# CIP OVERVIEW (2020-2024 City Manager Proposed)

# **Energy Resources - Electric**

Description Revenues Enterprise Fund Other Local	FY 2019 Proj 1,405,000	FY 2020 Prop	FY 2021 Prop	FY 2022 Prop	FY 2023 Prop	FY 2024 Prop	Future Years	CIP
Enterprise Fund Other Local	1,405,000 -	1 051 000				гтор	Tears	Total
Enterprise Fund Other Local	1,405,000 -	1 051 000						
	-	1,951,000	1,881,000	1,291,000	1,229,000	980,000	2,763,000	7,332,000
		125,000	-	-	-	-	-	125,000
State Grant	5,000	-	-	-	-	-	-	-
Installment Debt	697,876	1,949,000	2,344,000	3,675,000	3,121,000	675,000	13,392,000	11,764,000
Unmet Needs	-	-	4,835,000	4,835,000	-	-	-	9,670,000
Total Revenues	\$2,107,876	\$4,025,000	\$9,060,000	\$9,801,000	\$4,350,000	\$1,655,000	\$16,155,000	\$28,891,000
Annual Capital	Maintenance	(Order of F	unding, by	Year)				
Relocation of Overho	ead Utility Facilities			vn Develoment			7 700 000	E 440.000
Electric Equipment F		1,460,000	2,000,000	1,300,000	650,000		7,790,000	5,410,000
Transmission Pole R	697,876 Replacement	780,000	745,000	736,000	700,000	675,000	610,000	3,636,000
Distribution System	500,000	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
	250,000	350,000	350,000	250,000	250,000	250,000	250,000	1,450,000
System Wide Pole Ir	- ventory	250,000	-	-	-	-	-	250,000
Silencer replacemen	it at Sub 9	200,000	_	_	_	_	_	200,000
Upgrade of City Fibe								
Upgrade Generator	175,000 Switch Gear	175,000	260,000	50,000	50,000	-	-	535,000
Circuit Switcher repla	- acement for Subtat	80,000	-	80,000	-	80,000	80,000	240,000
	80,000	80,000	-	-	-	-	-	80,000
Utility Department C	100,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Residential Load Ma	inagement Progran 50,000	n 50,000	50,000	50,000	50,000	50,000	50,000	250,000
SCADA Equipment	· · ·							
AMI/DSM Evaluation	50,000 n (Electric)	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Rebuild Generators	-	-	4,835,000	4,835,000	-	-	-	9,670,000
	150,000	-	150,000	-	150,000	-	150,000	300,000
Electric Long Range	-	-	70,000	-	-	-	-	70,000
Substation #10 - Rep	place Transformer	10C _	_	1,000,000	-	-	1,000,000	1,000,000
Construct Transmiss	ion Line to Substa	tion #14			000.000		1,000,000	
Substation #4 - Repl	- ace Substation Tra	- ansformer	-	900,000	900,000	-	-	1,800,000
Build Transmission L	- ine to Substation #	- #15	-	-	1,000,000	-	-	1,000,000
	-	-	-	-	-	-	3,300,000	-
Substation #15 - Co	-	-	-		-		2,250,000	
Cost of Service Stud	ly _	-	-	-	-	-	75,000	
Hightway 301 Road	Widening 50,000						-,	
Hunter Hill Road Wid		se 2						
Group Expenditures	\$2,107,876	\$4,025,000	\$9,060,000	\$9,801,000	\$4,350,000	\$1,655,000	\$16,155,000	\$28,891,000
Total Expenditures	\$2,107,876	\$4,025,000	\$9,060,000	\$9,801,000	\$4,350,000	\$1,655,000	\$16,155,000	\$28,891,000



# Relocation of Overhead Utility Facilities Underground in the Downtown Develoment Area

#### **Description**

Multiyear project to relocate existing overhead utility facilities underground in the Downtown Development Area. Project includes overhead electric distribution facilities, telephone and cable TV, along with the installation of decorative street and sidewalk lighting.

#### **Justification**

Project is consistent with the following sections of the Comprehensive Plan: Community Facilities: B-2: Supports economic development and neighborhood revitalization; F-3: Places utilities undergrund; F-4: Provides appropriate street lighting to streets and other public places. Economic Development: F-4: Infrastructure investment to "jump start" economic development in targeted neighborhoods; H: Supports revitalization of the Downtown Community Development: C-3: Provides appropriate street lighting. Neighborhoods: A-3: Maintains and upgrades public infrastructure (street lighting); D-4: Improves lighting on sidewalks and roadways.

#### Category

12 - Other as needed

#### **Current & Future Plans**

643566 - Install electric system conductors underground in Zones A and B.

FY2020 - Install electric system conductors underground in Zones A & B

FY2021 - Install electric system conductors underground in Zone C

FY2022 - Install electric system conductors underground in Zone D

FY2023 - Install electric system conductors underground in Zone E

Devenues	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	291,000	401,000	261,000	129,000	-	1,558,000	1,082,000
Installment Debt	-	1,169,000	1,599,000	1,039,000	521,000	-	6,232,000	4,328,000
Total Revenues	\$-	\$1,460,000	\$2,000,000	\$1,300,000	\$650,000	\$-	\$7,790,000	\$5,410,000
<b>–</b> ••	Current Year		2020-	2024 CIP Fur	ding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	ding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			-
Description	FY 2019 Proj	Prop	FY 2021 Prop	FY 2022 Prop	FY 2023 Prop	Prop	Years	Total

## **Electric Equipment Replacement**

#### **Description**

To provide funds for new and replacement construction equipment necessary for the construction, operation and maintenance of the City's Electric Distribution System. Proper and reliable equipment is essential for ensuring a safe, reliable, and cost effective electric service.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B-3 in that it updates the CIP to provide quality utility service.

