UTILITY COMMITTEE
AGENDA

NOVEMBER 12, 2013 - 5:00 P.M.

CITY HALL COUNCIL CHAMBERS
15 LOOCKERMAN PLAZA
DOVER, DELAWARE

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. **Engineering Design and Projects**
   - **A. Engineering Design of Water and Wastewater Upgrades - West Dover Connector**
     (Staff Recommends Acceptance of the Proposal from URS Corporation to Perform Engineering Design Work Necessary for Water and Wastewater Upgrades Associated with the West Dover Connector in the Amount of $44,100)
   - **B. Engineering Design of Water Main Realignment - Denneys Road**
     (Due to Time Constraints, This Item Has Been Placed on the Council Agenda for the Meeting Being Held Later in the Evening)
     (Staff Recommends Acceptance of the Proposal from URS Corporation to Perform Engineering Design Work Necessary for the Water Main Realignment in Denneys Road in the Amount of $33,200)
   - **C. Engineering Design - Miscellaneous Stormwater Projects**
     (Staff Recommends Acceptance of the Three (3) Proposals from URS Corporation to Perform Engineering Design Work Necessary for Flooding Issues at Buttner Place, Susan Place, and Lakeview Drive in the Amount of $9,450, $9,300 and $24,400 Respectively ($43,200 Total - Rounded to $100))
   - **D. Kent Avenue Inflow and Infiltration Repair**
     (Due to Time Constraints, This Item Has Been Placed on the Council Agenda for the Meeting Being Held Later in the Evening)
     (Staff Recommends Authorizing the Creation of a New Inflow/Infiltration Project to Correct the Issues in Kent Avenue)

2. **Rate Classification/Tariff Amendment for Churches**
   (Staff Recommends That No Action Be Taken on Amending the Current Electric Rate Tariffs and That Staff Be Directed to Assist the Presbyterian Church of Dover with a Green Energy Grant Application to Facilitate Energy Efficiency Within the City's Electric System)

3. **Temporary Suspension of Acceptance of Solar Applications - Green Energy Fund**
   (Staff Recommends Temporarily Suspending Solar Photovoltaic Applications to the City and Green Energy Fund)

4. **TEA/NAES Report (*August and September*)** *(Staff Recommends Acceptance of the Reports)*

5. Updates *(Committee Action Not Required)*

- **A. Green Energy Funding and Programming**
- **B. National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) Permit**
- **C. Calpine Energy Center**
- **D. Dover Sun Park**
- **E. Garrison Oak Technical Park Project**

6. Adjournment by 5:55 p.m.

/tm
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ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: Public Works	**DATE SUBMITTED**: 11/1/13
PREPARED BY: Sharon J. Duca, P.E. – Public Works Director / City Engineer	
SUBJECT: Engineering Design of Water and Wastewater Upgrades – West Dover Connector	
REFERENCE: N/A	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Exhibit A – Engineering Proposal from URS dated 11/01/2013; Exhibit B - Aerial Map of Project Area	
EXPENDITURE REQUIRED: $44,100	**AMOUNT BUDGETED**: n/a
FUNDING SOURCE (Dept./Page in CIP & Budget): Water portion of project - $11,100 from the Budget Balance. Wastewater portion of project - $33,100, from carry forward funds from FY 2013 Inflow / Infiltration Account, 417-6900-569.40-31 (currently $867,000).	
TIME TABLE: Preliminary work has begun due to time constraints.	
RECOMMENDED ACTION: Accept proposal from URS Corporation to perform engineering design work necessary for Water and Wastewater Upgrades associated with the West Dover Connector in the amount of $44,100.	

BACKGROUND AND ANALYSIS

The Delaware Department of Transportation (DelDOT) is planning on constructing a new bypass road from the Rodney Village Subdivision to the intersection of Saulsbury Road and North Street known as the West Dover Connector. DelDOT reached out to the City of Dover (City) to find out if any utilities required relocation during the construction of this road which is slated to begin construction around August of 2014. City staff investigated the sanitary sewer mains within the scope of the project. After performing video surveys, it was determined that root growth entering the mains has severely decreased the structural integrity of the infrastructure therefore meriting replacement of the utility in the project area. Additionally, the water main within Rodney Village is only six-inches (6”) in diameter. Currently, an eight-inch (8”) water main is the minimum size permitted. The City approached DelDOT with our utility concerns, stating that we would not want to risk having a utility failure under a newly constructed State owned road. It was recommended by DelDOT that the City perform this work prior to the road construction entering this area. The City reached out to one of our approved consulting engineers (URS Corporation) to create a proposal for the engineering design aspects of the water and wastewater upgrades.

This project was not budgeted for in the current Capital Investment Program (CIP). The City feels it is in the best interest of all stakeholders that the necessary construction upgrades start early in Fiscal Year (FY) 2015. In order to meet this timeline, Engineering services mus be finalized in FY 2014 in an effort to bid the project and provide the contractor a notice to proceed as soon as possible in FY 2015. The construction aspect of this project would be budgeted for within the FY15-FY19 CIP in both the water and sewer funds.

The current proposal for work is $44,100 to be funded as indicated in the above Funding Source section of the Action Form.

URS

November 1, 2013

Mr. Jason A. Lyon, P.E.
City of Dover Department of Public Works
P.O. Box 475
Dover, DE 19903

Re: West Connector Road Utility Relocation Design
Engineering Services Contract (11-0025DPU)

Dear Mr. Lyon:

URS Corporation d/b/a URS Corporation Americas is pleased to submit our revised proposal to the Dover Department of Public Works for professional engineering services related to the design of water and sanitary sewer relocations in coordination with the DelDOT West Connector Road Design Project.

I. BACKGROUND

On September 11, 2013, the Department of Public Works requested a proposal from URS to prepare design drawings and specifications to provide utility relocations for the water and sewer infrastructure as part of the Dover West Connector Roadway Project with DelDOT. A proposal was previously provided, but the Department of Public Works has requested this revised proposal based on changes in the scope of the project.

II. SCOPE OF WORK

The scope will include engineering design for the development of final design documents to replace the existing 10" sanitary sewer with a 10" PVC sewer along the same pipe alignment between the limits of STA 1003+00 to STA 1015+00 of the proposed West Connector alignment. Additionally, the project will replace one of the five segments of the City of Dover's 8" sanitary lines on the perpendicular streets to Charles Polk Road. This will include the replacement of sanitary laterals along these lengths to the Right-of-Way. The impacted manholes will also be replaced with pre-cast concrete manholes in accordance with the Dover Water / Wastewater Handbook and set to rim elevations that correspond with the proposed DelDOT improvements.

Existing water mains will also be replaced in the same trench along Charles Polk Road with re-connections to the active services.

III. SERVICES TO BE PROVIDED

The following services will be provided with this effort:

- Provide survey services including:
  1. Inverts on 13 manholes.
  2. A 20' wide swath of topography centered along each of the five pipelines.
  3. Submit a One-Call request and show utilities along the five sanitary sewer collection mains.
- Review existing drawings of sewer utilities that have been supplied by the Department.
- Develop details to replace the three existing fire hydrants and active water service connections utilizing Dover standard details.
- Develop plan, profile and detail sheets for the replacement of the existing 10" sanitary sewer and associated manholes.

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4051 Ogletown Road, Suite 300
Newark, DE 19713
Tel: 302.781.5900
Fax: 302.781.5901
www.urscorp.com

- Develop plan, profile and detail sheets for the replacement of the existing 6" water main with an 8" water main in a similar alignment. The plans will provide 8" extensions with valves for future connections to the five streets that intersect with Charles Polk Road. The extensions will terminate at the proposed edge of the mill and overlay limit on DelDOT's plans.
- Attend one meeting with the City to review the project.
- Provide an opinion of probable cost for the water and sewer relocations.
- Provide technical specifications for the work.
- Prepare bid documents for use by Dover.
- Erosion and sediment control design and permit application preparation.
- Prepare application form for the DelDOT Utility Construction Permit.
- Develop traffic control plans. DelDOT MUTCD standards will be utilized. Detour routes are not anticipated.

IV. RESOURCES TO BE MADE AVAILABLE BY THE DEPARTMENT OF PUBLIC WORKS

We request the following information from the Department of Public Works to perform our services:

- All pertinent DelDOT drawings in Microstation format.
- Active sanitary lateral locations along the proposed replacement area.
- Active water service locations along the proposed replacement area.
- Well #6 site plans.
- Access to Well #6 site for survey.
- Electronic versions of standard Dover contract documents and insurance requirements that will be utilized in the bid package.

V. ASSUMPTIONS

URS has made the following assumptions when developing the budget for this proposal:

- URS will develop the construction drawings in Microstation format.
- URS will base acceptable proposed slopes on the Ten State Standards Guidance for the design of sewers
- Drawings of the existing sewer will be provided by the City of Dover.
- Restoration of the utility trenches will be by Dover within their work area. Trench restoration details will be provided for the perpendicular feeder roads where sanitary will be replaced.
- DelDOT to supply survey control information. Establishment of a bench mark, thus, is not included.
- A boundary survey is not necessary as the base plans will be provided by DelDOT.
- Existing sanitary laterals and water services will be re-connected at the same locations and services to the homes to be abandoned will not be replaced. For locations not able to be provided by Dover, the contractor will need to locate prior to construction.
- Geotechnical investigation is not necessary as the pipe will be replaced within the same trench.
- Additional site visits and owner requested meetings, beyond those noted as included in Section III, will be billed on an hourly rate basis as additional services.

VI. SERVICES NOT INCLUDED

URS routinely provides the following additional services for this type of project and welcomes the opportunity to further assist the Department if desired. However, these tasks have not been included in this proposal:

- Sewer system modeling or hydraulic assessment of present capacity
- Water system modeling
- Flow metering
- Funding support
- Geotechnical investigation

- Wetlands delineation
- Property easement support or preparation of easement descriptions
- Bidding Services
- Construction administration services
- Construction review services
- Any other services not specifically mentioned in Section III

VII. SCHEDULE

We will begin our services, as described in Section II, immediately upon receipt of written authorization to proceed. We anticipate eight weeks to complete the development of the bid documents.

VIII. FEE AND CONTRACT CONDITIONS

Our lump sum fee is $44,100 for the completion of the work as identified above. Seventy five percent of the fee is attributed to sanitary sewer and twenty five percent of the fee is attributed to the water relocation. This fee will not be exceeded without written authorization from the Department of Public Works. The project will be billed on a monthly basis based on a percent of completion of the lump sum cost.

This proposal is subject to the conditions stated in Agreement for Engineering Services and Project Management for Water and Wastewater Utilities, 11-0025DPU between Dover and URS dated April 26, 2011.

If you have any questions or need additional information, please do not hesitate to contact us. Thank you for the opportunity to serve the Department of Public Works.

Sincerely,

URS Corporation d/b/a URS Corporation Americas

Christopher T. Curran, P.E.
Project Manager

Brian N. Bolender, P.E.
Vice President

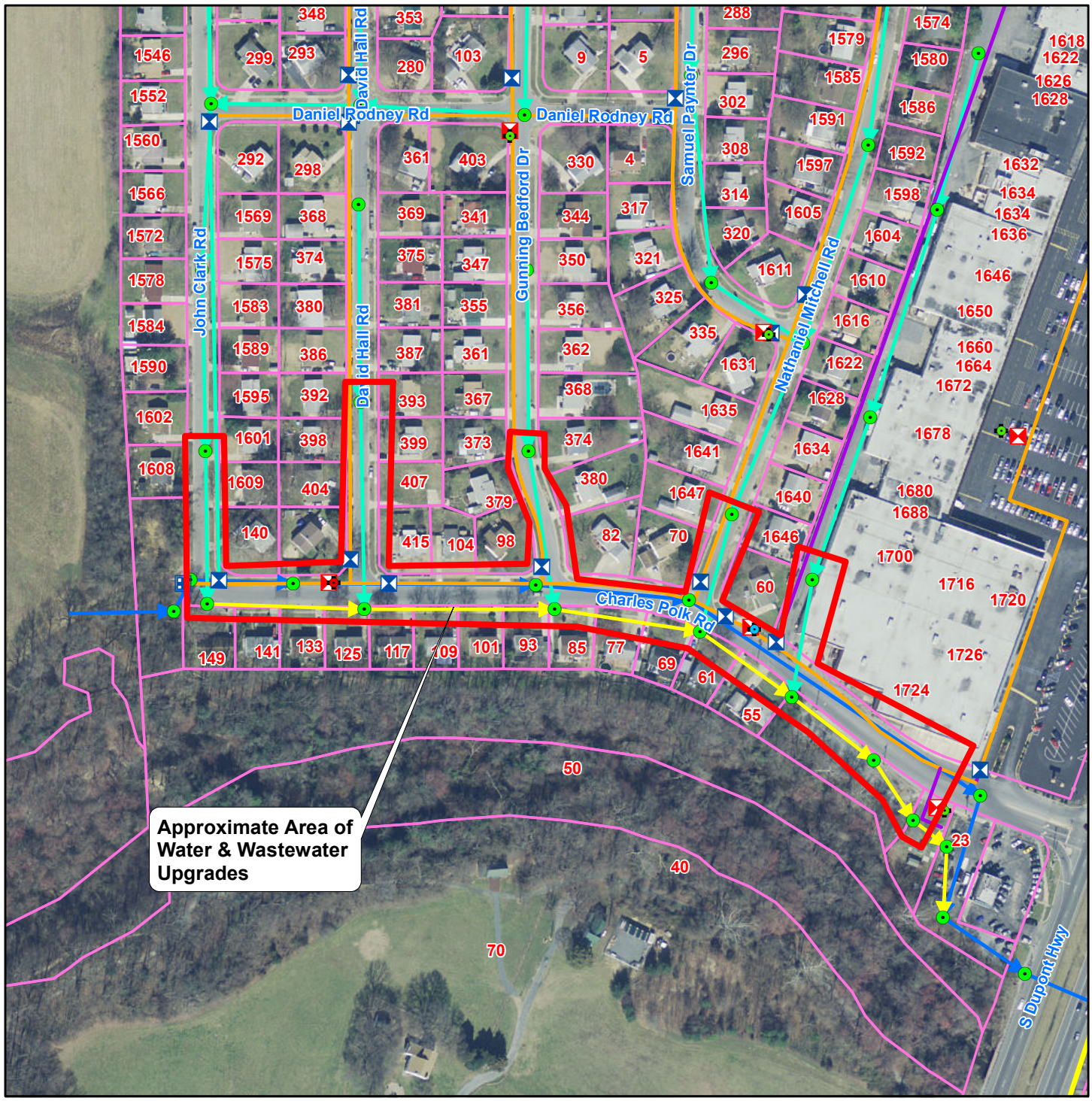
Approved by: _____ Date: _____

CITY OF DOVER

Exhibit B

CAF Map

West Dover Connector - Water & Wastewater Upgrades



Legend

- 1500 GPM
- 1000 - 1499 GPM
- 500 - 999 GPM
- Below 500 GPM
- Parcel Lines
- Service Line
- Dead End
- Reducer
- Service Connection
- Meter Pit
- Hydrant Valve
- Division Valve
- Curb Stop/Meter Pit
- Curb Stop/House
- Curb Stop
- Blow Off

Water Main: 1", 2", 3", 4", 6", 8", 10", 12", 14", 16", 20"

Sanitary Sewer Line: 10", 12", 15", 16", 18", 20", 21", 24", 27", 30", 35", 36", 4", 6", 8"

- Sanitary Manhole
- Sanitary Force Main
- PS Pump Station

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Department: Public Works GIS
City of Dover, Delaware

ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: Public Works	**DATE SUBMITTED**: 11/1/13
PREPARED BY: Sharon J. Duca, P.E. – Public Works Director / City Engineer	
SUBJECT: Engineering Design of Water Realignment – Denneys Road	
REFERENCE: N/A	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Exhibit A – Engineering Proposal from URS dated 10/01/2013; Exhibit B - Aerial Map of Project Area	
EXPENDITURE REQUIRED: $33,200	**AMOUNT BUDGETED**: n/a
FUNDING SOURCE (Dept./Page in CIP & Budget): To be paid from transfer of funds to operating budget from salary savings due to current Civil Engineer vacancies. Budget amendment will be submitted to Finance upon approval. Total amendment for this project & Misc. Stormwater projects - $76,350.	
TIME TABLE: Preliminary work has begun due to time constraints.	
RECOMMENDED ACTION: Accept the proposal from URS Corporation to perform engineering design work necessary for the Water Main Realignment in Denneys Road in the amount of $33,200.	

BACKGROUND AND ANALYSIS

The Delaware Department of Transportation (DelDOT) is in the final stages of design to replace the existing bridge on Denneys Road, adjacent to the Delaware Technical and Community College. Every DelDOT bridge replacement project is required to reach out to facility owners to assure that the new design will not interfere with any other infrastructure. The proposed bridge design depicts the bridge wing walls being constructed within ten feet (10') of the existing City of Dover (City) water main. This water main was installed via directional drilling under the existing stream. The water main must be relocated to meet the requirements of the Water / Wastewater Handbook, which states that no structure shall be installed within ten (10) horizontal feet from a water main.

Due to the current engineering staffing levels of the Department of Public Works as well as DelDOT's proposed timeline for the bridge rebuild, construction in Spring of 2014, the City reached out to one of our approved consulting engineers (URS Corporation) to provide a proposal to design the water main realignment. **DelDOT will reimburse the City for all engineering and construction costs associated with the water main realignment.**

Staff requests that Council accept the proposal from URS to create construction drawings and specifications to bid this project out to a contractor to perform the water main realignment. The estimated construction phase of this project will be brought to Committee up completion of the estimated cost.

