

SUMMARY OF ELECTRIC PROJECTS

DOLLARS IN THOUSANDS

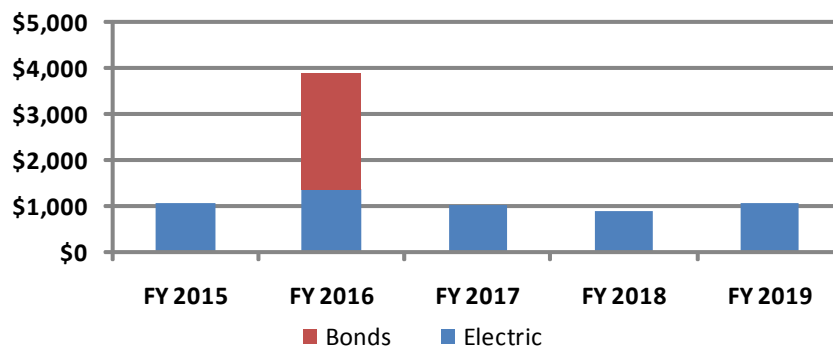
| Project Estimates: | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project | 5-Year CIP |
|---------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|-------------------|
| Planning | 1,210 | 10 | 10 | 10 | 25 | 25 | 30 | 1,320 | 80 |
| Land | - | - | - | - | - | - | - | - | - |
| Construction | 15,491 | 1,060 | 3,877 | 1,030 | 845 | 1,058 | 2,340 | 25,701 | 7,870 |
| Total | 16,701 | 1,070 | 3,887 | 1,040 | 870 | 1,083 | 2,370 | 27,021 | 7,950 |

Funding Sources:

| | | | | | | | | | |
|------------------------|---------------|--------------|--------------|--------------|------------|--------------|--------------|---------------|--------------|
| General Fund | - | - | - | - | - | - | - | - | - |
| Enterprise Funds | 12,701 | 1,070 | 1,387 | 1,040 | 870 | 1,083 | 2,370 | 20,521 | 5,450 |
| School Fund | - | - | - | - | - | - | - | - | - |
| Bonds | 4,000 | - | 2,500 | - | - | - | - | 6,500 | 2,500 |
| Other Local Government | - | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total | 16,701 | 1,070 | 3,887 | 1,040 | 870 | 1,083 | 2,370 | 27,021 | 7,950 |

Operating Impacts:

| | | | | | | | | | |
|--------------------|----------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|
| Personnel | - | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - | - |
| Debt Service | - | (300) | (300) | (488) | (488) | (488) | (7,686) | (9,750) | (2,064) |
| Net Revenue | - | (300) | (300) | (488) | (488) | (488) | (7,686) | (9,750) | (2,064) |