#### **Category**

05 - Current level of service cannot be continued unless work is done

#### Past Progress

FY2018 - Replace Large Derrick truck #4437 2003 \$390,000 awaiting delivery

FY2018 - Replace Large Bucket Truck, Large 72', #4435, 2005, \$390,000 awaiting delivery

FY2019 - Replace Service Bucket Truck, #4422,2005, \$211,043 Bid complete, on order

FY2019 - Purchase new Bucket truck, \$230,875.Bid complete, on order

FY2019 - Replace Derrick Truck, Regular, 4423 2005, \$255,958 Bid complete, on order

#### Current & Future Plans

FY2020 - Purchase new 800 gallon Vacuum unit, \$90,000

FY2020 - Replace bucket truck #4419, 2006, \$265,000

FY2020 - Replace #4457 2010 Service Bucket, \$140,000

FY2020 - Purchase New Derrick truck \$285,000

FY2021 - Replace Service Bucket Truck, #4456 2009, \$220,000

FY2021 - Replace Regular Derrick Truck, #4436, 2009, \$285,000

FY2021 - Replace Dump Truck #4405 2005, \$90,000

FY2021 - Purchase new tractor for ROW maintenance. \$150,000

FY2022 - Replace Large Trencher #4745, 1999, \$125,000

FY2022 - Replace 2012 95' Bucket truck 4412, \$420,000

FY2022 - Replace 2012 service bucket truck 4413, \$140,000

FY2022 - Replace mini excavator #4710, 2011 \$51,000.

FY2023 - Replace Regular Derrick truck #4424 2010, \$285,000

FY2023 - Replace Bucket Truck, #4455 2009, \$265,000

FY2023 - Replace #4458 2016 Service Bucket, \$150,000

FY2024 - Replace #4426 2011 Material Handler Bucket, \$285,000

FY2024 - Replace Regular Derrick truck #4415 2013, \$290,000

FY2024 - Replace backhoe #4610 2005 , \$100,000

Bayanyaa	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	697,876	780,000	745,000	736,000	700,000	675,000	610,000	3,636,000
Total Revenues	\$697,876	\$780,000	\$745,000	\$736,000	\$700,000	\$675,000	\$610,000	\$3,636,000

# CIP PROJECT SUMMARY (2020-2024 City Manager Proposed)

	•	•	• •			0,		
Electric Equipment		nent						
Expenditures	Current Year		2020-	2024 CIP Fur	nding			
Experiances	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Backhoe	-	-	-	-	-	100,000	-	100,000
Bucket Truck Large 95'	-	-	-	420,000	-	-	-	420,000
Bucket Truck Large TM	230,875	265,000	-	-	-	285,000	-	550,000
Bucket Truck, Mtl. Handler 60'	-	-	-	-	265,000	-	280,000	265,000
Bucket Truck, Service	211,043	-	220,000	-	-	-	-	220,000
Bucket Truck, Small 40'	-	140,000	-	140,000	150,000	-	-	430,000
Derrick Truck, Regular	255,958	285,000	285,000	-	285,000	290,000	330,000	1,145,000
Dump Truck	-	-	90,000	-	-	-	-	90,000
Large Vacuum unit New	-	90,000	-	-	-	-	-	90,000
Mini Excavator	-	-	-	51,000	-	-	-	51,000
Tractor	-	-	150,000	-	-	-	-	150,000
Trencher, Large	-	-	-	125,000	-	-	-	125,000
Total Expenditures	\$697,876	\$780,000	\$745,000	\$736,000	\$700,000	\$675,000.00	\$610,000	\$3,636,000

## **Transmission Pole Replacement**

#### **Description**

This project is to provide for the systematic replacement of wooden transmission line poles and insulators. These poles Support the City's 69kv transmission system which supplies power to the City's 12 Substations. They are critical to the reliable operation of the electric system.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system. It also provides for proper management of the

#### Category

05 - Current level of service cannot be continued unless work is done

## Past Progress

FY2018 - Continued replacement of Transmission Poles.

FY2019 - Continued replacement of Transmission Poles.

#### Current & Future Plans

FY2020 - Continued replacement of Transmission Poles.

FY2021 - Continued replacement of Transmission Poles.

FY2022 - Continued replacement of Transmission Poles.

FY2023 - Continued replacement of Transmission Poles.

FY2024 - Continued replacement of Transmission Poles.

<b>D</b>	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	500,000	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
Total Revenues	\$500.000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000
	+++++	1 ,	. ,			· ·	. ,	
<b>F</b>	Current Year	,	2020-	2024 CIP Fur	nding		· · ·	
Expenditures		FY 2020	2020- FY 2021	2024 CIP Fur	nding	FY 2024	Future	CIP
Expenditures Description	Current Year			Ph 1 1	5	FY 2024 Prop	Future Years	CIP Total
	Current Year FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	•		

## **Distribution System Improvements**

#### **Description**

This project provides for improvements to the electric distribution system by replacing facilities that are deteriorated and/or at the end of their useful life, and extending or reinforcing distribution circuits.

#### **Justification**

This project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, 2, & 3, and F - 1 in that it provides for the expansion and maintenance of the electric distribution system which supports economic development.

#### **Category**

02 - Eliminates hazards to persons

#### Past Progress

FY2018 - Replacement of ~ 100,000' of underground distribution cable in residential subdivisions.

FY2019 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 100 rotten distribution poles

#### Current & Future Plans

FY2020 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 300 rotten distribution poles

FY2021 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 300 rotten distribution poles

FY2022 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 100 rotten distribution poles

FY2023 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 100 rotten distribution poles

FY2024 - Replacement of ~ 50,000' of underground distribution cable in residential subdivisions and approximately 100 rotten distribution poles

Devenue	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	250,000	350,000	350,000	250,000	250,000	250,000	250,000	1,450,000
Total Revenues	\$250,000	\$350,000	\$350,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,450,000
Francisco di terme e	Current Year		2020-	2024 CIP Fur	iding			
<b>Expenditures</b>	Current Year <sub>C</sub> FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	ding	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023	•		

## System Wide Pole Inventory

#### **Description**

This project is to inventory all CRM utility poles and companies attached to them, as well as the testing of wooden transmission line and distribution line poles. These poles support the City's 69kv transmission system that supplies power to the City's 12 Substations.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system. It also provides for proper management of the electric system.

