

Gas Fund Highlights

Revenue

Charges for Services

Revenues are forecasted based upon results of the 2019 Rate Study, which evaluated 2015-2017 statistics obtained from our customer information system, and further refined by staff to include actual FY 2019 revenue and the effect of an overall rate decrease in the distribution charge of 4% as recommended in the rate study. Charges for Services are within 4% of Budget 2020 and within 7% of Realized 2019 Charges for Services.

Gas expenditures

Engineering: Decrease of \$39,740 due primarily to a decrease in engineering services.

Distribution: Net decrease of \$41,010; decreases occur in essentially every line item with the exception of travel and training, materials and supplies and vehicle expense.

Service: Net increase of \$5,090 for safety equipment

Meters and Regulators: Net decrease of \$16,420 due to decreases in essentially every line item except wages and contractors

Gas Control: Net increase of \$13,850 due to an increase in legal services, travel and training and materials and supplies.

Debt Service: Decrease of \$98,230 in principal payment on general obligation bonds.

Capital Expenses

Regular Capital

Equipment and Vehicles

Shared with Water Fund:

Vehicles: 4 vehicles (one service body truck, two quad cabs and one SUV)	\$111,500
Machinery & Equipment: Fusion equipment	\$2,500
Excavator	\$20,000

Other Regular Capital

Meters and regulators	\$248,950
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Projects

We included \$3,500,000 in Capital Projects for the following:

- Replacement of gas mains and services - \$500,000
- Pittsylvania County Natural Gas Expansion - \$3,000,000
 - \$1,752,290 funded with revenues
 - \$1,247,710 funded from fund balance

We forecast the Gas Fund to withdraw \$1.25 million from fund balance.

Adopted Budget - FY 2021

Gas

Calculation of Contribution to(from) Fund Balance/General Fund

	Adopted Budget FY 2020	Adopted Budget FY 2021
Estimated Revenue		
Rev-Use Money/Property	468,880	459,900
Charges for Services	21,453,960	22,389,840
Miscellaneous Revenue	12,200	7,810
Total Estimated Revenue	21,935,040	22,857,550
Operating Expenses		
Administration Services	3,533,630	3,361,730
Engineering	438,250	398,510
Gas Control	13,324,930	13,274,510
Distribution	524,360	534,350
Service	246,450	251,540
Meters & Regulators	188,380	171,960
Capital Expenses	922,200	845,400
Capital Projects	1,500,000	3,500,000
Total Operating Expenses	20,678,200	22,338,000
Net Operating Income (Loss)	1,256,840	519,550
Add:		
Depreciation	1,556,000	1,542,230
Deduct:		
Debt Service Principal	221,390	123,160
Capital Expenditures from Current Operating Funds	0	0
Contribution to City's General Fund	3,186,330	3,186,330
Contribution To(From) Retained Earnings	(594,880)	(1,247,710)

GAS FUND

ADOPTED BUDGET - CAPITAL & SPECIAL PROJECTS - FY 2021-2025

Project/Source	PL#	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Yr Total
Gas Distribution							
Cast Iron Main Replacement	60056	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,500,000
Pittsylvania County Natural Gas Expansion		3,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,000,000
Gas Distribution Total		\$ 3,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 9,500,000
Funding Source:							
Utility Fund Revenues		\$ 2,252,290	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 8,252,290
Fund Balance		1,247,710	-	-	-	-	1,247,710
Total Funding		\$ 3,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 9,500,000

GAS FUND
ADOPTED BUDGET - CAPITAL & SPECIAL PROJECTS - FY 2021
FUNDING SOURCES

	Current Revenues	Fund Balance	Debt Financing	Grants/CIA	Other	Project Total
<i>Gas Distribution</i>						
Cast Iron Main Replacement	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000
Pittsylvania County Natural Gas Expansion	\$ 1,752,290	\$ 1,247,710	\$ -	\$ -	\$ -	\$ 3,000,000
Total Gas Distribution	\$ 2,252,290	\$ 1,247,710	\$ -	\$ -	\$ -	\$ 3,500,000

Revenue categories for this fund are as follows:

REVENUE – USE OF MONEY/PROPERTY: This revenue category includes: **Interest on Investments** - All of the City’s funds are invested in secured accounts in an attempt to earn the highest possible return. Investments earnings are a function of the money marketplace and swings in the revenues reflect higher or lower interest rates. Other sources include: **Rental Income that is offset by vehicle and equipment charges to the divisions for daily and monthly usage.** **Sale-Salvage and Surplus Property** - This revenue represents the sale of surplus vehicles and equipment and funds received from the sale of scrap metal.