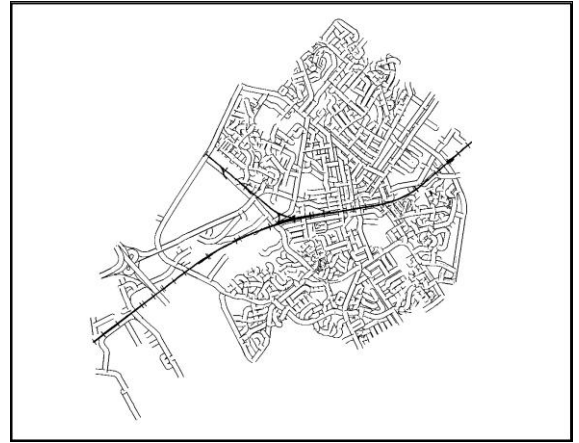


ELECTRIC PROJECTS*DOLLARS IN THOUSANDS*

| Project Name | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project | 5-Year CIP |
|--------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|-------------------|
| Place Overhead Lines Underg | 1,852 | 550 | 497 | 440 | 500 | 433 | 600 | 4,872 | 2,420 |
| Replace/Automate Pad Mount | 529 | 55 | 55 | 55 | 55 | 55 | 55 | 859 | 275 |
| Sudley Road Third Lane | - | - | - | - | 15 | - | - | 15 | 15 |
| Dumfries Rd Northbound 3rd L | - | - | - | - | - | - | 400 | 400 | - |
| Prince William Street (Grant A | 600 | - | 330 | - | - | - | - | 930 | 330 |
| Grant Avenue (Prince William | - | - | - | - | - | - | 300 | 300 | - |
| Dean Drive Extended | 50 | - | - | 85 | - | - | - | 135 | 85 |
| Airport Substation Expansion | 5,600 | - | - | - | - | - | - | 5,600 | - |
| Liberia Avenue Widening | - | - | - | - | - | 100 | 215 | 315 | 100 |
| Dean Drive (Foster Drive to W | - | - | - | - | - | - | 500 | 500 | - |
| Advanced Meter Infrastructure | 5,610 | 205 | 205 | - | - | - | - | 6,020 | 410 |
| Underground Cable and Termi | 1,760 | 260 | 300 | 300 | 300 | 300 | 300 | 3,520 | 1,460 |
| New Generation Initiatives | 700 | - | 2,500 | - | - | - | - | 3,200 | 2,500 |
| New Fiber Optic Loop/Ring | - | - | - | 160 | - | 195 | - | 355 | 355 |
| Total | 16,701 | 1,070 | 3,887 | 1,040 | 870 | 1,083 | 2,370 | 27,021 | 7,950 |

E-001 Place Overhead Lines Underground

Year Introduced: 1987
Change: Decreased Estimate
Associated Proj: S-017, T-019, W-050, W-063
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.6.3



Description:

Place overhead electric, telephone, cable, and fiber lines underground, improving reliability and aesthetics and lowering maintenance costs.
 FY 2015 - Area 1 - Main & Battle, 2,500', \$650k (project will continue in FY 2016)
 FY 2016 - Taylor/West/Rear Sudley @ Nelson Park & Beauregard;
 FY 2017 - Battle & West (Beauregard to Portner)
 FY 2018 - Landgreen (Liberia to Weir);
 FY 2019 - Taylor & Ewell Beauregard/ Sudley/ Battle and rear lost distribution Grant (Beauregard to Portner)

| PROJECT-TO-DATE | |
|------------------------|--------------|
| Account # | CP3611 |
| Budget: | \$ 1,852,000 |
| Expenditures: | \$ 1,048,733 |
| Balance: | \$ 803,267 |

| Project Estimate: (\$ in thousands) | Prior | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|-------------------------------------|--------------|------------|------------|------------|------------|------------|------------|---------------|
| | Years | | | | | | | |
| Planning | - | - | - | - | - | - | - | - |
| Land | - | - | - | - | - | - | - | - |
| Construction | 1,852 | 550 | 497 | 440 | 500 | 433 | 600 | 4,872 |
| Total Project Estimate | 1,852 | 550 | 497 | 440 | 500 | 433 | 600 | 4,872 |

Funding Sources: (\$ in thousands)

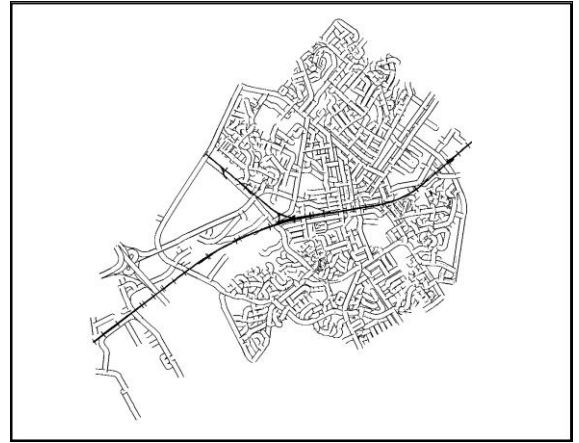
| | | | | | | | | |
|------------------------------|--------------|------------|------------|------------|------------|------------|------------|--------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 1,852 | 550 | 497 | 440 | 500 | 433 | 600 | 4,872 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 1,852 | 550 | 497 | 440 | 500 | 433 | 600 | 4,872 |