#### Category

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2014 - Perform the system wide utility pole inspection and attachment inventory.

FY2015 - Finalized billing of other utilities and completed pole inventory/inspections.

FY2016 - Project completed in previous FY

#### Current & Future Plans

FY2020 - Scheduled performance of next pole inventory (5-year inverval).

D	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	125,000	-	-	-	-	-	125,000
Other Local	-	125,000	-	-	-	-	-	125,000
Total Revenues	\$-	\$250,000	\$-	\$-	\$-	\$-	\$-	\$250,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Construction	-	250,000	-	-	-	-	-	250,000
Total Expenditures	\$-	\$250,000	\$-	\$-	\$-	\$0.00	\$-	\$250,000

## Silencer replacement at Sub 9

## **Description**

Replacement of Generator mufflers at Substation 9 with critical grade silencers

#### Justification

In an effort to reduce noise pollution associated with the multiple generators installed at Substation 9.

#### **Category**

02 - Eliminates hazards to persons

#### Current & Future Plans

FY2020 - Install critical grade silencer type mufflers on the generator units (4) at Substation 9.

D	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	200,000	-	-	-	-	-	200,000
Total Revenues	\$-	\$200,000	\$-	\$-	\$-	\$-	\$-	\$200,000
Francisco di terre e	Current Year		2020-	2024 CIP Fur	iding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	iding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

# **Upgrade of City Fiber**

## **Description**

Projects to provide fiber connections to existing electrical substations.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, 2, & 3, & F - 1 in that it provides for the expansion and maintenance of the electric distribution system that supports economic development.

#### **Category**

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

<b>D</b>	Current Year		2020-2	2024 CIP Fun	ding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	175,000	175,000	260,000	50,000	50,000	-	-	535,000
Total Revenues	\$175,000	\$175,000	\$260,000	\$50,000	\$50,000	\$-	\$-	\$535,000
<b>F</b>	Current Year		2020-:	2024 CIP Fun	ding			
<b>Expenditures</b>	Current Year <sub>C</sub> FY 2019	FY 2020	2020-: FY 2021	2024 CIP Fun FY 2022	ding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## **Upgrade Generator Switch Gear**

#### **Description**

Use designated funds to upgrade switch gear of the city-owned generators every other year to improve the reliability of the generator which allows the city to reduce wholesale power costs. The switch gear upgrade would include replacing controls, PLCs, correcting bypasses, etc.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 3 & 4, and F - 1 in that it provides for the purchase of equipment that lowers the City's cost of power.

#### Category

06 - Current level of service cannot be assured unless work is done

#### Past Progress

FY2018 - Schedule upgrade of generator switch gear every other year. Completed upgrade of Berry Plastics' controls.

#### Current & Future Plans

FY2020 - Schedule upgrade of generator switch gear every other year.

FY2022 - Schedule upgrade of generator switch gear every other year.

Devenues	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	80,000	-	80,000	-	80,000	80,000	240,000
Total Revenues	\$-	\$80,000	\$-	\$80,000	\$-	\$80,000	\$80,000	\$240,000
	Current Year		2020-	2024 CIP Fur	nding			
<b>Expenditures</b>	Current Year <sub>C</sub> FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023	•		

## **Circuit Switcher replacement for Subtations #10 & #12**

#### **Description**

Replace the Circuit Switchers in Substation 10 and 12 which have begun showing failures to operate. Replacements will be 69kV Circuit breakers and disconnects switch design with is consistant with our other Substation designs and have shown to be reliable.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric supply.

#### Category

06 - Current level of service cannot be assured unless work is done

## Past Progress

FY2019 - Circuit switcher to be replaced at Sub 12 this FY

#### **Current & Future Plans**

FY2020 - Circuit switcher to be replaced at Sub 10

D	Current Year		2020-	2024 CIP Fur	iding			
Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	80,000	80,000	-	-	-	-	-	80,000
Total Revenues	\$80,000	\$80,000	\$-	\$-	\$-	\$-	\$-	\$80,000
	Current Year		2020-	2024 CIP Fur	ding			
				2024 GIF FUI	iuniy	Ĩ		
<u>Expenditures</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Expenditures Description	ً FY 2019 Proj	FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
			FY 2021	FY 2022	FY 2023	•		

## **Utility Department Computer Systems**

#### **Description**

This project provides funding for the maintenance and expansion of hardware and software for the various Utility Department computer systems including SCADA, GIS, OMS, IVR, security cameras and electric and natural gas system modeling software.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, 2, & 3, & F - 1 in that it provides for the expansion and maintenance of the electric distribution system that supports economic development.

#### Category

05 - Current level of service cannot be continued unless work is done

## Past Progress

FY2017 - \$37K expended on on computer equipment, security cameras and fiber supplies.

FY2018 - \$38K expended to date including \$23K for fiber from Sub 8 to Firestation 4.

#### Current & Future Plans

FY2020 - Projects to be determined

Deveenee	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	100,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Total Revenues	\$100,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop		Ph 1 1	5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## **Residential Load Management Program**

#### **Description**

These funds are used to purchase new and replacement load management switches for our residential load management program. Load management switches are installed on customer's electric water heaters, central air conditioners and electric heat pumps.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 3 & 4, and F - 1 in that it provides for the purchase of equipment that lowers the City's cost of power.