URS

October 1, 2013

Mr. Jason A. Lyon, P.E.
City of Dover Department of Public Works
P.O. Box 475
Dover, DE 19903

Re: West Denny Road Water Main Relocation
Engineering Services Contract (11-0025DPU)

Dear Mr. Lyon:

URS Corporation d/b/a URS Corporation Americas is pleased to submit our proposal to the Dover Department of Public Works for professional engineering services related to the design of water main relocations as part of the DelDOT West Denny Road Bridge Replacement (2-100A) over the Fork Branch Project.

I. BACKGROUND

On September 11, 2013, the Department of Public Works requested a proposal from URS to provide a utility relocation design for the existing water main at the Denney's Road crossing of the Fork Branch. The project will precede the DelDOT bridge replacement work scheduled for the spring of 2014, as the existing main is in direct conflict with future bridge abutments.

II. SCOPE OF WORK

The scope will include engineering design for the development of final design and bidding documents to replace the existing 12" water main with a 14" HDPE water main at the crossing of the Fork Branch, and then reconnect to the existing main beyond the limits of the work area. Work will be designed in accordance with the Dover Water / Wastewater Handbook with consideration for the proposed DelDOT bridge improvements.

III. SERVICES TO BE PROVIDED

The following services will be provided with this effort:

- Provide survey services including:
  1. Extend DelDOT roadway survey by 300 feet to the north of the current limits of survey prepared for the DelDOT project.
  2. Submit a One-Call request and depict utilities on a drawing for extended survey coverage.
  3. Provide traffic control during survey.
- Develop details to replace the existing fire hydrant and active water service connections utilizing Dover standard details.
- Discuss proposed construction with up to two qualified local directional drilling contractors.
- Review DelDOT proposed roadway plans for the replacement of the existing bridge.
- Develop construction drawings for the replacement of the existing 12" water main with a 14" water main. The alignment will take into consideration DelDOT's future bridge replacement plans.

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Fax: 302.781.5901
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- Development of erosion and sediment control plan and traffic control plans necessary for the work.
- Submit water main relocation to the Office of Drinking Water for approval.
- Attend one meeting with Dover to review the project.
- Provide an opinion of probable construction costs.
- Provide technical specifications for the project.

IV. RESOURCES TO BE MADE AVAILABLE BY THE DEPARTMENT OF PUBLIC WORKS

We request the following information from the Department of Public Works to perform our services:

- All pertinent DelDOT drawings in Microstation format.
- Any active water service locations along the proposed replacement area.
- Proposed re-alignment of City electrical lines. **(previously provided)**
- Existing geotechnical reports and data for the new bridge project.
- City of Dover to provide all standard contract documents and language for the "up front" bidding documents.

V. ASSUMPTIONS

URS has made the following assumptions when developing the budget for this proposal:

- URS will develop the construction drawings in AutoCAD format.
- New main will be a 14" HDPE pipe and installed by horizontal directional drilling technology. The water main will be located to the east of the structure while maintaining as much clearance from the existing Dover sanitary force main.
- The pipe alignment cannot be located within the limits of the roadway shoulder as shoring will be required as part of the bridge construction which will create future interferences.
- DelDOT to supply survey control information. Establishment of a bench mark will not be included.
- A boundary survey is not necessary as the base plans will be from DelDOT.
- Geotechnical investigation is not necessary as the DelDOT information will be adequate.
- Wetland permitting will not be necessary as the crossing of the wetlands will be non-invasive and DelDOT is securing wetland permits for the work.
- A separate utility permit is not required by DelDOT as the work is part of the overall bridge work.
- Additional site visits and owner requested meetings, beyond those noted as included in Section III, will be billed on an hourly rate basis as additional services

VI. SERVICES NOT INCLUDED

URS routinely provides the following additional services for this type of project and welcomes the opportunity to further assist the Department if desired. However, these tasks have not been included in this proposal:

- Water system modeling
- Relocation of existing sanitary force main
- Funding support
- Geotechnical investigation
- Wetlands delineation
- Property easement support or preparation of easement descriptions
- Bidding Services
- Permitting beyond the items referenced above
- Construction administration or review services

- Any other services not specifically mentioned in Section III.

VII. SCHEDULE

We will begin our services, as described in Section II, immediately upon receipt of written authorization to proceed. We anticipate six to eight weeks to complete the development of the plans and specifications.

VIII. FEE AND CONTRACT CONDITIONS

Our lump sum fee is $33,200 for the completion of the work as identified above. This fee will not be exceeded without written authorization from the Department of Public Works. The project will be billed on monthly basis based on a percent completion of the lump sum cost.

This proposal is subject to the conditions stated in Agreement for Engineering Services and Project Management for Water and Wastewater Utilities, 11-0025DPU between Dover and URS dated April 26, 2011

If you have any questions or need additional information, please do not hesitate to contact us. Thank you for the opportunity to serve the Department of Public Works.

Sincerely,

URS Corporation d/b/a URS Corporation Americas

Christopher T. Curran, P.E.
Project Manager

Brian N. Bolender, P.E.
Vice President

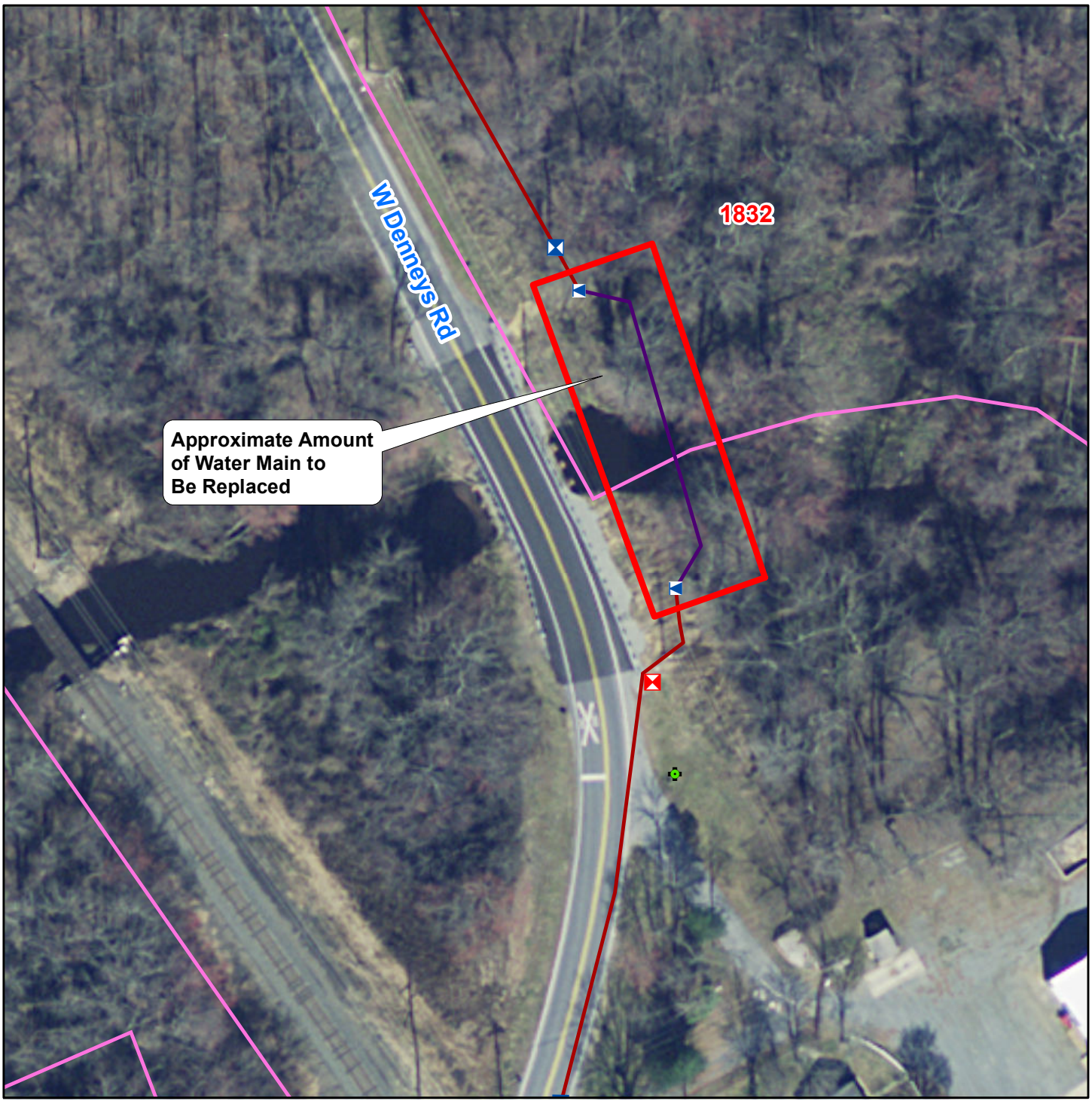
Approved by: _____ Date: _____

CITY OF DOVER

Exhibit B

CAF Map

West Denneys Road Bridge



0 45 90 180 Feet

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Department: Public Works GIS
City of Dover, Delaware

Legend

- 1500 GPM
- 1000 - 1499 GPM
- 500 - 999 GPM
- Below 500 GPM
- Service Line
- Dover Parcels
- Dead End
- Reducer
- Service Connection
- Meter Pit
- Hydrant Valve
- Division Valve
- Curb Stop/Meter Pit
- Curb Stop/House
- Curb Stop
- Blow Off
- 1" 10"
- 2" 12"
- 3" 14"
- 4" 16"
- 6" 20"
- 8"

ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: Public Works	**DATE SUBMITTED**: 11/1/13
PREPARED BY: Sharon J. Duca, P.E. – Public Works Director / City Engineer	
SUBJECT: Miscellaneous Stormwater Projects	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Exhibit A – Engineering Proposal from URS dated 10/14/13; Exhibit B - Aerial Map of Project Area; Exhibit C – Engineering Proposal from URS dated 10/14/13; Exhibit D – Aerial Map of Project Area; Exhibit E – Engineering Proposal from URS dated 11/1/13; Exhibit F – Aerial Map of Project Area	
EXPENDITURE REQUIRED: $43,200 (rounded to $100)	**AMOUNT BUDGETED**: n/a
FUNDING SOURCE (Dept./Page in CIP & Budget): To be paid from transfer of funds to operating budget from salary savings due to current Civil Engineer vacancies. Budget amendment will be submitted to Finance upon approval. Total amendment for this project & Denneys Road project = $76,400. Recommended improvements will be funded with Community Transportation Funds if not available another funding source will need to be determined.	
TIME TABLE: Notice to proceed to be issued following Council approval. All three (3) projects to be completed within nine (9) weeks of notice to proceed.	
RECOMMENDED ACTION: Accept the three (3) proposals from URS Corporation to perform engineering design work necessary for flooding issues at Buttner Place, Susan Place and Lakeview Drive in the amount of $9,450, $9,300 and $24,400 respectively ($43,200 total).	

BACKGROUND AND ANALYSIS

Within the last six (6) months, the City of Dover (City) Department of Public Works (DPW) has received requests to address flooding issues at three (3) separate locations. These requests have caused concern for residents, Council members and Legislators alike. The flooding issues have been active for some time and the areas in question are affecting the safety of our citizens and impacting property.

Location #1: Buttner Place

The flooding issue on Buttner Place is located approximately seventy-feet (70') north of the intersection with Walker Road. Currently, there is a pavement depression along the west side of Buttner Place, adjacent to a vacant commercial driveway. The pavement depression holds standing water from rainfall and snowmelt. There is a drainage inlet between the pavement depression and Walker road, however, the location of the inlet is not ideal, as it is not in the low spot of Buttner Place. When a significant rain event occurs, the spread of the water encompasses the entire southbound travel lane and encroaches into the northbound travel lane, causing hazardous driving conditions.

Proposal cost for engineering solution, construction drawings and bid specifications for Buttner Place = $9,500

Location #2: Susan Place

The flooding issue on Susan Place, which is within the Persimmon Park Place Development, occurs at and around 113 Susan Place. There are storm sewer inlets along both sides of the road at certain locations however the profile of Susan Place is extremely flat. There is a significant section that does not have any positive drainage which results in flooding of Susan Place, damage to property and hazardous driving conditions.

Proposal cost for engineering solution, construction drawings and bid specifications for Susan Place = $9,300

Location #3: Lakeview Drive

The flooding issue on Lakeview Drive occurs at 26 Lakeview Drive, adjacent to the Luther Tower complex. Currently, there are two (2) existing eighteen-inch (18") x thirty-six (36") catch basins located adjacent to 26 Lakeview Drive. The two inlets are shallow and the pipe connecting the two (2) catch basins is a twelve-inch (12") reinforced concrete pipe. The current minimum size storm pipe is fifteen-inches (15"). The infrastructure within Lakeview Drive connects to a private system within the Luther Towers complex, eventually discharging into Silver Lake. When a significant rain event occurs, flooding occurs on the north end of Lakeview Drive, causing damage to property and hazardous driving conditions.

Proposal cost for engineering solution, construction drawings and bid specifications for Lakeview Drive = $24,400

Summary

Flooding issues cause significant damage to the environment, infrastructure and property. Additionally, flooding causes hazardous driving conditions and decreases the ability for emergency service vehicles to access locations. Due to current staffing levels in the engineering division of the DPW, staff has reached out to one of our approved consulting engineers to provide solutions to the three (3) flooding issues.

Staff recommends that Council approve the three (3) proposals from URS Corporation to provide engineering solutions to the flooding issues within the City. Upon receipt of the Engineering solutions we will seek funding for any improvements through Community Transportation Funds.

URS

October 14, 2013

Mr. Jason A. Lyon, P.E.
City of Dover Department of Public Works
P.O. Box 475
Dover, DE 19903

Re: Buttner Place Drainage
Engineering Services Contract (11-0025DPU)

Dear Mr. Lyon:

URS Corporation d/b/a URS Corporation Americas is pleased to submit this proposal to the Dover Department of Public Works (Department) for professional services related to street flooding along the west side of Buttner Place near its intersection with Walker Road. URS proposes to design drainage improvements to mitigate the flooding, including construction drawings and specifications for the proposed improvements.

I. BACKGROUND

Buttner Place is two-lane two-way a north/south street an asphalt pavement surface and concrete curb along the east side only. It intersects Walker Road at its south terminus. Near this intersection the profile grade of Buttner Place is very flat. There are storm sewer inlets along both sides of Buttner Place at certain locations. Approximately 70 feet north of Walker Road there is a pavement depression along the west side of Buttner Place, adjacent to a commercial driveway. The depression holds standing water from rainfall and snowmelt runoff. Although there is a shoulder drainage inlet between the depression and Walker Road, there is insufficient grade to allow the runoff to drain to the inlet. The standing water inundates the southbound travel lane and ice and slush form during periods of freezing temperatures, resulting in hazardous driving conditions.

II. SCOPE OF WORK

Pursuant to our September 24, 2013 visit to the subject site, the City requests engineering services to devise a solution to the Buttner Place drainage problem, and prepare associated construction drawings and specifications for the City's use in advertising, bidding and construction.

III. SCOPE OF SERVICES TO BE PROVIDED

1. Perform topographic survey to document existing features within and along Buttner Place, including elevations of drainage facilities. Prepare a project base plan.
2. Obtain record plans of property and road right-of-way boundaries and delineate same on base plan. Contact Miss Utility to obtain record plans of underground utilities, and delineate same on base plan.
3. Prepare a preliminary design of drainage improvements and forward design drawings to the Department for review and comment.
4. Conduct a site visit to field check the base plan, evaluate the preliminary design, and determine if utility mark-outs are necessary. Request utility mark-outs (if necessary).

5. Provide 90% plan and profile design drawings, construction details and notes, and construction specifications to Department for review and approval. It is expected that the design will consist of one shoulder inlet and an associated length of storm sewer pipe connecting to an existing nearby pipe in the center of Buttner Place. The inlet will collect runoff along the shoulder for conveyance to downstream pipes. The plans will include industry-standard work zone traffic control details.
6. Site visit with the Department to review 90% design and any contingencies.
7. Prepare final plans and specifications, bid form, and engineers estimate and forward same to the Department for bidding and construction.

IV. DEPARTMENT OF PUBLIC WORKS INFORMATION AND ASSISTANCE

URS requests that the following information and assistance be provided by the Department for completion of the Scope of Services:

- Copies of design and as-built plans of Buttner Place, if available.
- Tax maps and deeds for properties on either side of Buttner Place, near the subject drainage condition.
- Design and as-built plans for underground utilities owned by the City of Dover, if available.
- Assistance with obtaining plans of underground utilities not owned by the City of Dover.
- Notice to the owner of the adjacent commercial property to permit a URS survey crew to enter the property.
- In lieu of a separate site visit by URS, Department staff will markup the base plan with any utility mark out information and forward it to URS for supplementing the base plan.

V. ASSUMPTIONS

URS has made the following assumptions when developing the budget for this proposal:

- The re-profiling of the Buttner Place pavement is not an available option to effect positive drainage to existing inlets.
- The drainage design will collect and convey runoff from adjacent and upstream areas that are presently draining to Buttner Place.
- The presence of underground utility conflicts are unknown at this time; conflict(s) may necessitate utility relocations. Utility relocation designs are not included in URS' scope of work for this project, and associated coordination with outside utility owners will be completed by the Department.
- The limit of disturbance is less than 5000 square feet; therefore an E&S Permit will not be required. However, inlet filter typical details will be provided on the construction drawings.

VI. SERVICES NOT INCLUDED

The following services are not included in this proposal; however these tasks can be performed for an additional fee, if desired:

- Permitting services.
- Additional site visits not identified in Section III above.
- Additional meetings not identified in Section III above.

- Design of any Stormwater Management Best Management Practices for the site.
- Relocation of utilities to accommodate proposed drainage improvements.
- Any other services not specifically included in Section III above.

VII. SCHEDULE

We will initiate the services described in Section III immediately upon receipt of written authorization to proceed, and estimate six to eight weeks to perform the work.

