UTILITY COMMITTEE

A G E N D A

January 10, 2011 - 5:00 P.M. - Council Chambers - City Hall - City of Dover

Public comments are welcomed on any item and will be permitted at appropriate times. When possible, please notify the City Clerk *(736-7008 or e-mail at CityClerk@dover.de.us) should you wish to be recognized.*

AGENDA ADDITIONS/DELETIONS

1. Proposed Ordinance #2011-01 - Amendment to Appendix B - Zoning, Article 5 - Supplementary Regulations, (New) Section 20 - Solar and Small Wind Energy Systems

2. Annual Engineering Consultant's Report on the Operation and Maintenance of the Electric System - Fiscal Year 2010

3. Development Projects - Performance and Maintenance Bonding Concerns

4. Annualized Comparison of Utility Rates

5. Review of Utility Related Capital Investment Plan (CIP) *(Electric and Water/Wastewater) (November)*

6. Adjournment by 5:55 P.M.

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THE AGENDA ITEMS AS LISTED MAY NOT BE CONSIDERED IN SEQUENCE. THIS AGENDA IS SUBJECT TO CHANGE TO INCLUDE THE ADDITION OR THE DELETION OF ITEMS, INCLUDING EXECUTIVE SESSIONS.

ACTION FORM

PROCEEDING Utility Committee
DEPARTMENT OF ORIGIN: Planning **DATE SUBMITTED**: December 30, 2010
PREPARED BY: Ann Marie Townshend, AICP, Director of Planning & Community Development
SUBJECT: Proposed ordinance to allow small wind energy systems and solar energy systems as accessory uses in all zoning districts.
REFERENCE: Dover Code, Appendix B - Zoning, Article 5 – Supplementary Regulations, and Article 12 - Definitions
RELATED PROJECT: N/A
REVIEWED BY: N/A
EXHIBITS: Draft Ordinance #2011-01
EXPENDITURE REQUIRED: N/A **AMOUNT BUDGETED**:N/A **FUNDING SOURCE (Dept./Page in CIP & Budget)**: N/A
TIMETABLE:
RECOMMENDED ACTION: Staff recommends that the Committee forward the proposed ordinance to City Council for first reading on January 24, 2011; referral to the Planning Commission for February 22, 2011; and final reading and public hearing before City Council on March 14, 2011.

BACKGROUND AND ANALYSIS

The proposed ordinance would allow small wind energy systems and solar energy systems as accessory uses in all zoning districts, and set standards for such systems for residential zones and non-residential zones.

CITY OF DOVER
ORDINANCE #2011-01

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF DOVER, IN COUNCIL MET:

That Appendix B - Zoning, Article 5 – Supplementary Regulations be amended by adding a new section 20 as follows:

Section 20. Solar and Small Wind Energy Systems.

Solar energy systems and small wind energy systems shall be permitted as accessory uses within all zones subject to the following requirements:

20.1Residential Zones

20.11Solar panels shall be affixed to the roof of the structure and shall not be free-standing structures

20.12Small wind energy systems in residential zones shall be subject to the following restrictions:

a. Small wind energy systems shall be setback 1.0 times the turbine height from adjoining property line. Turbine height means the height of the tower plus the length of 1 blade.
b. The aggregate noise or audible sound of a small wind energy system shall not exceed 5 decibels above the existing average noise level of the surrounding area and shall be restricted to a maximum of 60 decibels measured at any location along the property line to the parcel where the wind system is located.
c. Small wind energy systems shall be free from signage, advertising, flags, streamers, any decorative items or any item not related to the operation of the wind turbine. Electric wiring for the turbines shall be placed underground for non-building integrated systems.
d. Small wind energy systems shall not be permitted within the H (Historic District) Zone.
e. Any small wind energy system shall be buffered from any properties or structures included on the National Register of Historic Places.

20.2Non-Residential Zones

20.21 Solar energy systems shall be subject to the following restrictions:

a. Ground-mounted solar energy systems shall not occupy more than 25 percent of the lot area.
b. If ground-mounted solar energy systems are proposed to occupy more than 25 percent of the lot area, their placement shall be subject to conditional use approval by the Planning Commission.

DRAFT

c. Ground-mounted solar energy systems shall not be located between the principal structure and the street.
d. Solar energy systems, whether roof-mounted or ground-mounted, must comply with all building setback and height requirements for the zoning district where the system is to be installed.

20.22Small wind energy systems shall be subject to the following restrictions:

a. Small wind energy shall be setback 1.0 times the turbine height from adjoining property line. Turbine height means the height of the tower plus the length of 1 blade.
b. The aggregate noise or audible sound of a wind system shall not exceed 5 decibels above the existing average noise level of the surrounding area and shall be restricted to a maximum of 60 decibels measured at any location along the property line to the parcel where the small wind energy system is located.
c. Small wind energy systems shall be free from signage, advertising, flags, streamers, any decorative items or any item not related to the operation of the wind turbine. Electric wiring for the turbines shall be placed underground for non-building integrated systems.
d. Small wind energy systems shall not be permitted within the H (Historic District) Zone.
e. Any small wind energy system shall be buffered from any properties or structures included on the National Register of Historic Places.

BE IT FURTHER ORDAINED:

That Appendix B – Zoning, Article 12 – Definitions, be amended to add the following definitions:

Solar energy system – any solar collector or other solar energy device, or any structural design feature, mounted on a building or on the ground, and whose primary purpose is to provide for the collection, storage, and distribution of solar energy for space heating or cooling, for water heating, or for electricity.

Small wind energy system - a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kilowatts (kW) and which is intended to primarily reduce on-site consumption of utility-supplied energy.

SYNOPSIS

The proposed ordinance adds solar energy systems and small wind energy systems as accessory uses within all zoning districts; sets standards for these systems to ensure protection of the character of the zones, as well as public health, safety and welfare; and adds definitions for such systems to the *Zoning Ordinance*.

DRAFT

Annual Engineering Consultant's Report

on the

Operation and Maintenance of the Electric System Fiscal Year 2010

Prepared for the

Electric Division City of Dover, Delaware

Project Number 59164
December 2010

Burns & McDonnell
SINCE 1898

Annual Engineering Consultant's Report on the Operation and Maintenance of the Electric System Fiscal Year 2010

Prepared for the

Electric Division
City of Dover, Delaware

December 2010

Project Number 59164

Prepared by

Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri

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December 27, 2010

Ms. Donna S. Mitchell, CPA
Finance Director
City of Dover
15 E. Loockerman St.
Dover, Delaware 19903

City of Dover
Annual Engineering Consultant's Report
Project Number 59164

Dear Ms. Mitchell:

In compliance with the requirements of Section 705 and Section 504 of the City of Dover, Delaware Resolution Authorizing and Securing Electric Revenue Bonds, adopted December 23, 1985 (Resolution), Burns & McDonnell submits this Annual Engineering Consultant's Report for the fiscal year ended June 30, 2010. This report summarizes our review and assessment of the City of Dover's (City) Electric System, its existing retail electric rates, its insurance coverage in effect, and its reserve funds. Financial, statistical, and operating data used in preparing the report were taken from the City's annual financial statements and accounting records, as well as additional information furnished by City and Electric Division staff.

In the preparation of this Engineering Consultant's Report, Burns & McDonnell completed assessments of the electric generating stations and the transmission and distribution system of the City's Electric Division. Assessments involved interviews, observations, and review of fiscal year 2010 expenditures and fiscal year 2011 budgets. In addition, an analysis of the balances of the Improvement and Extension Fund, as well as other funds benefiting the Electric Division was performed. Burns & McDonnell also reviewed the adequacy of the revenues provided by the current retail rates in relation to the requirements of the Resolution. Finally, a high-level assessment of the City's insurance coverage related to the Electric Division was completed.

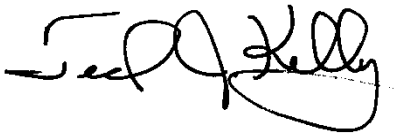
Based on these reviews and assessments, it is the opinion of Burns & McDonnell that the Electric System is being operated and maintained, including replacements and upgrades, as appropriate, in a manner that is consistent with current electric utility practices. In addition, the current retail rates have provided sufficient revenues to satisfy the debt service coverage requirement in the Resolution.

Further, it is the opinion of Burns & McDonnell that the balances in the various reserve funds maintained by the City for the Electric Division are sufficient for their intended purposes.

9400 Ward Parkway • Kansas City, MO 64114-3319
Tel: 816 333-9400 • Fax: 816 333-3690 • www.burnsmcd.com

We appreciate the cooperation and assistance provided by the City and the Electric Division staff in the preparation of this report. We will be happy to discuss the report with you at your convenience.

Sincerely,
BURNS & McDONNELL



Ted J. Kelly
Project Manager
Business & Technology Services

TJK

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

INTRODUCTION

This Engineering Consultant's Report has been prepared in compliance with the requirements of the City of Dover, Delaware Resolution Authorizing and Securing Electric Revenue Bonds, adopted December 23, 1985 (Resolution). Burns & McDonnell has been retained as Engineering Consultant by the City of Dover, Delaware (City) for this purpose.

The Resolution requires that the Engineering Consultant complete the following:

> *"The City covenants that it will cause the Engineering Consultants employed under the provisions of Section 705 of this Resolution . . . to make an inspection of the Electric System at least once each fiscal year and . . . to submit to the City Manager a report setting forth (a) their findings whether the properties of the Electric System have been maintained in good repair, working order and condition and whether they have been operated efficiently and economically and (b) their recommendation as to*
>
> *(i) the proper maintenance, repair and condition of the Electric System during the ensuing fiscal year and a estimate of the appropriations which should be made for such purposes,*
> *(ii) the insurance to be carried under the provisions of Article VII of this Resolution,*
> *(iii) the amount that should be deposited during the ensuing fiscal year to the credit of the Improvement and Extension Fund for the purposes set forth in Section 510 of this Article,*
> *(iv) the extensions, improvements, renewals and replacements which should be made during the ensuing fiscal year, and*
> (v) *any necessary or advisable revisions of the electric rates."*

This is the eighth annual Engineering Consultant's Report prepared for the City by Burns & McDonnell.

ELECTRIC SYSTEM OVERVIEW AND ASSESSMENT

The Electric System owned by the City primarily consists of production plant, transmission plant, distribution plant, and general plant facilities.

The City owns two power plants, the McKee Run Generating Station (McKee Run) and the VanSant Generating Station (VanSant). McKee Run consists of three steam turbine generating units with a total combined capacity of 136 megawatts (MW). VanSant is a 39 MW simple-cycle combustion turbine unit.

Effective May 4, 2006, the City entered into a five-year Energy Management Agreement with PACE Global Asset Management (PACE), LLC of Fairfax, Virginia to assist the City with its energy procurement, energy sale, purchase of fuels, establishment and management of risk policies, the development and management of hedging protocols and related energy procurement challenges. Effective July 1, 2006, North American Energy Services (NAES) began operating the plants. The Engineering Consultant's observations regarding the generating stations and units are described in the Electric System Overview and Assessment section of this report.

The Electric Division served approximately 23,195 customers, over 19,785 of which were residential customers as of the end of FY 2010. The distribution facilities include 217.27 miles of overhead lines and 261.66 miles of underground lines connected through fifteen different substations. The Engineering Consultant's observations regarding the transmission and distribution systems are described in the Electric System Overview and Assessment section of this report.

Four of the Electric Division customers take service off of the 69 kV transmission system. These customers include the Dover Air Force Base, Kraft, Proctor & Gamble, and NRG Energy Center (NRG). NRG is an exempt wholesale generator that sells power that must be transmitted through the City's transmission system to third party purchasers. When the NRG plant is not operational, the Electric Division provides power for the plant site.

The Electric Division has one contract for providing transmission service through the Electric System. As previously stated, the Electric Division provides transmission service to NRG for the output of its 16-MW electric generator.

General plant facilities consist primarily of Electric Division administrative and operations facilities and pollution control related equipment on McKee Run and VanSant. Other types of general plant include office furniture and equipment, transportation and power-operated equipment, and communication equipment.

The various systems and components of the generating stations reviewed by the Engineering Consultant are listed below:

Management and Organization

- Safety
- Training

Major Equipment Condition and Improvements

- Steam turbines/generators
- Boilers and auxiliaries
- Station cooling water systems
- Fuel handling systems
- Water treatment systems
- Station electrical systems
- Station control systems
- General facilities

Based on statements and information provided, as well as the observations and reviews performed, it is the Engineering Consultant's opinion that the City's power generation facilities are being operated and maintained consistent with accepted electric utility practice in the United States. In general, the performance, operation, maintenance, staff, planning, and training aspects for the McKee Run and VanSant were found to be above average. Specifically, the generation facilities have demonstrated a high level of availability despite the dispatching of the units primarily for peak demand.

The Engineering Consultant's observations regarding the generating stations and units are described in the Electric System Overview and Assessment section of this report. The following list includes areas of the transmission and distribution system that were considered and reviewed.

- System reliability
- Power quality
- Operations and maintenance
- Design standards and specifications
- Transmission and distribution improvements

It is the Engineering Consultant's opinion that the design, construction, operation, and maintenance of the City's electric transmission and distribution system and the associated facilities are consistent with current generally accepted electric utility standards.

The Engineering Consultant's observations regarding the transmission and distribution systems are described in the Electric System Overview and Assessment section of this report.

FINANCIAL ASSESSMENT

The level of revenues required from the retail electric rates for the Electric Division were determined through the analysis of the financial results and net income or net margins for FY 2010. The Resolution requires that the Electric Division maintain a debt service coverage ratio of 1.25. Following is an excerpt from Section 502(c) of the Resolution.

> *"(c) The total amount of the Revenues of the Electric System during the preceding fiscal year shall have been not less than the total of the following:*
> *(1) The Current Expenses of the Electric System during the current fiscal years shown by the Annual Budget . . . for such fiscal year, and*
> *(2) One hundred twenty-five percent (125%) of the maximum amount of the Principal and Interest Requirements for any fiscal year thereafter on account of all bonds then Outstanding under the provisions of this Resolution."*

Customers of the Electric Division of the City were charged for the electric service they received based on the City's rate schedules and contracts that were in place in FY 2010. A comprehensive cost-of-service and rate design study was completed in 2006 and subsequent rate analyses were completed in 2007 and 2008 to examine revenue requirements and revenue generation. Specifically, the 2006 rate study was conducted to address increased costs associated with a new power supply contract that became effective on July 1, 2006. The rate study recommended combining a number of rate classes and implementing rate increases on July 1, 2006. The 2006 rate study also recommended an additional increase be implemented on January 1, 2007 to cover increased costs associated with operating the generating station. The 2007 and 2008 rate analyses re-examined Electric Division revenues and expenses and recognized additional revisions to power supply costs. As a result of these analyses, additional rate increases were implemented on July 1, 2007, and July 1, 2008. The July 2008 rate adjustments established the rate schedules utilized by the Electric Division today.

Total energy sales decreased from 719.9 million kWh in FY 2009 to 708.5 million kWh in FY 2010; a total decrease of about 1.59 percent. Total revenue from sales to electric customers in FY 2010 was approximately $98.1 million, representing a decrease of $1.5 million from the FY 2009 rate revenue of approximately $99.6 million. In FY 2010, the average revenue per kWh for residential customers was 15.12 cents and the system-wide average price was 13.84 cents per kWh.