Operating Impacts: (\$ in thousands)

| | | | | | | | | |
|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-004 Replace/Automate Pad Mount Fuse Cabinets

Year Introduced: 1998
Change: Increased Estimate
Associated Proj: N/A
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7



Description:

Replace metal fuse cabinets with pad-mount switch cabinets. Some locations will be fitted with automated motor operators. Annually, 5 cabinets will be replaced and/or one switch cabinet will be automated. This will improve reliability, increase safety, and simplify maintenance activities.

| PROJECT-TO-DATE | | |
|-------------------------|-----------|---------|
| <i>Account # CP3608</i> | | |
| Budget: | \$ | 529,006 |
| Expenditures: | \$ | 380,537 |
| Balance: | \$ | 148,469 |

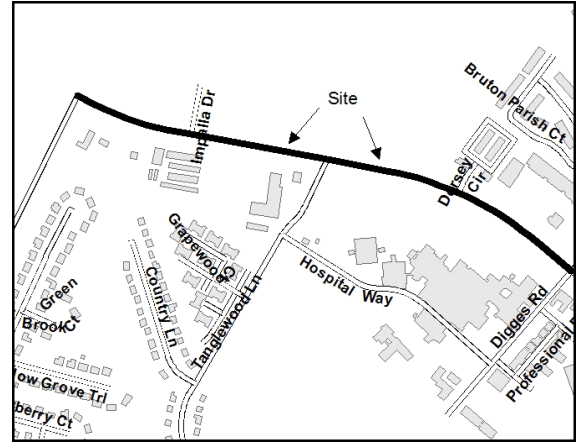
| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | - | - | - | - | - | - | - | - |
| Land | - | - | - | - | - | - | - | - |
| Construction | 529 | 55 | 55 | 55 | 55 | 55 | 55 | 859 |
| Total Project Estimate | 529 | 55 | 55 | 55 | 55 | 55 | 55 | 859 |

| Funding Sources: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 529 | 55 | 55 | 55 | 55 | 55 | 55 | 859 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 529 | 55 | 55 | 55 | 55 | 55 | 55 | 859 |

| Operating Impacts: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-012 Sudley Road Third Lane

Year Introduced: 2003
Change: No change
Associated Proj: T-015
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.6.3,
 Comprehensive Plan 7.7



Description:

Relocate utility poles on Sudley Road from Godwin Drive to Digges Road. Remove 2 spans of overhead single phase distribution and place 250' of underground single phase distribution. Install 24 aluminum street light poles (T-015). NOVEC facilities represent the most significant conflict.

| PROJECT-TO-DATE | |
|------------------------|--------|
| Account # | CP3627 |
| Budget: | \$ - |
| Expenditures: | \$ - |
| Balance: | \$ - |

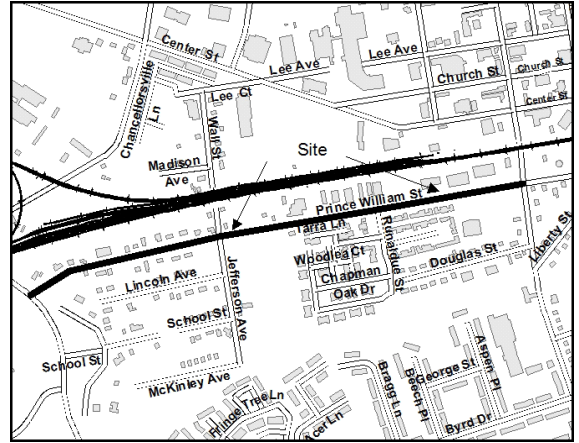
| Project Estimate: (\$ in thousands) | Prior | | | | | | | Total |
|-------------------------------------|-------|---------|---------|---------|-----------|---------|--------|-----------|
| | Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Project |
| Planning | - | - | - | - | 15 | - | - | 15 |
| Land | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - |
| Total Project Estimate | - | - | - | - | 15 | - | - | 15 |

| Funding Sources: (\$ in thousands) | | | | | | | | |
|------------------------------------|---|---|---|---|-----------|---|---|-----------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | - | - | - | - | 15 | - | - | 15 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | - | - | - | - | 15 | - | - | 15 |

| Operating Impacts: (\$ in thousands) | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-014 Prince William Street (Grant Avenue to Wellington Road)