CHARGES FOR SERVICES: The major revenue source for the Gas Fund is consumer fees. The residential category is the largest part of that revenue stream representing 13,168 customers. The commercial base represent 1509 customers and the industrial base represents 19 firms, six interruptible and five transport customers. There are 54 municipal class represents gas sold to the City for its municipal facilities. Other revenues in this category include penalties for non-payment and reconnection fees. The monthly charge for the Purchased Gas Adjustment is also included in Charges for Services. In FY20 a rate decrease for the natural gas fund was implemented based on the biennial Cost of Service Study. This rate decrease was implemented through the gas distribution charge based on the cost to serve for each customer class. The reduction in revenue for FY20 and moving forward was \$879,000. The decrease is possible due to the reduction in on-going capital projects. The gas fund is in the final years of a twenty-year gas main replacement project.

MISCELLANEOUS REVENUE: Miscellaneous revenue includes charges to customers who request alternation or expansion of their existing services and for amounts billed to third parties for damages to equipment and infrastructure.

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Revenues:					
Rev-Use Money & Property	\$ 481,369	\$ 539,551	\$ 468,880	\$ 459,900	\$ (8,980)
Charges for Services	21,846,999	23,844,228	21,453,960	22,389,840	935,880
Miscellaneous Rev	3,282	9,287	12,200	7,810	(4,390)
Totals	\$ 22,331,650	\$ 24,393,066	\$ 21,935,040	\$ 22,857,550	\$ 922,510

Description

Danville has been in the gas distribution business since 1876. In 1950, the City was the first to begin receiving natural gas from the new, Transcontinental Gas Pipeline allowing Danville access to gas produced along the Gulf Coast. Danville has a gas-purchasing contract with Muni-Gas of Houston, Texas to purchase wholesale gas discounted from the market price.

Danville's gas system includes more than 356 miles of mains that are 1 ¼ to 12 inches in diameter. Nineteen regulator stations allow Danville to supply just under 15,000 customers. Danville Utilities-Water and Gas is staffed with employees equipped to handle both natural gas and potable water distribution system construction, maintenance, and service.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 64,059	\$ 59,155	\$ 59,780	\$ 124,280	\$ 64,500
Employee Benefits	49,951	21,367	18,470	27,610	9,140
Purchased Services	44,557	58,665	69,540	71,070	1,530
Internal Service	26,231	31,806	25,920	21,510	(4,410)
Other Operating Exp	226,091	672,001	255,550	247,430	(8,120)
Cost Allocation	1,501,666	1,447,379	1,501,030	1,268,920	(232,110)
Capital Outlay	995	-	-	500	500
Depreciation	1,561,023	1,559,902	1,556,000	1,542,230	(13,770)
Debt Service	67,229	58,054	47,340	58,180	10,840
Transfer Out	3,059,330	3,059,330	3,186,330	3,186,330	-
Totals	\$ 6,601,132	\$ 6,967,659	\$ 6,719,960	\$ 6,548,060	\$ (171,900)

Personnel

The Division Director position is allocated 50/50 to Water Distribution and Gas.

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
DIVISION DIR OF WATER & GAS	0.500	0.500	0.500
Total	0.500	0.500	0.500

Description

Gas Engineering performs complex work managing the design, planning, and coordination of projects to ensure reliable, safe and efficient operation of Danville's natural gas system. This is accomplished by managing projects for new main and service installations, main rehabilitation, economic development, roadway construction and relocations; performing system testing and calculations for adequate capacity; reviewing plans and engineering work performed by consultants and interpreting and implementing regulations related to construction of the gas distribution system. In addition, Gas Engineering maintains and supports the Gas Geographic Information System, ensures compliance with Pipeline Safety and various environmental regulations, including the Distribution Integrity Management Program (DIMP), and performs investigations for response to regulatory and compliance issues. The Gas Engineering group provides technical and operational support for measurement, leak survey and cathodic protection.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 226,284	\$ 183,942	\$ 214,270	\$ 251,730	\$ 37,460
Employee Benefits	32,769	27,073	32,890	29,940	(2,950)
Purchased Services	112,305	45,250	150,230	74,540	(75,690)
Internal Service	14,747	15,796	14,650	15,000	350
Other Operating Exp	15,849	10,153	19,300	24,490	5,190
Capital Outlay	1,743	2,119	6,910	2,810	(4,100)
Totals	\$ 403,697	\$ 284,333	\$ 438,250	\$ 398,510	\$ (39,740)