The Electric Division's largest cost in providing electric service to its customers is the wholesale cost of power, purchased from the Pennsylvania New Jersey Maryland Interconnection (PJM) marketplace by its Energy Manager, PACE. From FY 2009 to FY 2010, the cost of power decreased from $74.9 million to $72.8 million.

Net income increased from $2.9 million in FY 2010 to $3.3 million in FY 2010. The increase in FY 2010 was due in large part an overall decrease in the power supply expense, and transmission and distribution cost.

The Resolution requires that annual revenues of the Electric Division be no less than the total current expenses plus 125 percent of the greatest remaining annual debt service. The Electric Division achieved debt service coverage ratios for FY 2008, FY 2009, and FY 2010 of 5.76, 2.88, and 4.24 respectively; therefore, the revenues generated by the current electric rates have been sufficient to meet the applicable covenant of the Resolution.

The City maintains a comprehensive insurance program to insure against varying types of liabilities, as well as significant losses related to various Electric Division properties. It is the opinion of Burns & McDonnell as Engineering Consultant, and not as insurance counselor, the insurance in full force and affect appears to satisfy the requirements of Section 706 of the Resolution.

The City has established several funds and reserves to ensure that moneys are available for specific purposes when they are needed. Following is a list of these funds:

- Electric Revenue Fund
- Electric Improvement and Extension Fund
- Interest and Sinking Fund (Reserve Account)
- Depreciation Reserve Fund
- Future Capacity Fund
- Insurance Stabilization Fund

- Contingency Reserve Fund
- Electric Rate Revenue Fund

The Engineering Consultant reviewed the last five funds listed above and found that the balances in those funds as of June 30, 2010, were consistent with the required or target balances.

CONCLUSIONS

Based on the reviews and assessments completed, it is the opinion of Burns & McDonnell that:

1. The City's power generation facilities are being operated and maintained consistent with accepted electric utility practice in the United States.

2. The design, construction, operation, and maintenance of the City's electric transmission and distribution system and the associated facilities are consistent with current generally accepted electric utility standards.

3. The Electric Division capital projects included in the City's Capital Investment Plan and the FY 2010 Operating Budget are necessary and should provide improved reliability and power quality for the Electric System.

4. The balances as of June 30, 2010, for the various reserve funds maintained by the City for the Electric Division, appear to be sufficient for their defined purposes.

5. The insurance coverage in full force and effect as maintained by the City related to the various assets of the Electric Division appears to satisfy the requirements of Section 706 of the Resolution.

6. The electric revenues generated by the City's current retail rates are more than sufficient to fulfill the debt service coverage requirement (125 percent of current expenses) defined in Section 502(c) of the Resolution.

* * * * *

PART I - INTRODUCTION

PART I
INTRODUCTION

The City of Dover, Delaware (City) operates a municipally-owned electric utility system that serves approximately 23,195 customers within the City and surrounding areas. The service area of the electric utility is located in central Delaware; with the City itself located approximately 70 miles south of Philadelphia, Pennsylvania.

PURPOSE OF REPORT

This report has been prepared in compliance with the requirements of the City of Dover Electric Bond Resolution (Resolution) adopted December 23, 2005. Burns & McDonnell has been retained by the City as the Engineering Consultant defined in Section 705 of the Resolution, as follows.

> *"The City covenants that it will, for the purpose of performing and carrying out the duties imposed on the Engineering Consultants under the provisions of this Resolution, employ an independent engineer or engineering firm or corporation having a nationwide and favorable repute for skill and experience in such work."*

The required scope of this report is described in Section 504 of the Resolution, as follows.

> *"The City covenants that it will cause the Engineering Consultants employed under the provisions of Section 705 of this Resolution . . . to make an inspection of the Electric System at least once each fiscal year and . . . to submit to the City Manager a report setting forth (a) their findings whether the properties of the Electric System have been maintained in good repair, working order and condition and whether they have been operated efficiently and economically and (b) their recommendation as to*
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> *(i) the proper maintenance, repair and condition of the Electric System during the ensuing fiscal year and a estimate of the appropriations which should be made for such purposes,*
>
> *(ii) the insurance to be carried under the provisions of Article VII of this Resolution,*
>
> *(iii) the amount that should be deposited during the ensuing fiscal year to the credit of the Improvement and Extension Fund for the purposes set forth in Section 510 of this Article,*

(iv) the extensions, improvements, renewals and replacements which should be made during the ensuing fiscal year, and

(v) *any necessary or advisable revisions of the electric rates."*

ORGANIZATION

The Public Utilities Director is responsible for the overall management of the Public Utilities Department. The Public Utilities Director oversees the day-to-day operations of the Electric, Water, and Wastewater Divisions and manages the Division's staff. The Director also provides oversight of the Power Plant budget and monitors the contracts with PACE Global Asset Management (PACE), the energy coordinator; and North American Energy Services (NAES), the power generation operator/manager. The Electric Division is organized into three separate operating sections. Descriptions of the current Electric Division sections are provided below.

Administration Section – The Administration Section provides the overall administration of the Electric Division's Engineering and Transmission & Distribution Sections. This section performs all planning and budgeting, monitors all construction projects, administers all power supply and generating station operations agreements, and coordinates with customer service and public relations for the Electric Division.

Electric Engineering Section - This Section provides design, specifications, construction management, and project inspection for all capital investment projects of the Electric Division. This section also develops and maintains maps, plans, and specifications, as well as engineering standards for construction and maintenance of the Electric System. Lastly, it is responsible for the operation of a 24/7 system operations control center, referred to as System Operations.

Transmission & Distribution Section – The Transmission & Distribution Section constructs, operates, and maintains the overhead and underground Electric Systems and fiber optic communication facilities. This section installs and maintains all electric metering, as well as street and security lighting. This section also investigates and resolves customers' power problems and oversees the work of tree trimming contractors.

Figures I-1 through I-4 provide organizational charts illustrating the staffing hierarchies of the various sections in the Electric Division. The number of individuals in each position was indicated as appropriate. Electric Division staff totaled 44 at the time the FY 2011 budget was issued.

Figure I-1

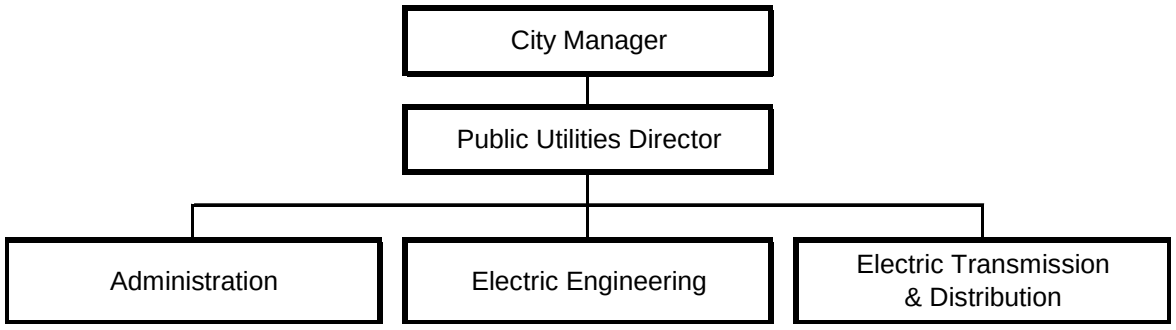


Figure I-2

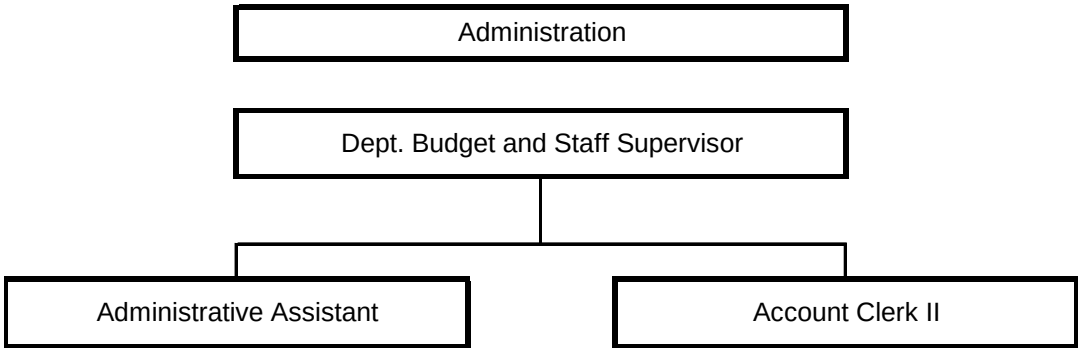


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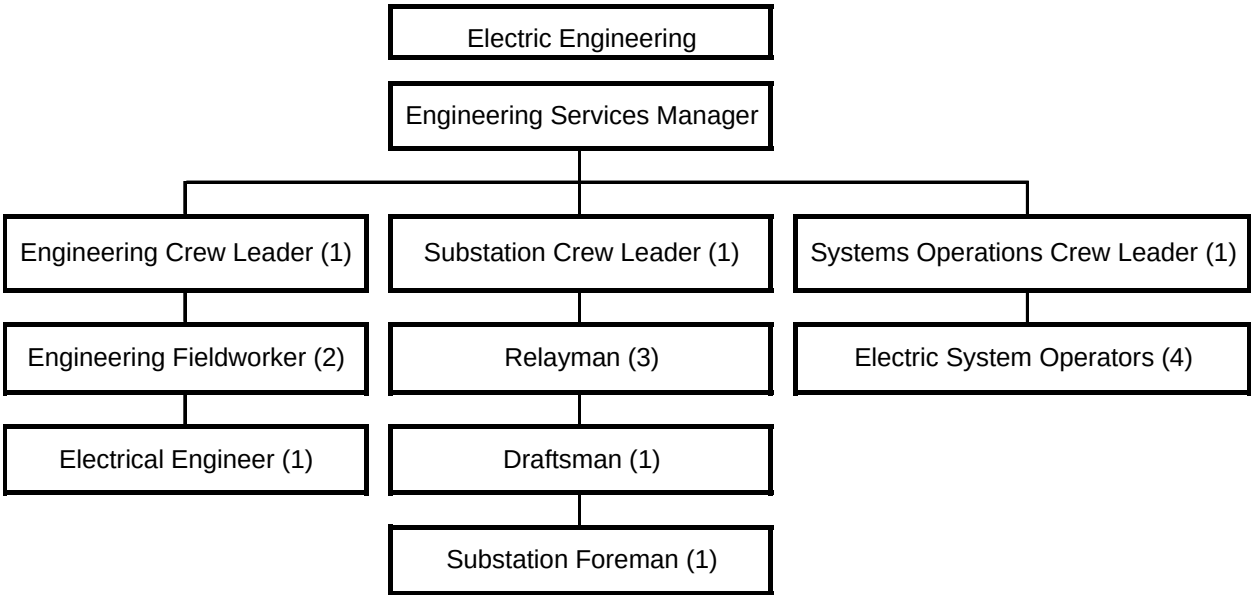
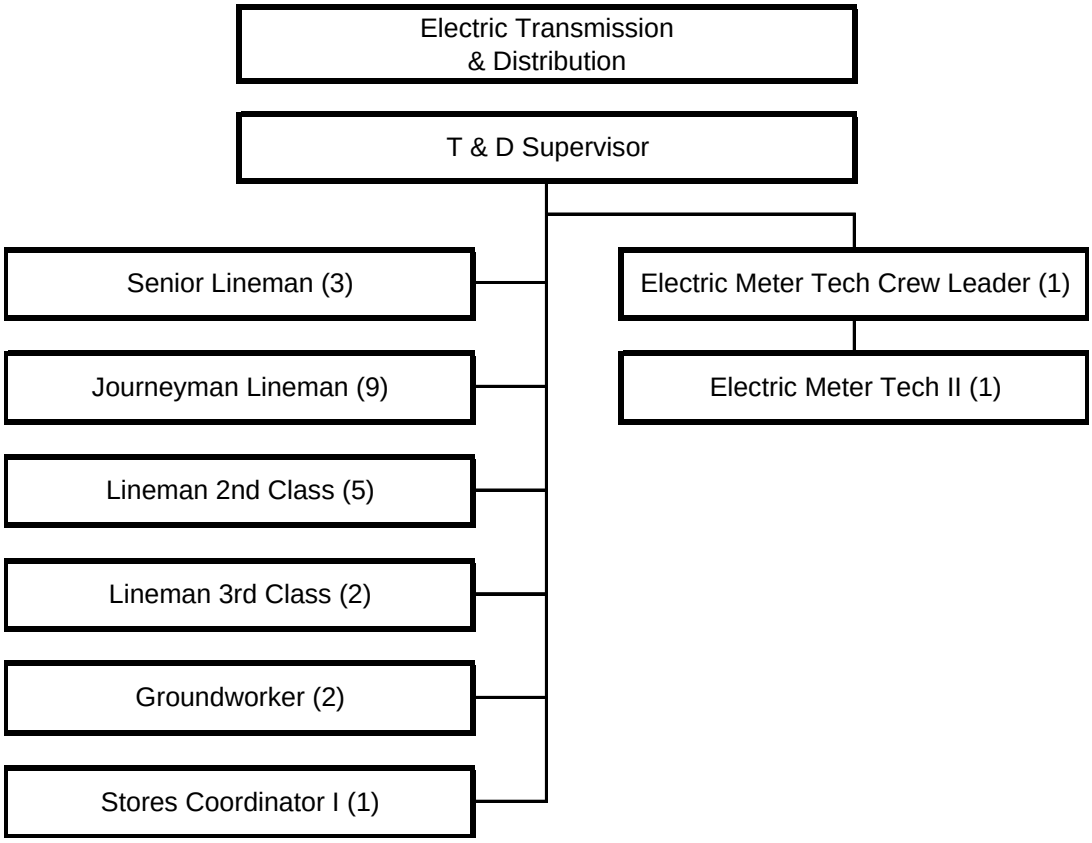


Figure I-4



The subsequent sections of this report provide a discussion of the required reviews and inspections conducted pursuant to Section 504 of the Resolution. Part II describes the assessment of the Electric System and its condition. Part III presents the financial results for the Electric Division, including an analysis of the adequacy of revenues provided by the electric rates. Part IV summarizes the conclusions of Burns & McDonnell regarding the operation and maintenance of the Dover Electric System.

In the preparation of this report, Burns & McDonnell reviewed and analyzed maintenance records, audited financial statements, and other data provided by the City. Burns & McDonnell has relied on the information provided without independent verification, and cannot guarantee its accuracy or completeness. In addition, Burns & McDonnell has used the information provided to make certain assumptions with respect to conditions that may exist in the future. While Burns & McDonnell believes the assumptions made are reasonable for the purposes of this report, it makes no representation that the conditions assumed will occur.