Year Introduced: 2003
Change: Increased Estimate
Associated Proj: S-017, T-019, W-063
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Old Town Sector Plan,
 Comprehensive Plan 7.6.3,
 Comprehensive Plan 7.7



Description:

Underground OH Distribution facilities on Prince William Street from Wellington Road to Grant Avenue. Remove 21 spans of overhead 3-phase distribution and install 3,300' of 3-phase underground distribution. Install 32 aluminum street light poles (T-019).

| PROJECT-TO-DATE | |
|------------------------|------------|
| Account # | CP3635 |
| Budget: | \$ 600,000 |
| Expenditures: | \$ - |
| Balance: | \$ 600,000 |

| Project Estimate: (\$ in thousands) | Prior | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|-------------------------------------|------------|----------|------------|----------|----------|----------|----------|---------------|
| | Years | | | | | | | |
| Planning | 30 | - | - | - | - | - | - | 30 |
| Land | - | - | - | - | - | - | - | - |
| Construction | 570 | - | 330 | - | - | - | - | 900 |
| Total Project Estimate | 600 | - | 330 | - | - | - | - | 930 |

Funding Sources: (\$ in thousands)

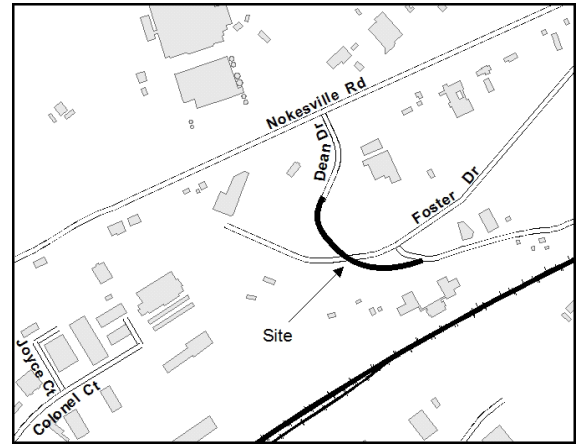
| | | | | | | | | |
|------------------------------|------------|----------|------------|----------|----------|----------|----------|------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 600 | - | 330 | - | - | - | - | 930 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 600 | - | 330 | - | - | - | - | 930 |

Operating Impacts: (\$ in thousands)

| | | | | | | | | |
|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-019 Dean Drive Extended

Year Introduced: 2005
Change: Funding to Later Year
Associated Proj: T-030
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.6.3,
 Comprehensive Plan 7.7



Description:

Remove 6 spans of 3-phase OH distribution and install 1,200' of 3-phase underground distribution. Install 4 street lights (T-030). Possibly relocate 1,000' of existing underground primary distribution to provide for efficiency and future area development. This will allow better access to this industrial area of the City.

| PROJECT-TO-DATE | |
|------------------------|---------------|
| <i>Account #</i> | <i>CP3649</i> |
| Budget: | \$ 50,000 |
| Expenditures: | \$ - |
| Balance: | \$ 50,000 |