#### Category

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2018 - Continue to replace existing residential load management switches and install switches for new customer accounts.

FY2019 - Continue to replace existing residential load management switches and install switches for new customer accounts.

#### Current & Future Plans

FY2020 - Continue to replace existing residential load management switches and install switches for new customer accounts.

Deveenee	Current Year		2020-2	2024 CIP Fur	iding			
Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	50,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Total Revenues	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
<b>F</b> !'(	Current Year		2020-:	2024 CIP Fur	iding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	ding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## SCADA Equipment

#### **Description**

This project provides funding for the maintenance and expansion of networking needs for the SCADA equipment and DNP line for communications.

## **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, 2, & 3, & F - 1 in that it provides for the expansion and maintenance of the electric distribution system that supports economic development.

#### **Category**

05 - Current level of service cannot be continued unless work is done

#### Past Progress

FY2018 - Used to purchase supplemental SCADA equipment that was not specifically budgeted for. These funds will also be used for the implementation of the DNP comm line in SCADA for the replacement of the old 900 Mhz trunking system.

FY2019 - Used to purchase supplemental SCADA equipment that was not specifically budgeted for.

## Current & Future Plans

FY2020 - Used to purchase supplemental SCADA equipment that was not specifically budgeted for.

FY2021 - Used to purchase supplemental SCADA equipment that was not specifically budgeted for.

Devenues	Current Year		2020-	2024 CIP Fun	nding			
Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	50,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000
Total Revenues	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## **AMI/DSM Evaluation (Electric)**

#### **Description**

This project upgrades metering technology for the electric, gas and water utilities (each sharing in the project cost) to provide remote reading of meters thereby lowering operational costs and improves customer service by immediate notification of electric service outages and possible excess customer water usage including broken pipes, and remote electric disconnects & reconnects.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective F-1 in that it provides for improved management of of the utility distribution systems and metering, and improves utility service to the customer.

#### **Category**

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### **Current & Future Plans**

FY2021 - Phase I of AMI metering installation project. Convert approximately one half of electric meters to AMI.

FY2022 - Phase II of AMI metering installation project. Convert remaining electric meters to AMI.

D	Current Year		2020-	2024 CIP Fun	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Unmet Needs	-	-	4,835,000	4,835,000	-	-	-	9,670,000
Total Revenues	\$-	\$-	\$4,835,000	\$4,835,000	\$-	\$-	\$-	\$9,670,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019	0_0	FY 2021	FY 2022	FY 2023	•		

## **Rebuild Generators**

#### **Description**

Use designated funds to rebuild one generator each year to improve the reliability of the generator which allows the city to reduce wholesale power costs. The diesel engine rebuild would include replacing all sixteen cylinder liners, pistons, heads and fuel injectors.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 3 & 4, and F - 1 in that it provides for the purchase of equipment that lowers the City's cost of power.

#### Category

06 - Current level of service cannot be assured unless work is done

#### Past Progress

FY2018 - Rebuild diesel engines for generators every other year.

FY2019 - Rebuild diesel engines for generators every other year.

#### Current & Future Plans

FY2021 - Rebuild diesel engines for generators every other year.

Devenues	Current Year		2020-	2024 CIP Fur	iding			
Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	150,000	-	150,000	-	150,000	-	150,000	300,000
Total Revenues	\$150,000	\$-	\$150,000	\$-	\$150,000	\$-	\$150,000	\$300,000
	Current Year		2020-	2024 CIP Fur	iding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	iding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019	0_0	FY 2021	FY 2022	FY 2023			

## **Electric Long Range Plan**

#### **Description**

This project provides funding for a long range planning study of the City's electric system and the update of the distribution system model on a five year basis. The long range plan will include system load growth projections for the next five, ten and twenty years.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric system.

#### Category

06 - Current level of service cannot be assured unless work is done

## Past Progress

FY2017 - Long Range Plan update continues

FY2018 - Long Range Plan update continues

FY2019 - Long Range Plan update continues

#### Current & Future Plans

- FY2020 Long Range Plan update continues
- FY2021 Five Year update of Long Range Plan

<b>D</b>	Current Year		2020-	2024 CIP Fun	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	-	70,000	-	-	-	-	70,000
Total Revenues	\$-	\$-	\$70,000	\$-	\$-	\$-	\$-	\$70,000
<b>F</b>	Current Year		2020-:	2024 CIP Fun	iding			
<u>Expenditures</u>	FY 2019	FY 2020	FY 2021					
	112013	1 1 2020	F I 202 I	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	FY 2024 Prop	Future Years	Total
Description Planning/Design						•		

## Substation #10 - Replace Transformer 10C

#### **Description**

Two of the three power transformers at Sub 10 are over 40 years old. At least one must be replaced to continue using the substation. These transformers are nearing the end of their operational life and due to age their likelihood of catastrophic failure. Transformer to replace first: 10C, then 10B and 10A.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B-1 & 2, and F-1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric system.

#### **Category**

05 - Current level of service cannot be continued unless work is done

#### Past Progress

FY2018 - Replace transformer 10C with transformer from Sub 7.