* * * * *

PART II – ELECTRIC SYSTEM OVERVIEW AND ASSESSMENT

PART II
ELECTRIC SYSTEM OVERVIEW AND ASSESSMENT

ELECTRIC SYSTEM OVERVIEW

The Electric System owned by the City of Dover, Delaware (City), primarily consists of production plant, transmission plant, distribution plant, and general plant facilities, and construction work in progress. Table II-1 displays the year-end balances of the various plant components for FY 2008 through FY 2010. Table II-2 itemizes the specific capital investment plan projects and anticipated expenditures for FY 2010, as well as projections for other components included in the FY 2011 budget.

In FY 2010, the Electric System experienced an increase in the annual system peak demand and a decrease in annual energy sales from the previous year. The Electric System experienced its peak demand on August 20, 2009, when demand reached 158.8 MW. For the year, approximately 708.5 GWh of energy were sold, a decrease of 1.59 percent from the preceding year. The Electric Division projects energy sales to increase in FY 2011 to 715.6 GWh, or 0.79 percent. The Electric Division expects annual sales to remain relatively constant through FY 2014.

Production Plant

The City owns two power stations, the McKee Run Generating Station (McKee Run) and the VanSant Generating Station (VanSant). McKee Run consists of three steam turbine generating units with a total combined capacity of 136 megawatts (MW). VanSant is a 39-MW simple-cycle combustion turbine unit.

Effective May 4, 2006, the City entered into a five-year Energy Management Agreement with PACE Global Asset Management (PACE), LLC of Fairfax, Virginia to assist the City with its energy procurement, energy sale, purchase of fuels, establishment and management of risk policies, the development and management of hedging protocols and related energy procurement challenges. On July 1, 2006, North American Energy Services (NAES) began operating the plants. The Engineering Consultant's observations regarding the generating stations and units are described in the Electric System Assessment section in Part II of this report.

Table II-1

YEAR-END PLANT IN SERVICE
City of Dover Electric Division

	FY 2008	FY 2009	FY 2010
Production			
Land and land rights	$ 1,488,385	$ 1,488,385	$ 1,676,757
Boiler plant equipment	15,259,321	15,080,326	17,286,157
Turbogenerator units	20,398,643	20,240,351	20,240,351
Accessory electric equipment	4,491,314	4,491,314	4,491,314
Miscellaneous steam plant equipment	18,115,691	18,891,708	18,891,708
Miscellaneous other plant equipment	791,284	791,284	791,284
Subtotal Production	$ 60,544,637	$ 60,983,367	$ 63,377,570
Transmission			
Station equipment	$ 11,539,897	$ 12,958,157	$ 16,140,158
Overhead conductors and devices	7,479,154	7,601,104	7,611,436
Underground conductors and devices	3,407,314	3,947,267	4,382,349
Subtotal Transmission	$ 22,426,365	$ 24,506,528	$ 28,133,943
Distribution			
Station equipment	$ 11,456,697	$ 12,874,957	$ 16,056,958
Overhead conductors and devices	5,071,954	4,979,444	4,979,444
Underground conductors and devices	11,953,611	12,390,822	13,659,020
Line transformers	9,180,936	9,314,890	9,449,543
Meters	3,598,458	2,509,971	2,509,971
Street lighting and signal systems	1,614,997	1,360,915	1,397,830
Subtotal Distribution	$ 42,876,654	$ 43,431,000	$ 48,052,767
General Plant			
Structures and improvements	$ 14,824,400	$ 14,824,400	$ 14,845,600
Office furniture and equipment	478,828	533,543	544,308
Transportation equipment	662,873	654,610	604,428
Power operated equipment	20,000	20,000	20,000
Communication equipment	1,088,079	1,038,839	1,038,839
Miscellaneous equipment	4,657,721	4,617,702	4,823,951
Subtotal General Plant	$ 21,731,902	$ 21,689,095	$ 21,877,127
Total Plant in Service	$ 147,579,559	$ 150,609,990	$ 161,441,407
Construction Work in Progress	$ 9,343,878	$ 17,272,519	$ 12,772,088
Total Plant	$ 156,923,440	$ 167,882,509	$ 174,213,495

Table II-2

FISCAL YEAR 2011 PLANNED CAPITAL EXPENDITURES
City of Dover Electric Division

Capital Investment Planned Projects		FY 2011
Electric Engineering Projects:		
69 kV Feeders 3 and 4	$	4,242
Buchanan Acres		53,648
Distribution System Upgrades		400,000
Replacement of 69kv Breakers & Design		100,000
Lighting Project and Rehabilitation		100,000
Governors Avenue Rebuild		250,000
Mid City Substation		1,087
Walker Road Distribution Upgrades		350,511
Substation PT & CT Replacement Program		256,218
Vehicles, Trucks, & Equipment		253,787
Subtotal Electric Engineering Division	$	1,769,493
Electric Transmission & Distribution Projects:		
New Developments - UG Transformers	$	700,000
Vehicles, Trucks, & Equipment		39,000
Subtotal Electric Transmission Division	$	739,000
Electric Generation Projects:		
Units 1 & 2 Life Extension	$	276,000
McKee Run Unit 3 Fire Protection System		50,000
Department of Energy Grant - Photovoltaic panels		65,065
Mc Kee Run Stack Repairs - Units 1, 2 & 3		25,000
VanSant CT Mark IV Upgrades		202,363
McKee Run Driveway Repaving		154,244
McKee Run Unit 3 Auxiliary System Components		188,000
McKee Run Unit 3 Turbine Outage		348,000
McKee Run Unit1 & 2 Cooling Tower Life Extension		218,730
McKee Run Unit 3 Cooling Tower Life Extension		353,338
Vehicles, Trucks, & Equipment		71,000
Subtotal Electric Generation Division	$	1,951,740
Total Planned Capital Investment Projects	$	4,460,233

Transmission and Distribution Plant

The service area includes 217.27 miles of overhead lines and 261.66 miles of underground lines. Four Electric Division customers take service off of the 69-kV transmission system. These customers include the Dover Air Force Base, Kraft, Proctor & Gamble, and NRG Energy Center (NRG). NRG is an exempt wholesale generator that sells power that must be transmitted through the City's transmission system to

third party purchasers. When the NRG plant is not operating the Electric Division provides power for the plant site.

The Electric Division has two contracts for providing transmission service through the Electric System. As previously stated, the Electric Division provides transmission service to NRG for the output of its 16-MW electric generator. The Electric Division also has a point-to-point contract for the output of an NRG Combustion Turbine which ties directly to the Kent Substation and is not part of the Dover transmission system.

General Plant

The general plant category consists primarily of Electric Division administrative and operations facilities, and pollution control related equipment at McKee Run and VanSant. The agreement with NAES stipulates NAES manage the operation and maintenance of the facilities and the City funds all replacements and upgrades required to maintain the capability of the two generating stations. The City is also responsible for the costs of compliance with new regulations promulgated. Other types of items included in the general plant category include office furniture and equipment, computer-related equipment, transportation and power-operated equipment, and communication equipment. Burns & McDonnell did not specifically assess the items in the general plant category for this report.

ELECTRIC SYSTEM ASSESSMENT

Burns & McDonnell, the Engineering Consultant to the City, made observations and conducted assessments of the Electric System assets in support of the development of this annual Engineering Consultant's Report. The findings of Burns & McDonnell from the review of the City's Electric System are documented herein.

Electric Generating Stations

On June 8, 2010, Mr. Ted Kelly of Burns & McDonnell met with representatives of NAES to discuss the condition of the McKee Run and VanSant generating stations. Mr. Kenneth Beard, the Plant O&M Manager, coordinated the visit.

Description of Generating Stations: McKee Run consists of three units. Units 1 and 2 were originally coal-fired units, which began operations in 1961 and 1962, respectively. In 1972, these units were converted to burn No. 6 fuel oil. Units 1 and 2 each have rated capacities of 17 MW. Unit 3 began

operations in 1975 and was designed to fire No. 6 fuel oil and natural gas. Unit 3 has a rated capacity of 102 MW. In FY 2008, the City began work to convert all three units at McKee Run to burn No. 2 fuel oil in order to reduce pollution from the plant. To date, the necessary upgrades and new equipment had been installed allowing each of the units to burn both natural gas and No. 2 fuel oil.

VanSant consists of a simple cycle combustion turbine with a rated capacity of 39 MW in the summer and 40 MW in the winter. This unit commenced operation in 1991. VanSant remains unmanned, except when it is dispatched into service. On the occasions when the unit is dispatched, personnel from McKee Run are transferred to VanSant to startup and operate the unit.

Management and Organization: Station management is very well organized and knowledgeable, and takes a logical approach to the operation and maintenance of the generation facilities. Mr. Vince Scire serves as the Plant Manager. The management/leadership team consists of nine members including Mr. Scire. The Administrative & Employee Health and Safety Manager, Administrative Specialist, Material Management Coordinator, and O&M Manager, all report directly to Mr. Scire.

The O&M Manager oversees a Maintenance Supervisor, and four Operations teams. Each operations team consists of the supervisor and four operators working 12-hour rotating shifts. The maintenance team consists of a supervisor and six employees working 10-hour shifts. The operations and maintenance personnel are all union employees. The relationship between the union and management was reported to be excellent. McKee Run is currently at a staff level of 30 employees, with 31 approved positions.

"Safety First" is an overall theme and attitude of the Electric Division. Near-miss incidents are documented, reviewed, and corrective follow-up actions are taken as required. An employee-run safety committee is actively in place. This committee conducts monthly safety meetings, completes safety equipment inspections, and defines and implements tasks to improve safety in all areas. Safety is reportedly the first topic discussed at all meetings. Employees participated in creating an indoctrination video emphasizing safety that is shown to all visitors when entering the Station.

Training: The required annual OSHA compliance training is completed and documented for each employee. A formal two-day employee orientation program is required for all new employees. This orientation covers a multitude of subjects from employee benefits to a review of the various Station operating manuals.

For operator training, the Employee Development and Qualification Program (EDQP) has been established. EDQP is a formal program for training operators to progressively advance to positions with additional responsibilities. In addition to the above programs, cross training of various disciplines also occurs. An example of cross training would be an electrician training with instrumentation and control.

Plant staff receive environmental and safety training online via the GPi Learning website. The training includes tutorials and exams to ensure comprehension of the subject matter. Plant manuals, meetings, etc. offer additional safety training.

Major Equipment Operation and Maintenance: In general, the generation facilities appear to have been properly operated and maintained, and in good condition as evidenced by the high availability of the units. The generation facilities are dispatched sparingly and operate primarily as peaking units. As such, the individual units incur a relatively large number of starts per year and low annual capacity factor. Table II-3 summarizes the major FY 2010 operating statistics.

Table II-3
FISCAL YEAR 2010 OPERATING STATISTICS
City of Dover Electric Division

Unit Number	Rated Capacity - MW	Net Production - MWh	Net Capacity Factor	Net Heat Rate Btu/kWh	Number of Starts
VanSant [1]	39	542.9	0.20%	14,329	12
McKee Run					
Unit 1	17	193.3	0.26%	15,473	1
Unit 2	17	195.1	0.26%	12,383	1
Unit 3	102	3,584.8	0.62%	12,865	7
Total	175	4,516.1	0.29%		21

Unit Number	Operating Hours	Service Factor	Equivalent Forced Outage Rate	Equivalent Availability Factor
VanSant	22.3	0.25%	0.00%	84.20%
McKee Run				
Unit 1	32.5	0.37%	0.00%	89.66%
Unit 2	30.4	0.35%	0.00%	89.66%
Unit 3	62.4	0.71%	0.00%	76.80%
Total	147.6	1.68%		

[1] VanSant is rated at 40 MW in the winter and 39 MW in the summer
[2] Net Capacity Factor = Net MWh Production / (Total Available Hours * Rated MW Capacity)
Total Available Hours = 365 days, 24 hours/day
[3] Service Factor = Operating Hours / Total Available Hours

The large amount of time that units are not operating allows for maintenance and repair of the units. As a result, the FY 2010 overall equivalent availability factor for the generation facilities averaged 85.08 percent. Low net capacity factors are partially offset by Pennsylvania New Jersey Maryland Interconnection (PJM) capacity credits. In FY 2010, approximately $12.1 million of PJM capacity credits helped cover the fixed operating and maintenance costs of the Electric System. PJM capacity credits are expected to continue to provide similar benefits in FY 2011 and beyond.

Electronic Management System: Maintenance activities are organized, planned, and managed using MAXIMO®, a computer-based management system. All three major categories of maintenance activities (corrective, preventative, and predictive) are electronically managed by MAXIMO®.

For corrective maintenance activities, any station operator or mechanic can enter a work order into the system at any terminal on the Station local area network (LAN). A supervisor reviews the request, turns it into a work order, and assigns a priority according to a predetermined categorization. The work order is then assigned to an operator or maintenance technician for completion.

This system is also used to manage and track preventative maintenance activities that follow a schedule. Changing filters, turning on and off heat tracing are examples of preventative maintenance. Predictive maintenance activities practiced include oil analyses, vibration testing, and infrared surveys. Portable vibration testing equipment is used at the Stations to improve the frequency of and capabilities to trouble-shoot rotating equipment. The technology allows personnel to identify problems and take corrective actions before equipment failure occurs.

Condition Assessment: The following is a summary of the condition assessment of McKee Run major equipment and VanSant as presented by the NAES staff. Burns & McDonnell made no internal assessments of equipment during the facility tour.

Steam Turbines/Generators: The steam turbines and generators for VanSant and McKee Run Units 1 and 2 were reported to be in satisfactory condition with no major problems. McKee Run Unit 3 turning gear engagement problems were reported in the summer 2010 outage report. Plant staff developed a list of parts needed to complete the appropriate repairs. Plans were made to replace both mating clutch ends during the spring 2010 outage. No other major repairs or replacements were required for the turbine/generators in FY 2010.

Boilers and Auxiliaries: Boiler inspections are conducted every year on each of the boilers. Each fiscal year, the inspections on each boiler typically include the inspection and cleaning of the major boiler components, including the mud and steam drums, the forced draft and induced draft fans, the windbox, condenser water box, condenser tubes, hotwell, air preheater components, and safety valves.

In FY 2010, McKee Run Unit 1 experienced a tube failure and excursion and consequently was shut down. The City hired a contractor to supplied replacement parts and repaired the tube by replacing a tube section. After an internal inspection, plant staff made the decision to replace six additional tubes in Unit 1. The City subsequently hired inspectors to examine the repaired unit and provide recommendations additional repairs and inspections. These maintenance recommendations will be in practice upon future outages.

In 2010 the McKee Run Units 1 and 2 steam drums were also inspected. It was reported that the surfaces inside the Unit 1 steam drum had improved from the prior year while Unit 2 has experienced some rusting. A few recommendations were given and are being actively followed.

Station Cooling Water Systems: The Station has split cooling water systems with one system serving Unit 1 and Unit 2 and a separate system serving Unit 3. The cooling water systems are reported to be sufficiently sized and in satisfactory condition, with no major issues reported at the time of this report.

Fuel Handling Systems: Natural gas comes into the station in a 4-inch diameter pipeline for Unit 1 and Unit 2 and in a 10-inch diameter pipeline for Unit 3. No. 2 fuel oil is delivered to the station and unloaded into tanks. Forwarding pumps deliver the fuel oil to each of the units.