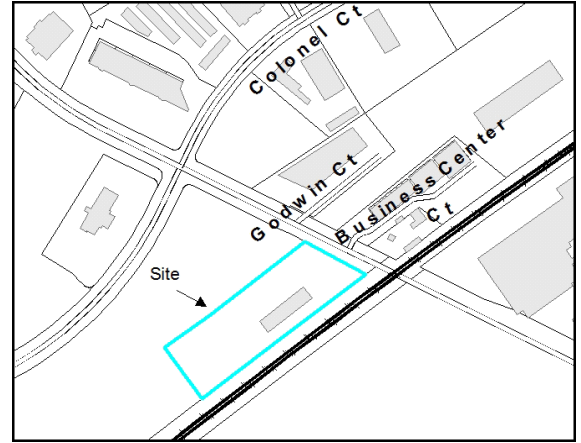
| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | 50 | - | - | - | - | - | - | 50 |
| Land | - | - | - | - | - | - | - | - |
| Construction | - | - | - | 85 | - | - | - | 85 |
| Total Project Estimate | 50 | - | - | 85 | - | - | - | 135 |

| Funding Sources: (\$ in thousands) | | | | | | | | |
|---|-----------|----------|----------|-----------|----------|----------|----------|------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 50 | - | - | 85 | - | - | - | 135 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 50 | - | - | 85 | - | - | - | 135 |

| Operating Impacts: (\$ in thousands) | | | | | | | | |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-021 Airport Substation Expansion

Year Introduced: 2006
Change: No change
Associated Proj: N/A
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7



Description:

FY 2014: Upgrade 115KV to 230KV system an upgrade substation transfer. FY 2015: Reconfigure circuit 301 to split the overhead portion (Water Plant) from underground portion (Airport) and add one or more distribution circuit(s) if justifiable.

| PROJECT-TO-DATE | |
|------------------------|--------------|
| Account # | CP3640 |
| Budget: | \$ 5,600,000 |
| Expenditures: | \$ 307,291 |
| Balance: | \$ 5,292,709 |

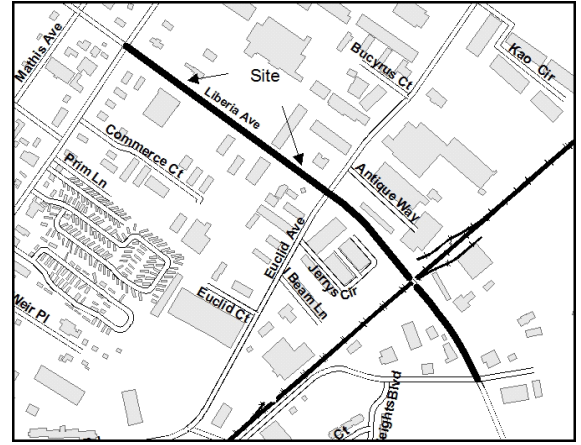
| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|-------------------------------------|--------------|---------|---------|---------|---------|---------|--------|---------------|
| Planning | 800 | - | - | - | - | - | - | 800 |
| Land | - | - | - | - | - | - | - | - |
| Construction | 4,800 | - | - | - | - | - | - | 4,800 |
| Total Project Estimate | 5,600 | - | - | - | - | - | - | 5,600 |

| Funding Sources: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|------------------------------------|--------------|---------|---------|---------|---------|---------|--------|---------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 1,600 | - | - | - | - | - | - | 1,600 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | 4,000 | - | - | - | - | - | - | 4,000 |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 5,600 | - | - | - | - | - | - | 5,600 |

| Operating Impacts: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--------------------------------------|-------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | (300) | (300) | (300) | (300) | (300) | (4,500) | (6,000) |
| Net Revenue | - | (300) | (300) | (300) | (300) | (300) | (4,500) | (6,000) |

E-026 Liberia Avenue Widening

Year Introduced: 2008
Change: Moved From Future
Associated Proj: T-046, W-048
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.6.3,
 Comprehensive Plan 7.7



Description:

Underground utility power lines as Liberia Avenue is widened to six lanes. This will improve reliability, aesthetics, and the appearance of the City. The project is consistent with the overall strategic plan of underground power lines throughout the City.

| PROJECT-TO-DATE | | |
|------------------------|-----|---|
| Account # | N/A | |
| Budget: | \$ | - |
| Expenditures: | \$ | - |
| Balance: | \$ | - |