## **Current & Future Plans**

FY2022 - Replace transformer 10B

Deveener	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	-	-	-	1,000,000	-	-	1,000,000	1,000,000
Total Revenues	\$-	\$-	\$-	\$1,000,000	\$-	\$-	\$1,000,000	\$1,000,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Equipment/Furnishing	-	-	-	1,000,000	-	-	1,000,000	1,000,000
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## **Construct Transmission Line to Substation #14**

#### Description

Substation #14 is the only City of Rocky Mount substation supplied by a single 69 kV radial feed transmission line. This substation provides power to the northern area of the electric distribution system including the large industrial customers at the Whitakers Industrial Park.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the elec

#### **Category**

10 - Expansion of service is deemed necessary

#### **Current & Future Plans**

FY2022 - Engineering / Design and begin ROW Acquisition

FY2023 - Construction

Deveenee	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	-	-	-	900,000	900,000	-	-	1,800,000
Total Revenues	\$-	\$-	\$-	\$900,000	\$900,000	\$-	\$-	\$1,800,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Construction	-	-	-	600,000	600,000	-	-	1,200,000
Planning/Design	-	-	-	300,000	300,000	-	-	600,000
Total Expenditures	\$-	\$-	\$-	\$900,000	\$900,000	\$0.00	\$-	\$1,800,000

## Substation #4 - Replace Substation Transformer

#### **Description**

Project is to replace the 1968 69kV substation transformer. The low side bus structure, associated circuit breakers and relays were replaced in 2001. At 40+ years old the transformer is well past the end of its predicted useful life and has become unreliable.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric system.

#### Category

05 - Current level of service cannot be continued unless work is done

Devenues	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	-	-	-	-	1,000,000	-	-	1,000,000
Total Revenues	\$-	\$-	\$-	\$-	\$1,000,000	\$-	\$-	\$1,000,000
From a malitorina a	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019	0_0	FY 2021	FY 2022	FY 2023	•		

## **Build Transmission Line to Substation #15**

#### **Description**

Substation 15 will require a 69 kV transmission source to operate. This project will extend 69 kV lines to the Substation 15 site.

## **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric system.

#### **Category**

06 - Current level of service cannot be assured unless work is done

<b>D</b>	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	-	-	-	-	-	-	3,300,000	-
Total Revenues	\$-	\$-	\$-	\$-	\$-	\$-	\$3,300,000	\$-
- "	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Construction	-	-	-	-	-	-	3,300,000	-
Total Expenditures	\$-	\$-	\$-	\$-	\$-	\$0.00	\$3,300,000	\$-

## Substation #15 - Construction

#### **Description**

According to the Long Range Plan, the City's continued growth of its electric system will cause strains on the system's ability to support load on the edges of the system unless a new substation is constructed. This project will be done in two phases--one to purchase the land for the substation, and the other to build the substation and an associated 69 kV line.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1, & 2, and F - 1 in that it provides for the maintenance and upgrading of the electric distribution system and provides for proper management of the electric system.

#### Category

06 - Current level of service cannot be assured unless work is done

#### Past Progress

FY2018 - Possible site acquisition for future substation construction.

Devenues	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Installment Debt	-	-	-	-	-	-	2,250,000	-
Total Revenues	\$-	\$-	\$-	\$-	\$-	\$-	\$2,250,000	\$-
<b>F!</b> '(	Current Year		2020-	2024 CIP Fur	nding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## **Cost of Service Study**

#### **Description**

It will be necessary to complete an electric system cost of service study to assist with the rate adjustments in upcoming years.

## **Justification**

Study is consistent with the Community Facilities Section of the Comprehensive Plan in that it provides for the proper management of the electric system and ensure that sufficient revenues are generated to safely operate the electric system.

#### **Category**

11 - Needed to implement a new program or activity being requested in an upcoming operating budget

<b>B</b>	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	-	-	-	-	_	75,000	-
Total Revenues	\$-	\$-	\$-	\$-	\$-	\$-	\$75,000	\$-
	Current Year		2020-	2024 CIP Fur	nding			
<u>Expenditures</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Planning/Design	-	-	-	-	-	-	75,000	-
Total Expenditures	\$-	\$-	\$-	\$-	\$-	\$0.00	\$75,000	\$-

# Hightway 301 Road Widening

#### **Description**

This project involves the relocation of electric distribution and transmission facilities for North Carolina Department of Transportation (NCDOT) for Wesleyan Blvd widening. It is expected that the cost of this work will be partially reimbursed by NCDOT.

## **Justification**

This project is required to comply with NCDOT road construction projects.

#### **Category**

01 - Legally mandated

#### Past Progress

FY2019 - Replace pole lines removed for construction. \$50,0000

Devenues	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	50,000	-	-	-	-	-	-	-
Total Revenues	\$50,000	\$-	\$-	\$-	\$-	\$-	\$-	\$-
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
<b>Expenditures</b>	Current Year <sub>F</sub> FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## Hunter Hill Road Widening Project Phase 2

#### **Description**

This project involves the relocation of electric distribution and transmission facilities for North Carolina Department of Transportation (NCDOT) for Hunter Hill Road widening. It is expected that the cost of this work will be partially reimbursed by NCDOT.

## **Justification**

This project is required to comply with NCDOT road construction projects.

#### **Category**

01 - Legally mandated

#### Past Progress

FY2014 - Construction for the Hunter Hill Road Road Widening Project should be complete by the end of FY18.

FY2018 - Construction for the Hunter Hill Road Road Widening Project should be complete by the end of FY19.

Devenues	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
State Grant	5,000	-	-	-	-	-	-	-
Total Revenues	\$5,000	\$-	\$-	\$-	\$-	\$-	\$-	\$-
	Current Year_		2020		all in ai			
	Current rear		2020-	2024 CIP Fur	iaing			
Expenditures	FY 2019	FY 2020	2020- FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop		- · ·	0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023	•		