Water Treatment/Steam Purity: Quality control parameters for boiler feed-water, internal boiler water, cooling tower water, and steam purity are checked at a minimum of twice per day when systems are operating. Results are recorded and graphically compared to control limits. Adjustments are then made as required. Boiler feed water is treated city water (well water from City) using a regenerative ion resin demineralizer system, along with deaeration for oxygen control. Boilers 1 and 2 use a coordinated phosphate control for boiler internal purity control and Boiler 3 uses a balanced trisodium phosphate and disodium phosphate within a narrow pH range. A deep-bored water well was installed to provide water in addition to the city supplied water. City water has a high chlorine level which may exceed the Station permitted limits. By combining city water with the well water, the chlorine levels can be maintained at the permitted limits. Water for cooling tower makeup is also obtained from City water. The primary

control parameter is silica concentration. Blow down is adjusted as required to maintain control. No major issues were reported at the time of this report.

Steam purity is not continuously monitored. Samples are taken twice daily and tested for pH, conductivity, and silica. There have not been any problems with steam purity. Annual inspections of the boiler drums and separation internals have verified that these systems are intact and operating properly. The station has not experienced any internal corrosion related failures, steam path deposits, or excessive condenser fouling. NALCO provides water treatment consulting services and chemicals. A representative visits the station once per week to review test data and check chemical usage rates. No major issues were reported at the time of this report.

Station Electrical Systems: Overall, station electrical systems and transformers are considered to be in satisfactory condition. A condition assessment of the generation facilities' transformers was conducted in August FY 2010. Oil inspections and analyses were made. Transformer inspections were generally positive; however, it was recommended that plant personnel consider treatment to remove moister and particles from a Unit 1 bus yard transformer to prevent reducing the dielectric. Aside from this recommendation, the inspector recommended that normal operation continue for all the transformers at the plant. Oil sampling is now completed twice per year.

Station Control Systems: Unit 1 and Unit 2 controls are electro-pneumatic and Unit 3 controls are a distributed control system (DCS). In general, the station control systems are considered to be in satisfactory condition. The Unit 1 and Unit 2 control systems are outdated but perform satisfactorily. All relays have recently been inspected at both McKee Run and VanSant for NERC, PJM and MAAC compliance. The EHC system will be modified in the future to become a primary/primary system. No major issues were reported at the time of this report.

General Facilities: No major projects or improvements were completed to the General Facilities in FY 2010 other than routine maintenance and repairs. In general, the station facilities appeared clean and well maintained during the site visit.

In FY 2010, fire protection system upgrades were completed at McKee Run per the City's insurance company's recommendations. The insurance company toured the plant and identified/recommended a need to install a manually operated foam deluge system to protect bearings in the event of a fire.

A solar was installed on the turbine roof in FY 2010. The 10-kW structure was installed to reduce the need for energy and emissions from traditional generation sources, and ultimately contribute to the reduction of the plants' carbon footprint.

VanSant Generating Station: In general, the unit is operated infrequently, but is well maintained. Although the station is only manned when operating, an operator performs a twice daily walk through with a checklist of items to review and the results are logged. Planned outages were conducted at VanSant during FY 2010 for the annual overhaul and inspection.

In FY 2010, the computer system and hazardous waste upgrades were made at VanSant. Due to the inadequacies of the old OEM system, the City completed an upgrade of the control system to Mark IV. A natural gas condensate container to reduce hazardous waste amounts and costs was also installed. No other major repairs or upgrades were made at VanSant in FY 2010.

Transmission and Distribution Systems

On June 8, 2010, Mr. Ted Kelly visited the City to collect information and to observe the City transmission and distribution system, as operated and maintained by the Electric Division. Mr. Steve Enss, the Engineering Services & System Operations Superintendent, provided information related to the transmission and distribution system. Mr. Enss also led a tour of the electric transmission and distribution system.

The Electric Division distributes power to its customers by a network of transmission lines, distribution substations, and distribution lines. The transmission lines are rated at 69 kV and are connected to 15 distribution substations located throughout the service area. The distribution substations reduce the power from transmission voltages to the primary distribution voltages of 12 kV to facilitate distribution of electric power to customers. In FY 2008, the last of the 22 kV and 4 kV lines were converted to 69 kV and 12 kV to make the system uniform.

Safety: Ronald Lunt, the Public Utilities Director for the City, reported to Burns & McDonnell that there were no reportable injuries or lost workdays in FY 2010.

System Reliability: The Electric Division provides for reliability of its distribution system by configuring a majority of its distribution circuits in primary open loop arrangements, improving existing

circuits, and installing adequate substation transformer capacity. Normal transformer and line loading are limited to provide sufficient margin to convey firm power requirements during an emergency or a switching operation, or for maintenance.

Power Quality: The Electric Division does not have any significant power quality problems. The overall power factor for the Electric System decreased from approximately 99.24 percent in FY 2009 to 98.72 percent in FY 2010. Power transformers equipped with load tap changers regulate bus voltages at the distribution substations. Distribution transformers are equipped with no-load taps to make voltage adjustments. There are capacitors and voltage regulators on the Electric System that control voltage and vars on the portion of the system furthest away from the current source and generation. The system operators monitor the power factor closely and turn on capacitors or adjust the generation to compensate for low power factors.

Operations and Maintenance: The Electric Division has a SCADA system that is monitored continuously for any problems that may arise in the Electric System. The main control room has two system operator desks and a large screen where system operating information is displayed. System operators can monitor the Electric System operation, such as voltage levels, current flows, etc. and make necessary adjustments as problems arise. The systems operators have received some PJM training but are not required to be certified as Delmarva is the controlling agency.

Loading on substation transformers used for an emergency, a switching operation, or maintenance is limited to 120 percent of the rated capacity, followed by a 12-hour cool-down period.

The Electric Division has nine line crews to work on the system. Four crews are responsible for overhead lines, four crews are responsible for underground lines, and one crew is responsible for maintenance. The primary responsibilities of the eight line crews are installation of new service connections and construction of new lines. The Trouble crew maintains the street lights, repairs underground services and is the first responder to outages. Tree trimming is now contracted out and is no longer performed by the Electrical Division; however, their performance is monitored by the Line Crew Superintendent.

The Substation/Relay Maintenance Division is responsible for operation and maintenance of the substations and associated equipment. They perform visual inspections of substations, associated equipment, trip counter checks, battery systems checks, and annual transformer oil tests.

The City contracts with an outside firm to inspect and chemically treat each wood pole in the Electric System every ten years. This is accomplished by awarding a five year contract to spread out the expenses. The City also has a contract with an environmental consultant to check each substation for oil leaks and to provide instruction on cleaning up in the event of an oil spill.

Design Standards and Specifications: The Electric Division designs the transmission and distribution circuits and some substation upgrades in conformance with national safety standards. Other substation and transmission design is contracted out to Pike Electric, Inc.

The underground distribution design utilizes road or alley front access construction. This design means the electrical equipment, such as transformers and underground cable, are installed beside the road instead of behind houses or buildings. The advantage of front access construction is the accessibility for maintenance and repairs to cable and electric equipment. The underground cables are installed in PVC pipe for added protection and for easy cable replacement. The Electric Division installs jacketed, concentric cable that is rated at 15 kV, with 133 percent Ethylene Propylene Rubber (EPR) insulation.

The standard overhead distribution design utilizes a flat construction using a single cross-arm and insulators on 45-foot class 2 poles. Typically all electrical equipment locations have ground rods installed with measured readings of 25 ohms or less.

The substation design is generally a low-profile rigid bus design. The circuit breakers are SF6 gas-filled and the relays are microprocessor based with SCADA control and monitoring.

Transmission and Distribution Improvements: The following describes completed, on-going, and planned improvements to the City's Electric System:

Completed:

- St. Jones Substation Upgrades
- Crossgates Substation Upgrades
- Mid City Substation Upgrades
- Pollution Remediation Project
- Fire Detection Alarm System Installation
- Computerized Maintenance System Upgrade
- Control System Upgrade

- Single Phase Meter Replacement
- Cyclone Separator Removal
- Security System for Admin Bldg and Cartanza SS

On-Going:

- 69 kV Feeders 3 & 4
- Lighting Project & Rehabilitation
- Buchanan Acres Distribution Upgrades
- Transmission Line Maintenance
- Governor's Avenue Rebuild
- Distribution Capacitors Maintenance
- Substation PT & CT Replacement Program
- Distribution System Upgrades
- Underground Transformer Upgrades
- VanSant CT Mark IV Upgrades

Planned:

- McKee Run Yard Rebuild
- Horsepond Road Substation Reliability Upgrade
- Distribution Feeder Replacement
- Frazier Substation Reliability Upgrade
- Outage Management & Automatic Voice Response
- Horsepond SS to Cartanza 69 kV Rebuild
- 69 kV Substation Switch Replacement
- General Scott Switchgear
- VanSant Overhaul and Inspection
- McKee Run Stack Repairs
- McKee Run High Energy Piping Inspections
- McKee Run Boiler Systems
- McKee Run Demineralizer Replacement
- McKee Run Hot Water Boilers
- McKee Run Auxiliary System Components
- McKee Run Turbine Outage
- McKee Run Life Extension
- McKee Run Water Line Replacement
- VanSant Component Replacements

System Tour: The tour of the Electric System included drive-by observations of a sample of the transmission circuits, distribution circuits, and substations.

The Electric System was in good condition and appeared to be well maintained. The Cartanza Substation is a 230/69 kV substation, which serves as a tie with Delmarva. Delmarva maintains the 230 kV side of the station, while the City of Dover maintains the 69 kV side. Cartanza currently has four 69 kV lines leaving the station. The four circuits leave the station on two diverse pole lines, each holding a double circuit, until the circuits split down the line. This configuration allows for two separate loops for the entire 69 kV system to minimize total system failure should one common pole be critically damaged.

Most of the fifteen substations were observed during the tour. Several of the major projects visited during the tour included the St. Jones Substation project, the 69 kV Feeders 3 and 4 projects, the Horsepond 600 Transformer project, the Lebanon Transformer Replacement project, and the Mayfair Substation Rebuild project. Overall, the substations appeared to be well maintained. Some older structures have corrosion on the steel, but much of this steel will be replaced by planned or ongoing projects and upgrades. There was little to no vegetation visible and the yards appeared to be well maintained. During the tour the 69 kV lines were observed and all appeared to be in good condition.

Conclusions

Based on statements and information provided, as well as the observations and reviews performed, it is the opinion of Burns & McDonnell that the City's power generation facilities are being operated and maintained consistent with accepted electric utility practice in the United States. In general, the performance, operation, maintenance, staff, planning, and training aspects for the McKee Run and VanSant stations were found to be above average. Specifically, the generation facilities have demonstrated a high level of availability despite the dispatching of the units primarily for peak demand. In addition, it is the opinion of Burns & McDonnell that the design, construction, operation and maintenance of the City's electric transmission and distribution system and the associated facilities are consistent with current generally accepted electric utility standards. The City and the Electric Division are proactive in preventative maintenance and expansion of the Electric System before problems arise.

* * * * *

PART III – FINANCIAL ASSESSMENT

PART III
FINANCIAL ASSESSMENT

The financial results of the City of Dover, Delaware (City) Electric System for the fiscal year (FY) ended June 30, 2010, were generated through the management and operation of the Electric System by the Electric Division. A review of the financial results was provided below.

FINANCIAL RESULTS

The total revenue of the Electric Division during FY 2010 included revenue from charges for electric service, as well as miscellaneous revenues from items such as rents, penalties, reconnection fees, and emission credits. On the Comparative Statement of Revenues, Expenses, and Changes in Unreserved Retained Earnings table, revenues were compared to the Electric Division's costs of providing services to its customers to determine whether the financial requirements of the Electric Division were met.

Required Revenue Level

The level of revenues required from the retail electric rates for the Electric Division were determined through the analysis of the financial results and net income or net margins for the most recent fiscal year. The City of Dover, Delaware Resolution Authorizing and Securing Electric Revenue Bonds, adopted December 23, 1985 requires that the Electric Division maintain a debt service coverage ratio of 1.25. The following is an excerpt from Section 502(c) of the resolution.

> *"(c) The total amount of the Revenues of the Electric System during the preceding fiscal year shall have been not less than the total of the following:*
>
> *(1) The Current Expenses of the Electric System during the current fiscal years shown by the Annual Budget . . . for such fiscal year, and*
>
> *(2) One hundred twenty-five percent (125%) of the maximum amount of the Principal and Interest Requirements for any fiscal year thereafter on account of all bonds then Outstanding under the provisions of this Resolution.*
>
> *The City further covenants that, from time to time and as often as it shall appear necessary, it will adjust the electric rates as may be necessary or proper so that the revenues of the Electric System in each fiscal year will not be less than the total of the amounts set forth in subdivision (c) of this section."*

Electric Rates

Customers of the Electric Division of the City are charged for the electric service based on rate schedules, tariffs, or contracts that reflect the costs to the Electric Division of providing that service. For purposes of setting electric rates, customers with similar load and service characteristics should be placed in the same rate classification.

A comprehensive cost-of-service and rate design study was completed in 2006 and subsequent rate analyses were completed in 2007 and 2008 to examine revenue requirements and revenue generation. Specifically, the 2006 rate study was conducted to address increased costs associated with a new power supply contract that became effective on July 1, 2006. The rate study recommended combining a number of rate classes and implementing rate increases on July 1, 2006. The 2006 rate study also recommended an additional increase be implemented on January 1, 2007 to cover increased costs associated with operating the generating station. The 2007 and 2008 rate analyses re-examined Electric Division revenues and expenses and recognized additional revisions to power supply costs. As a result of these analyses, additional rate increases were implemented on July 1, 2007, and July 1, 2008. The July 2008 rate adjustments established the rate schedules utilized by the Electric Division today.

- Residential
- Small Commercial (1 Phase, 3 Phase, & 1 Phase Heating)
- Medium Commercial (1 Phase & 3 Phase)
- Large Commercial (3 Phase with Reactive Metering)
- Primary
- Transmission
- Outdoor Development Lighting
- Private Outdoor Lighting
- Water Pump
- Water Pump 2
- Supplemental for NRG

Operating Results

Table III-1 presents a summary of the energy sales, the number of customers, and the average kilowatt-hour (kWh) energy per customer of the Electric Division for FY 2008 through FY 2010. Total energy sales decreased from 719.9 GWh in FY 2009 to 708.5 GWh in FY 2010, a decrease of 1.59 percent.

Table III-2 presents revenues from sales, revenue per kWh ratios, and average revenue per customer ratios for each revenue classification. Total revenue from sales to electric customers in FY 2010 was approximately $98.1 million, representing a decrease of $1.6 million, or -1.57 percent from FY 2009.

Table III-1

ANNUAL SALES AND CUSTOMERS
City of Dover Electric Division [1]

	FY 2008	FY 2009	FY 2010
Energy Sales (kWh)			
Residential	192,508,201	195,185,587	193,911,702
Commercial	255,809,667	248,757,087	237,608,938
Primary	157,439,535	156,096,547	148,381,527
Transmission	125,266,662	119,910,158	128,628,155
Total Energy Sales	731,024,065	719,949,379	708,530,322
Average Number of Customers (bills)			
Residential	19,137	19,685	19,785
Commercial	3,664	3,497	3,370
Primary	37	37	36
Transmission	4	4	4
Total Customers	22,842	23,223	23,195
Energy Per Customer			
Residential	10,059	9,915	9,801
Commercial	69,819	71,131	70,507
Primary	4,255,123	4,209,345	4,102,715
Transmission	31,316,666	30,615,359	32,157,039
Average Energy Per Customer	32,003	31,001	30,546

[1] From monthly electric billing summaries by revenue class.