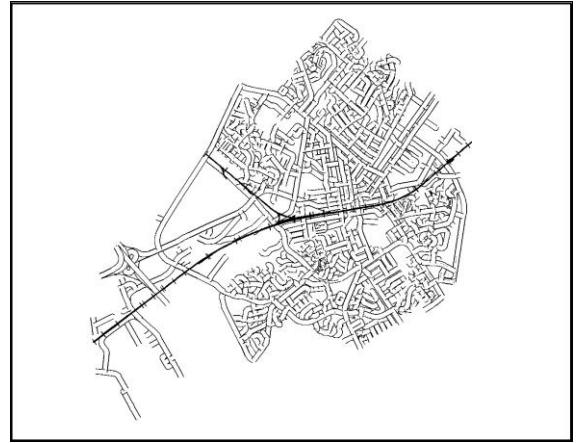
| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | - | - | - | - | - | 15 | - | 15 |
| Land | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | 85 | 215 | 300 |
| Total Project Estimate | - | - | - | - | - | 100 | 215 | 315 |

| Funding Sources: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | - | - | - | - | - | 100 | 215 | 315 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | - | - | - | - | - | 100 | 215 | 315 |

| Operating Impacts: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-029 Advanced Meter Infrastructure (AMI)

Year Introduced: 2009
Change: Funding to Later Year
Associated Proj: W-044
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7,
 Comprehensive Plan 8.3



Description:

Provide a fixed network 2-way communications system to implement full AMI supporting Demand Response, Remote Disconnect/Reconnect, Outage Notification & Management, Tampering, etc. This will reduce expenses and improve meter reading accuracy and reliability. Customers will be able to monitor their usage via web portal access.

| PROJECT-TO-DATE | | |
|-------------------------|-----------|-----------|
| <i>Account # CP3665</i> | | |
| Budget: | \$ | 5,610,000 |
| Expenditures: | \$ | 1,121,291 |
| Balance: | \$ | 4,488,709 |

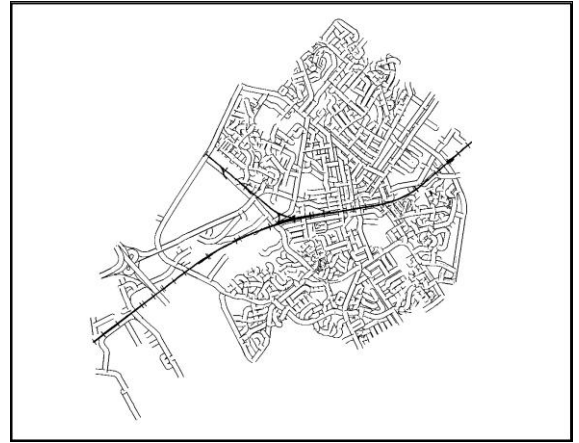
| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | - | - | - | - | - | - | - | - |
| Land | - | - | - | - | - | - | - | - |
| Construction | 5,610 | 205 | 205 | - | - | - | - | 6,020 |
| Total Project Estimate | 5,610 | 205 | 205 | - | - | - | - | 6,020 |

| Funding Sources: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 5,610 | 205 | 205 | - | - | - | - | 6,020 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 5,610 | 205 | 205 | - | - | - | - | 6,020 |

| Operating Impacts: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-030 Underground Cable and Termination Replacement

Year Introduced: 2010
Change: Increased Estimate
Associated Proj: N/A
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7



Description:

Identify 15KV cable and terminations in need of replacement based on testing results, age of cable/terminations, and the number of faults experienced. Replace cables/terminations as needed. There have been an above average number of failures on the 15KV main feeder circuits; this will improve reliability and safety. No formal program was previously in place.