Personnel

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
W&G PROJECT ENGINEER	-	-	0.500
W&G CONSTRUCTION INSPECTOR			0.500
WG GIS ENGINEERING TECHNICIAN	1.000	1.000	1.000
WATER & GAS ENGINEERING AIDE	0.500	-	-
W&G SR ENGINEERING TECHNICIAN	1.500	1.000	1.000
W&G CHIEF ENGINEER	0.500	0.500	0.500
W&G COMPLIANCE COORDINATOR	1.000	1.000	1.000
SENIOR SECRETARY	0.250	0.250	0.250
Total	4.750	3.750	3.750

Description

Gas Distribution group safely and properly installs and maintains gas mains, valves, and services. They repair leaks, inspect and repair valves, and demo services as needed. This group responds to natural gas emergencies affecting gas mains and services continuously throughout the year.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 166,851	\$ 173,073	\$ 269,960	\$ 256,040	\$ (13,920)
Employee Benefits	23,500	24,423	40,850	30,330	(10,520)
Purchased Services	64,393	102,087	94,150	136,080	41,930
Internal Service	21,598	29,521	35,940	24,240	(11,700)
Other Operating Exp	64,889	89,467	81,540	87,660	6,120
Capital Outlay	1,884	1,884	1,920	-	(1,920)
Totals	\$ 343,115	\$ 420,455	\$ 524,360	\$ 534,350	\$ 9,990

Position Notes

Positions are allocated to Water Distribution and Gas Distribution.

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
PUBLIC SERVICE WORKER	1.300	0.780	0.520
CONSTRUCTION WORKER	1.560	-	-
MOTOR EQUIPMENT OPERATOR I	0.780	2.080	3.380
MOTOR EQUIPMENT OPERATOR II	0.520	0.260	0.260
MOTOR EQUIPMENT OPERATOR III	-	0.260	0.260
W&G CREW SUPERVISOR	1.040	1.560	1.300
W&G WELDER/CREW SUPERVISOR	0.260	0.260	0.260
W&G CONSTRUCTION CREW SUPERVSR	0.520	-	-
W&G CONSTRUCTION INSPECTOR	-	0.500	-
W&G DISTRIBUTION SUPERVISOR	0.500	0.500	0.500
W&G DISTRIBUTION SUPERINTENDEN	0.500	0.500	0.500
Total	6.980	6.700	6.980

Description

The Gas Control group manages the purchase and dispatch of the City's natural gas supply. The division participates in negotiations for acquiring gas and delivery contracts to meet system and customer needs and develops and administers cost-effective capacity and commodity procurement strategies. Gas control monitors system pressures, customer usage, capacity limits, and weather to optimize throughput and revenue. The technicians install, operate, and maintain electronic gas measurement equipment.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 342,895	\$ 318,572	\$ 403,730	\$ 411,440	\$ 7,710
Employee Benefits	47,591	44,428	58,020	50,480	(7,540)
Purchased Services	1,816	7,731	14,720	22,770	8,050
Internal Service	12,783	14,208	13,010	13,000	(10)
Other Operating Exp	38,415	32,653	40,780	46,420	5,640
Source of Supply	13,269,136	14,010,316	12,794,670	12,730,400	(64,270)
Capital Outlay	160	127	-	-	-
Totals	\$ 13,712,796	\$ 14,428,035	\$ 13,324,930	\$ 13,274,510	\$ (50,420)

Personnel

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
GAS CONTROL TECHNICIAN	2.000	2.000	2.000
GAS CONTROL MANAGER	1.000	1.000	1.000
UTILITY OPERATOR	3.200	3.200	3.600
Total	6.200	6.200	6.600