In FY 2010, the average rate revenue per kWh for residential customers was 15.12 cents and the total average rate revenue was 13.84 cents per kWh. The July 2009, through June 2010 national average retail rates, as published by the US Energy Information Administration (EIA), were 11.51 and 9.80 cents per kWh, respectively.[1] For a state-wide comparison, the EIA calculated the Delaware July 2009, through June 2010 average retail electricity prices to be 14.09 cents per kWh for residential customers and 12.00 cents per kWh across all sectors.[2]

[1] "Average Retail Price of Electricity to Ultimate Customers: Total by End-Use Sector," 15 Nov. 2010, US Energy Information Administration, 02 Dec. 2010 < http://www.eia.doe.gov/cneaf/electricity/epm/table5_3.html>.

[2] "Current and Historical Monthly Retail Sales, Revenues and Average Revenue per Kilowatt-hour by State and by Sector (Form EIA-826)," 15 Nov. 2010, US Energy Information Administration, 02 Dec. 2010 <http://www.eia.doe.gov/cneaf/electricity/epm/table5_3.html>.

Table III-2

ANNUAL REVENUES AND SALES RATIOS
City of Dover Electric Division

	FY 2008	FY 2009	FY 2010
Revenue			
Residential	$ 27,063,840	$ 29,553,954	$ 29,320,410
Commercial	35,073,419	37,547,855	36,856,716
Primary	19,183,512	18,988,842	18,025,548
Transmission	12,716,441	13,551,839	13,878,764
Total Revenue	$ 94,037,212	$ 99,642,490	$ 98,081,438
Revenue/kWh			
Residential	$ 0.1406	$ 0.1514	$ 0.1512
Commercial	0.1371	0.1509	0.1551
Primary	0.1218	0.1216	0.1215
Transmission	0.1015	0.1130	0.1079
Total Revenue/kWh	$ 0.1286	$ 0.1384	$ 0.1384
Revenue Per Customer			
Residential	$ 1,414	$ 1,501	$ 1,482
Commercial	9,573	10,737	10,935
Primary	518,473	512,059	498,402
Transmission	3,179,110	3,460,044	3,469,691
Average Revenue Per Customer	$ 4,117	$ 4,291	$ 4,227

The Electric Division's largest cost in providing electric service to its customers in FY 2010 was the wholesale cost of power. The Electric Division purchased power from the Pennsylvania New Jersey Maryland Interconnection (PJM) marketplace through its Energy Manager, PACE Global Energy Services (PACE). From FY 2009 to FY 2010, the net cost of non-generated power decreased from $67.6 million to $66.8 million.

The significance of power supply cost to the Electric Division is illustrated in Table III-3. The top portion of the table shows net operating revenue as the difference between total revenues generated by the rates and the cost of power supply.[3] The ratios of power supply cost to sales revenues were calculated for FY

[3] For the purposes of this Engineering Consultant's Report, the phrase "Power Supply" refers to the sum of the costs of power purchased and power generated. This includes plant costs and the cost of fuel. Power Supply also includes any expenses in the CIP Fund that are not capital expenses. The phrase "Purchased Power" refers only to the cost of power purchased from the market and other directly associated costs.

2008 through FY 2010. As illustrated, the Electric Division's power supply cost as a percentage of rate revenue decreased from approximately 75.2 percent in FY 2009 to 74.2 percent in FY 2010.

Table III-3

NET REVENUE MARGINS AND UNACCOUNTED FOR ENERGY
City of Dover Electric Division

	FY 2008	FY 2009	FY 2010
Net Revenue Margins ($)			
Sales Revenues	$ 94,037,212	$ 99,642,490	$ 98,081,438
Power Supply	68,831,697	74,928,897	72,751,381
Net Revenue Margin	$ 25,205,515	$ 24,713,593	$ 25,330,057
Net Revenue Ratio	73.2%	75.2%	74.2%
Unaccounted for Energy (kWh)			
Purchased Power	782,081,000	751,171,000	751,250,000
Energy Sales	731,024,065	719,949,379	708,530,322
Unaccounted for Energy (Losses)	51,056,935	31,221,621	42,719,678
Percentage	6.5%	4.2%	5.7%

Table III-3 also illustrates the ratio of the amount of energy purchased and delivered to the electric system to total energy sales. This relationship identifies the level of unaccounted for energy in the Electric System. This unaccounted for energy may include energy that was unmetered, metered inaccurately, stolen, lost, PJM transmission line losses, local system line/transformer losses, etc. The bottom portion of Table III-3 presents these comparisons for the Electric Division for FY 2008 through FY 2010. As shown, the percentage ratio of the unaccounted for energy to the total energy purchased for FY 2010 was 5.7 percent. This number is up from 4.2 percent in FY 2009.

Table III-4 presents a re-creation of the City's Statement of Revenues, Expenses, and Changes in Unreserved Retained Earnings for the Electric Revenue Fund for FY 2008 through FY 2010. Net income increased from FY 2009, totaling $3.3 million in FY 2010. A number of factors contributed to the increase, namely an overall decrease in power supply cost. The City experienced an increase in operating income of $2.4 million over the previous year. This coupled with the following reductions generated the $3.3 million of positive income. A large decrease attributed to reducing employee benefit funding occurred due to not funding OPEB in 2010 along with decreases in labor attributed to furloughs and power supply costs.

Effective May 4, 2006, the City entered into a five-year Energy Management Agreement with PACE of Fairfax, Virginia to assist the City with its energy procurement and sales, the purchase of fuels,

establishment and management of risk policies, development and management of hedging protocols and related energy procurement tasks. On July 1, 2006, the City entered into an agreement with NAES of Issaquah, Washington for generation asset management. The City bears all market risks, credit risks, and liability under these contracts.

Table III-4

COMPARATIVE STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN UNRESERVED RETAINED EARNINGS
City of Dover Electric Division

	FY 2008	FY 2009	FY 2010
Operating Revenues:			
Charges for Electric Service	$ 94,037,212	$ 99,642,490	$ 98,081,438
Miscellaneous Services/Incomes	2,821,578	1,778,492	2,197,035
Total Operating Revenues	$ 96,858,790	$ 101,420,982	$ 100,278,473
Operating Expenses:			
General Administration	$ 4,660,334	$ 4,084,382	$ 5,742,714
Power Supply	68,831,697	74,928,897	72,751,381
Transmission/Distribution	4,064,713	4,032,931	3,072,816
Engineering	1,589,584	2,393,416	1,319,394
Metering	309,805	285,118	301,416
System Operations	518,871	559,743	496,195
Utility Tax	1,650,838	1,738,059	1,922,645
Depreciation	3,918,804	3,898,475	4,106,804
Retiree Health Care	506,518	1,830,903	531,843
Total Operating Expenses	$ 86,051,164	$ 93,751,924	$ 90,245,208
Net Operating Income	$ 10,807,626	$ 7,669,058	$ 10,033,265
Non-operating Revenues (Expenses)			
Interest Earned			
Operating Fund	$ 496,201	$ 141,310	$ 37,850
Reserved Funds	1,500,064	1,041,655	865,878
Net Increase in Fair Value of Investments	197,389	239,624	(168,775)
Interest and Fiscal Charges	(797,104)	(726,448)	(648,581)
Bond Discount Amortized	(104,304)	(113,206)	(113,206)
Gain/(Loss) on Sale of Assets	(1,489,476)	115,638	17,984
Total Non-operating Revenues(Expenses)	$ (197,230)	$ 698,573	$ (8,850)
Net Income Before Operating Transfers	$ 10,610,396	$ 8,367,631	$ 10,024,415
Operating Transfers - In	-	1,332,350	-
Operating Transfers - Out	(6,601,269)	(6,758,100)	(6,758,100)
Total Net Operating Transfers	$ (6,601,269)	$ (5,425,750)	$ (6,758,100)
Net Income	$ 4,009,127	$ 2,941,881	$ 3,266,315

Adequacy of Electric Rates

The City's Bond Resolution requires annual revenues of the Electric Division be no less than the total current expenses plus 125 percent of the greatest remaining annual debt service. "Current expenses", as defined in the Resolution, includes all expenses necessary to maintain and repair the Electric System, all administrative expenses, and engineering, legal or other consultant fees. Transfers to reserve accounts and special purpose funds, and allowances for depreciation are specifically excluded from "current expenses."

In order to determine if the City and the Electric Division have met this requirement, the net income shown in Table III-4 was adjusted to include the interest on bonds, depreciation expense, and other non-cash income and expenses. Table III-5 presents the adjustments to net income and the determination of the revenues available for debt service for FY 2008 though FY 2010.

As Table III-5 illustrates, the City and the Electric Division maintained a debt service coverage ratio each year that exceeded the required 125 percent plus current expenses. Therefore, the revenues generated by the current electric rates have been sufficient to meet the applicable covenants of the Resolution.

Table III-5

DEBT SERVICE COVERAGE CALCULATION
City of Dover Electric Division

	FY 2008	FY 2009	FY 2010
Net Income	$ 4,009,127	$ 2,941,881	$ 3,266,315
Plus Excluded Expenses:			
Operating Transfers - In	$ -	$ (1,332,350)	$ -
Operating Transfers - Out	6,601,269	6,758,100	6,758,100
Depreciation	3,918,804	3,898,475	4,106,804
Interest and Fiscal Charges	797,104	726,448	648,581
Bond Discount Amortized	104,304	113,206	113,206
Gain/(Loss) on Sale of Assets	1,489,476	(115,638)	(17,984)
Less Excluded Income:			
Net Increase in Fair Value of Investments	(197,389)	(239,624)	168,775
Interest Earned - Reserve Funds	(1,500,064)	(1,041,655)	(865,878)
Revenues Available for Debt Service	$ 15,222,631	$ 11,708,843	$ 14,177,919
Maximum Principal and Interest in Any Year	$ 2,644,620	$ 4,058,700	$ 3,347,479
Debt Service Coverage	5.76	2.88	4.24
Minimum Required Debt Service Ratio	1.25	1.25	1.25

Section 502 of the Resolution requires that the annual debt service used in evaluating the revenues is to be the maximum amount for any fiscal year thereafter. Table III-6 presents the annual totals of principal and

interest amounts due on bonds currently outstanding. The calculation of the debt service coverage ratio in Table III-5 is based on the total maximum debt service expense in any fiscal year. The FY 2010 calculation was based on the total FY 2012 debt service expense of $3,347,479.

STATUS OF REVENUE BONDS

At the end of FY 2010, the City had two series of outstanding electric revenue bonds that were issued pursuant to the Resolution. The 2004 Electric Revenue Bonds (2004 Bonds) were issued in 2004, in the amount of $22,535,000. These bonds were issued to refund the 1990 and 1993 bonds. On July 1, 2008, the City issued $22,200,000 in Electric Revenue Bonds (2008 Bonds). The proceeds from the sale of the 2008 Bonds were used (i) to finance or reimburse the City for improvements to the City's electric system; (ii) to fund a Debt Service Reserve Fund; and (iii) to pay the costs of issuance of the 2008 Bonds.

On November 17, 2010, the City issued $8,810,000 of Electric Revenue Refunding Bonds (Series 2010). The proceeds from the sale of the Series 2010 Bonds will be used (i) to refund the Series 2004 Bonds, and (ii) to pay the costs of issuance of the Series 2010 Bonds. The non-taxable Series 2010 Bonds received an underlying rating of Aa2 by Moody's Investors Services and an underlying rating of A+ by Fitch Ratings.

Table III-6 illustrates the debt service schedule for the Series 2008 and 2010 Bonds. The principal and interest and the annual total are shown for each series of bonds. At the time of issuance of the Series 2010 Bonds, the combined outstanding principal balance for both series of bonds was $30,655,000.

Table III-6

DEBT SERVICE SCHEDULE OF ELECTRIC REVENUE BONDS
City of Dover Electric Division

	2008 Electric Revenue Bonds			2010 Electric Revenue Refunding Bonds			Total Annual
Period	Principal	Interest	Debt Service	Principal	Interest	Debt Service	Debt Service
FY 2011	$ 375,000	$ 1,038,716	$ 1,413,716	$ -	$ 35,017	$ 35,017	$ 1,448,733
FY 2012	390,000	1,017,679	1,407,679	1,670,000	269,800	1,939,800	3,347,479
FY 2013	410,000	996,704	1,406,704	1,700,000	236,100	1,936,100	3,342,804
FY 2014	430,000	975,704	1,405,704	1,740,000	193,000	1,933,000	3,338,704
FY 2015	450,000	953,704	1,403,704	1,810,000	130,700	1,940,700	3,344,404
FY 2016	475,000	930,579	1,405,579	1,890,000	47,250	1,937,250	3,342,829
FY 2017	695,000	901,329	1,596,329			-	1,596,329
FY 2018	730,000	865,704	1,595,704			-	1,595,704
FY 2019	765,000	831,580	1,596,580			-	1,596,580
FY 2020	800,000	798,706	1,598,706			-	1,598,706
FY21-34	16,325,000	6,227,334	22,552,334	-	-	-	22,552,334
Total	$21,845,000	$ 15,537,739	$37,382,739	$ 8,810,000	$ 911,867	$ 9,721,867	$47,104,606

INSURANCE

The City maintains a comprehensive insurance program to insure against varying types of liabilities and significant losses related to various Electric Division properties. Section 706 of the Resolution reads:

> *"The City covenants that it will maintain a practical insurance program, with reasonable terms, conditions, provisions and costs, which the City Manager determines, with the approval of the Engineering Consultants, will afford adequate protection against loss, including loss of Revenues, caused by damage to or destruction of the Electric System or any part thereof and also comprehensive public liability insurance on the Electric System for bodily injury and property damage in such amounts as may be approved by the Engineering Consultants."*

Table III-7 lists the insurance coverage procured by the City for the period July 1, 2010, through June 30, 2011. Burns & McDonnell has reviewed this list of insurance, and in the opinion of Burns & McDonnell, as Engineering Consultant and not as insurance counselor, the insurance in full force and affect appears to satisfy the requirements of Section 706 of the Resolution.