# CIP OVERVIEW (2020-2024 City Manager Proposed)

# **Energy Resources - Gas**

	Current Year		2020-2024	CIP Funding	Period			
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
<u>Revenues</u>								
Enterprise Fund	1,150,000	1,175,000	1,100,000	1,130,000	1,150,000	1,130,000	1,100,000	5,685,000
Unmet Needs	-	-	2,596,000	2,596,000	-	-	-	5,192,000
Total Revenues	\$1,150,000	\$1,175,000	\$3,696,000	\$3,726,000	\$1,150,000	\$1,130,000	\$1,100,000	\$10,877,000
Annual Capital	Maintenance	(Order of F	unding, by	Year)				
New Gas Mains	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000
Gas System Expansi	on 250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Replace Gas Mains	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Gas Equipment Repl	acement 200,000	200,000	150,000	180,000	200,000	180,000	150,000	910,000
New Gas Services	150,000	150,000	150,000	150,000	150,000	150,000	150,000	750,000
Operations, Maintena	ance, & Engineer	ing Assessmen 25,000	t _	-	-	-	-	25,000
AMI/DSM Evaluation	(Gas)	-	2,596,000	2,596,000	-	-	-	5,192,000
Group Expenditures	\$1,150,000	\$1,175,000	\$3,696,000	\$3,726,000	\$1,150,000	\$1,130,000	\$1,100,000	\$10,877,000
Total Expenditures	\$1,150,000	\$1,175,000	\$3,696,000	\$3,726,000	\$1,150,000	\$1,130,000	\$1,100,000	\$10,877,000



## **New Gas Mains**

#### Description

This project provides funds for the installation of natural gas mains to serve new residential, commercial and industrial customers.

#### **Justification**

This project is consistent with the Community Facilities Element of the Comprehensive Plan; Strategies F-1 in that it provides for the installation of gas services.

#### Category

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2014 - Year-to-date gas main installed: 1,500 feet of 6-inch plastic gas main on Winstead Avenue Road Widening Project. Old Bailey Road loop and Tyson/Edwards Farms to be done this year. Estimated 33,550 feet of 8-inch plastic gas main; 8,650 feet of 6-inch pl

FY2015 - Year-to-date new gas main installed: 4,200 feet of 2-inch plastic gas main on Baker Road; 1,000 feet of 2-inch plastic gas main on Lewy Lane; 2,100 feet of plastic gas main on S. Wesleyan Blvd (Area L Ahec). Projects also include mains installed on Cooke Road, Rose Loop Road, Glendale Road, Cokey Road, Beasley Road and Belmont Lakes.

FY2016 - New gas main installed: 1,475 feet of 2-inch plastic gas main on Lewy Lane, 932 feet of 2-inch plastic gas main on Tralee Court, and 470 feet of 2-inch gas main on Cross Street, Nashville; Installed 2,700 LF of 4" PE gas main and 4,200 LF of 2" PE gas main along Belmont Lake Drive

FY2017 - YTD - Install 6,961 feet of 2" PE gas main in various areas - Belmont Lake Villas, College Road, Ravenwood, Recreation Drive

FY2018 - Install 4" plastic main along US-64 Bus, Cox Avenue, and Leggett Road - pushed back due to potential CSX railway conflicts with existing utilities as part of CSX Intermodal facility.

FY2019 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers. Waiting to see if CSX intermodal requires us to address potential railway crossing conflicts with existing facilities

#### Current & Future Plans

FY2020 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers.

FY2021 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers.

FY2022 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers.

FY2023 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers.

FY2024 - Continue to expand system to provide natural gas services to residential, commercial, and industrial customers.

Devenues	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	300,000	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000
Total Revenues	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$1,500,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	iding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## Gas System Expansion

#### Description

This project provides funding for the expansion of the natural gas distribution system into areas of planned development.

#### **Justification**

This project is consistent with the Community Facilities Element of the Comprehensive Plan; Strategy F-1 in that it provides for gas main extensions.

#### Category

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2014 - Install 33,550 feet of 8-inch plastic gas main on Old Bailey Hwy from Macedonia to Nashville. Install 4,800 feet of 6-inch plastic gas main to Tyson Farms. Install 6,400 feet of 4-inch plastic gas main to Edwards Farms. Install 3,800 feet of 6-inch pla

FY2015 - YTD expansion projects includes; 2-inch main on Lewy Lane, 2-iinch main on Beasley Road, 2-inch main on Cooke Road and 2-inch main on Baker Road. Remaining projects for this year include 6-inch main on Boddie Mill Pond Road.

FY2016 - Install 5,583 feet of 6-inch plastic gas main on Boddie Mill Pond Road; 3,844 feet of 6-inch plastic gas main on US 64 Alt; 2,600 feet of 4" plastic main on Belmont Lake Drive

FY2017 - Replace steel gas mains on Wesleyan Blvd between Sunset Avenue and Benvenue Road as part of NCDOT road project

FY2018 - Install 6" plastic main along Hunter Hill Road from Nicodemus Mile to English Road at Substation #9 as part of NCDOT's Hunter Hill Road Widening project. This includes renewal of services and replacement of 2" steel in Benvenue Country Club area.

FY2019 - Install 7,600 feet of 8 inch PE gas main on Seven Bridges Road from Battleboro Gate Station to Old Battleboro Road.

#### Current & Future Plans

FY2020 - Install 6,500 feet of 8 inch PE gas main on Old Battleboro Road from Seven Bridges Road to Fountain School Road.

FY2021 - Install 6,400 feet of 8 inch PE gas main on Old Battleboro Road from Fountain School Road to Hwy 97 and tie-in to existing 8 inch PE main.

FY2022 - Install 8,700 feet of 4 inch PE gas main on S. Old Carriage Road from Sapony Creek Drive to Bend of the River Road.

FY2023 - Install 6,200 feet of 4 inch PE gas main on Hwy 58 between Bend of the River Road to S. Old Carriage.

FY2024 - Install 13,900 feet of 6 inch PE main on Hwy 58 from Bend of the River Drive to West Mount Drive.

FY2025 - Install 6,300 feet of 6 inch PE gas main on Hwy 58 from Bend of the River Road to Riviera Drive.

Devenues	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Revenues	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000
	Current Year		2020-	2024 CIP Fur	iding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	iding FY 2023	FY 2024	Future	CIP
Expenditures Description		FY 2020 Prop		- · ·	0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			-

## **Replace Gas Mains**

#### Description

This project provides for the replacement of gas mains at the end of their useful lives and subject to increasing leakage. The project is to replace all isolated steel gas mains serving downtown area, apartment complexes, and inner-city neighborhoods.