VIII. FEE AND CONTRACT CONDITIONS

Our time and materials fee for the completion of the scope of services is $9,450.00. This fee will not be exceeded without written authorization from the Department of Public Works. The project will be billed on monthly basis in accordance with our Contract Rates.

This proposal is subject to the conditions stated in Agreement for Engineering Services and Project Management for Water and Wastewater Works, 11-0025DPU between Dover and URS dated April 26, 2011.

If you have any questions or need additional information, please do not hesitate to contact us. Thank you for the opportunity to serve the Dover Department of Public Works.

Sincerely,

URS Corporation d/b/a URS Corporation Americas

Robert R. Pingar, PE
Project Manager

Brian N. Bolender, PE
Vice President

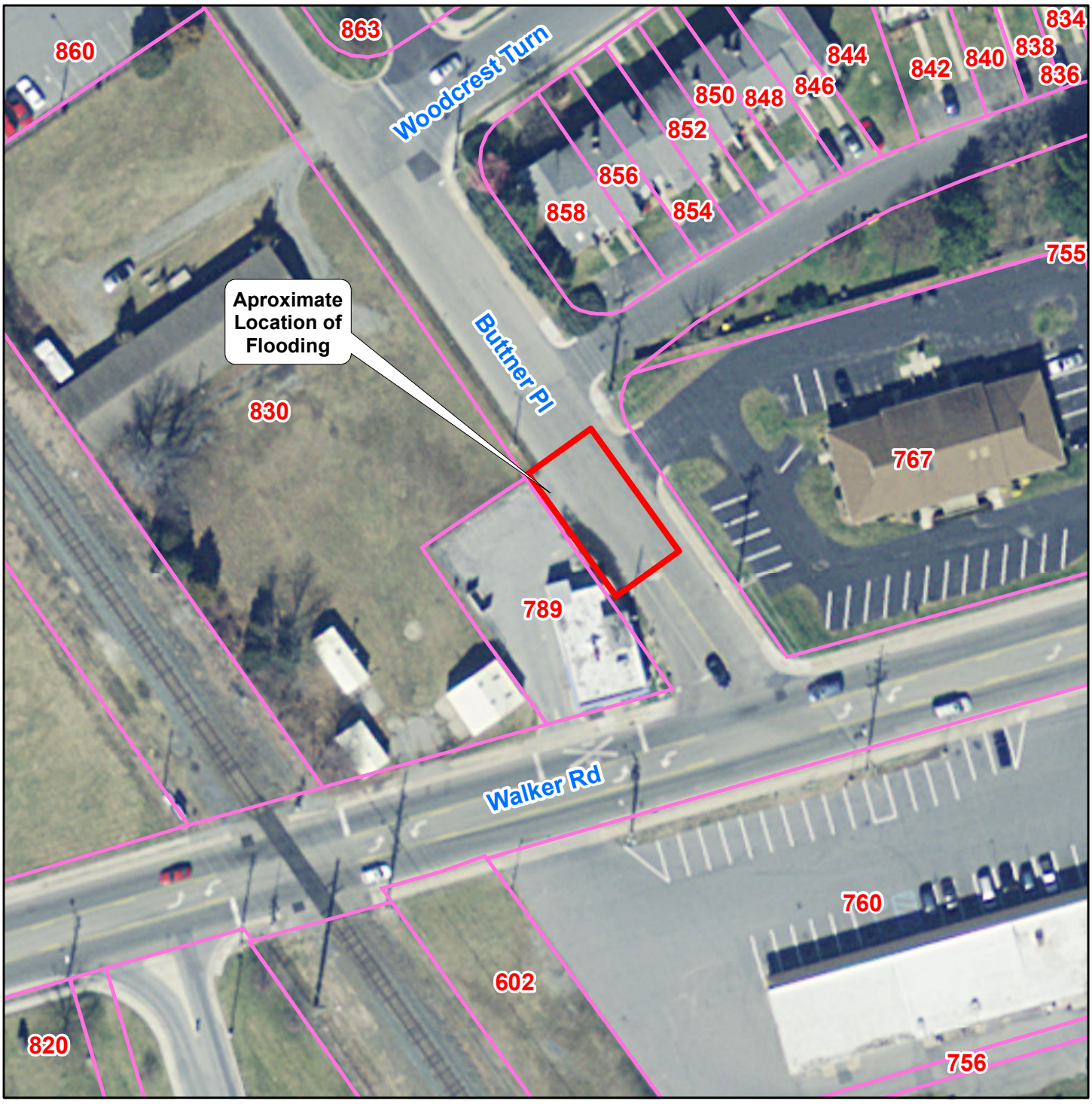
Approved by: _____ Date: _____

CITY OF DOVER

URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark, DE 19713
Tel: 302.781.5900
Fax: 302.781.5901
www.urscorp.com

CAF Map

Buttner Place



0 45 90 180 Feet

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Department: Public Works GIS
City of Dover, Delaware

Legend

Dover Parcels

URS

October 14, 2013

Mr. Jason A. Lyon, P.E.
City of Dover Department of Public Works
P.O. Box 475
Dover, DE 19903

Re: #113 Susan Place Drainage
Engineering Services Contract (11-0025DPU)

Dear Mr. Lyon:

URS Corporation d/b/a URS Corporation Americas is pleased to submit this proposal to the Dover Department of Public Works (Department) for professional services related to street flooding in Susan Place near house #113. URS proposes to design drainage improvements to mitigate the flooding, including construction drawings and specifications for the proposed improvements.

I. BACKGROUND

Susan Place was originally a private street; however it was eventually acquired by the City of Dover who is now responsible for its maintenance. It is a two-lane two-way paved street with rolled curbs along both sides. There are storm sewer inlets along both sides at certain locations. In the vicinity of house #113, the profile grade of Susan Place is very flat, with a section of approximately 30 feet that does not have positive drainage resulting in street flooding at the #113 driveway. Although there is a drainage inlet approximately 40 feet to the east/north, there is insufficient grade to allow runoff to drain to the inlet.

II. SCOPE OF WORK

Pursuant to our September 24, 2013 visit to the subject site, the City requests engineering services to devise a solution to the #113 Susan Place drainage problem, and prepare associated construction drawings and specifications for the City's use in advertising, bidding and construction.

III. SCOPE OF SERVICES TO BE PROVIDED

1. Perform topographic survey to document existing features within and along Susan Place, including elevations of drainage facilities. Prepare a project base plan.
2. Obtain record plans of property and road right-of-way boundaries and delineate same on base plan. Contact Miss Utility to obtain record plans of underground utilities, and delineate same on base plan.
3. Prepare a preliminary design of drainage improvements and forward design drawings to the Department for review and comment.
4. Conduct a site visit to field check the base plan and evaluate the preliminary design, and determine if utility mark-outs are necessary. Request utility mark-outs (if necessary).

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5. Provide 90% plan and profile design drawings, construction details and notes, and construction specifications to the Department for review and approval. It is expected that the design will consist of one or two shallow curb inlets to collect runoff along the #113 Susan Place curb, and an associated length of storm sewer pipe connecting to an existing inlet on the east side of Susan Place. A very shallow pipe run is anticipated that may necessitate the use of concrete-encased ductile iron pipe. The plans will include industry-standard work zone traffic control details.
6. Site visit with the Department to review 90% design and any contingencies.
7. Prepare final plans and specifications, bid form, and engineers estimate and forward same to the Department for bidding and construction.

IV. DEPARTMENT OF PUBLIC WORKS INFORMATION AND ASSISTANCE

URS requests that the following information and assistance be provided by the Department for completion of the Scope of Services:

- Copies of design and as-built plans of Susan Place, if available.
- Tax maps and deeds for #113 Susan Place and the adjacent properties.
- Design and as-built plans for underground utilities owned by the City of Dover, if available.
- Assistance with obtaining plans of underground utilities not owned by the City of Dover.
- Notice to the owner of #113 Susan Place to permit a URS survey crew to enter the property.
- In lieu of a separate site visit by URS, Department staff will markup the base plan with any utility mark out information and forward same to URS for supplementing the base plan.

V. ASSUMPTIONS

URS has made the following assumptions when developing the budget for this proposal:

- The re-profiling of the Susan Place pavement or curbs is not an available option to effect positive drainage to existing inlets.
- Reconstruction of downstream drainage facilities not owned or controlled by the City, is likely not an available option to assist with addressing the subject drainage problem.
- If possible, the drainage design will collect and convey runoff from the side yard area of #113 Susan Place that is presently draining to Susan Place.
- The presence of underground utility conflicts are unknown at this time; conflict(s) may necessitate utility relocations. Utility relocation designs are not included in URS' scope of work for this project, and associated coordination with outside utility owners will be completed by the Department.
- The limit of disturbance is less than 5000 square feet; therefore an E&S Permit will not be required. However, inlet filter typical details will be provided on the construction drawings.

VI. SERVICES NOT INCLUDED

The following services are not included in this proposal; however these tasks can be performed for an additional fee, if desired:

- Permitting services.
- Additional site visits not identified in Section III above.
- Additional meetings not identified in Section III above.
- Design of any Stormwater Management Best Management Practices for the site.
- Relocation of utilities to accommodate proposed drainage improvements.
- Any other services not specifically included in Section III above.

VII. SCHEDULE

We will initiate services described in Section III immediately upon receipt of written authorization to proceed, and estimate six to eight weeks to perform the work.

VIII. FEE AND CONTRACT CONDITIONS

Our time and materials fee for the completion of the scope of services is $9,300.00. This fee will not be exceeded without written authorization from the Department of Public Works. The project will be billed on monthly basis in accordance with our Contract Rates.

This proposal is subject to the conditions stated in Agreement for Engineering Services and Project Management for Water and Wastewater Works, 11-0025DPU between Dover and URS dated April 26, 2011.

If you have any questions or need additional information, please do not hesitate to contact us. Thank you for the opportunity to serve the Dover Department of Public Works.

Sincerely,

URS Corporation d/b/a URS Corporation Americas

Robert R. Pingar, PE
Project Manager

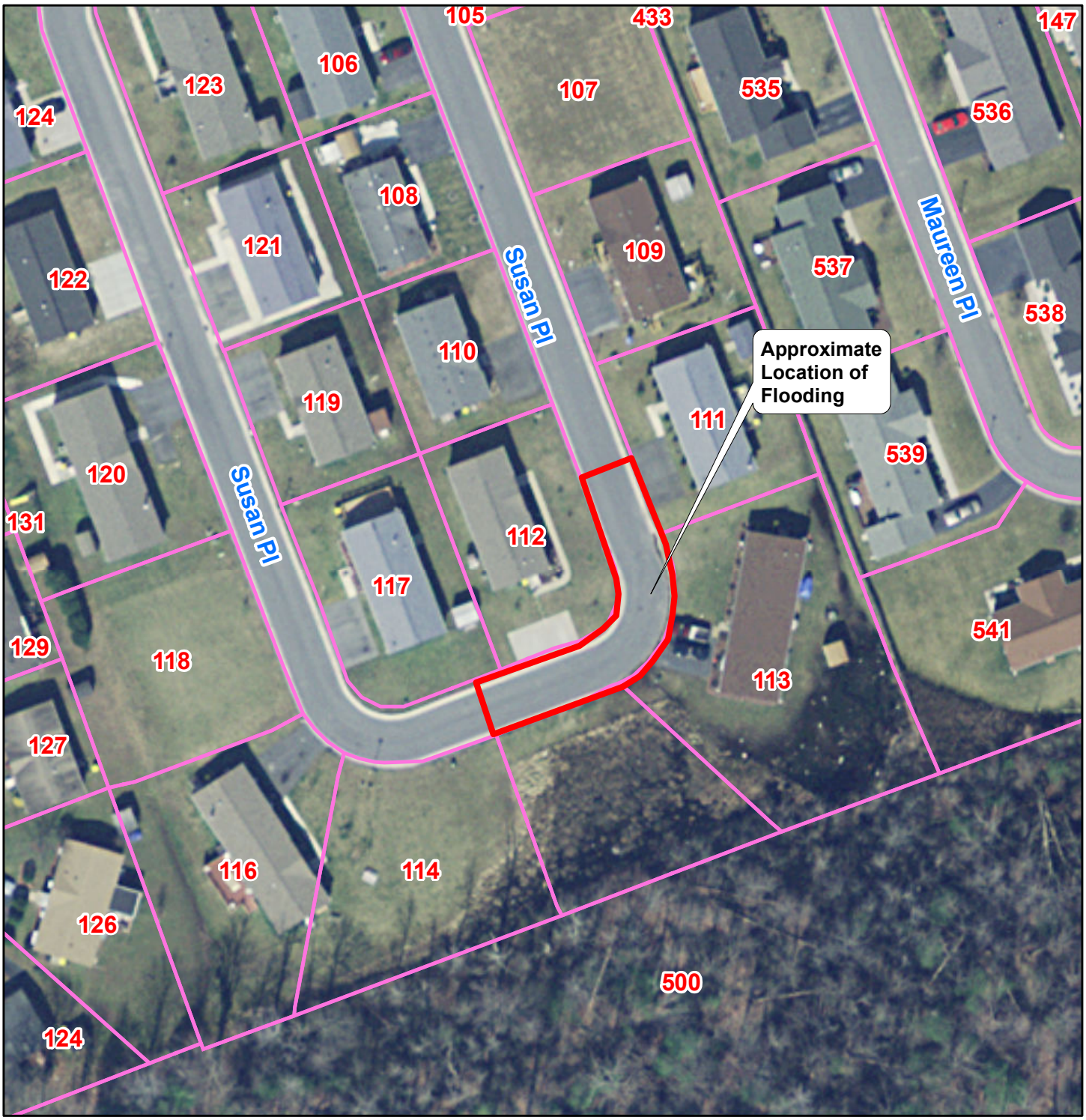
Brian N. Bolender, PE
Vice President

Approved by: _____ Date: _____

CITY OF DOVER

CAF Map

Susan Place-Persimmon Park Place



0 45 90 180 Feet

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\caf_susan_place
Department: Public Works GIS
City of Dover, Delaware

Legend

Dover Parcels

URS

November 1, 2013

Mr. Jason A. Lyon, P.E.
City of Dover Department of Public Works
P.O. Box 475
Dover, DE 19903

Re: Lakeview Drive Drainage
Engineering Services Contract (11-0025DPU)

Dear Mr. Lyon:

URS Corporation d/b/a URS Corporation Americas is pleased to submit this proposal to the City of Dover Department of Public Works for professional services related to street flooding adjacent to houses #24 and #26 Lakeview Drive. URS proposes a two phase approach to address this drainage condition. In Phase 1, URS will evaluate the drainage pipes and inlets in Lakeview Drive and the adjacent Luther Towers residential development to determine the causes and contributing factors and alternatives to mitigate the flooding. In Phase 2, URS will design drainage improvements to mitigate the flooding consistent with the selected alternative.

I. BACKGROUND

Lakeview Drive is a two-lane, two-way, north / south residential street with an asphalt pavement surface and timber curbs along the west side. It dead-ends at the north boundary of house #26. The profile grade and roadway crown of Lakeview Drive are relatively flat. The Luther Towers multi-family senior-citizen apartment complex is along the east side of Lakeview Drive, and one and two-story single family houses are along the west side. Silver Lake Park is immediately to the west behind these houses. Each property has driveway access to Lakeview Drive.

There are two 36" x 18" drainage inlets in Lakeview Drive near houses #24 and #26. Stormwater runoff collected by these inlets is conveyed through 12" diameter pipes to the internal driveway/parking lot drainage system on the Luther Towers property. This system loops around a multi-story building then through a landscaped open space area to the north of Lakeview Drive, discharging through a 21" diameter reinforced concrete pipe at the edge of Silver Lake. The runoff from certain precipitation events results in flooding within Lakeview Drive, and the flooding inundates the front yard of #26 Lakeview Drive.

A field view was conducted by URS on October 30, 2013 to observe conditions, take measurements, and take photographs. URS also reviewed an existing conditions sketch by the Department and a May 11, 2013 letter to the Department from the property owner at #26 Lakeview Drive, with photos attached.

II. SCOPE OF WORK

The City requests engineering services to devise a solution to the Lakeview Drive drainage problem and prepare associated construction drawings and specifications for the City's use in advertising, bidding and construction of the proposed improvements.

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www.urscorp.com

III. SCOPE OF SERVICES TO BE PROVIDED

1. Perform topographic survey in two phases:

   Phase 1 – Survey the existing features within and along Lakeview Drive adjacent to house #24 and #26 to the roadway crest approximately 150 feet to the south. Survey the locations, elevations, and sizes of drainage inlets and pipes of the main trunk storm sewer line through the Luther Towers development to the discharge endwall at Silver Lake. Survey the open area of Silver Lake Park immediately behind house #26. Prepare an existing conditions sketch plan for drainage analysis purposes.

   Phase 2 - Survey the side yard of house #26 and the Luther Towers open space area to the north of Lakeview Drive. Prepare a base plan for designing drainage improvements.

2. Phase 1 - Study

   - Using the information from the Phase 1 survey, evaluate the drainage pipes and inlets in Lakeview Drive and the adjacent Luther Towers residential development to determine the flooding causes and contributing factors.
   - Prepare an associated report for the Department's consideration, including available alternatives to mitigate the flooding.
   - Meet once with the #26 Lakeview Drive property owner and with adjacent property owner affected by the proposed improvements. The meeting with all affected parties will happen simultaneously.

3. Phase 2 - Design

   - Obtain record plans of properties and road right-of-way boundaries and delineate same on the base plan. Contact Miss Utility to obtain record plans of underground utilities and delineate same on the base plan.
   - Prepare a preliminary design of drainage improvements consistent with the selected alternative and forward the design drawings to the Department for review and comment.
   - Conduct a site visit to field check the base plan, evaluate the preliminary design, and determine if utility mark-outs are necessary. Request utility mark-outs, if required.
   - Provide 90% plan and profile design drawings, construction details and notes, and construction specifications to the Department for review and approval. It is expected that the design will consist of replacement inlets and pipes in Lakeview Drive and an associated length of storm sewer conveyance pipe to connect to either a surface discharge point downstream or an existing downstream pipe. A stormwater management BMP will be included in the design of a surface discharge. The plans will include industry-standard work zone traffic control details.
   - One site visit with the Department to review 90% design and any contingencies.
   - Prepare final plans and specifications, bid form, and engineers estimate and forward same to the Department for bidding and construction.