Table III-7

SCHEDULE OF INSURANCE COVERAGE IN EFFECT
City of Dover Electric Division

	July 1, 2010 - June 30, 2011		July 1, 2009 - June 30, 2010	
	Coverage	Deductible	Coverage	Deductible
Property				
Building & Contents	$136,542,391	$10,000	$136,542,391	$10,000
Flood Zones X or C	2,000,000	50,000	2,000,000	50,000
Flood Zones	100,000	50,000		
Blanket Business Earnings & Expense	100,000		100,000	
Electronic Data Processing	1,674,830	1,000	1,674,830	1,000
Inland Marine				
Contractors Equipment	Replacement Cost - 90% co-insurance			
Scheduled Equipment - Total Value	162,500	1,000	162,500	1,000
Unscheduled Equipment	100,000	1,000	100,000	1,000
Max Any One unscheduled Item	5,000			
Employee Tools Limit	112,812	250	62,500	250
Maximum any one item	18,000			
General Liability				
Each Event	1,000,000		1,000,000	
General Total Limit	3,000,000		3,000,000	
Products and Completed Work Total				
Personal Injury	1,000,000		1,000,000	
Advertising Injury	1,000,000		1,000,000	
Medical Expenses				
Sexual Abuse Coverage	1,000,000		1,000,000	
Per Occurrence				
Sewer Back-up	1,000,000		1,000,000	
Failure to Supply Services - Water	1,000,000		1,000,000	
Statutory Cap Limits of Coverage Endorsement				
Delaware Personal Injury	300,000		300,000	
Delaware Advertising Injury	300,000		300,000	
Delaware Bodily Injury & Property Damage	300,000		300,000	
Automobile				
Liability	1,000,000		1,000,000	
Personal Injury	300,000		300,000	
Uninsured Motorist	1,000,000		1,000,000	
Underinsured Motorist	-		1,000,000	
Comprehensive		500		
Collision		1,000		
Non-Owned Liability	1,000,000		1,000,000	
Hired Auto Liability	1,000,000		1,000,000	
Employees as Additional Insured				
Hire Auto Physical Damage	50,000		50,000	
Statutory Cap Limits of Coverage Endorsement				
Delaware Statutory Cap Limit	300,000		300,000	
Employee Benefit Plans Administration Liability				
Total Limit	3,000,000		3,000,000	
Each Wrongful Act	1,000,000	1,000	1,000,000	1,000
Law Enforcement Liability				
Total Limit	3,000,000		3,000,000	
Each Wrongful Act	1,000,000	5,000	1,000,000	5,000
Statutory Cap Limits of Coverage Endorsement				
Delaware Statutory Cap Limit	300,000		300,000	
Public Entity Management Liability				
Total Limit	3,000,000		3,000,000	
Each Wrongful Act	1,000,000	25,000	1,000,000	25,000

(Table III-7 Continued)	July 1, 2010 - June 30, 2011 Coverage	Deductible	July 1, 2009 - June 30, 2010 Coverage	Deductible
Employment Practices Liability				
Total Limit	5,000,000		5,000,000	
Each Wrongful Offense	5,000,000	25,000	5,000,000	25,000
Crime				
Employee Theft	500,000	500	1,000,000	500
Inside Theft of Money & Securities	25,000	500	25,000	500
Robbery or Burglary				
Outside Theft of Money & Securities	25,000	500	25,000	500
Forgery or Alteration	100,000	1,000	100,000	1,000
Computer Fraud	100,000	1,000	100,000	1,000
Money Order & Counterfeit Paper Currency	100,000	1,000	100,000	
Boiler and Machinery (Excluding Power Plants)				
Coverage Limit	Property Limit	10,000	Property Limit	10,000
Expediting Expenses	100,000		250,000	
Hazardous Substance	250,000		250,000	
Spoilage	250,000		250,000	
Ammonia Contamination	250,000			
Umbrellas				
General Total Limit	4,000,000		4,000,000	
Products & Work Limit	4,000,000		4,000,000	
Personal Injury	4,000,000		4,000,000	
Advertising Injury	4,000,000		4,000,000	
Each Event Limit	4,000,000		4,000,000	
Deductible Per Event		10,000		10,000
Umbrella Underlying Policies				
General Liability	1,000,000			
Employment Benefits	1,000,000			
Auto Liability	1,000,000			
Law Enforcement Liability	1,000,000			
Public Entity Management	1,000,000			
Excess Error & Omissions				
Total Limit	4,000,000		4,000,000	
Public Entity Management	1,000,000		1,000,000	
Employee Benefit Plans Administration Liability	1,000,000		1,000,000	
Pollution Liability Policy				
Each Claim Limit	5,000,000	25,000	5,000,000	25,000
Aggregate Limit	10,000,000		10,000,000	
Excess Worker's Comp				
Employer's Liability Limit	1,000,000		1,000,000	
Specific Limit	Statutory		Statutory	
Aggregate Limit	1,000,000		1,000,000	
Environmental Impairment Liability				
Retroactive Date 4/1/97				
Limit - Each Claim				
Limit - Aggregate				
McKee Run & VanSant Plant Deductibles				
Power Plants - Property & Boiler & Machinery				
Limit per occurrence	100,000,000	100,000	100,000,000	100,000
Travel Accident Policy				
Principal Sum	100,000		100,000	
Bond - Self-Insured Worker's Comp - State of DE				
Limit	750,000		750,000	
Bond Public Officials Bond				
Treasurer - Limit	100,000		100,000	
City Clerk - Assistant Treasurer - Limit	100,000		100,000	

OPERATING AND RESERVE FUNDS

The City has established several funds and reserves to ensure that moneys are available for specific purposes when they are needed. The following are descriptions of each fund and their purpose.

- Electric Revenue Fund – The Electric Revenue Fund was established in Section 503 of the Resolution. All revenues are to be deposited into the Electric Revenue Fund when received. Current expenses are to be paid and other funds are to be maintained from the Electric Revenue Fund. Moneys are transferred from the Electric Revenue Fund to the Interest and Sinking Fund, Improvement and Extension Fund, the Depreciation Reserve Fund, Future Capacity Fund, and Electric Rate Stabilization Fund.

- Electric Improvement and Extension Fund – The Improvement and Extension Fund was established in Section 507 of the Resolution. Funds are added to the Improvement and Extension Fund from the Electric Revenue Fund to the extent that the amount of funds available from the Electric Revenue Fund exceeds the total of the amounts required to be added to the Interest and Sinking Fund. The Improvement and Extension Fund also receives additional funding from the Depreciation Fund, the Future Capacity Fund, the Insurance Stabilization Fund, and from the State of Delaware. Section 510 of the Resolution indicates that, except for certain situations, moneys held in the Improvement and Extension Fund are to be used only for payment of costs of unusual maintenance or repairs, renewals or replacements, obtaining or replacing equipment, constructing extensions, additions, or improvements, and engineering expenses related to the foregoing activities.

- Interest and Sinking Fund – The Interest and Sinking Fund was established in Section 507 of the Resolution. This fund consists of two restricted accounts: the Bond Service account and the Reserve Account. The Bond Service Account is funded with equal monthly transfers from the Electric Revenue Fund such that the balance, as of each payment date for interest or for principal and interest, will be equal to the amount of the payment due. The payments of principal and interest due on bonds are made from the Bond Service Account. The Reserve Account is funded by transfers from the Electric Revenue Fund, as necessary, to maintain a balance equal to the maximum combined principal and interest for any future fiscal year through the life of all bonds then outstanding. Moneys in the Reserve Account are used for paying interest on and principal of bonds when the balance in the Bond Service Account is insufficient for making those payments. Excess moneys in the Reserve Account are also used towards paying current interest payments. The total amount in the Restricted Accounts for the 2004 and 2008 bonds as of June 30, 2010, was $3,337,882.

- Depreciation Reserve Fund – The Depreciation Reserve Fund represents moneys that have been set aside for the sole purpose of funding renewals and replacements of the Electric System as components or equipment wear out, deteriorate, or otherwise become unsuitable for the intended purpose. Transfers from the Electric Revenue Fund and investment earnings are the only sources of additional moneys for the Depreciation Reserve Fund. Transfers to the Improvement and Extension Fund are made as necessary to fund capital projects. The target appropriation for the Depreciation Reserve Fund each year is the excess of depreciation expense for the year over the amount of principal included in debt service payments made during the year. The reserve balance at the end of FY 2010 was $8,021,155.

- Future Capacity Fund – The Future Capacity Fund was established to set aside and accumulate funds from the Electric Revenue Fund for use in evaluating and pursuing activities related to the Electric Division's alternatives for power supply resources for future demand for electricity. The original target balance for this reserve was $5,000,000. The reserve balance at the end of FY 2010 was $9,023,928.

- Insurance Stabilization Fund – The Insurance Stabilization Fund was established by the City to provide for the funding of insurance deductibles in the event of loss(es) covered by the City's insurance policies then in effect. The target balance in the Insurance Stabilization Reserve is $350,000. The reserve balance at the end of FY 2010 was $396,530.

- Contingency Reserve Fund – The Contingency Reserve Fund was established by the City in FY 2003 to provide for unplanned expenditures that may not be avoidable. The City's Financial Policies require that a minimum balance be maintained in the Contingency Reserve Fund equal to 1.0 percent of the current year revenues for the Electric Revenue Fund. The FY 2010 end-of-year balance was $1,039,766, which is equal to 1.04 percent of the FY 2010 revenues for the Electric Revenue Fund.

- Electric Rate Stabilization Fund – The Electric Rate Stabilization Fund was established in FY 2005 to offset the costs of the power cost adjustment to the customers of Dover. The fund's target balance is a minimum of 3.0 percent, not to exceed 10.0 percent, of purchase power cost in any given year. Any excess of this amount will be refunded to customers by reducing the rate of the power cost adjustment. The fund's FY 2010 end-of-year balance was $4,776,519, which was 7.15 percent of the FY 2010 purchased power cost.

Table III-8 presents FY 2008 through FY 2010 year-end summaries of the activity within the funds described above, excluding the Electric Revenue Fund and the Improvement and Extension Fund. The Interest and Sinking Fund, the Insurance Stabilization Fund, the Contingency Reserve Fund, and the Electric Rate Stabilization Fund are accounts within the Electric Revenue Fund. The Depreciation Fund and the Future Capacity Fund are accounts within the Improvement and Extension Fund.

Table III-8

RESERVE FUND ACTIVITY AND BALANCES
City of Dover, Delaware

	Bond Reserve Account	Depreciation Reserve Fund	Future Capacity Fund	Insurance Stabilization Fund	Contingency Reserve Fund	Electric Rate Stabilization Fund
Year Ended June 30, 2008						
Balance in Account on July 1	$ 1,219,333	$ 13,535,183	$ 8,958,792	$ 351,255	$ 847,032	$ 379,784
Receipts						
Interest Earned	257,758	616,059	498,559	19,547	47,137	61,003
Appropriations	1,780,000					2,030,679
Total Funds Available	$ 3,257,091	$ 14,151,242	$ 9,457,351	$ 370,802	$ 894,169	$ 2,471,465
Disbursements						
Debt Service Payments						
Transfer to Operations		(9,699,579)	(1,000,000)			
Balance in Account on June 30	$ 3,257,091	$ 4,451,663	$ 8,457,351	$ 370,802	$ 894,169	$ 2,471,465
Year Ended June 30, 2009						
Balance in Account on July 1	$ 3,257,091	$ 4,451,663	$ 8,457,351	$ 370,802	$ 894,169	$ 2,471,465
Receipts						
Interest Earned	252,718	338,327	306,512	14,300	34,484	95,314
Appropriations	4,041,632	5,000,000				2,085,748
Total Funds Available	$ 7,551,441	$ 9,789,990	$ 8,763,863	$ 385,102	$ 928,653	$ 4,652,527
Disbursements						
Debt Service Payments	(6,046,632)					
Transfer to Operations		(2,000,000)				
Balance in Account on June 30	$ 1,504,809	$ 7,789,990	$ 8,763,863	$ 385,102	$ 928,653	$ 4,652,527
Year Ended June 30, 2010						
Balance in Account on July 1	$ 1,504,809	$ 7,789,990	$ 8,763,863	$ 385,102	$ 928,653	$ 4,652,527
Receipts						
Interest Earned	211,615	231,165	260,065	11,428	27,613	123,992
Appropriations	4,066,610				83,500	
Total Funds Available	$ 5,783,034	$ 8,021,155	$ 9,023,928	$ 396,530	$ 1,039,766	$ 4,776,519
Disbursements						
Debt Service Payments	(2,445,212)					
Transfer to Operations						
Balance in Account on June 30	$ 3,337,822	$ 8,021,155	$ 9,023,928	$ 396,530	$ 1,039,766	$ 4,776,519

* * * * *

PART IV – CONCLUSIONS

PART IV
CONCLUSIONS

In the preparation of this Engineering Consultant's Report, Burns & McDonnell completed assessments of the electric generating stations and the transmission and distribution system of the City Electric Division. The investigations included interviews, observations, and reviews of FY 2010 expenditures and FY 2011 budgets. In addition, an analysis of the balances of the Improvement and Extension Fund and other funds benefiting the Electric Division was performed. Burns & McDonnell also reviewed the adequacy of the revenues provided by the current retail rates in relation to the requirements of the City of Dover, Delaware Resolution Authorizing and Securing Electric Revenue Bonds, adopted December 23, 1985. A high level assessment of the City's insurance coverage related to the Electric Division was also completed.

Based on these reviews and assessments, it is Burns & McDonnell's opinion that:

1. The City's power generation facilities are being operated and maintained consistent with accepted electric utility practice in the United States.
2. The design, construction, operation, and maintenance of the City's electric transmission and distribution system and the associated facilities are consistent with current generally accepted electric utility standards.
3. The Electric Division capital projects included in the City's Capital Investment Plan and the FY 2011 Operating Budget are necessary and should provide improved reliability and power quality for the Electric System.
4. The balances as of June 30, 2010 for the various reserve funds maintained by the City for the Electric Division appear to be sufficient for their defined purposes.
5. The insurance coverage in full force and affect as maintained by the City related to the various assets of the Electric Division appears to satisfy the requirements of Section 706 of the Resolution.
6. The electric revenues generated by the City's current retail rates are more than sufficient to fulfill the debt service coverage requirement defined in Section 502(c) of the Resolution.

* * * * *

Memorandum

Public Services Manager
P. O. Box 475
City Hall/ The Plaza
Dover, Delaware 19903-0475
Phone: (302) 736-7026
Fax: (302) 736-7177
E-mail:skoenig@dover.de.us

TO: Utility Committee Members

FROM: Scott D. Koenig, P.E., Public Services Manager
Anthony J. DePrima, AICP, ICMA-CM, City Manager
Ann Marie Townshend, AICP, Director of Planning & Community Development

DATE: January 3, 2011

SUBJECT: **Development Projects – Performance & Maintenance Bonding Concerns**

As part of a shared performance goal, the City Manager, the Public Services Manager and the Director of Planning & Community Development conducted a series of four (4) internal meetings to brainstorm various ideas regarding concerns raised about Performance & Maintenance Bonding in subdivisions, site plan compliance, ensuring the functionality of homeowners associations (HOAs), and other development project problems. These meetings were held in October, November and December of 2010.

Eight (8) specific problems/concerns were identified. Each problem is listed below along with one or more suggestions to improve the area of concern.

Problem #1 – Active Recreation Areas in some Subdivisions / Site Plans (Apartments) are not being completed in proportion to the lots constructed. Article 5, Section 10.6 of the *Zoning Ordinance* is weak and difficult to enforce. It is difficult to build the recreation areas in proportion to the lots / building permits, as specified by code; therefore, an alternative solution must be developed.

Possible Solutions:

1. Require specific phasing plan for the Active Recreation Plan.
2. Require a Performance Bond / Letter Of Credit (LOC) equal to 150% of the value (or add the active recreation improvements to current infrastructure LOC). LOC is preferred over a bond as the LOC creates more leverage.

