existing Project

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)								
Appropriations	1.019	0.356						1.375
Private Investment								
NYSERDA/ARRA/GIGP	7.906							7.906
State Reimbursement	(2.038)							(2.038)
Federal Reimbursement	(5.869)							(5.869)
Total County Cost	1.018	0.356	-	-	-	-	-	1.374

Capital Committee Recommendation: Complete as scheduled.

North and South Plant Electric Improvements

Upgrades/replacement of motor control centers at both North and South sites with replacement of the North Plant emergency generator and ancillary wiring and conduit upgrades.

Existing Project

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)	0.476	1.818						2.294
Appropriations	2.052							2.052
Private Investment								
NYSERDA/ARRA/GIGP								-
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	2.528	1.818	-	-	-	-	-	4.346

Capital Committee Recommendation: Complete as scheduled.

Anaerobic Digestion of Bio-solids / Regional Organics to Energy Facility

Design, construct and operate an anaerobic digester to energy facility at the South Plant to replace existing ultimate disposal method of sewage sludge. The facility will also be a regional source separated organic (SSO) facility. This project will replace aging equipment, generate electricity and provide a regional disposal location for SSO's to remove organic waste from landfills. This project would be a major "green" initiative and beneficially use renewable energy resources. This would also be a public/private partnership facility.

Amended Project: Change in cost and funding

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)	-	-	-	12.000	12.000	-	-	24.000
Appropriations	0.136	0.025	1.839	-	-			2.000
Private Investment	-			(12.000)	(12.000)			(24.000)
NYSERDA/ARRA/GIGP				-				-
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	0.136	0.025	1.839	-	-			2.000

Capital Committee Recommendation: Complete as scheduled.

North and South Return and Waste Activated Sludge Pump Replacement Project

Replacement of 40 year old pumping equipment that is at the end of useful life which includes the return and waste activated pumping systems at both sites. The return and waste activated pump systems are integral to the secondary treatment process units. This project will also include energy efficiency components including energy efficient motors and variable frequency drives.

Existing Project

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)		2.200						2.200
Appropriations	0.074	1.006						1.080
Private Investment								
NYSERDA/ARRA/GIGP								-
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	0.074	3.206	-	-	-	-	-	3.280

Capital Committee Recommendation: Complete as scheduled.

North Plant Cake Rewetting System

This project will expand the acceptance of bio-solids from additional regional treatment facilities with the equipment installed enabling acceptance of sludge cake and rewet it for processing through our solids handling system. This is part and parcel to the business plan for the waste heat cogeneration project. This will increase revenues outside of the rate payers using existing staffing levels while providing more "fuel" to generate additional electricity.

Amended Project:

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)			0.050	1.800				1.850
Appropriations				0.150				0.150
Private Investment								
NYSERDA/ARRA/GIGP								-
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	-	-	0.050	1.950	-	-	-	2.000

Capital Committee Recommendation: Complete as scheduled.

South Plant Preliminary Treatment Building Repair Project

The South plant was constructed in the early 1970's with much of the facility built on pilings. The Preliminary Treatment building, though built on bedrock, has shifted horizontally causing two major cracks in two walls supporting the concrete roof panels each weighing over 2,000 lbs. The District will perform an engineering evaluation to determine what step need to be taken to repair the building

NEW Project

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)								-
Appropriations			0.650					0.650
Private Investment								
NYSERDA/ARRA/GIGP								-
State Reimbursement								-
Federal Reimbursement								-
Total County Cost	-	-	0.650	-	-	-	-	0.650

Capital Committee Recommendation: Complete as scheduled.

Sewer District Capital Plan Summary: All Projects

New Projects: 1

Amended Projects:2

Existing Projects: 3

Project Financing (in millions of dollars)

Year	Pre 2017	2017	2018	2019	2020	2021	2022	Total
County Debt (Bonds & BANS)	0.476	4.018	0.050	13.800	12.000	-	-	30.344
Appropriations	3.281	2.037	2.489	0.150	-	-	-	7.957
Private Investment	-	-	-	(12.000)	(12.000)	-	-	(24.000)
NYSERDA	7.906	-	-	-	-	-	-	7.906
State Reimbursement	(2.038)	-	-	-	-	-	-	(2.038)
Federal Reimbursement	(5.869)	-	-	-	-	-	-	(5.869)
Total County Cost	3.756	6.055	2.539	1.950	-	-	-	14.300