#### Justification

This project is consistent with the Community Facilities Element of the Comprehensive Plan; Strategy B-2 in that it provides upgrading existing gas facilities.

#### Category

02 - Eliminates hazards to persons

#### Past Progress

FY2014 - Replaced 4,691 feet of 2-inch steel main with 2-inch plastic gas main in the Oakwood Drive area YTD. Projection of replacing an additional 10,000 feet of 2-inch steel gas main with 2-inch steel main in the Ferndale Drive and Hillsdale Drive areas.

FY2015 - Year to date mains replaced include projects on Eastern Avenue, Sycamore Street and Tarboro Street. Projected additional replacements on Leggett Road, 6,000 feet of 4-inch; Ellison Drive, 1,500 feet of 2-inch; Sandonia Circle, 1,250 feet of 2-inch; Shepard Drive, 1,200 feet of 2-inch; and Spaulding Drive, 1,100 feet of 2-inch.

FY2016 - Year to date mains replaced include projects: Tarboro Street 2,220 feet of 2-inch plastic, Hill Street 3,411 feet of 2-inch plastic, Long Avenue 1,562 feet of 2-inch plastic, Sycamore Street 1,291 feet of 2-inch plastic, Nashville Road 1,136 feet of 2-inch plastic, Sandonia Circle 1,960 feet of 2-inch plastic, Washington Place 406 feet of 2-inch plastic, Shepard Drive 1,002 feet of 2-inch plastic, Spaulding Drive 985 feet of 2-inch plastic, Ellison Drive 2,031 feet of 2-inch plastic, and Leggett Road 10,592 feet of 4-inch plastic.

FY2017 - Replace steel gas mains on Wesleyan Blvd. between Sunset Avenue and Benvenue Road. Part of DOT road project.

FY2018 - Replace 6,500 feet of 4" plastic main from US 64-Alt to Leggett Road along Springfield Road due to NCDOT roadway project; Replace 8" creek crossing on Old Bailey Hwy as part of bridge replacement; Replace 10" creek crossing (rock bore) on Vick Road as part of bridge replacement

FY2019 - Replacing steel main in the Hill Street, Barnes Street, Leggett Road area. (ongoing)

Replace isolated 2" steel gas main with 2" PE gas main in the neighborhood surrounding the Rocky Mount Mill Village (River Drive and Elm Street). (completing as needed)

Replace 6" steel along Sunset Avenue and over Tar River (bridge attachment), including connected 2" steel main and services (pushed to FY2020)

#### Current & Future Plans

FY2020 - Replace 4" & 6" steel gas main on Sunset between Hwy 301 & Winstead Avenue; eliminate steel and remove from under the street

FY2021 - Replace 3,650 feet of 6" steel gas main with 6" PE gas main on Fountain School Road.

FY2022 - Replace 2" steel gas main with 2" PE gas mains in the Englewood residential area.

FY2023 - Replace 2" steel gas main with 2" PE gas mains in the Englewood residential area.

FY2024 - Replace 2" steel gas main with 2" PE gas mains in the Englewood residential area

	Current Year		2020-	2024 CIP Fun	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Revenues	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,250,000

# CIP PROJECT SUMMARY (2020-2024 City Manager Proposed)

Replace Gas Mains								
Expandituras	Current Year		2020-	2024 CIP Fun	nding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Construction	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Expenditures	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000.00	\$250,000	\$1,250,000

## **Gas Equipment Replacement**

#### **Description**

This project will provide funds for new and replacement construction equipment necessary for the installation and maintenance of natural gas mains and services. Proper and reliable equipment is essential for ensuring safe and cost effective operation of the natural gas distribution system.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B-3 in that it updates the CIP to provide quality utility service.

#### **Category**

05 - Current level of service cannot be continued unless work is done

#### Past Progress

FY2014 - No equipment was planned to be replaced this FY.

FY2015 - No equipment was planned for replacement this year.

FY2016 - No equipment was planned for replacement this year.

FY2017 - Purchased 2 trucks for additional crews; (2) F-450 Utility body @ \$60,000 each; Purchased (2) 6-ton trailers to pull equipment behind F450 @ \$10000 each; Carried over money to purchase mini-excavator

FY2018 - Replaced RT40 (small) trencher with comparable equipment (\$67,100.00), made repairs to large boring rig that was transferred from Electric Division (\$23,453.08), and purchased trailers for 3rd/4th construction crews (\$9,590.00). Carryforward \$129,616.92 to FY2019

FY2019 - Replaced 2 RT40 (small) trenchers with comparable equipment (\$66,500 each - \$133,000 total). Plan to purchase 2 mini-excavators (\$33,000 each - \$66,000 total)

Pushed replacement of Crew Truck #4408 to FY2021 due to good condition and low miles Current & Future Plans

FY2020 - Replace large Vermeer boring rig with comparable equipment @ approximate cost of \$200,000.

FY2021 - Replace small boring rig with comparable equipment @ \$150,000

FY2022 - Replace Crew Truck #4408, 2006, @ \$120,000; Replace large vaccum unit, #4921T, 2008 @ \$60,000

FY2023 - Replace Crew Truck #4409, 2007, @ \$120,000; Replace Small F-450 Dump Truck #4401, 2011 with 4300 International with dump bed @ \$80,000.