IV. DEPARTMENT OF PUBLIC WORKS INFORMATION AND ASSISTANCE

URS requests that the following information and assistance be provided by the Department for completion of the Scope of Services:

- Notice to property owners to permit URS survey crews to enter their properties.

- Copies of design and as-built plans of Lakeview Drive, Luther Towers and Silver Lake Park, if available.
- Information on operational levels of Silver Lake and as-built drawings for any hydraulic structures associated with the dam.
- Tax maps and deeds for properties on either side of Lakeview Drive, near the subject drainage condition.
- Design and as-built plans for underground utilities owned by the City of Dover, if available.
- Assistance with obtaining plans of underground utilities not owned by the City of Dover.
- In lieu of a separate site visit by URS, Department staff will markup the base plan with any utility mark out information and forward it to URS for supplementing the base plan.

V. ASSUMPTIONS

URS has made the following assumptions when developing the budget for this proposal:

- Drainage area boundaries will be developed based on available background information such as USGS, City of Dover, and GIS mapping, as well as field observations.
- The re-profiling of the Lakeview Drive pavement is not an available option to effect positive drainage to existing inlets.
- The drainage design will collect and convey runoff from adjacent and upstream areas that are presently draining to Lakeview Drive.
- The presence of underground utility conflicts is unknown at this time; conflict may necessitate utility relocations. Utility relocation designs are not included in URS' scope of work for this project and associated coordination with outside utility owners will be completed by the Department.
- The limit of disturbance is less than 5000 square feet; therefore an E&S Permit will not be required. However, typical E&S details will be provided on the construction drawings.

VI. SERVICES NOT INCLUDED

The following services are not included in this proposal; however they can be performed for an additional fee, if desired:

- E&S or other permit applications.
- DelDOT utility construction permitting.
- Additional site visits not identified in Section III above.
- Additional meetings not identified in Section III above.
- Relocation of utilities to accommodate proposed drainage improvements.
- Bidding and construction phase services.
- Any other services not specifically included in Section III above.

VII. SCHEDULE

We will initiate the services described in Section III immediately upon receipt of written authorization to proceed. We estimate three weeks to complete Phase 1 of the scope, and an additional four to six weeks to complete Phase 2 following direction from the Department on the selected alternative.

VIII. FEE AND CONTRACT CONDITIONS

The URS time and materials fee for the completion of the scope of services is $24,400. This fee will not be exceeded without written authorization from the Department of Public Works. The project will be billed on monthly basis in accordance with our Contract Rates.

This proposal is subject to the conditions stated in Agreement for Engineering Services and Project Management for Water and Wastewater Works, 11-0025DPU between Dover and URS dated April 26, 2011.

If you have any questions or need additional information, please do not hesitate to contact us. Thank you for the opportunity to serve the Dover Department of Public Works.

Sincerely,

URS Corporation d/b/a URS Corporation Americas

Robert R. Pingar, PE
Project Manager

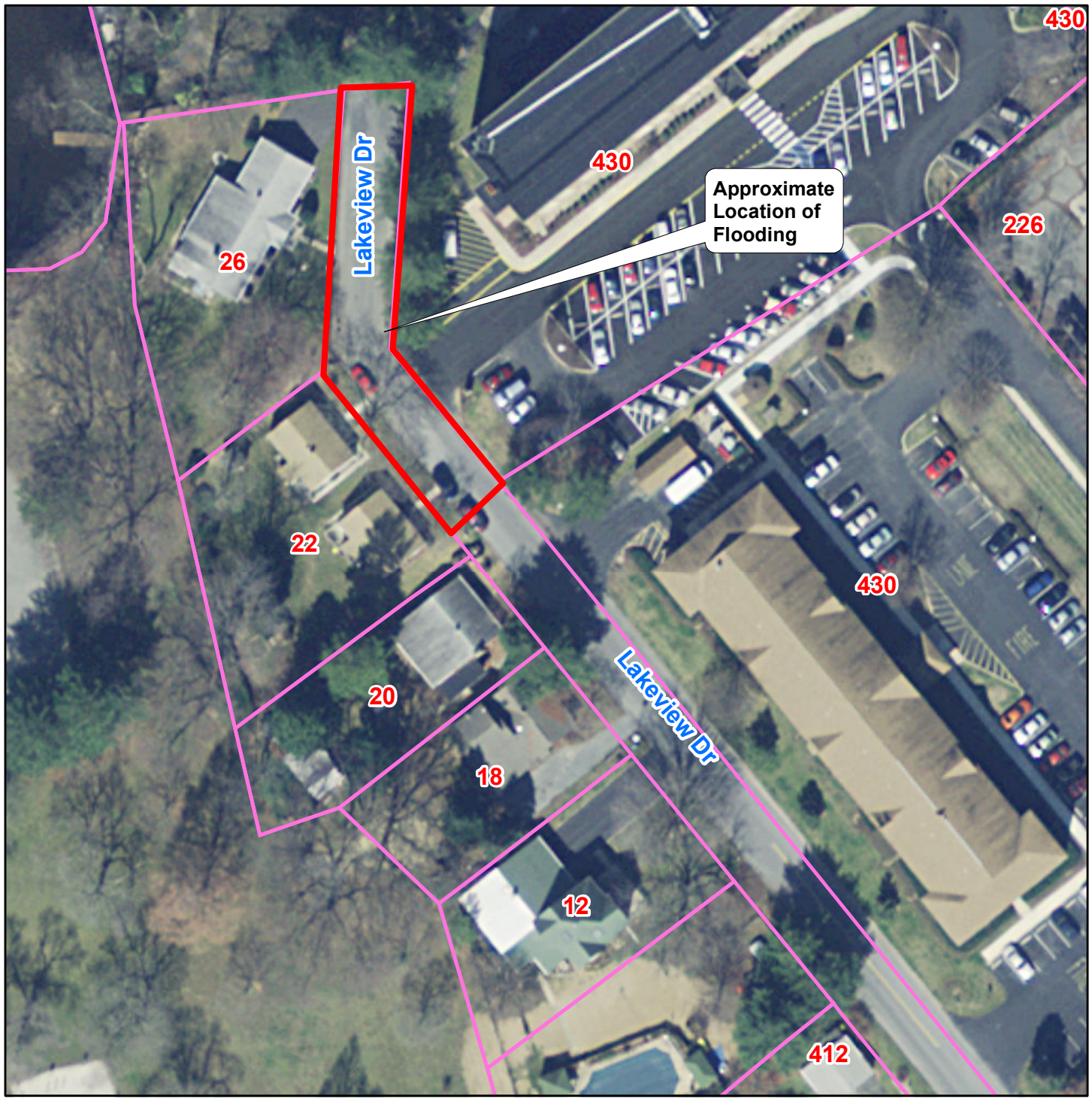
Brian N. Bolender, PE
Vice President

Approved by: _____ Date: _____

CITY OF DOVER

CAF Map

Lakeview Drive



0 45 90 180 Feet

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\caf_lakeview_dr
Department: Public Works GIS
City of Dover, Delaware

Legend

Dover Parcels

ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: Public Works	**DATE SUBMITTED**: 11/1/13
PREPARED BY: Sharon J. Duca, P.E. – Public Works Director / City Engineer	
SUBJECT: Kent Avenue Inflow and Infiltration Repair	
REFERENCE: N/A	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Exhibit A - Aerial Map of Project Area	
EXPENDITURE REQUIRED: $75,000	**AMOUNT BUDGETED**: n/a
FUNDING SOURCE (Dept./Page in CIP & Budget): Wastewater Management – carry forward funds from FY 2013 Inflow / Infiltration Account, (currently $867,000) 417-6900-569.40-31	
TIME TABLE: Secure contractors and materials immediately following Council approval. Construction work to be complete within six (6) weeks.	
RECOMMENDED ACTION: Authorize creation of a new Inflow / Infiltration Project to correct the issues in Kent Avenue.	

BACKGROUND AND ANALYSIS

On October 10, 2013, the City of Dover (City) Department of Public Works (DPW) received a call from a customer on Kent Avenue claiming a sanitary sewer backup into their building. City staff investigated the claim and found out that a disconnect between the sanitary sewer main in Kent Avenue and the receiving sanitary sewer interceptor in Division Street, this disconnect caused sediment to build up and create a blockage in the Kent Avenue sewer main. The City of Dover secured a contractor to remove the blockage at the main allowing staff to clear the sanitary sewer lateral after considerable effort. This allowed the customer on Kent Avenue to utilize their sanitary sewer lateral. After additional research, staff concluded that the storm sewer was connected to the sanitary sewer, which is a violation of Section 110-231 of the City of Dover Code of Ordinances. The illicit connection represents direct inflow into the sanitary sewer system. City staff further verified that there is only one customer connected to the sanitary sewer main in Kent Avenue. After discussing with the property representative, staff provided a plan to alleviate the problems of the customer and eliminate the illicit stormwater discharge into the sanitary sewer interceptor in Division Street.

The customer in question has multiple buildings on their property. The buildings that were discharging effluent to the Kent Avenue sanitary sewer main will be rerouted to another sanitary sewer interceptor at the rear of their property, within a City easement. This will allow the main to be properly abandoned and eliminate the illicit stormwater connection. Two (2) upstream catch basins will be reconfigured to become infiltration basins as part of the project. The road will be repaired as conditions dictate.

Staff recommends authorization to create a new Inflow / Infiltration project to correct the issues in Kent Avenue. Part of the work will be performed by a contractor and part will be performed in house by staff.

Exhibit A

CAF Map

Kent Avenue



0 65 130 260 Feet

N

Legend

- Storm Sewer Cleanout
- Storm Sewer Inlet
- Storm Sewer Junction Box
- Storm Water Manhole
- Storm Water Outlet
- Storm Water Pipe
- Dover Parcels
- Pump Station (PS)
- Sanitary Manhole
- Sanitary Force Main
- 10" 12" 15" 16" 18"
- 20" 21" 24" 27" 30"
- 35" 36" 4" 6" 8"

Date Printed: November 1, 2013
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\jason_lyon_maps\caf_maps
\caf_kent_ave
Department: Public Works GIS
City of Dover, Delaware

ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: City Manager's Office	**DATE SUBMITTED**: 10/23/13
PREPARED BY: Scott D. Koenig, P.E., City Manager	
SUBJECT: Rate Classification/Tariff Amendment for Churches	
REFERENCE: N/A	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Exhibit A – Action form from 09/16/2013 & Copies of the tariff sheets	
EXPENDITURE REQUIRED: N/A	**AMOUNT BUDGETED**: N/A
FUNDING SOURCE (Dept./Page in CIP & Budget): N/A	
TIMETABLE: Per Council direction	
RECOMMENDED ACTION: Recommend no action be taken on amending the current electric rate tariffs and direct staff to assist the Presbyterian Church with the Green Energy Grant Application to facilitate energy efficiency within the City's electric system.	

BACKGROUND AND ANALYSIS

During the September 23, 2013 Utility Committee meeting, staff was requested to further investigate and determine the financial impact of an amendment to the tariff language of the "C and C1" classification by eliminating the words "or have instrument rated metering" from the classification. In addition, the committee asked who else may be affected by such a change to the tariff language.

This request is related to the discussion about the C5 classification assigned to the Presbyterian Church of Dover. Their demand profile would allow them to be assigned to the "C and C1" classification if they did not have an instrument rated meter. Based on a "look back" period of one (1) year, we believe there are as many as 51 customers who could be reclassified if the above referenced language was removed from the "C an C1" classification. This was determined based on using an average demand of less than 3,500 kWh/month. Obviously, electric use is dynamic so the actual number of customer could vary from year to year depending upon when the calculation is made.

Using these customers, it is estimated that such a change in the tariff language could result in a loss of revenue related to the demand charge of $128,458.00 for this group of customers. Since electric usage is dynamic in nature, the City Manager would estimate the loss of revenue between $75,000 and $125,000 per year based on the information available.

Staff has indicated to the Presbyterian Church that the Green Energy Grant Fund can assist them in making energy efficiency improvements to their facility such as replacement of the metering infrastructure. Using the Green Energy Fund to improve the facility would achieve the same goal as amending the tariff. The current estimate to improve the facility is less than $5,000.

Amending the tariff will have a direct financial impact on our rate structure and could have unanticipated consequences related to our rates. Staff recommends against any alterations to the tariff unless it were to alter in the context of a comprehensive rate review that is not scheduled to be considered until future budgets.

ACTION FORM

PROCEEDING: Utility Committee	**AGENDA ITEM NO.:**
DEPARTMENT OF ORIGIN: City Manager's Office	**DATE SUBMITTED**: 9/16/13
PREPARED BY: Scott D. Koenig, P.E., City Manager	
SUBJECT: Rate Classification/Tariff Amendment for Churches	
REFERENCE: N/A	
RELATED PROJECT: N/A	
APPROVALS: City Manager, Controller	
EXHIBITS: Copies of the tariff sheets	
EXPENDITURE REQUIRED: N/A	**AMOUNT BUDGETED**: N/A
FUNDING SOURCE (Dept./Page in CIP & Budget): N/A	
TIMETABLE: Per Council direction	
RECOMMENDED ACTION: Recommend that City Council take no action on this request at this time and have the issue evaluated during the next rate study conducted for the Electric System.	

BACKGROUND AND ANALYSIS

Staff is in receipt of a request from the Presbyterian Church of Dover to consider a change in tariff language for the C/C1 (Small Commercial) description. Specifically, their request is to have the wording "or have instrument rated metering" removed from the C/C1 classification description. For this specific example, the church has consumption levels below the 3,500 kWh/month limit for the C/C1 designation but their electrical service metering is of the instrument rated type which prevents them from requesting a classification change from C5 to C/C1. The church is seeking the new classification to avoid the demand charges associated with the C5 classification.

A number of years ago, it appears that certain churches were included in the residential tariff before the commercial tariffs became customized and more sophisticated. Staff sought input from our power supply attorney, Mr. Kirk Betts, regarding this subject. Mr. Betts advised staff that many churches have functions in the evening from 6-10 p.m. which is part of PJM's 16 hour peak period, in addition to weekends. Typically, the more active the church, the more likely it is to have a consumption pattern that is similar to commercial users rather than residential users. Mr. Betts advised against creating a specialized "church" or "houses or places of worship" tariff. Mr. Betts also indicated that as a general rule for ratemaking, tariffs and rates are based upon cost causation so similar voltage, demands, and consumption patterns should pay similar rates. Staff believes there are as many as 24 churches that may be in the same relative situation as the Presbyterian Church of Dover; therefore, any change to the tariff could alter our revenue projections based on the modeling of the system.

The City of Dover has spent a considerable amount of money to complete detailed rate classifications and projections based on the approved tariff language and classifications. Any modifications to the tariffs without analyzing the potential impact on the rates as well as revenues could degrade the integrity of the current rates. Obviously, any detailed modeling of the requested tariff modification would require input and analysis from our rate consultant to insure accuracy and fairness with respect to the financial modeling. Such effort would likely create costs for the utility. As an alternate solution, the Presbyterian Church could rework their metering configuration (at a substantial cost) to comply with the current C/C1 tariff language.

Based upon the above information, staff recommends no changes be made to the approved tariffs at this time. This issue should be revisited during our next rate study to fully analyze the impact of this type of change.

SMALL COMMERCIAL SERVICE CLASSIFICATION
"C and C1"

AVAILABILITY

This rate is available throughout the City of Dover electric service area for small commercial and industrial purposes through a single meter. The maximum monthly usage must not exceed 3,500 KWH per month or have instrument rated metering. If there is a major change in the character of service or if the KWH usage exceeds 3,500 KWH for two (2) consecutive billing months, the account will be automatically transferred to the Medium Commercial Service Classification. If the customer's usage does not exceed 3,500 KWH after a period of one (1) year, the customer may be returned to the Small Commercial Service Classification.

CHARACTER OF SERVICE

Secondary voltage, 60 cycle, alternating current, single or three phase service. Other voltages may be applicable where available and at the option of the City.

Customer Charge	
Per bill - Single Phase Service	5.00
Per bill - Three Phase Service	15.00
Energy Charge	
Per KWH	0.10010

MINIMUM MONTHLY BILLING

The minimum monthly billing shall be the Customer Charge.

PURCHASE POWER ADJUSTMENT

All kilowatt-hours billed under this rate shall be subject to the Purchase Power Clause included in this schedule.

PUBLIC UTILITY TAX

In addition to the charges provided for in this service classification, a surcharge will apply in accordance with any tax imposed by governmental authority upon sales of electricity.

RENEWABLE ENERGY CHARGE

All kilowatt hours billed under this rate shall be subject to the "GEF" Rider.

RULES AND REGULATIONS

The General Rules and Regulations of the City of Dover for electric service shall apply to service rendered under this service classification.

Effective Date: July 1, 2013

LARGE COMMERCIAL SERVICE CLASSIFICATION
"C5"

AVAILABILITY
This rate is available throughout the City of Dover electric service area for commercial and industrial purposes having instrument rated metering. If there is a significant change in the character of service, the City will, at its option on a case by case basis, temporarily transfer the account to another tariff.

CHARACTER OF SERVICE
Secondary voltage, 60 cycle alternating current, single or three phase service. Other voltages may be applicable when available and at the option of the City.