Description

The Gas metering and regulator division is responsible for the maintenance, operation, and installation of the automated meter reading modules and the physical meters. The team tests, calibrates and removes or installs all gas meters in the distribution system. The group is responsible for meter disconnects and reconnections, and investigations and the operation and maintenance of gas valves.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 89,060	\$ 100,076	\$ 107,730	\$ 107,900	\$ 170
Employee Benefits	13,086	14,631	15,750	13,560	(2,190)
Purchased Services	2,785	1,989	13,140	24,620	11,480
Internal Service	6,632	4,857	6,990	-	(6,990)
Other Operating Exp	22,786	32,755	43,810	25,880	(17,930)
Capital Outlay	706	314	960	-	(960)
Totals	\$ 135,055	\$ 154,622	\$ 188,380	\$ 171,960	\$ (16,420)

Personnel

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
W&G METER TECHNICIAN	1.350	1.350	0.900
W&G SYSTEMS CONTROL SUPERINTEN	0.500	0.500	0.500
	1.850	1.850	1.400

Description

The purpose of the Capital Improvement Program is to ensure the orderly expansion, modification and repair to the Gas distribution system for improved customer reliability, to allow future growth, and improve operational efficiency. This mission is accomplished by systematic construction and/or modifications to the distribution system.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 208,410	\$ 168,371	\$ 177,940	\$ 192,290	\$ 14,350
Employee Benefits	29,744	23,407	34,990	22,690	(12,300)
Purchased Services	1,570,378	1,363,656	147,500	145,000	(2,500)
Internal Service	56,778	37,378	68,450	-	(68,450)
Other Operating Exp	194,903	157,729	284,920	336,920	52,000
Capital Outlay	41,416	127,397	108,400	148,500	40,100
Capital Projects	-	-	1,500,000	3,500,000	2,000,000
Contingency Approp	-	-	100,000	-	(100,000)
Totals	\$ 2,101,629	\$ 1,877,938	\$ 2,422,200	\$ 4,345,400	\$ 1,923,200

Personnel

Hourly Gas fund employees are accounted for within capital projects through our work order system. Although there are no employees exclusively or specifically assigned to capital projects, we forecast the following results for FY 2021:

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
PUBLIC SERVICE WORKER	1.300	1.280	0.480
CONSTRUCTION WORKER	1.560	-	-
MOTOR EQUIPMENT OPERATOR I	0.780	2.080	3.120
MOTOR EQUIPMENT OPERATOR II	0.520	0.260	0.240
MOTOR EQUIPMENT OPERATOR III	-	0.260	0.240
W&G METER TECHNICIAN	-	-	0.100
W&G CREW SUPERVISOR	1.040	1.560	1.200
W&G WELDER/CREW SUPERVISOR	0.260	0.260	0.240
W&G CONSTRUCTION CREW SUPERVSR	0.520	-	-
W&G DISTRIBUTION SUPERVISOR	0.500	0.500	-
W&G DISTRIBUTION SUPERINTENDEN	0.500	0.500	-
Total	6.980	6.700	5.620

Description

Gas Debt Service budgets and accounts for the retirement of principal for general obligation bonds for the Gas fund.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Debt Service	\$ 224,650	\$ 234,385	\$ 221,390	\$ 123,160	\$ (98,230)
Totals	\$ 224,650	\$ 234,385	\$ 221,390	\$ 123,160	\$ (98,230)

Description

The Gas Distribution Service group ensures that the system is safe and reliable by conducting leak surveys of the system and measuring cathodic protection and odorant levels. They install meters and the AMI equipment that allows remote meter reading for billing. The distribution group is trained to recognize abnormal operating conditions that might affect public safety and they investigate customers' fuel pipes and appliances for leaks and proper installation. This group provides first response to emergency calls continuously throughout the year.

Expenditures

	FY 2018 Actual	FY 2019 Actual	FY 2020 Adopted	FY 2021 Adopted	Increase/ (Decrease)
Expenditures:					
Personnel Services	\$ 166,239	\$ 183,497	\$ 178,920	\$ 185,320	\$ 6,400
Employee Benefits	23,290	25,797	25,790	22,970	(2,820)
Purchased Services	2,006	2,454	8,340	2,390	(5,950)
Internal Service	22,067	22,184	24,200	24,200	-
Other Operating Exp	9,121	9,732	9,200	16,660	7,460
Capital Outlay	1,517	2,040	-	-	-
Totals	\$ 224,240	\$ 245,704	\$ 246,450	\$ 251,540	\$ 5,090

Personnel

The Dispatcher is a shared position with the Electric Fund.