Note: A Code amendment is required to accomplish this.

Problem #2 – Some projects are partially built and the construction or the site work has been abandoned. (Examples: Enterprise Business Park, Tall Pines, Dove View)

Possible Solutions:

1. Fund a Demolition Reserve that can be sustained with monies collected from liens and be used to demolish or safely seal construction.
2. Amend Tall Grass & Weed Ordinance (Chapter 114, Article II) to allow the City to regrade or restore the property and place a lien against the property to collect the costs.
3. Amend state law for Demolition Liens to allow for the City to recover costs through sheriff's sale.
4. A Dangerous Building (DB) declaration accelerates tax sale (for delinquent taxes). This is an administrative action that is already in place.

Problem #3 – Failure of HOA to take over initial responsibilities or HOA does not form or stay formed and therefore fails to function. Common Areas are not maintained. (Example: Four Seasons)

Possible Solutions:

1. Amend assessment section of the code to allow city to bill and lien individual property owners for the common areas that the City is forced to maintain.
2. Amend subdivision ordinance to require an escrow start up account so HOA is capitalized from the beginning.
3. Buyers somehow are notified and certify / acknowledge that they are required to be part of the HOA and that there are maintenance responsibilities for which the HOA is responsible. Possible venues could include requiring that information be posted conspicuously in model homes or the City could send a letter after real estate transfer tax is received.
4. Require developer to meet guideline to turn over HOA at 75% of the initial phase of the development.
    - City could facilitate initial HOA meeting – Notice, Public Meeting at City Hall, City representative in attendance
    - Ensure elected official in attendance.
5. Amend subdivision ordinance to include a specific turnover requirement.
6. Amend subdivision ordinance to require a Certified Management Agency.

Problem #4 – Stormwater / Passive Open Space – Not Being Maintained

Possible Solutions:

1. Amend sections of the code addressing special assessment (Chapter 94) and/or amend tall grass and weeds (Chapter 114) to allow staff to hire contractors to maintain the passive open space and/or stormwater management areas and bill the property owners (developer or individual owners) and place a lien against the property to recover costs.
2. Create a Limited Stormwater Utility
    - Unilateral authority to take over facilities that are not being maintaned
    - Start with new developments

Problem #5 – Nuisance issues such as maintenance of buildable lots with homes, partially complete homes, partially complete subdivisions, roll-off trash containers for construction debris, soil stockpiles and material storage areas are degrading the overall quality of various subdivisions (in both dedicated and undedicated subdivisions).

Possible Solutions:

1. Require an upfront agreement and escrow deposit from the developer of the subdivision ($1,000 / lot) to address these issues if they arise.
2. Provide incentives to dedicate infrastructure – Bill developer for Street Light operating costs and pump station maintenance until subdivision is dedicated.

Problem #6 – Sidewalk network not complete and the developer wants to dedicate the rights-of-way and infrastructure.

Possible Solutions:

1. Require all sidewalk construction to be complete prior to dedication. This position would maintain the status quo.
2. Add option that developer can go to Safety Advisory & Transportation Committee with a special Letter of Credit for the uncompleted sidewalks on the streets to be dedicated. The uncompleted sidewalks are associated with lots that have not had building permits issued as of that date. Potential enhancement to this option is to require a Public Hearing with notice to all residents and/or property owners in the development.

Problem #7 – Snow Removal on uncompleted and/or undedicated streets represents a serious service delivery problem for the City of Dover and residents in these areas.

Possible Solutions:

1. Require a maintenance escrow to be set up by the developer that can be used for snow and ice removal.
2. Require a signed contract between the developer and a private contractor responsible for snow removal be shared with the City.

Problem #8 – The City does not provide a full range of services on undedicated streets since they are considered private property. (i.e. – snow removal, street sweeping, speed enforcement)

Possible Solutions:

1. Earlier dedication – city would accept dedication of uncompleted streets and follow up with completion of the infrastructure on a designated time line identified in the dedication action.
2. Require more extensive maintenance agreement with longer time period for coverage.

Based upon the above information, staff is proposing the following next steps:

1) Staff would like to receive feedback from members of the Committee and Council on the possible solutions presented above as well as other items you would like to consider to address the identified problems.
2) Prioritize the problems listed above.
3) Prepare a timeline to address the problems in priority order.
4) Hold focus group with stakeholders (HOAs, Civic Associations, Civic Leaders, the development community, KCD)
5) Develop ordinances / charter amendments / administrative changes

If you have any questions, please contact me.

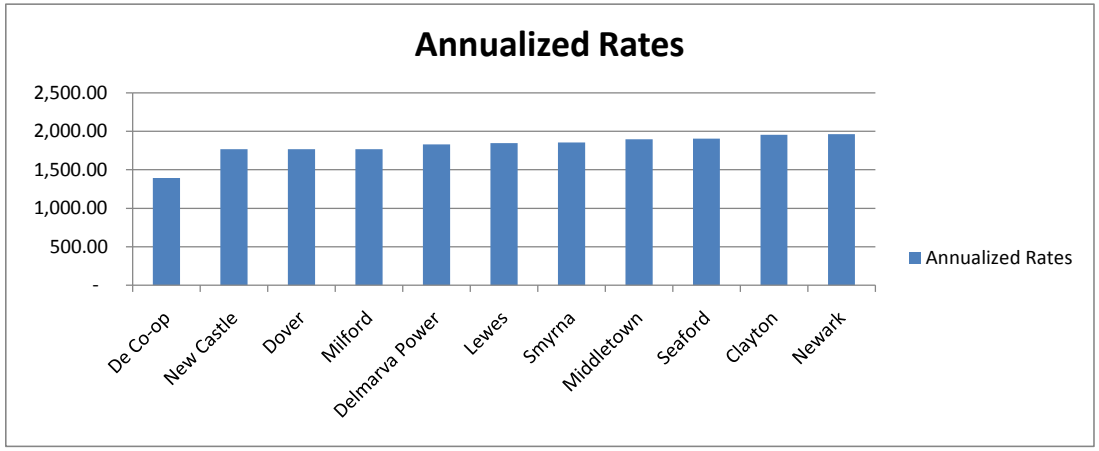
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Residential Rate Comparison Annualized at 1,000 kWh per month

As of 11/23/10

	June	July	August	September	October	November	December	January	February	March	April	May	Total
De Co-op	122.50	122.50	122.50	122.50	112.91	112.91	112.91	112.91	112.91	112.91	112.91	112.91	**1,393.28**
New Castle	152.13	152.13	152.13	152.13	144.63	144.63	144.63	144.63	144.63	144.63	144.63	144.63	**1,765.56**
Dover	147.38	147.38	147.38	147.38	147.38	147.38	147.38	147.38	147.38	147.38	147.38	147.38	**1,768.56**
Milford	155.27	155.27	155.27	155.27	143.53	143.53	143.53	143.53	143.53	143.53	143.53	143.53	**1,769.32**
Delmarva Power	154.48	154.48	154.48	154.48	151.27	151.27	151.27	151.27	151.27	151.27	151.27	151.27	**1,828.08**
Lewes	156.44	156.44	156.44	156.44	152.36	152.36	152.36	152.36	152.36	152.36	152.36	152.36	**1,844.64**
Smyrna	158.48	158.48	158.48	158.48	152.48	152.48	152.48	152.48	152.48	152.48	152.48	152.48	**1,853.76**
Middletown	156.76	156.76	156.76	156.76	158.70	158.70	158.70	158.70	158.70	158.70	158.70	158.70	**1,896.64**
Seaford	164.45	164.45	164.45	164.45	156.05	156.05	156.05	156.05	156.05	156.05	156.05	156.05	**1,906.20**
Clayton	162.70	162.70	162.70	162.70	162.70	162.70	162.70	162.70	162.70	162.70	162.70	162.70	**1,952.40**
Newark	163.71	163.71	163.71	163.71	163.71	163.71	163.71	163.71	163.71	163.71	163.71	163.71	**1,964.52**

Approximate DP&L 's transmission capacity charge is based on each individual's Peak Load Contribution(PLC) to the overall transmission load.
Each customer has a unique PLC that changes every January.



City of Dover
Capital Investment Plan
Project Tracking Report
November 30, 2010

Points to Remember -

* Original Project Budget = Original Total Project Budget initially included in approved annual budget.
* Latest Project Budget = Revised Total Project Budget included in most recent approved annual budget or one of the following: bond resolution, revolving fund loan agreement, Council approved budget amendment, or City Manager approved amendment as per the Budget Amendment Procedure.
* Current Fiscal Year - Revised Fiscal Year Budget = Current Year approved project budgets plus carry forward balances of unspent budgets in the prior fiscal year. Project Carry Forward balances will be submitted to City Council for amendment in January 2010. Can also be amended with City Manager approval per the Budget Amendment Procedure.
* Water Quality, Inflow/Infiltration, Distribution Upgrades and New Development projects are budgeted as a blanket project and once individual projects are identified and estimated they are created using an allocation of the overall budgeted amount.

  Examples are Water Quality - Walker Road; New Developments - CVS, McDonald's, Wawa; Distribution Upgrades - Greenview;
* Status and Comments provided by City Manager.
* For Finance purposes projects are considered completed when placed in service and **all** charges have been processed.

Current Year Budget Funding Sources	General	Community Transportation	Water & Wastewater	Electric	Total CIP
Budget Balance	$ 113,156	$ -	$ -	$ -	$ 113,156
Project Carry Forward Balances	88,083	-	953,238	850,736	2,729,628
Federal and/or State Grants	4,250,348	1,000,000	45,248	135,152	5,430,748
New Revolving Fund Loans	-	-	863,060	-	863,060
Carry Forward Construction Loan Balances	-	-	8,001,973	254,757	8,256,730
Bond Proceeds	-	-	-	415,585	415,585
Impact Fees	-	-	758,821	-	758,821
Income from Sale of Assets	-	-	-	-	-
Parkland Reserve	36,872	-	-	-	36,872
Library Reserve & Contributions	3,363,732	-	-		3,363,732
Transfer from Operating Funds	1,019,629	300,000	58,709	2,983,303	4,361,641
Interest Earned	10,900	-	-	40,700	51,600
Total Funding Sources (Unaudited)	$ 8,882,720	$ 1,300,000	$ 10,681,049	$ 4,680,233	$ 26,381,573

City of Dover
General Fund - Major CIP Projects
November, 2010

			TOTAL PROJECT - PAST, CURRENT & FUTURE BUDGETS					CURRENT FISCAL YEAR					
	Type	Description	Original Project Budget	Latest Project Budget	Project To Date Expenses	Project Budget Balance	% Budget Spent	Current Fiscal Yr. Budget	Revised Fiscal Yr. Budget	Fiscal YTD Expenses	% Budget Spent	Status	Comments
1		**FY2009**											
2	M/G	New Library Project	$ 18,200,000	$ 24,679,934	$ 1,135,516	$ 23,544,418	4.6%	$ 6,687,039	$ 7,630,663	$ 398,450	5.2%	Started	Bid Pack A - constuction started \ Bid Pack B - bidding started.
3		**Totals - FY09**	$ 18,200,000	$ 24,679,934	$ 1,135,516	$ 23,544,418	4.6%	$ 6,687,039	$ 7,630,663	$ 398,450	5.2%		
4													
5		**FY2010**											
6		Pitts Center Addition	50,000	40,000	28,629	11,371	71.6%	-	36,872	25,501	69.2%	Complete	Complete.
7		**Totals - FY10**	$ 50,000	$ 40,000	$ 28,629	$ 11,371	71.6%	$ -	$ 36,872	$ 25,501	69.2%		
8													
9		**FY2011**											
10		Vehicles & Equipment	$ 63,675	$ 63,675	$ 27,602	$ 36,073	43.3%	$ 735,185	$ 735,185	$ 27,602	3.8%	Started	Vehicles being ordered.
11		Core Law Enforcement Server Replacement	-	53,500	-	53,500	0.0%	-	53,500	-	0.0%	Started	Specifications done.
12		Playground Improv Program	-	15,000	-	15,000	0.0%	15,000	15,000	-	0.0%	Complete	BB Courts paved.
13		Skate Park	-	30,000	-	30,000	0.0%	30,000	30,000	-	0.0%	Not Started	In discussions with equipment provider
14		Concrete Program	50,000	50,000	45,759	4,241	91.5%	50,000	50,000	45,759	91.5%	Started	Complete with contractor portion.
15		Transfer to CT Fund	300,000	300,000	-	300,000	0.0%	300,000	300,000	-	0.0%	Started	Transfer to Com Transp Fund - December
16		Downtown Security Cameras	31,500	31,500	-	31,500	0.0%	31,500	31,500	-	0.0%	Started	Council approval Jan 24th
17		**Totals - FY11**	$ 445,175	$ 543,675	$ 73,361	$ 470,314	13.5%	$ 1,161,685	$ 1,215,185	$ 73,361	6.0%		
18													
19		**Grand Totals**	$ 18,695,175	$ 25,263,609	$ 1,237,505	$ 24,026,104	4.9%	$ 7,848,724	$ 8,882,720	$ 497,311	5.6%		

Legend

M = Multi-year project - a project with a specific schedule to occur over multiple years.
R = Recurring project - a project that begins and ends each fiscal year and is rebudgeted to start over each fiscal year.
G = Grant funded project

City of Dover
Community Transportation & General Fund Street Funds - Major CIP Projects
November, 2010

			TOTAL PROJECT - PAST, CURRENT & FUTURE BUDGETS					CURRENT FISCAL YEAR					
	Type	Description	Original Project Budget	Latest Project Budget	Project To Date Expenses	Project Budget Balance	% Budget Spent	Current Fiscal Yr. Budget	Revised Fiscal Yr. Budget	Fiscal YTD Expenses	% Budget Spent	Status	Comments
1		**FY 2006**											
2	M	Lincoln Park Center	$ 400,000	$ 479,148	$ 415,223	$ 63,925	86.7%	$ 121,891	$ 121,891	$ 57,966	47.6%	Started	Ongoing.
3		**Totals**	$ 400,000	$ 479,148	$ 415,223	$ 63,925	86.7%	$ 121,891	$ 121,891	$ 57,966	47.6%		
4													
5		**FY 2007**											
6		E. Water Street Brick	$ 65,000	$ 65,000	$ -	$ 65,000	0.0%	$ 65,000	$ 65,000	$ -	0.0%		Specialty contract needed.
7		**Totals**	$ 65,000	$ 65,000	$ -	$ 65,000	0.0%	$ 65,000	$ 65,000	$ -	0.0%		
8													
9		**FY 2009**											
10		Schutte Parking Lot	$ 21,950	$ 21,950	$ -	$ 21,950	0.0%	$ 21,950	$ 21,950	$ -	0.0%		Trying to move this to Library Project if State approves.
11		Turnberry Drive	40,000	40,000	3,900	36,100	9.8%	40,000	40,000	3,900	9.8%		Curb work complete, paving in process.
12		**Totals**	$ 61,950	$ 61,950	$ 3,900	$ 58,050	6.3%	$ 61,950	$ 61,950	$ 3,900	6.3%		
13													
14		**FY 2011**											
15		Washington Street	$ 105,000	$ 105,000	$ 104,000	$ 1,000	99.0%	$ 105,000	$ 105,000	$ 104,000	99.0%		Complete.
16		Mitschner Road (incl. CDBG)	169,066	169,066	139,921	29,145	82.8%	169,066	169,066	139,921	82.8%		In progress.
17		Delaware Ave	6,250	6,250	6,250	-	100.0%	6,250	6,250	6,250	100.0%		Complete.
18		Oak Road Signage	11,875	11,875	-	11,875	0.0%	11,875	11,875	-	0.0%		Just received.
19		Street & Alley Program	300,000	300,000	141,207	158,793	47.1%	300,000	300,000	141,207	47.1%		In progress.
20		State Agreements not yet rec'd	458,968	458,968	-	458,968	0.0%	458,968	458,968	-	0.0%		Agreements have not been received.
21		**Totals**	$ 1,051,159	$ 1,051,159	$ 391,378	$ 659,781	37.2%	$ 1,051,159	$ 1,051,159	$ 391,378	37.2%		
22													
23		**Grand Totals**	$ 1,578,109	$ 1,657,257	$ 810,501	$ 846,756	48.9%	$ 1,300,000	$ 1,300,000	$ 453,244	34.9%		

Legend
M = Multi-year project - a project with a specific schedule to occur over multiple years.
R = Recurring project - a project that begins and ends each fiscal year and is rebudgeted to start over each fiscal year.