Customer Charge	
Per bill - single or three phase service	15.00
Demand Charge	
All kW - per kW	13.90
Energy Charge	
All kwh - per kwh	0.06470

DETERMINATION OF DEMAND
The Billing Demand will be the maximum fifteen (15) minute demand during the month, determined by a block demand meter. In any month in which the average power factor at the delivery point is greater or less than ninety-five percent (95%) the measured demand shall be corrected in accordance with the following formula:

$$\text{Billing Demand} = \frac{\text{Measured demand X .95}}{\text{Average Power Factor}}$$

The city measures both leading and lagging power factor, treating both as non-unity power factors, and the customer is billed accordingly.

MINIMUM MONTHLY BILLING
The minimum monthly bill shall be the Customer Charge and a Demand Charge based on sixty percent (60%) of the greatest Billing Demand established during any month of the 12-month period ending with the current billing month.

PURCHASE POWER ADJUSTMENT
All kilowatt-hours billed under this rate shall be subject to the Purchase Power Clause included in this schedule.

PUBLIC UTILITY TAX
In addition to the charges provided for in this service classification, a surcharge will apply in accordance with any tax imposed by governmental authority upon sales of electricity.

RENEWABLE ENERGY CHARGE
All kilowatt hours billed under this rate shall be subject to the "GEF" Rider.

RULES AND REGULATIONS
The General Rules and Regulations of the City of Dover for electric service shall apply to service rendered under this service classification.

Effective Date: July 1, 2013

ACTION FORM

PROCEEDING: Utility Committee
DEPARTMENT OF ORIGIN: City Manager's Office **DATE SUBMITTED**: 10/31/2013
PREPARED BY: Scott D. Koenig, P.E., City Manager
SUBJECT: Request to Temporarily Suspend Solar Applications to the City's Green Energy Fund
REFERENCE: N/A
RELATED PROJECT: N/A
REVIEWED BY: Controller
EXHIBITS:
EXPENDITURE REQUIRED: N/A **AMOUNT BUDGETED**: N/A **FUNDING SOURCE (Dept./Page in CIP & Budget)**: N/A
TIME TIMETABLE: As soon as possible.
RECOMMENDED ACTION: Recommend to City Council to accept staff recommendation to temporarily suspend Solar Photovoltaic applications to the City and Green Energy fund.

BACKGROUND AND ANALYSIS

The City of Dover has been contacted by Mr. Scott Lynch, Energy Services Manager, for the Delaware Municipal Electric Corporation (DEMEC). DEMEC administers the Green Energy Fund Program for the City of Dover. Currently, the program offers incentives/grants to applicants as follows:

Photovoltaic Systems

	Not to Exceed __% of total installed costs	Residential & Non-Residential			Non-Profit			Maximum Grant		
		Cost ($/Watt) 0+ to 5kW	Cost ($/Watt) 5+kW to 10kW	Cost ($/Watt) 10+kW to 50kW	Cost ($/Watt) 0+ to 5kW	Cost ($/Watt) 5+kW to 10kW	Cost ($/Watt) 10+kW to 50kW	Residential	Non-Residential	Non-Profit
Dover	N/A	$ 1.25	$ 0.75	$ 0.35	$ 2.55	$ 1.50	$ 0.70	$7,500	$15,000	$15,000

Solar Water Heater Only

	Not to Exceed __% of total installed costs	Residential ($/OG300 - kWhr Saved)	Non-Residential ($/OG300 - or PE Cal. kWhr Saved)	Non-Profit ($/OG300 - or PE Cal. kWhr Saved)	Maximum Grant		
					Residential	Non-Residential	Non-Profit
Dover	N/A	$ 1.00	$ 1.00	$ 1.00	$2,500	$7,500	$7,500

Solar Water Heating Integrated into a Radiant Heating Application

	Not to Exceed __% of total installed costs	Residential ($/OG300 - kWhr Saved)	Non-Residential ($/OG300 - kWhr Saved)	Non-Profit ($/OG300 - kWhr Saved)	Maximum Grant		
					Residential	Non-Residential	Non-Profit
Dover	N/A	$ 1.00	$ 1.00	$ 1.00	$2,500	$7,500	$7,500

Small Wind Turbines

	Not to Exceed __% of total installed costs	Residential & Non-Residential			Non-Profit			Maximum Grant		
		Cost ($/Watt) 0+ to 5kW	Cost ($/Watt) 5+kW to 10kW	Cost ($/Watt) 10+kW to 50kW	Cost ($/Watt) 0+ to 5kW	Cost ($/Watt) 5+kW to 10kW	Cost ($/Watt) 10+kW to 50kW	Residential	Non-Residential	Non-Profit
Dover	N/A	$ 1.25	$ 0.75	$ 0.35	$ 1.25	$ 0.75	$ 0.35	$2,500	$2,500	$2,500

Fuel Cells

	Not to Exceed __% of total installed costs	Maximum Grant		
		Residential	Non-Residential	Non-Profit (35%)
Dover	20%	$7,500	$10,000	$10,000

Geothermal Heat Pumps System - Energy Efficiency Ratio (EER) ≥ 18 and Coefficient of Performance (COP) of ≥ 3.6

	Not to Exceed __% of total installed costs	Residential & Non-Residential		Non-Profit		Maximum Grant		
		First 2 Tons ($/Ton)	Over 2 Tons ($/Ton)	First 2 Tons ($/Ton)	Over 2 Tons ($/Ton)	Residential	Non-Residential	Non-Profit
Dover	N/A	$ 800	$ 700	$ 800	$ 700	$3,000	$10,000	$10,000

Solar Photovoltaic Systems are one of our most common grant requests for our program. Due to proposed changes in the incentives offered by the State of Delaware, we are recommending a temporary suspension of applications to the Green Energy Fund Program for Solar Photovoltaic Systems until the impact of proposed changes can be determined. Suspension of the program will be a preemptive action to prevent a mass of applications being received due to concerns about the potential changes. Staff with the assistance of DEMEC will be evaluating the potential impact of the changes and will bring forth recommendations in the future.

The Energy Authority, Inc.

Monthly Management Committee Update – August 2013

September 26, 2013

Prepared by:

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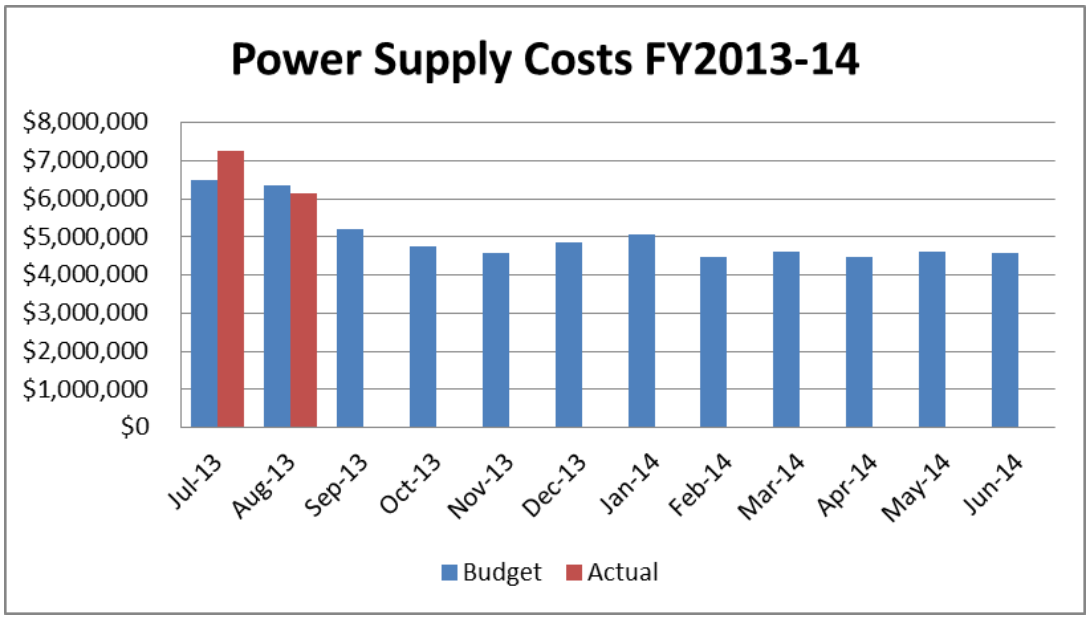
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I. Executive Summary

A. Power Supply Summary:



Overall Power Supply costs were $185,422 under budget due to lower than budgeted load. Actual market purchases were lower than budgeted.

Dover's budgeted cost for all power supply (capacity AND energy) was $81.97/MWh. The actual cost of all power supply (capacity AND energy) was $86.57/MWh.

The cost of energy alone was $59.25/MWh, versus a budgeted energy cost of $57.54.

Dover's hedge purchases totaled 58,720 MWh, which was 83% of the projected load and 76% of the actual load.

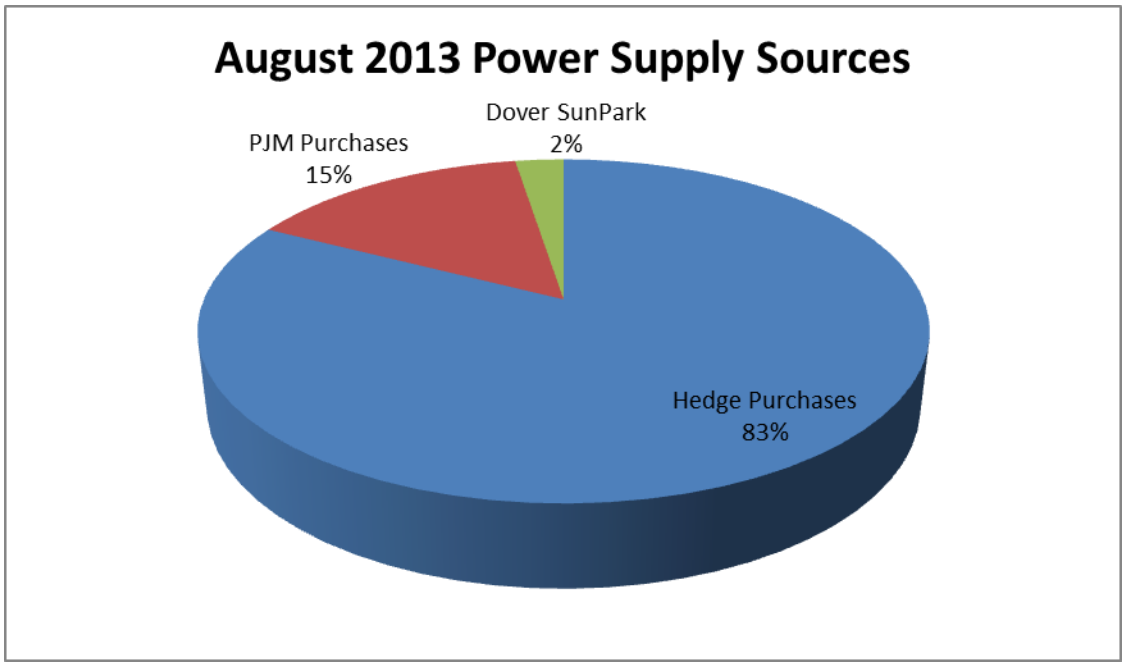
Dover's power purchases from hedge transactions totaled $3,452,702. Purchases from PJM (energy and fees) totaled $1,041,053 with DA Energy purchases totaling $378,362 and Balancing Spot Market Energy totaling $39,650.

Dover's total load was 71,151 MWh versus a forecasted load of 77,407 MWh.

Dover's planned energy purchase from the SunPark solar installation was 1857 MWh. Dover's actual energy purchase from the SunPark installation was 1816 MWh.

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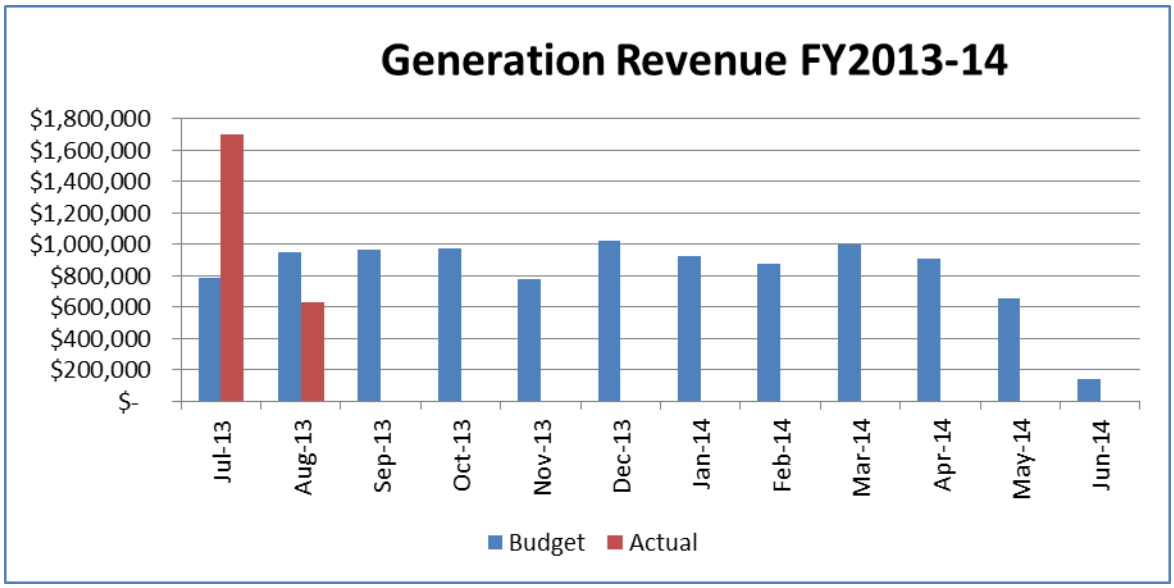
Supply Source Summary:



Supply Variance:

	Budget	Actual	Variance
Gross Load	77,407	71,151	6,256
Wholesale Load	75,550	69,336	6,214
Hedged Volume (MWh)	58,720	58,720	-
Unhedged Volume (MWh)	16,830	10,616	6,214
Dover SunPark Volume (MWh)	1,857	1,816	41
Renewable Energy Credits Volume	279	308	(29)
Hedged Cost ($/MWh)	$ 58.80	$ 58.80	0
Unhedged Energy Cost ($/MWh)	$ 50	$ 55	$ (5)
Solar Energy Cost ($/MWh)	$ 83	$ 97	$ (14)
Energy Costs ($/MWh)	**$57.54**	**$59.25**	**($1.71)**
All-in Costs - Energy, Capacity and RECs ($/MWh)	**$81.97**	**$86.57**	**($4.60)**

B. Generation Summary:



Dover generated 3,610 MWh in the month. Net generation revenue was $631,780 vs. a budget of $948,293. This delta was mainly due to fuel oil capacity testing and higher than budgeted O&M costs.

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Generation Breakdown:

City of Dover's Wholesale Generation		
Net Generation Mwh		**3,610.37**
All In Generation Margin		
PJM Bill Energy	$	198,043.76
PJM Capacity	$	1,329,125.00
Reactive Credit, DASR & EFORp	$	29,469.22
Gas Purchases	$	(148,470.00)
Oil Purchases	$	(108,821.25)
Transport / Cash Out	$	(26,921.46)
Gross Margin	**$**	**1,272,425.28**
Production Margin		
Generation Production Revenues (PJM)	$	198,043.76
Gas Purchases	$	(148,470.00)
Oil Purchases	$	(108,821.25)
Transport / Cash Out	$	(26,921.46)
Gross Production Margin	**$**	**(86,168.94)**

C. Emissions Summary:

Emissions Allowance Summary through August 31, 2013

CAIR EMISSION ALLOWANCE SUMMARY				
Date	**Action**	**SO_2 Allowances**	**NO_x Allowances[1]**	
			Seasonal	**Annual**
1/1/09	2008 Carryover	3,240	0	0
1/1/09	2009 Allocation	2,723	53	80
2/1/10	2010 Allocation	2,039	50	78
1/1/11	2011 Allocation	1,988	49	78
4/1/11	2011 Reallocation		2	4
1/11/12	2012 Allocation	1,988	51	80
10/4/2012	**2013 Allocation**	**1,988**	**49**	**76**
9/29/09	SO_2 Sales	(1,500)		
11/12/09	NO_x Ann. Sales			(45)
11/13/09	SO_2 Sales	(1,410)		
11/20/09	NO_x Seas. Sales		(25)	
12/31/09	2009 Emissions[2]	(1)	(6)	(13)
12/31/10	2010 Emissions	0	(54)	(54)
10/31/10	EPA Linearity Testing Req.		(68)	(68)
2011	2010 Deficit NO_x Purchases		53	22
Aug 2011	Revised 2010 ECMPS data		30	30
Nov 2011	NO_x Seas. Sales (DEMEC)		(1)	
12/31/11	2011 Emissions[2]	(1)	(32)	(36)
12/31/12	2012 Emissions[2]	(1)	(37)	(37)
Nov 2012	NO_x Seas. Sales (DEMEC)		(2)	
2/13/2013	NO_x Annual. Sales (DEMEC)			(3)
8/31/2013	**C.Y.T.D. 2013 Emissions**	**0**	**16**	**16**
REMAINING ALLOWANCES		**11,053**	**59**	**178**

On August 21, 2012, a three-judge panel of the U.S. District Court of Appeals (DCA) in Washington vacated EPA's Cross State Air Pollution Rule (CSAPR) which would have become effective on January 1, 2012. The DCA instructed EPA to continue administering the Clean Air Interstate Rule (CAIR). EPA has appealed this ruling to the U.S. Supreme Court, and the Court has agreed to review the DCA opinion. A ruling is not expected before June, 2014.

[1] Per CAIR, starting in 2009, NOx emissions are governed by a seasonal and annual program.
[2] Under CAIR, pre-CAIR SO2 allowances are retired at a rate of 2 allowances for each ton emitted. It is assumed that pre-CAIR allowances will be retired before CAIR allowances.