| PROJECT-TO-DATE | | |
|------------------------|-----------|-----------|
| Account # CP3667 | | |
| Budget: | \$ | 1,760,000 |
| Expenditures: | \$ | 1,489,181 |
| Balance: | \$ | 270,819 |

| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | 180 | 10 | 10 | 10 | 10 | 10 | 10 | 240 |
| Land | - | - | - | - | - | - | - | - |
| Construction | 1,580 | 250 | 290 | 290 | 290 | 290 | 290 | 3,280 |
| Total Project Estimate | 1,760 | 260 | 300 | 300 | 300 | 300 | 300 | 3,520 |

Funding Sources: (\$ in thousands)

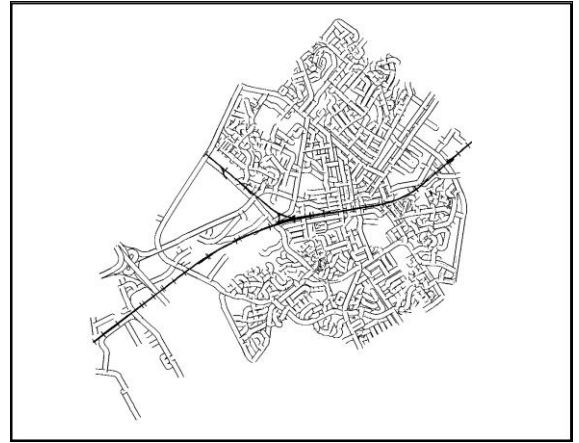
| | | | | | | | | |
|------------------------------|--------------|------------|------------|------------|------------|------------|------------|--------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 1,760 | 260 | 300 | 300 | 300 | 300 | 300 | 3,520 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 1,760 | 260 | 300 | 300 | 300 | 300 | 300 | 3,520 |

Operating Impacts: (\$ in thousands)

| | | | | | | | | |
|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

E-031 New Generation Initiatives

Year Introduced: 2011
Change: Funding to Later Year
Associated Proj: N/A
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7,
 Comprehensive Plan 8.3



Description:

Phase 1 - Analyze cleaner air technologies. Phase II - Engineering study and site evaluation of generator options for Church Street Generation Site. Cost-benefit analysis to be conducted before any replacement/construction activity. Current emission standards and anticipated legislation will require cleaner initiatives and reductions in emissions.

PROJECT-TO-DATE

Account # CP3686

| | | |
|----------------------|-----------|---------|
| Budget: | \$ | 700,000 |
| Expenditures: | \$ | 217,162 |
| Balance: | \$ | 482,838 |

| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|-------------------------------------|-------------|----------|--------------|----------|----------|----------|----------|---------------|
| Planning | 150 | - | - | - | - | - | - | 150 |
| Land | - | - | - | - | - | - | - | - |
| Construction | 550 | - | 2,500 | - | - | - | - | 3,050 |
| Total Project Estimate | 700 | - | 2,500 | - | - | - | - | 3,200 |

Funding Sources: (\$ in thousands)

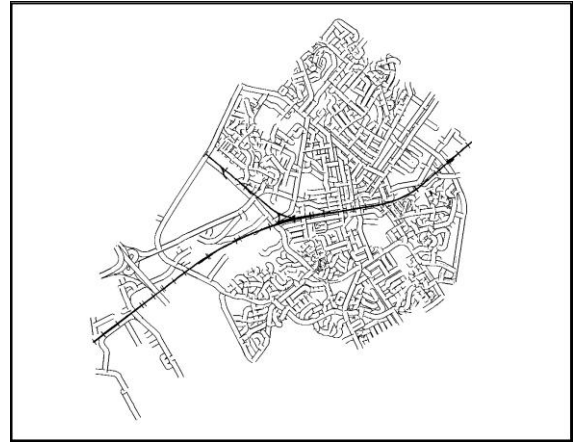
| | | | | | | | | |
|------------------------------|------------|----------|--------------|----------|----------|----------|----------|--------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | 700 | - | - | - | - | - | - | 700 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | 2,500 | - | - | - | - | 2,500 |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | 700 | - | 2,500 | - | - | - | - | 3,200 |