City of Dover
Water/Wastewater Improvement & Extension Fund - Major CIP Projects
November, 2010

			TOTAL PROJECT - PAST, CURRENT & FUTURE BUDGETS					CURRENT FISCAL YEAR					
	Type	Description	Original Project Budget	Latest Project Budget	Project To Date Expenses	Project Budget Balance	% Budget Spent	Approved Fiscal Yr. Budget	Revised Fiscal Yr. Budget	Fiscal YTD Expenses	% Budget Spent	Status	Comments
1		**FY 2008**											
2		South Governors Ave. Water Main Upgrade	$ 200,000	$ 200,000	$ 2,664	$ 197,336	1.3%	$ -	$ 197,336	$ -	0.0%	Complete	Done.
3	M	1.0 MG Elevated Water Storage Tower	4,196,600	2,590,000	10,379	2,579,621	0.4%	-	193,377	3,756	1.9%	Started	Selecting Tank Model & Site; FY11 = Constr.
4	M	Piney Point Well	398,800	665,000	57,383	607,617	8.6%	-	162,525	4,908	3.0%	Started	DNREC permiting; FY11 = Constr.
5	M	South Governors Ave. Sewer Main	300,000	291,000	13,561	277,439	4.7%	-	279,244	1,805	0.6%	Complete	Done.
6	M/SL	US 13 East Sanitary Sewer Interceptor	2,376,800	3,409,641	1,970,902	1,438,739	57.8%	-	2,335,862	1,102,740	47.2%	Started	Functionally completed, some minor site restoration.
7		**Totals - FY08**	$ 7,472,200	$ 7,155,641	$ 2,054,889	$ 5,100,752	28.7%	$ -	$ 3,168,344	$ 1,113,210	35.1%		
8													
9		**FY2009**											
10	M/SL	Bayard Avenue	$ 590,910	$ 590,910	$ 11,288	$ 579,622	1.9%	$ -	$ 584,420	$ 4,798	0.8%	Started	Material ordered.
11	M/SL	East side N. State Street	868,707	877,596	146,957	730,639	16.7%	-	847,700	117,954	13.9%	Done	Done.
12	M/SL	Route 13 Water Main	1,058,700	1,035,898	137,256	898,642	13.2%	-	967,801	13,259	1.4%	Started	With DelDOT.
13	R	Water Quality Improvements FY09	$ 2,518,317	$ 2,504,404	$ 295,501	$ 2,208,903	11.8%	$ -	$ 2,399,921	$ 136,011	16.1%	Started	
14													
15	M/SL	DE State University Pumping Station Repl.	$ 386,400	$ 386,400	$ 284,367	$ 102,033	73.6%	-	240,324	138,652	57.7%	Completed	Done.
16	M/SL	Fox Hall/Retreat Force Main Rerouting	133,100	139,245	238,789	(99,544)	171.5%	-	-	20,351	0.0%	Completed	Done. Overage covered by US 13 Interceptor.
17	M/SL	Acorn Lane Pump Station Replace.	386,400	386,400	293,209	93,191	75.9%	-	210,528	117,698	55.9%	Completed	Done.
18		**Totals - FY09**	$ 3,424,217	$ 3,416,449	$ 1,111,866	$ 2,304,583	32.5%	$ -	$ 2,850,773	$ 412,713	14.5%		
19													
20		**FY2010**											
21	R	Remote Control & Monitor Wells	$ 55,000	$ 55,000	$ 23,104	$ 31,896	42.0%	$ -	$ 31,896	$ -	0.0%	Complete	Done.
22	M/SL	Inflow/Infiltration Removal	1,800,000	1,799,668	1,400	1,798,268	0.1%	-	1,798,447	179	0.0%	Started	Pre-construction inspections ongoing.
23	M	Fox Hall Pump Station	427,900	52,000	25,317	26,683	48.7%	375,900	426,044	23,461	5.5%	Started	DNREC loan approved to Council for approval .
24	M	Heatherfield Pumping Station Upgrade	220,400	40,000	26,543	13,457	66.4%	229,200	267,916	25,259	9.4%	Started	DNREC loan approved to Council for approval .
25	I	Tar Ditch Interceptor Upgrade	518,230	518,230	7,851	510,379	1.5%	-	516,781	6,402	1.2%	Started	Reviewing design
26		Various Pump Motor Replacements	45,248	45,248	-	45,248	0.0%	-	45,248	-	0.0%	Started	Grant approved. Ordering begun.
27		**Totals - FY10**	$ 3,066,778	$ 2,510,146	$ 84,215	$ 2,425,931	3.4%	$ 605,100	$ 3,086,332	$ 55,301	1.8%		
28													
29		**FY2011**											
30		Misc. Distribution System Upgrade	$ 60,000	$ 60,000	$ -	$ 60,000	0.0%	$ 60,000	$ 60,000	$ -	0.0%	Started	On-going as needed.
31		Wellhead Redevelopement Program	60,000	60,000	-	60,000	0.0%	60,000	60,000	-	0.0%	Started	Going out to bid.
32		Water Quality Improvements	500,000	500,000	-	500,000	0.0%	500,000	500,000	-	0.0%	Not Started	See above FY09.
33	M/SL	Inflow/Infiltration Removal	500,000	500,000	-	500,000	0.0%	500,000	500,000	-	0.0%	Started	Will start after FY10 is done.
34	R	Scada Technology Equip Upgrade	82,100	82,100	-	82,100	0.0%	82,100	82,100	-	0.0%	Started	Equimpment coming in.
35		Del State/Del Tech Force Main Rerouting	286,500	286,500	2,646	283,854	0.9%	286,500	286,500	2,646	0.9%	Done	Shifted completion to Interceptor.
36		Lepore Road Pump Station Replacement	52,000	52,000	1,579	50,421	3.0%	52,000	52,000	1,579	3.0%	Started	Design with Braun.
37	R	Misc. Sewer System Improvements	35,000	35,000	35,152	(152)	100.4%	35,000	35,000	35,152	100.4%	Started	Ongoing as needed.
38		**Totals - FY11**	$ 1,575,600	$ 1,575,600	$ 39,377	$ 1,536,223	2.5%	$ 1,575,600	$ 1,575,600	$ 39,377	2.5%		
39													
40		**Grand Totals**	$ 15,538,795	$ 14,657,836	$ 3,290,348	$ 11,367,488	22.4%	$ 2,180,700	$ 10,681,049	$ 1,620,601	15.2%		

Legend
M = Multi-year project - a project with a specific schedule to occur over multiple years.
R = Recurring project - a project that begins and ends each fiscal year and is rebudgeted to start over each fiscal year.
SL = State Loan Project - construction phase is financed
I = Impact Fee Financed Project

City of Dover
Electric Improvement & Extension Fund - Major CIP Projects
November, 2010

			TOTAL PROJECT - PAST, CURRENT & FUTURE BUDGETS					CURRENT FISCAL YEAR					
	Type	Description	Original Project Budget	Latest Project Budget	Project To Date Expenses	Project Budget Balance	% Budget Spent	Current Fiscal Yr. Budget	Revised Fiscal Yr. Budget	Fiscal YTD Expenses	% Budget Spent	Status	Comments
1		**FY 2006**											
2	M/B	69 KV feeders 3 and 4	$ 11,060,000	$ 8,693,782	$ 8,761,762	$ (67,980)	100.8%	$ -	$ 4,242	$ 4,242	100.0%	Completed	In service.
3	M/S	Governor's Avenue Rebuild	1,268,450	2,068,260	547,247	1,521,013	26.5%	-	250,000	26,786	10.7%	Completed	Done.
4		**Totals - FY06**	$ 12,328,450	$ 10,762,042	$ 9,309,008	$ 1,453,034	86.5%	$ -	$ 254,242	$ 31,028	12.2%		
5													
6		**FY 2008**											
7		Unit 3 Turb Bearing Fire Protect Deluge	$ 50,000	$ 50,000	$ 33,323	$ 16,678	66.6%	$ -	$ 50,000	$ 33,323	66.6%	Started	Completion in December.
8		**Totals - FY08**	$ 50,000	$ 50,000	$ 33,323	$ 16,678	66.6%	$ -	$ 50,000	$ 33,323	66.6%		
9													
10		**FY2010**											
11	B	Vansant CT Mark IV Control (Replmnt)	$ 700,000	$ 610,000	$ 424,620	$ 185,380	69.6%	$ -	$ 202,363	$ 137,983	68.2%	Completed	In service.
12	B	McKee Run Entrance Road	240,000	240,000	154,722	85,278	64.5%	-	154,244	154,244	100.0%	Completed	In service.
13		Work Mgmt. System Replacement	85,000	85,000	26,577	58,423	31.3%	-	-	9,859	0.0%	Completed	Done.
14		Photovoltaic Install @ McKee Run	-	-	65,065	(65,065)	0.0%	-	65,065	65,065	100.0%	Completed	In service.
15	M/B	Mid City Substation	1,488,461	993,711	975,819	17,892	98.2%	-	1,087	1,087	100.0%	Completed	In service.
16	S	LED Lighting Replacement	70,087	70,087	-	70,087	0.0%	-	70,087	-	0.0%	Started	Installing on Division Street.
17	B	Crossgates	396,904	543,075	524,391	18,684	96.6%	-	-	1,440	0.0%	Completed	Done.
18	B	Buchanan Acres	406,000	865,144	1,207,967	(342,823)	139.6%	-	53,648	129,502	241.4%	Completed	Done. This project is over budget due to having addtiional bond proceeds to spend.
19													
20		**Totals - FY10**	$ 3,386,452	$ 3,407,017	$ 3,379,162	$ 27,855	99.2%	$ -	$ 546,494	$ 499,180	91.3%		
21													
22		**FY2011**											
23		Vehicles & Equipment	$ 158,200	$ 158,200	$ 20,905	$ 137,295	13.2%	$ 158,200	$ 158,200	$ 20,905	13.2%	Started	Vechicles being ordered.
24		Substation PT & CT Replacement	256,218	256,218	142,144	114,074	55.5%	256,218	256,218	142,144	55.5%	Started	Material being received.
25		Replace of 69 kV Breakers	100,000	100,000	7,220	92,780	7.2%	100,000	100,000	7,220	7.2%	Started	Installing started.
26		Lighting Rehabilitation	100,000	100,000	107,644	(7,644)	107.6%	100,000	100,000	107,644	107.6%	Started	Started Foxhall.
27		Walker Road OH Conversion	350,511	350,511	-	350,511	0.0%	350,511	350,511	-	0.0%	Dropped	Funds reappropriated.
28		Engineering Misc Equipment Replmnt	40,000	40,000	19,522	20,478	48.8%	40,000	40,000	19,522	48.8%	Started	Ongoing as needed.
29		Substation Batteries	24,500	24,500	23,489	1,011	95.9%	24,500	24,500	23,489	95.9%	Started	Ongoing as needed.
30		UG Transformers	120,536	120,536	60,031	60,505	49.8%	120,536	120,536	60,031	49.8%	Started	Ongoing as needed.
31		UG Conductors	529,464	529,464	127,764	401,700	24.1%	529,464	529,464	127,764	24.1%	Started	Ongoing as needed.
32		Meters	50,000	50,000	44,224	5,776	88.4%	50,000	50,000	44,224	88.4%	Started	Ongoing as needed.
33		Unit 3 Cooling Tower Fill	353,338	353,338	304,791	48,547	86.3%	353,338	353,338	304,791	86.3%	Completed	Done.
34		Units 1 & 2 Cooling Tower	218,730	218,730	63,470	155,260	29.0%	218,730	218,730	63,470	29.0%	Completed	Done.
35		Unit 3 Tubine Inspection	348,000	348,000	15,709	332,291	4.5%	348,000	348,000	15,709	4.5%	Deferred	Scoping.
36		Unit 3 Aux System Components	113,000	113,000	-	113,000	0.0%	113,000	113,000	-	0.0%	Deferred	Funding reallocated to Unit 1 repair.
37		Plant Misc Equipment Replmnt	71,000	71,000	38,203	32,797	53.8%	71,000	71,000	38,203	53.8%	Started	Ongoing as needed.
38		Unit 3 Stack Repairs	25,000	25,000	-	25,000	0.0%	25,000	25,000	-	0.0%	Deffered	Funding reallocated Unit 1 repair.
39		Units 1 & 2 Life Extension	276,000	276,000	8,126	267,874	2.9%	276,000	276,000	8,126	2.9%	Started	Scoping, some funding reallocated Unit 1 repair
40		Unit 1 Turbine Outage	-	-	424,747	(424,747)	0.0%	-	-	424,747	0.0%	Completed	Emergency repair; Budget amendment approved in Dec.
41		Unit 3 FD & ID FAN CNRL UP	45,000	45,000	-	45,000	0.0%	45,000	45,000	-	0.0%	Not Started	New.
42		Unit 3 DCS Com & Software	30,000	30,000	-	30,000	0.0%	30,000	30,000	-	0.0%	Not Started	New.
43		Unit 2 Boiler Inspection & Repair	-	-	-	-	0.0%	-	220,000	71,467	32.5%	Not Started	New.
44		Distribution Upgrades	400,000	400,000	134,478	265,522	33.6%	400,000	400,000	134,478	33.6%	Started	Ongoing as needed.
45			$ 3,609,497	$ 3,609,497	$ 1,542,466	$ 2,067,031	42.7%	$ 3,609,497	$ 3,829,497	$ 1,613,933	42.1%		
46													
47		**Grand Totals**	$ 19,374,399	$ 17,828,556	$ 14,263,959	$ 3,564,597	80.0%	$ 3,609,497	$ 4,680,233	$ 2,177,463	46.5%		

Legend
M = Multi-year project - a project with a specific schedule to occur over multiple years.
R = Recurring project - a project that begins and ends each fiscal year and is rebudgeted to start over each fiscal year.
B = Bonded Project
S = State fully or partially reimbursed project