Market liquidity for CAIR allowances continues to be low, with few transactions occurring. The following table shows estimated values for Dover's banked allowances, based on broker bids & offers:

Mark-to-Market for CAIR Allowances (9/23/2013)			
Commodity	**$/Ton (Bid/Offer Avg.)**	**Tons**	**Extended Value**
SO_2 Allowances (2009 & earlier)	$ 1.38	5,089	$ 7,023
SO_2 Allowances (2010-13)	$0.68	5,964	4,055
NO_x Allowances - Seasonal	$18.00	59	1,062
NO_x Allowances - Annual	$40.00	178	7,120
TOTAL			**$19,260**

Regional Greenhouse Gas Initiative

The State of Delaware is a participant in the Regional Greenhouse Gas Initiative (RGGI). The City of Dover must comply with RGGI by surrendering carbon dioxide (CO_2) allowances pursuant to the State of Delaware's laws (Title 7, Chapter 60, Sub-Title II-A). Delaware has elected a combined emissions allowance allocation/auction mechanism for RGGI, in which 40% of CO_2 allowances were allocated to sources for 2009, declining by 8% per year so that by 2014, all CO_2 allowances are auctioned.

Dover had more than a sufficient number of RGGI allowances allocated to it to cover its requirements through the first compliance period (calendar years 2009-2011). Any unused allowances are carried over ("banked") for subsequent years. The table below shows RGGI allowance allocations, deductions and the cumulative balance by year (column 8).

CO2 Allowance Summary (8/31/2013)							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
CO_2 Allowance Vintage	**CO_2 Allowances Sold YTD**	**CO_2 Allowances Available (Per Facility, Prior to Sale)**		**Allocated CO_2 Allowances**	**CO_2 Tons Emitted**	**Annual CO_2 Allowance Balance**	**Cumulative Balance**
		McKee Run	***VanSant***				
2009	0	60,128	2,056	62,184	(5,796)	56,388	56,388
2010	0	48,102	1,645	49,747	(32,971)	16,776	73,164
2011	0	36,077	1,234	37,311	(17,763)	19,548	92,712
2012	0	27,058	925	27,983	(15,265)	11,793	104,505
2013	0	15,032	514	15,546	(7,732)	7,814	**112,319**

The table shows that the "**Allocated CO_2 Allowances"** (column 5) are declining. After 2013, Dover will no longer receive allocations of RGGI allowances. The Cumulative Balance (column 8) – aka "Banked Allowances") can be utilized for generation in future years (including 2013). Once the banked allowances have been fully utilized, Dover will be required to purchase allowances through the periodic RGGI auctions or through over-the-counter markets. Assuming that Dover does not sell any banked allowances, it will be able to maintain a positive balance through 2016 – 2025, depending on actual annual energy production in 2012 and beyond.

On February 7, 2013, RGGI proposed changes to its Model Rule. The proposed changes have been included in previous monthly reports. With the release of the *Updated Model Rule*, the RGGI states now plan to revise their CO_2 Budget Trading Programs through their individual state-specific statutory and regulatory processes. Each RGGI state seeks to complete their state specific processes such that the proposed changes to the program would take effect on January 1, 2014. The Delaware Department of Natural Resources expects to publish a draft rule in the Delaware Register in the near future.

Dover could elect to sell all or a portion of its banked allowances now and re-acquire allowances at a later date; however TEA is currently of the opinion that Dover will be better off retaining its banked allowances for use during future compliance years.

The most recent RGGI auction occurred on September 5, 2013; the auction cleared at $2.67 which is below the $3.21/ton auction clearing price for the June auction. The next auction will occur on December 4, 2013.

RGGI futures settlement prices posted on Intercontinental Exchange (ICE) on September 23, 2013 ranged from $2.98 to $3.00/ton, depending on vintage. **Based on the average ICE futures prices, the value of Dover's existing RGGI allowance bank (112,319 tons) is approximately $302,231.**

Vintage	Balance (Tons)	Settlement Price ($/Ton)	Extended Value
2009	56,388	$2.67	$150,556
2010	16,776	$2.67	44,792
2011	19,548	$2.73	53,366
2012	11,793	$2.73	32,195
2013	7,814	$2.73	21,322
TOTAL	**112,319**		**$302,231**

Renewable Energy Certificates

Dover owns two photovoltaic systems totaling 15 kW, consisting of (a 5 kW unit at the Utilities Administration Building and two 5 kW units at the McKee Run generating station. Dover also receives solar energy produced by the 10 MW Dover Sun Park which is owned by White Oak Solar Energy, LLC. In addition to the all of the physical energy produced by the Sun Park, Dover receives 15% of Sun Park's SRECS. Through the end of A 2013, Dover has accumulated a total of 5,734 SRECS from these renewable energy resources.

The nearest viable market for Dover's SRECs is Pennsylvania. Pennsylvania's August 2013 SREC auction cleared separately for 2011, 2012 and 2013 vintage allowances. Clearing prices and Dover's SREC market value estimate are shown in the table below.

SREC Vintage	Auction Clearing Price	SREC Quantity	Market Value
2011	$4.01	1,190	$ 4,772
2012	$5.01	2,799	14,023
2013	$13.00	1,745	22,685
TOTAL		**5,734**	**$37,490**

With the exception discussed below, TEA continues to recommend to Dover to retain these allowances for compliance with its Renewable Portfolio Standard which DEMEC is working on. Once Dover has an approved RPS in place, it may be required to retire a portion of its current SREC balance for compliance in the 2012/13 future compliance year. Any remaining SRECs could be used for the 2013/14 compliance year.

SRECs in both Delaware and Pennsylvania expire without value after 3 years. Dover currently has 7 2010 Vintage SRECs which may expire in the near future. If Dover is not able to use these for compliance with its Renewable Portfolio Standard before they expire, it may not make sense to sell such a small quantity of RECs (market value of around $30).

This will become more of a concern in 2014 because Dover began accumulating SRECs from the SunPark in July 2011. TEA stands ready to transfer, retire or sell SRECs upon receipt of instructions from Dover.

D. Operations Management Summary:

During the month of August, there were no reportable or lost time accidents or injuries. The facility has now gone 1,052 days without an OSHA recordable accident and 1,052 consecutive days without a lost time reportable accident. There were zero Environmental Notices of Violations issued and there were two Near Miss incidents. One Near Miss involved a pinch point incident and the other Near Miss, a leak on the gas piping for Unit 2. There was one opacity deviation experienced on a Unit 2 start-up. In the month of August, Units 1, 2, and 3 were self-dispatched once and Unit 11 twice to support Emissions Testing. In addition, Unit 3 was dispatched four times and Unit 11 was dispatched three times by PJM. Emissions Testing was completed all four units although minor issues with the recording of fuel flow by the Unit 11 DAHS and the Unit 2 DAHS are being worked out towards resolution. Unit 11 tripped off line a couple of times during testing on fuel oil due to high temperature spreads on the exhaust thermocouples, an issue that will be addressed in the Fall Outage.

Monthly Budget Variance – The actual expenses attributable to O&M of the two sites for the month of August were $669,389 against a budgeted amount of $416,412 for an unfavorable variance of $252,977 or 60.75%. The principal reason for the unfavorable variance was due to the timing of expenses for the Plant's General Liability and Environmental Insurance Premium that was late in being invoiced. Lower than budgeted water/sewer expenses helped to reduce the unfavorable variance.

E. Risk Management Summary:

Forward power prices in PJM are significantly lower than last month. The blended cost has decreased for all years.

The current projected cost of service is below:

Power Year	Hedge Ratio	Blended Cost ($/MWh)	Monthly Change ($/MWh)
2013-14	68%	$ 48.98	$ (2.35)
2014-15	41%	$ 44.04	$ (2.37)
2015-16	19%	$ 42.12	$ (3.07)

II. Budget Report

Variance Report:

	Budget Aug-13	Actual Aug-13	Variance
Gross Load	**77,407**	**71,151**	**6,256**
Power Supply			
Hedged Energy	$3,452,702	$3,452,702	$0
PJM - Energy	$846,585	586,382	$260,203
PJM - ARR, Transmission and Fees	$395,000	454,671	($59,671)
Dover SUN Park Energy	$154,657	$176,372	($21,715)
Dover SUN Park RECs	$25,000	$43,129	($18,129)
Management Fees	$83,000	$83,000	$0
Capacity UCAP Obligated Purchased	$1,388,224	$1,363,490	$24,734
Subtotal - Power Supply	**$6,345,168**	**$6,159,746.2**	**$185,422**
Power Generation O&M			
Plant O&M	416,412	$669,389	(252,977)
Subtotal Generation O&M	**416,412.00**	**669,389**	**($252,977)**
Power Generation Production Margin			
Economic and reliability dispatch	$0	$ (198,043.76)	$198,044
Fixed Fuel and Transport Charges	$0	$ 284,212.70	($284,213)
Subtotal Generation Production Margin	**$0**	**$ 86,168.94**	**($86,169)**
Power Generation Non-Production Revenue			
Generation Capacity Credit	($1,329,125)	$ (1,329,125.00)	$0
Emissions Allowance Sales	$0	$ -	$0
Black Start & Transmision Losses	($35,580)	$ (58,212.51)	$22,633
Subtotal - Non-Production Revenue	**($1,364,705)**	**($1,387,338)**	**$22,633**
SubTotal - All Generation	**(948,293.00)**	**($631,780)**	**($316,513)**
Total - Utilities Cost	**$5,396,875**	**$5,527,967**	**($131,092)**
Unit Costs			
Total - Power Supply	$81.97	$86.57	($4.60)
Total - Power Generation	($12.25)	($8.88)	($3.37)
Final Cost of Service to City of Dover Ratepayers	$69.72	$77.69	($7.97)

Variance Analysis:

Power Supply

- Dover consumed 6,256 MWh less than what was forecasted for the month.
- PJM energy costs were higher than expected and PJM's fees were higher than forecast. This was due to higher market prices. Hedged costs were as forecasted.
- The result of higher overall costs for more power was a net power supply cost of $86.57/MWh, $4.60/MWh higher than budget.
- For the month, the city realized an favorable variance of $185,422 for power supply vs. the monthly budget.
- Dover Sun Park generated 41 MWh less than forecast.

Generation

- Power generation had an unfavorable budget variance of $316,513.
- Plant O&M expenses had an unfavorable budget variance of $252,977 for the month.

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YTD Variance Report:

	Budget YTD	Actual YTD	Variance
Gross Load	**153,719**	**153,223**	**496**
Power Supply			
Hedged Energy	$6,905,404	$6,905,404	$0
PJM - Energy	$1,821,806	$2,144,033	($322,227)
PJM - ARR, Transmission and Fees	$790,000	$1,023,911	($233,911)
Dover SUN Park Energy	$324,096	$363,793	($39,698)
Dover SUN Park RECs	$50,000	$86,414	($36,414)
Management Fees	$166,000	$166,000	$0
Capacity UCAP Obligated Purchased	$2,776,448	$2,726,973	$49,474
Subtotal - Power Supply	**$12,833,753**	**$13,416,528**	**($632,250)**
Power Generation O&M			
Plant O&M	$1,222,806	$1,162,523	$60,283
Subtotal Generation O&M	**$1,222,806**	**$1,162,523**	**$60,283**
Power Generation Production Margin			
Economic and reliability dispatch	($230,472)	($1,322,210)	$1,091,738
Fixed Fuel and Transport Charges	$0	$707,934	($707,934)
Subtotal Generation Production Margin	**($230,472)**	**($614,276)**	**$383,805**
Power Generation Non-Production Revenue			
Generation Capacity Credit	($2,658,250)	($2,658,250)	$0
Emissions Allowance Sales	$0	$0	$0
Black Start & Transmision Losses	($71,160)	($220,353)	$149,193
Subtotal - Non-Production Revenue	**($2,729,410)**	**($2,878,603)**	**$149,193**
SubTotal - All Generation	**($1,737,076)**	**($2,330,356)**	**$593,281**
Total - Utilities Cost	**$11,096,678**	**$11,086,172**	**$10,505**
Unit Costs			
Total - Power Supply	$83.49	$87.56	($4.07)
Total - Power Generation	($11.30)	($15.21)	$3.91
Final Cost of Service to City of Dover Ratepayers	$72.19	$72.35	($0.17)

III. Operations Management

NAES Corporation
Dover, Delaware

August 2013
Monthly Report



NAES Scholarship Award Winners

Clockwise (top left) Plant Manager, Vince Scire, Gabrielle Lavender and her father Ray Lavender (Operations Supervisor), (top right) Operator Eric Carrow, daughter Emily Carrow and Vince Scire and (below) Vince Scire and Lori Berryhill, daughter of Lance Berryhill



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2.0 Financial

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6.0 General Plant Information

7.0 Summary of NAES Performance

1.0 Environmental, Health and Safety:

During the month of August, there were no restricted work days or lost time accidents. The facility has now gone two years, ten months and fourteen days (1,052 days) through August 31, 2013 without an OSHA Recordable Accident or a Lost Time reportable accident. There were two Near Miss Incidents during the month. The plant received no Notice of Violations (NOVs) during the month. The August (July Discharge) DMR was submitted for the McKee Run site with no NPDES exceedences. There was one opacity deviation during the month during a Unit 2 operation.

In July, Tom Lilly (DNREC) had conducted his annual compliance audit where he was supplied documentation supporting plant compliance with applicable regulations pertaining to the Title V Air Permits. A return site visit occurred in August so that Mr. Lilly could observe unit operations and to gather real time operating/emissions data. At this time, Mr. Lilly informed plant staff that he would be retiring in December of 2013 and that no DNREC replacement had been named as of yet. Subsequent form the site visit, letters were received from the DNREC stating that the McKee Run and VanSant Facilities were in compliance with their Title V Operating Permits.

The Plant Safety training matrix has been updated for 2013 and is being tracked on a monthly basis for all employees. The training program includes the inclusion of the General Physics on-line training system as well as plant safety procedures and policies. Safety Procedures and associated quizzes are currently being updated. As they are completed, staff will retrain on each one to ensure they understand what changes have been made, if any, to the programs.

Stack testing was performed on all four generation units in August. Fuel flow problems were encountered during oil testing on Unit 2 and natural gas testing on Unit 11 that will potentially require retesting on the particular unit and on that particular fuel where the problem existed. A bad PLC channel was the cause of the Unit 2 problem and a bad connection on a wiring terminal was the cause of the problem on Unit 11.

Environmental, Health, and Safety Statistics		
	Month (August)	Fiscal Year to Date (7/1/13-6/30/14)
NOVs	0	0
Opacity Deviations	0	0
Environmental Deviations	1	1
OSHA Recordable	0	0
OSHA LTA's	0	0
First Aid cases	0	0
Restricted Workday Accident	0	0
Near Miss	2	2
Man Hours Worked	4,324	8,882.75
Date last OSHA Recordable		10/14/10
Date last Lost Time Accident		10/14/10
Days since last OSHA recordable		1,052
Days since last Lost Time Accident		1,052

Emissions (NO_x & SO_2) All data thru 8/31/13

NOx Summary – Ozone Season (May-Sep) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.7	2.2	88.7	3.3	94.7
2011	1.8	1.5	31.4	1.4	36.1
2012	1.2	1.0	35.8	1.0	33.1
2013	0.7	1.3	15.3	1.1	17.4
NOx Summary - Year (Jan-Dec) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.7	2.2	88.7	3.3	94.7
2011	1.8	1.5	32.6	2.9	38.8
2012	1.2	1.1	35.8	1.0	36.9
2013	0.7	1.3	15.4	1.1	17.5
SO_2 Summary - Year (Jan-Dec) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.0	0.0	0.3	0.0	0.3
2011	0.0	0.0	0.1	0.5	0.6
2012	0.0	0.0	0.0	0.1	0.1
2013	0.0	0.0	0.0	0.2	0.2

CO2 Allowances Summary					
CO2 Allowance Vintage	**CO2 Allowances Sold YTD**	**CO2 Allowances Available (Per Facility, Prior to Sale)**		**Total CO2 Tons Emitted**	**CO2 Allowance Balance**
		McKee Run	***VanSant***		
2009	0	60,128	2,056	5,796	56,388
2010	0	48,102	1,645	32,971	16,776

2011	0	36,077	1,234	17,763	19,548
2012	0	27,058	925	15,265	11,793
2013	0	15,032	514	7,732	7,814
				Total CO2 Allowance Balance	**112,319**
***Note: CO2 allowance values are provided by the RGGI CO2 Allowance Tracking System. Note: All emissions (NOx, SO2 and CO2) totals for 2013 are unofficial.**					

CAIR NOx Allowances Summary*

CAIR NOx Allowance Vintage	CAIR NOx Allowances Sold YTD	NOx Allowances Available (Per Facility, Prior to Sale)		Total NOx Tons Emitted (Yr/ Season) McKee Run - VanSant	CAIR NOx Allowances Purchased YTD	NOx Allowance Balance	
		McKee Run (Yr/Season)	***VanSant (Yr/Season)***			***McKee Run (Yr/Season)***	***VanSant (Yr/Season)***
2010 and earlier	3***					27/0	0/2
2011	0	77/48	5/3	33/31– 3/1	0/0 - 0/0	42/10	2/2
2012	2**	75/46	5/3	36/36 – 1/1	0/0 - 0/0	39/10	2/0
2013	0	77/48	5/3	15/15 – 1/1	0/0 - 0/0	62/33	4/2
				Total NOx Allowance Balance		**170/53**	**8/6**

***Note – Emissions allowances are deducted according to oldest vintage first or unless otherwise directed.**
****Note – The facility transferred Ozone Season allowances to a third party.**
*****Note- The facility transferred Annual allowances to a third party**

SO_2 Allowances Summary

SO_2 Allowance Vintage	SO_2 Allowances Sold - YTD	SO_2 Allowances Available (Per Unit, Prior to Sale & Reconciliation)	Total SO_2 Tons Emitted – U3 and U11 YTD	Total SO_2 Tons Emitted – U3 and U11 YTD	SO_2 Allowances Balance
		Unit #3	***Unit #11***		
2010 and earlier	0	4815	276	0	5089
2011	0	1850	138	1	1988*
2012	0	1850	138	1	1988*
2013	0	1850	138	0	1988*
			Total SO2 Allowance Balance		**11,053**

Note – Emissions allowances are deducted according to oldest vintage first, unless otherwise directed.