Operating Impacts: (\$ in thousands)

| | | | | | | | | |
|--------------------|----------|----------|----------|--------------|--------------|--------------|----------------|----------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | (188) | (188) | (188) | (3,186) | (3,750) |
| Net Revenue | - | - | - | (188) | (188) | (188) | (3,186) | (3,750) |

E-032 New Fiber Optic Loop/Ring

Year Introduced: 2015
Change: New Project
Associated Proj: N/A
Program Area: Electric
Managing Dept: Utilities
Manager: T. Aly
Plan Conformance:
 Comprehensive Plan 7.7



Description:

Identify needs of self-healing rings/loops using fiber optic paths for priority services. Install new fiber optic cabling to provide priority services the necessary redundancy loops/rings. This will improve reliability of critical infrastructure networks and public safety services.

| PROJECT-TO-DATE | | |
|------------------------|-----|---|
| Account # | N/A | |
| Budget: | \$ | - |
| Expenditures: | \$ | - |
| Balance: | \$ | - |

| Project Estimate: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|--|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Planning | - | - | - | - | - | - | - | - |
| Land | - | - | - | - | - | - | - | - |
| Construction | - | - | - | 160 | - | 195 | - | 355 |
| Total Project Estimate | - | - | - | 160 | - | 195 | - | 355 |

| Funding Sources: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| General Fund | - | - | - | - | - | - | - | - |
| Enterprise Funds | - | - | - | 160 | - | 195 | - | 355 |
| School Fund | - | - | - | - | - | - | - | - |
| Bonds | - | - | - | - | - | - | - | - |
| Other Local Government | - | - | - | - | - | - | - | - |
| State | - | - | - | - | - | - | - | - |
| Federal | - | - | - | - | - | - | - | - |
| Gas Taxes | - | - | - | - | - | - | - | - |
| Proffers | - | - | - | - | - | - | - | - |
| Storm Water Mgmt Fees | - | - | - | - | - | - | - | - |
| NVTA | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - |
| Total Funding Sources | - | - | - | 160 | - | 195 | - | 355 |

| Operating Impacts: (\$ in thousands) | Prior Years | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Future | Total Project |
|---|--------------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------------|
| Personnel | - | - | - | - | - | - | - | - |
| Revenue Offset | - | - | - | - | - | - | - | - |
| Facility Costs | - | - | - | - | - | - | - | - |
| Program Costs | - | - | - | - | - | - | - | - |
| Debt Service | - | - | - | - | - | - | - | - |
| Net Revenue | - | - | - | - | - | - | - | - |

ELECTRIC - FUTURE YEARS PROJECTS SUMMARY*DOLLARS IN THOUSANDS*

| <u>Project #</u> | <u>Project Name and Description</u> | <u>COST</u> | <u>SOURCE</u> |
|------------------|---|-------------|---------------|
| E-013 | Dumfries Rd Northbound 3rd Lane (Wellington to Hastings) Underground OH distribution facilities on Dumfries Road from Hastings Drive to Orchard Lane. Remove 18 spans of 3-phase overhead distribution and install 1,900' of underground 3-phase distribution. Install 28 aluminum street lights (T-024). | \$ 400 | Electric Fund |
| E-015 | Grant Avenue (Prince William Street to Byrd Drive) Underground OH distribution facilities on Grant Avenue from Prince William Street to Byrd Drive. Remove 12 spans of OH 3-phase distribution and install 1,300' of 3-phase underground distribution. Install 10 aluminum street light poles (T-021). This will improve reliability and aesthetics and lower maintenance costs. | \$ 300 | Electric Fund |
| E-028 | Dean Drive (Foster Drive to Wellington Road) Remove 16 spans of 3-phase overhead distribution and install 2,750' of three-phase underground distribution (overhead to overhead is being considered). Install 22 street light poles (T-039). This will allow better access to this industrial area of the City. Dominion VA Power facilities represent the most significant conflict. | \$ 500 | Electric Fund |