Position Title	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs
DISPATCHER	0.500	0.500	0.500
W&G SERVICE TECHNICIAN	3.500	3.500	3.500
	4.000	4.000	4.000

Accomplishments

Work with coordination with Customer Service to complete internal investigations and customer requests safely and efficiently.

Goals

Improve day-time response for leak investigations to an average response of less than ten minutes.

Improve over-all response time for leak investigations to an average response of less than thirty five minutes.

FY 2021 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Cast Iron Main Replacement
Project No: 60056

Department: Utilities
Division: Gas Distribution
Section: N/A

Description:

Pipeline transportation is one of the safest and most cost-effective ways to transport natural gas. However, in 2011, following major natural gas pipeline incidents, DOT and PHMSA issued a Call to Action to accelerate the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure. Among other factors, pipeline age and material are significant risk indicators. Pipelines constructed of cast and wrought iron, as well as bare steel services, are the pipelines that pose the highest-risk for Danville.

This project provides funding for the continued replacement of our highest risk gas mains and steel service lines attached to them . The new pipe is polyethylene which does not corrode and has joints that are by design, stronger than the pipe.

Justification:

This project will increase public safety, reduce O&M by reducing the number of leak investigations and repairs, reduce gas loss, and reduce unplanned outages from hazardous leaks.

Comments:

The Cast Iron replacement study was originally completed in 1994 and revised in 2008.
The Distribution Integrity Management Plan helps captures the threat assessment for the gas system and mitigation measures.

Funding		FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Utility Revenues		500,000	500,000	500,000	-	-	1,500,000
Total Funding Sources		500,000	500,000	500,000	-	-	1,500,000

Goals/Milestones:

FY 2021	Replace cast iron mains that have reached the end of life resulting in potential gas leaks
FY 2022	Replace cast iron mains that have reached the end of life resulting in potential gas leaks
FY 2023	Replace ductile iron mains, aerial crossings, regulator stations and metersets that represent the highest risk or poorest performing assets remaining in the system.
FY 2024	N/A
FY 2025	N/A

FY 2021 FIVE-YEAR CAPITAL & SPECIAL PROJECTS PLAN
PROJECT DESCRIPTION

Project Title: Pittsylvania County Natural Gas Expansion
Project No: TBA

Department: Utilites
Division: Gas Distribution
Section: N/A

Description:

Expand natural gas service into Pittsylvania County regions in conjunction with PCSA and nDanville projects. This will increase gas consumption/revenue and potentially lower electric demand during winter months. Natural gas is a cheaper cleaner burning fuel than propane. The majority of the City's gas hedges will expire in March 2021 allowing for a very cost effective source of heating for these potential new customers.

Justification:

This project will expand natural gas coverage to areas allowed by the State Corporation Commission. It is our expectation that as more customers switch to natural gas heating, gas consumption will increase and customers will have access to a consistent lower cost of heating. The indirect benefits are that the electric fund will see less demand in the winter when transmission peaks usually occur if a significant number of customers convert from electric to natural gas for heating. This could help avoid increasing transmission costs on the electric side providing some rate relief.

Natural gas is often praised as a clean energy alternative. It burns more cleanly than other fossil fuels, emitting lower levels of harmful emissions such as carbon monoxide, carbon dioxide and nitrous oxides. Customers would likely see a lower cost of heating if they decided to switch from propane to natural gas. Propane is typically three times higher than the cost of natural gas.

Comments:

Funding	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Utility Revenues	1,752,290	1,000,000	1,000,000	1,000,000	1,000,000	5,752,290
Gas Fund	1,247,710	-	-	-	-	1,247,710
Total Funding Sources	3,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,000,000

Goals/Milestones:

FY 2021	Expand Natural Gas Service
FY 2022	Expand Natural Gas Service
FY 2023	Expand Natural Gas Service
FY 2024	Expand Natural Gas Service
FY 2025	Expand Natural Gas Service