2.0 Financial

Financial – Current Month (Estimated)

Month – August			
	Actual	Budget	Variance
Personnel	239,584	244,535	$4,951
Materials & Supplies	3,349	46,335	$42,986
Administrative Expenses	426,456	125,542	-$300,914
Total	**669,389**	**416,412**	**-252,977**

Financial – Fiscal Year to Date (Estimated)

Number of Months – 2			
	Actual	Budget	Variance
Personnel	424,868	494,880	$70,012
Materials & Supplies	33,094	96,720	$63,626
Administrative Expenses	524,687	631,206	$106,519
Total	**982,649**	**$1,222,806**	**$240,157**

2.1 Variance analysis:

The City of Dover Finance Department has closed the books for the month of August, 2013. The expenses for August are $669,389 against a budgeted amount of $416,412 for an unfavorable variance of $252,977 or 60.75%. The variance was due to the following:

PERSONNEL EXPENSES – A favorable monthly variance of $4,951 was to due to not having a full complement of employees although a portion of this savings was offset by higher than budgeted overtime expenses which included straight time labor, overtime labor, and labor burdens.

MATERIALS AND SUPPLIES EXPENSES- A favorable monthly variance of $42,986 was due primarily to lower than budgeted water/sewer costs for the month and the timing of the invoice receipt/payment.

ADMINISTRATIVE EXPENSES – An unfavorable monthly variance of $300,914 was due primarily to the Plant's general liability and environmental insurance costs being expensed in August versus July as originally budgeted. In addition, the invoices for Electric expenses were not paid this month due to billing cycle which will be reflected in next month's billing.

The forecasted expenses for this fiscal year are $5,925,565 expensed versus an approved budget of $6,015,800 thereby realizing a 99.58 % expenditure rate.

3.0 Operations

Unit Operations / Outages / Trips

In the month of August, Units 1, 2, and 11 were on line two days each for stack testing on oil and gas. Unit 3 was on line for testing one day on gas only. Unit 3 was dispatched twice and by PJM. Summer capacity tests were successfully completed on all four units.

Month August 2013							
		McKee Unit 1	McKee Unit 2	McKee Unit 3	MRS Facility	VanSant Unit 11	Total All Units
Capacity	MW	17	17	102	136	39	175
On Line Hours	Hrs	41.516	39.116	41.466	122.098	19.364	141.462
Starts	#	1	1	3	5	5	20
Gross Generation	MWh	356.258	373.332	2,627.906	3,357.496	508.233	3,865.729
Net Generation	MWh	334.906	353.667	2,420.370	3,108.943	507.764	3,616.707
Total Auxiliaries	MWh	58.883	57.196	369.440	485.519	1.490	487.009
Auxiliaries purchased	MWh	37.531	37.531	161.904	236.966	1.021	237.987
Fuel Gas Used	MMBTU	3,903.816	3,472.896	27,717.273	35,093.985	4,423.177	39,517.162
Fuel Oil Used	MMBTU	1,642.633	1,671.506	0.0	3,314.139	2,920.623	6,234.762
Fuel Oil Used	Gallons	11,568	11,726	0.0	23,294	20,672	43,966
Total Fuel	MMBTU	5,546.449	5,144.402	27,717.273	38,408.124	7,343.800	45,751.924
Net Heat Rate	BTU/KWh	16.561	14.546	11.452	14.186	14.463	14.324
Unit Trips	#	0	0	0	0	3	3
Capacity Factor	%	2.65	2.80	3.19	3.07	1.75	2.78
Availability Factor	%	94.62	100.00	100.00	98.21	100.00	94.99
Commercial Unavailability (CU)	%	0	0	0	0	0	0
Planned Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Forced Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Reserve Shutdown Hours	Hours	702.484	704.884	702.534	2109.902	724.636	2834.538
HW Boiler Gas Usage	MMBTU				0.0		0.0
Pilot Gas Usage	MMBTU	413.000	862.000		1,275.000		1,275.000

 # Note: Does not include HWB or Pilot Gas. Fuel usage numbers are taken from fuel flow instruments.

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2013-2014 Fiscal Year-to-Date - August							
		McKee Unit 1	McKee Unit 2	McKee Unit 3	MRS Facility	VanSant Unit 11	Total All Units
Capacity	MW	17	17	102	136	39	175
On Line Hours	Hrs	41.516	130.116	124.864	296.496	42.010	338.506
Starts	#	1	2	9	12	12	24
Gross Generation	MWh	356.258	862.929	9,145.019	10,364.21	1,246.692	11,610.90
Net Generation	MWh	334.906	800.734	8,448.866	9,584.506	1,245.655	10,830.16
Total Auxiliaries	MWh	58.883	99.726	1,045.457	1,204.066	3.754	1,207.82
Auxiliaries purchased	MWh	80.154	122.684	349.304	552.142	2.717	554.859
Fuel Gas Used	MMBTU	3,903.816	10,778.832	95,575.341	110,257.99	14,626.861	124,884.85
Fuel Oil Used	MMBTU	1,642.633	1,671.506	0.0	3,314.14	2,937.660	6,251.80
Fuel Oil Used	Gallons	11,568	11,726	0.0	23,294	20,795	44,089
Total Fuel	MMBTU	5,546.449	12,450.338	95,575.341	113,572.13	17,564.52	131,136.65
Net Heat Rate	BTU/KWh	16.561	15.443	11.354	14.453	14.157	14.305
Unit Trips	#	0	0	0	0	4	4
Capacity Factor	%	1.32	3.17	5.57	4.74	2.15	4.16
Availability Factor	%	94.62	100.00	100.00	98.21	100.00	94.99
Commercial Unavailability (CU)	%	0	0	0	0	0	0
Planned Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Forced Outage Hours	Hours	80.000	0.0	0.0	80.000	0.0	80.000
Reserve Shutdown Hours	Hours	1,366.484	1,357.884	1,365.732	4,090.10	1,445.990	5,536.09
HW Boiler Gas Usage	MMBTU				0.0		0.0
Pilot Gas Usage	MMBTU	847.605	3,107.107		3,954.712		3,954.712

Fuel Oil Inventory							
	Monthly Inventory (Start)	Monthly Inventory (End)	Fuel Purchases (Month)	Monthly Inventory (Change)	FY 13-14 Inventory (Start)	Fuel Purchases (YTD)	FY 13-14 Inventory (Change)
McKee Run (#2 Fuel Oil)	454,725	430,931	0	(23,794)	454,725	0	(23,794)
VanSant (#2 Fuel Oil)	145,964	125,738	0	(20,226)	146,133	0	(20,395)

Note: As measured by tank level instruments. Tank levels may change due to oil temperature.

VanSant Lifetime through August 2013			
	Actual Starts	Factored Starts	Fired Hours
VanSant	1323	2,280.75	4,267.70
Since HGP - Dec 2004	242	613.05	884.12

Team Report:

The Operations Team, with Maintenance Team support, satisfactorily completed the PJM Summer Capacity Tests on all four units. In addition, they supported unit operations for stack testing and for PJM dispatches. High thermocouple spread was encountered during testing on oil on Unit 11 that will require further investigation during the upcoming fall outage into the cause.

The Operations staff has been continuing their work on painting the fuel lines now that most of the insulation has been removed from the pipeline.

Plant employees continue General Physics safety training and environmental courses to enhance their overall knowledge of permit and safety requirements. As the GPI courses are being completed the employee reviews the standard operating procedure (SMP) for the same topic they are training on to review NAES policy and score a minimum 80% on a quiz before they can complete the SMP.

Operations personnel continue to support maintenance by working on Preventative Maintenance (PM) work orders and other work orders that they have the skills to successfully complete the task. The Operations Department continues to utilize the Day Shift Workers in both the Operations and Maintenance areas to help in maintaining the plant.

Capacity Testing – FY 2013-2014

Summer 2013 (June 1- Aug 31)			**Winter 2013-2014 (Dec 1- Feb 28)**		
Unit	Rated Net Capability (MW)	Reported Net Capability (MW)	Unit	Rated Net Capability (MW)	Reported Net Capability (MW)
1	17	17.2	1	17*	0.0
2	17	17.8	2	17*	0.0
3	102	103.0	3	102*	0.0
VanSant#	39	40.9	11	39*	0.0
Total	175	178.9	Total	175	0.0

Note: * Denotes Unit is qualified for the PJM Winter Demonstration Period Exemption Program and data has been submitted into the PJM eGADS
Note: # Depicts Net Corrected Capacity for Ambient Air Conditions – VanSant Unit only

4.0 Maintenance

During the month of August, the Plant Maintenance staff continued addressing the backlog of work orders and completing outage activities. There were fifty work orders issued with ninety-five work orders being completed during the month. There was no safety work orders entered into the plant's Computerized Maintenance Management System (MP2) during the month. The table below summarizes the monthly work order activities.

Work Order Report

August - 2013

Priority #	Outstanding From Previous Month	Issued This Month	Completed This Month	Outstanding at the end of the month
1	17	3	12	8
2	62	12	37	37
3	41	4	4	41
4	6	0	0	6
5	18	2	0	20
SW1	0	0	0	0
SW2	0	0	0	0
SW3	0	0	0	0
SW4	0	0	0	0
SW5	0	0	0	0
PM	57	29	42	44
Totals	201	50	95	156

Note: PM Work Orders are included in the priority totals

Notable activities during the month include:

- The NAES Maintenance Staff completed the isolation of Units 1/2 Cooling Tower and Unit 3 Cooling Tower discharges from Outfalls 004 and 005, respectively. This was final modification needed to complete the Industrial Waste Water project.

- The NAES Maintenance & the IC&E Staff completed the removal and installation of new motor bearings on Unit 3 Cooling Tower Fan #2. While performing the vibration monitoring inspection (predictive maintenance) on plant equipment, it was discovered that the motor had bad bearings and needed to be replaced.

- The NAES IC&E completed a successful Linearity test on Unit 3. The staff also assisted the emission stack testing teams in completing the stack testing at McKee Run and VanSant generating Stations.

5.0 Capital Improvement Projects (CIP)

Project Number	Description	Update
EG1214	MR Industrial Waste water System	Progress: Work is complete 99%. Schedule: Project to be complete in October, 2013 with the final revision of Standard Operating Procedures on the system.
EG1402	Unit #3 Cooling Tower Repairs	Progress: Bids have been received, evaluated and contract awarded. Schedule: Work planned to be completed in Fall 2013.
EG1404	McKee Run Auxiliary Component Replacement	Progress: Work is being planned and scheduled for the Fall and Spring outages. Schedule: Work activities are slightly behind due to unit operations.
EG1405	VanSant Station Component Replacement	Progress: Work scheduled for the Fall and Spring. Schedule: Planning activities are underway for Fall and Spring outages.
EG1406	McKee Run HEP Pipe Repairs	Progress: Work scope is being developed and work areas assessed for proper safety/fall protection. Schedule: Work to begin in Fall Outage period.
EG1407	Metering System Upgrades	Progress: Initial meeting set up with vendor to aid in system integration and to help determine best system for COD. Schedule: Work activities are slightly behind due to unit operations.
EG1408	McKee Run/VanSant Safety Compliance Items	Progress: Work scheduled for the Fall and Spring. Schedule: Work activities are slightly behind due to unit operations.
EG1409	McKee Run Natural Gas Block-Bleed Valves	Progress: Work scheduled for the Fall and Spring. Schedule: Work activities are slightly behind due to unit operations.
EG1410	McKee Run/VanSant Crane Replacement	Progress: Crane specifications being developed and will be put out for bid thereafter. Schedule: Work activities are slightly behind due to unit operations.
EG1413	McKee Run/VanSant Structural Preservation	Progress: Plant staff completed development of paint specifications and bid requests were sent out. . Schedule: Bids should be received in early September with work to be scheduled.
EG1414	Unit 3 Turbine Repairs	Progress: Plant staff continues working with OEM to determine long lead material requirements. Work scope developed and work to bid out in September. Schedule: Long lead items were procured in the spring of 2013. Some turbine parts (turbine 9th stage blades) have been ordered and received. List of consumables is being finalized and quotes requested thereafter. Bid meeting set up for September and bids to

		be received in September. Approval process will then proceed.
EG1415	McKee Run Units #1-#2 Component Repairs	Progress: Cost to be incurred due to repairs on Unit 1 boiler and turbine. Schedule: Work activities are slightly behind due to unit operations.
EG1416	VanSant Capacity Increase	Progress: Bid specifications are being developed and Environmental permit modifications are being investigated. Bid documents sent out for environmental work. Communications with PJM to get MW into system in the works with possibly a six-month wait period. Schedule: Plant Staff and TEA to develop scoping documents and proceed with getting regulatory approvals. Environmental support bids to be received, evaluated and work awarded in September.

6.0 General Plant Information

- Work continues on the VanSant Capacity increase project. Bids have been requested for technical support from companies with Environmental Permitting backgrounds to help in the permit application.

- Plant staff is working to fill three current openings due to personnel changes as a result of an employee resignation and two employee terminations.

Training:

- Topics discussed during the monthly safety committee meeting were reviewed by the entire staff. The monthly safety topic was on "Effects of UV Radiation". Topics discussed during the monthly safety committee meeting were reviewed by the entire staff.

- Plant employees continue using the General Physics safety training and environmental courses to enhance their overall knowledge of permit and safety requirements. As the GPI courses are being completed, the employee reviews the standard operating procedure (SMP) for the same topic they are training on to review NAES policy as well.

Calendar of Events	Date
DRBC Study Due	September 15, 2013
NOx Ozone Season Ends	September 30, 2013
Units 1, 2, 3 and 11 Fall Outage	TBD
Three Year Accident Free	October 14, 2013
Winter Capacity Period	December 1, 2013 to February 28, 2014
EIA-860 Report	February 28, 2014
EIA-923 Report	February 28, 2014
NOx Emissions Reconciliation Due	March 1, 2014
SO2 Emissions Reconciliation Due	March 1, 2014
SARA III Report	March 1, 2014
NPDES Permit Renewal Due	March 4, 2014
Units 1, 2, and 3 Spring Outage	March , 2014 – June , 2014
Unit 11 Spring Outage	March , 2014 – June , 2014
Annual VanSant Black Start Test	March , 2014
Air Emission Inventory	March , 2014
NOx Ozone Season Starts	May 1, 2014
PJM Summer Capacity Test Period	June 1, 2014 – August 31, 2014
Toxic Release Inventory (TRI) Annual Report	July 1, 2014
McKee Run and VanSant Title V Semi-Annual Certification Due	August 1, 2014

7.0 Summary of NAES Performance to Date

Measure	Plant Performance FY 2013-2014 Month		Year to Date		YTD Incentive	FY Maximum Incentive
Commercial Unavailability (CU)	0.09%		0.09%		$91,087	$94,882
Safety	0		0		$17,790	$17,790
Environmental	0		0		$17,790	$17,790
Capacity Tests Completed	Summer	Winter	Summer	Winter		
Unit 1	Yes	No	Yes	Yes*	$3,559*	$3,559
Unit 2	Yes	No	Yes	Yes*	$3,559*	$3,559
Unit 3	Yes	No	Yes	Yes*	$21,349*	$21,349
Unit 11	Yes	No	Yes	Yes*	$7,117*	$7,117
Total YTD Incentive %	97.71%		***Total YTD Incentive***		$162,249*	$166,045

Note: *All units have successfully completed the PJM Summer Capacity Tests and are now included in the PJM Winter Capacity Test Exemption Program. The YTD Incentive calculation reflects this information.