FY2024 - Replace Large Trencher #4613, 2009 @ \$180,000

<b>D</b>	Current Year		2020-	2024 CIP Fur	nding			
Revenues	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	200,000	200,000	150,000	180,000	200,000	180,000	150,000	910,000
Total Revenues	\$200,000	\$200,000	\$150,000	\$180,000	\$200,000	\$180,000	\$150,000	\$910,000
Even en diture e	Current Year		2020-	2024 CIP Fur	iding			
Expenditures	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Backhoe [R]	-	-	-	-	-	-	150,000	-
Crew Truck	-	-	-	-	120,000	-	-	120,000
Crew Truck[R]	-	-	-	120,000	-	-	-	120,000
Dump Truck [N]	-	-	-	-	80,000	-	-	80,000
Excavation Unit	67,000	-	-	-	-	-	-	-
Large Boring Rig	-	200,000	-	-	-	-	-	200,000
Large Trencher [R]	-	-	-	-	-	180,000	-	180,000
Small Boring Rig [R]	-	-	150,000	-	-	-	-	150,000
Small Trencher [R]	133,000	-	-	-	-	-	-	-
Vaccum Unit [R]	-	-	-	60,000	-	-	-	60,000
Total Expenditures	\$200,000	\$200,000	\$150,000	\$180,000	\$200,000	\$180,000.00	\$150,000	\$910,000

## **New Gas Services**

#### Description

This project provides funds for the installation of natural gas services lines from new and existing mains for new residential, commercial, and industrial customers.

#### **Justification**

This project is consistent with the Community Facilities Element of the Comprehensive Plan; Strategies F-1 in that it provides for the installation of gas services.

#### **Category**

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2014 - YTD footage of 17,000 feet. Totals include 33 new services installed ytd and 137 renewed services installed ytd. Project an additional 30 new services and 50 renewed services for remainder of year.

FY2015 - YTD footage of 6,400 feet. Totals include 57 new services installed and 7 renewed service. Project additional 100 new and 25 replacement services for the remainder of year.

FY2016 - YTD footage of 10,100 feet. Total includes 41 new service lines installed and 60 renewed service lines.

FY2017 - YTD footage of 7,900 feet. Total includes 34 new residential service lines, 8 commerical service lines, and 79 renewed service lines

FY2018 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projection replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

FY2019 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projection replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

#### Current & Future Plans

FY2020 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projection replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

FY2021 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projected replacement of 50 existing galvanized and black plastic service lines of polyethylene pipe.

FY2022 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projected replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

FY2023 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projected replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

FY2024 - Annual installation of projected 50 new services for requested residential, commercial, and industrial customers. Also includes projection replacement of 50 existing galvanized and black plastic service lines to polyethylene pipe.

Devenues	Current Year		2020-	2024 CIP Fur	iding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	150,000	150,000	150,000	150,000	150,000	150,000	150,000	750,000
Total Revenues	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
	Current Year		2020-	2024 CIP Fun	iding			
Expenditures	Current Year <sub>F</sub> FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	iding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023			

## **Operations, Maintenance, & Engineering Assessment**

#### **Description**

To provide an outside independent review of our gas utility operations to determine the overall health of the utility operations including infrastructure and our ability to operate, maintain and sustain the system safely, prudently and in compliance with all state and federal regulations. The objectives of the project are to identify exposure to operations risks including identifying risks to public, employees, infrastructure and company, identify potential problems, perform comparative benchmarking/best practices with peer utilities and will make recommendations for remediation including potential solutions and suggested timeframe to mediate. Review was last performed in FY 2013.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective B - 1 & 2, and F - 1 in that it provides for the maintenance and upgrading of the natural gas distribution system and provides for proper management of the natural gas distribution system which also supports economic development all of which are consistent with the Comprehensive Plan.

#### **Category**

06 - Current level of service cannot be assured unless work is done

#### **Current & Future Plans**

FY2020 - Follow-up O,M,&E Risk Assessment

D	Current Year		2020-	2024 CIP Fur	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Enterprise Fund	-	25,000	-	-	-	-	-	25,000
Total Revenues	\$-	\$25,000	\$-	\$-	\$-	\$-	\$-	\$25,000
	Current Year		2020-	2024 CIP Fur	nding			
<b>Expenditures</b>	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			5	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023	•		

## AMI/DSM Evaluation (Gas)

#### **Description**

This project upgrades metering technology for the electric, gas and water utilities (each sharing in the project cost) to provide remote reading of meters thereby lowering operational costs and improves customer service by immediate notification of electric service outages and possible excess customer water usage including broken pipes, and remote electric disconnects & reconnects.

#### **Justification**

Project is consistent with the Community Facilities Section of the Comprehensive Plan; Objective F-1 in that it provides for improved management of of the utility distribution systems and metering, and improves utility service to the customer.

#### Category

08 - Improves efficiency or generates additional revenue with initial cost being recovered by savings within less than five (5) years

#### Past Progress

FY2018 - Identification and evaluation of appropriate AMI/DSM metering hardware and software to upgrade and utilize the current automated meter reading facilities and begin the transition for an interactive metering and demand side management system.

#### **Current & Future Plans**

FY2021 - Phase I of AMI metering installation project. Convert approximately one half of gas meters to AMI.

FY2022 - Phase II of AMI metering installation project. Convert remaining gas meters to AMI.

Devenues	Current Year		2020-	2024 CIP Fun	nding			
<u>Revenues</u>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Future	CIP
Description	Proj	Prop	Prop	Prop	Prop	Prop	Years	Total
Unmet Needs	-	-	2,596,000	2,596,000	-	-	-	5,192,000
Total Revenues	\$-	\$-	\$2,596,000	\$2,596,000	\$-	\$-	\$-	\$5,192,000
<b>F</b>	Current Year		2020-	2024 CIP Fur	nding			
Expenditures	Current Year FY 2019	FY 2020	2020- FY 2021	2024 CIP Fur FY 2022	nding FY 2023	FY 2024	Future	CIP
<u>Expenditures</u> Description		FY 2020 Prop			0	FY 2024 Prop	Future Years	CIP Total
	FY 2019		FY 2021	FY 2022	FY 2023	•		