IV. Appendix – PJM Invoice Breakdown

	Gen	Load	Grand Total
Auction Revenue Rights		($26,877.93)	($26,877.93)
Balancing Operating Reserve	($2,640.95)	$7,282.74	$4,641.79
Balancing Operating Reserve for Load Response		$72.64	$72.64
Balancing Spot Market Energy	$1,455.64	$39,650.26	$41,105.90
Balancing Transmission Congestion	$60.35	$21,618.20	$21,678.55
Balancing Transmission Losses	$691.18	$3,757.90	$4,449.08
Black Start Service		$1,929.86	$1,929.86
Capacity Resource Deficiency		($157.17)	($157.17)
Capacity Transfer Rights		($19,233.33)	($19,233.33)
CT Lost Opportunity Cost Allocation		($17.36)	($17.36)
Day-Ahead Load Response Charge Allocation		$421.31	$421.31
Day-ahead Operating Reserve	($5,150.77)	$3,548.32	($1,602.45)
Day-ahead Scheduling Reserve	($1.64)	$369.09	$367.45
Day-ahead Spot Market Energy	($172,588.14)	$378,361.73	$205,773.59
Day-ahead Transmission Congestion	($12,867.54)	$41,308.32	$28,440.78
Day-ahead Transmission Losses	($7,003.53)	$90,413.15	$83,409.62
Expansion Cost Recovery		$427.49	$427.49
FERC Annual Recovery		$4,216.08	$4,216.08
Generation Deactivation Refund		($758.35)	($758.35)
Inadvertent Interchange		($702.07)	($702.07)
Incremental Capacity Transfer Rights		($1,761.11)	($1,761.11)
Load Reconciliation for Balancing Operating Reserve		($68.04)	($68.04)
Load Reconciliation for Day-ahead Scheduling Reserve		($37.40)	($37.40)
Load Reconciliation for FERC Annual Recovery		$12.52	$12.52
Load Reconciliation for Inadvertent Interchange		($4.68)	($4.68)
Load Reconciliation for Market Monitoring Unit (MMU) Funding		$0.79	$0.79
Load Reconciliation for Non-Synchronized Reserve		($0.19)	($0.19)
Load Reconciliation for North American Electric Reliability Corporation (NERC)		$2.11	$2.11
Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding		$0.15	$0.15
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service		$43.47	$43.47
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund		($1.24)	($1.24)
Load Reconciliation for Reactive Services		$1,161.18	$1,161.18
Load Reconciliation for Regulation and Frequency Response Service		$17.84	$17.84
Load Reconciliation for Reliability First Corporation (RFC)		$3.01	$3.01
Load Reconciliation for Schedule 9-6 - Advanced Second Control Center		$4.51	$4.51
Load Reconciliation for Spot Market Energy		($5,821.59)	($5,821.59)
Load Reconciliation for Synchronized Reserve		($4.35)	($4.35)
Load Reconciliation for Transmission Congestion		($3,150.24)	($3,150.24)
Load Reconciliation for Transmission Losses		($703.77)	($703.77)
Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service		$15.64	$15.64
Locational Reliability		$1,384,641.66	$1,384,641.66
Market Monitoring Unit (MMU) Funding		$290.30	$290.30
Meter Error Correction		($5,815.43)	($5,815.43)
Michigan - Ontario Interface Phase Angle Regulators		$216.23	$216.23
Network Integration Transmission Service		$342,169.01	$342,169.01
Non-Firm Point-to-Point Transmission Service		($434.57)	($434.57)
Non-Synchronized Reserve		$214.91	$214.91
North American Electric Reliability Corporation (NERC)		$708.57	$708.57
Organization of PJM States, Inc. (OPSI) Funding		$48.89	$48.89
Peak-Hour Period Availability		($82,764.68)	($82,764.68)
PJM Scheduling, System Control and Dispatch Service - Advanced Second Control Center		$1,642.73	$1,642.73
PJM Scheduling, System Control and Dispatch Service - Capacity Resource/Obligation Mgmt.		$943.95	$943.95
PJM Scheduling, System Control and Dispatch Service - Control Area Administration		$11,989.23	$11,989.23
PJM Scheduling, System Control and Dispatch Service - Market Support		$2,855.33	$2,855.33
PJM Scheduling, System Control and Dispatch Service - Market Support Offset		$67.03	$67.03
PJM Scheduling, System Control and Dispatch Service - Regulation Market Administration		$115.56	$115.56
PJM Scheduling, System Control and Dispatch Service Refund - Capacity Resource/Obligation Mgmt.		($29.45)	($29.45)
PJM Scheduling, System Control and Dispatch Service Refund - Control Area Administration		($418.06)	($418.06)
PJM Scheduling, System Control and Dispatch Service Refund - Market Support		($98.61)	($98.61)
PJM Scheduling, System Control and Dispatch Service Refund - Regulation Market Administration		($5.03)	($5.03)
PJM Settlement, Inc.		($67.03)	($67.03)
Reactive Services		$173,541.78	$173,541.78
Reactive Supply and Voltage Control from Generation and Other Sources Service	($29,467.58)	$34,839.39	$5,371.81
Real-Time Load Response Charge Allocation		$1,002.91	$1,002.91
Regulation and Frequency Response Service		$16,336.67	$16,336.67
Reliability First Corporation (RFC)		$1,013.26	$1,013.26
RPM Auction	($1,329,125.00)		($1,329,125.00)
Synchronized Reserve		$4,794.75	$4,794.75
Transmission Enhancement		$ 4,883.03	$ 4,883.03
Transmission Losses		($28,743.29)	($28,743.29)
Transmission Owner Scheduling, System Control and Dispatch Service		$5,264.78	$5,264.78
Grand Total	**$ (1,556,637.98)**	**$ 2,404,543.31**	**$847,905.33**

The Energy Authority, Inc.

Monthly Management Committee Update – September 2013

October 22, 2013

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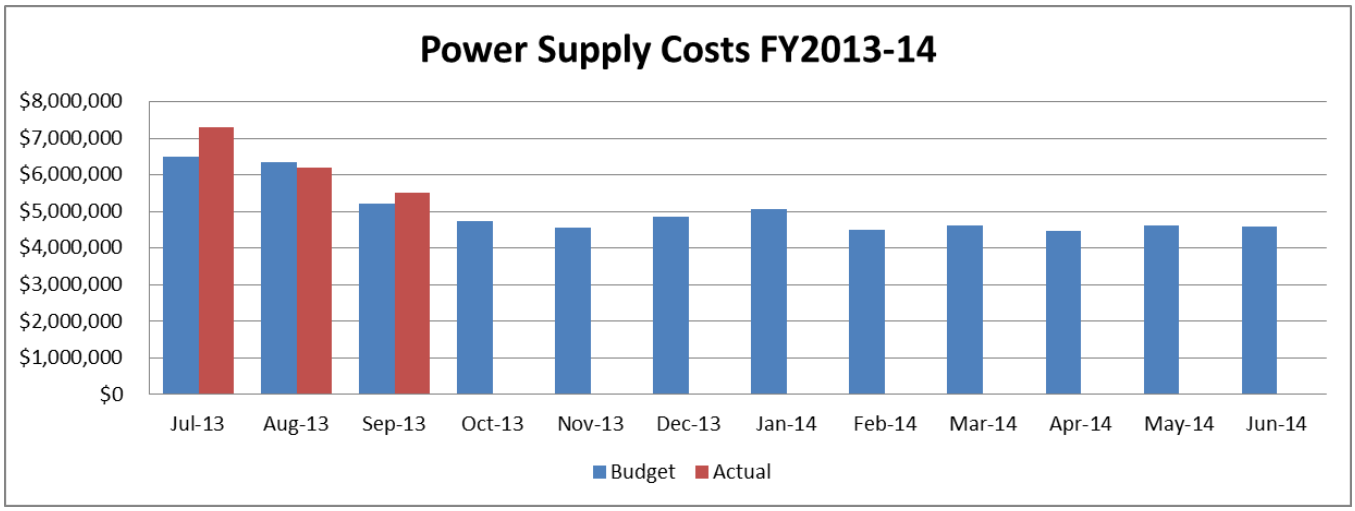
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I. Executive Summary

A. Power Supply Summary:



Overall Power Supply costs were $336,741 over budget due to higher reactive services costs and solar costs.

Dover's budgeted cost for all power supply (capacity AND energy) was $81.20/MWh. The actual cost of all power supply (capacity AND energy) was $87.47/MWh.

The cost of energy alone was $53.08/MWh, versus a budgeted energy cost of $52.38.

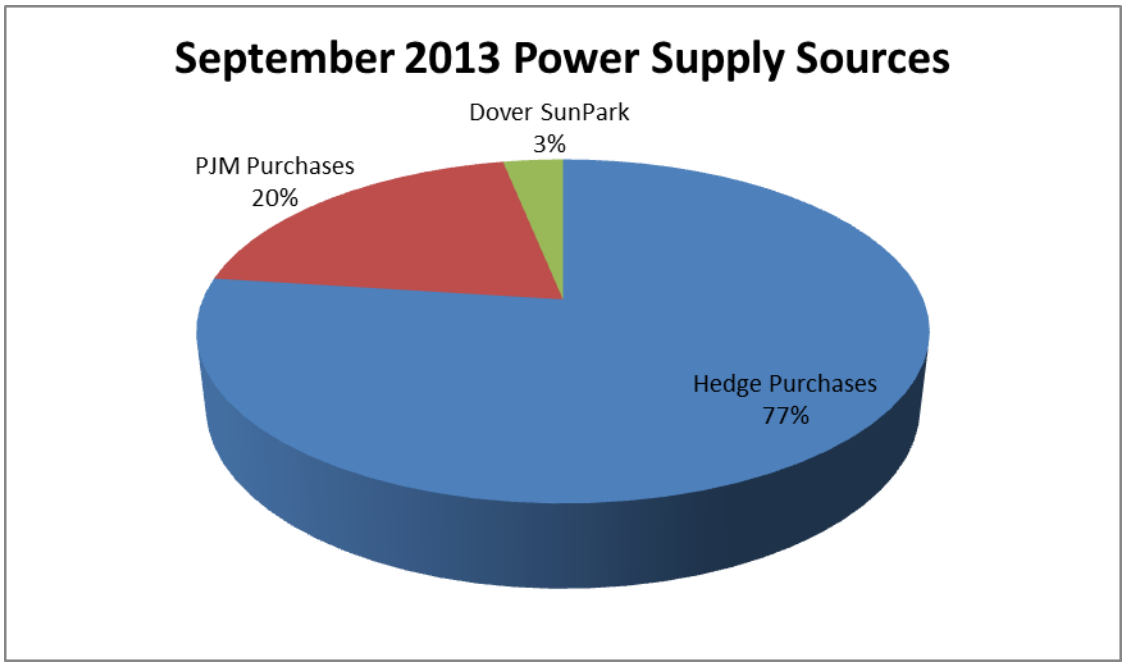
Dover's hedge purchases totaled 48,800 MWh, which was 77% of the actual load. The budgeted hedge purchase totaled 43,200, which was 67% of the budgeted load.

Dover's power purchases from hedge transactions totaled $2,637,220. Purchases from PJM (energy and fees) totaled $1,239,043 with DA Energy purchases totaling $368,807 and Balancing Spot Market Energy totaling $300,780.

Dover's total load was 63,329 MWh versus a forecasted load of 64,070 MWh.

Dover's planned energy purchase from the SunPark solar installation was 1224 MWh. Dover's actual energy purchase from the SunPark installation was 2000 MWh.

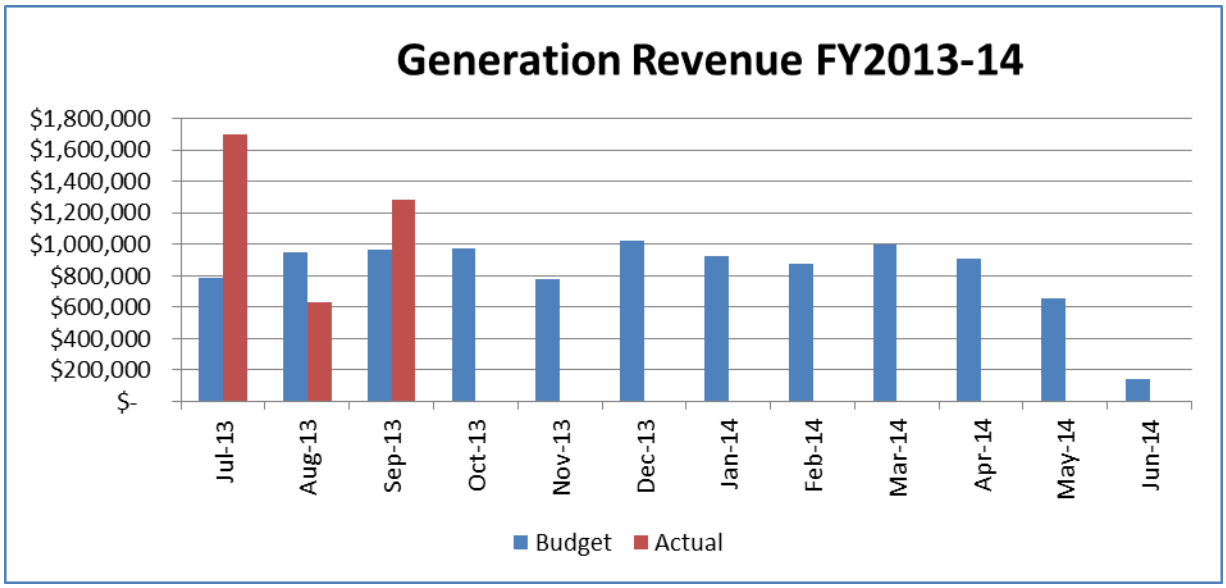
Supply Source Summary:



Supply Variance:

	Budget	Actual	Variance
Gross Load	64,070	63,329	741
Wholesale Load	62,846	61,329	1,517
Hedged Volume (MWh)	43,200	48,800	(5,600)
Unhedged Volume (MWh)	19,646	12,529	7,117
Dover SunPark Volume (MWh)	1,224	2,000	(776)
Renewable Energy Credits Volume	184	272	(88)
Hedged Cost ($/MWh)	$ 56.5	$ 54.0	$ 2.5
Unhedged Energy Cost ($/MWh)	$ 41	$ 41	$ (0)
Solar Energy Cost ($/MWh)	$ 87	$ 102	$ (15)
Energy Costs ($/MWh)	**$52.38**	**$53.08**	**($0.70)**
All-in Costs - Energy, Capacity and RECs ($/MWh)	**$81.20**	**$87.47**	**($6.27)**

B. Generation Summary:



Dover generated 3,877.66 MWh in the month. Net generation revenue was $1,301,600 vs. a budget of $965,618. This delta was mainly due to higher generation runs and margins during the month.

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Generation Breakdown:

City of Dover's Wholesale Generation		
Net Generation Mwh		**3,879.66**
All In Generation Margin		
PJM - Economic and reliability dispatch (GEN)	$	419,935.66
PJM - Generation Capacity Credit (GEN)	$	1,286,250.00
PJM - Black Start & Transmission Losses (GEN)	$	81,160.34
Gas Purchases	$	(93,135.00)
Oil Purchases	$	-
Transport / Cash Out	$	(30,501.69)
Gross Margin	**$**	**1,663,709.31**
Production Margin		
PJM - Economic and reliability dispatch (GEN)	$	419,935.66
Gas Purchases	$	(93,135.00)
Oil Purchases	$	-
Transport / Cash Out	$	(30,501.69)
Gross Production Margin	**$**	**296,298.97**

C. Emissions Summary:

Emissions Allowance Summary through September 30, 2013

CAIR EMISSION ALLOWANCE SUMMARY				
Date	**Action**	**SO_2 Allowances**	**NO_x Allowances[1]**	
			Seasonal	**Annual**
1/1/09	2008 Carryover	3,240	0	0
1/1/09	2009 Allocation	2,723	53	80
2/1/10	2010 Allocation	2,039	50	78
1/1/11	2011 Allocation	1,988	49	78
4/1/11	2011 Reallocation		2	4
1/11/12	2012 Allocation	1,988	51	80
10/4/2012	**2013 Allocation**	**1,988**	**49**	**76**
9/29/09	SO_2 Sales	(1,500)		
11/12/09	NO_x Ann. Sales			(45)
11/13/09	SO_2 Sales	(1,410)		
11/20/09	NO_x Seas. Sales		(25)	
12/31/09	2009 Emissions[2]	(1)	(6)	(13)
12/31/10	2010 Emissions	0	(54)	(54)
10/31/10	EPA Linearity Testing Req.		(68)	(68)
2011	2010 Deficit NO_x Purchases		53	22
Aug 2011	Revised 2010 ECMPS data		30	30
Nov 2011	NO_x Seas. Sales (DEMEC)		(1)	
12/31/11	2011 Emissions[2]	(1)	(32)	(36)
12/31/12	2012 Emissions[2]	(1)	(37)	(37)
Nov 2012	NO_x Seas. Sales (DEMEC)		(2)	
2/13/2013	NO_x Annual. Sales (DEMEC)			(3)
9/30/2013	**C.Y.T.D. 2013 Emissions**	**0**	**(20)**	**(20)**
REMAINING ALLOWANCES		**11,053**	**55**	**174**

On August 21, 2012, a three-judge panel of the U.S. District Court of Appeals (DCA) in Washington vacated EPA's Cross State Air Pollution Rule (CSAPR) which would have become effective on January 1, 2012. The DCA instructed EPA to continue administering the Clean Air Interstate Rule (CAIR). EPA has appealed this ruling to the U.S. Supreme Court, and the Court has agreed to review the DCA opinion. A ruling is not expected before June, 2014.

[1] Per CAIR, starting in 2009, NOx emissions are governed by a seasonal and annual program.
[2] Under CAIR, pre-CAIR SO2 allowances are retired at a rate of 2 allowances for each ton emitted. It is assumed that pre-CAIR allowances will be retired before CAIR allowances.

Market liquidity for CAIR allowances continues to be low, with few transactions occurring. The following table shows estimated values for Dover's banked allowances, based on broker bids & offers:

Mark-to-Market for CAIR Allowances (10/18/2013)			
Commodity	**$/Ton (Bid/Offer Avg.)**	**Tons**	**Extended Value**
SO_2 Allowances (2009 & earlier)	$ 1.38	5,089	$ 7,023
SO_2 Allowances (2010-13)	$0.675	5,964	4,026
NO_x Allowances - Seasonal	$19.00	55	1,045
NO_x Allowances - Annual	$38.00	174	6,612
TOTAL			**$18,706**

Regional Greenhouse Gas Initiative

The State of Delaware is a participant in the Regional Greenhouse Gas Initiative (RGGI). The City of Dover must comply with RGGI by surrendering carbon dioxide (CO_2) allowances pursuant to the State of Delaware's laws (Title 7, Chapter 60, Sub-Title II-A). Delaware has elected a combined emissions allowance allocation/auction mechanism for RGGI, in which 40% of CO_2 allowances were allocated to sources for 2009, declining by 8% per year so that by 2014, all CO_2 allowances are auctioned.

Dover had more than a sufficient number of RGGI allowances allocated to it to cover its requirements through the first compliance period (calendar years 2009-2011). Any unused allowances are carried over ("banked") for subsequent years. The table below shows RGGI allowance allocations, deductions and the cumulative balance by year (column 8).

CO2 Allowance Summary (9/30/2013)							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
CO_2 Allowance Vintage	**CO_2 Allowances Sold YTD**	**CO_2 Allowances Available (Per Facility, Prior to Sale)**		**Allocated CO_2 Allowances**	**CO_2 Tons Emitted**	**Annual CO_2 Allowance Balance**	**Cumulative Balance**
		McKee Run	***VanSant***				
2009	0	60,128	2,056	62,184	(5,796)	56,388	56,388
2010	0	48,102	1,645	49,747	(32,971)	16,776	73,164
2011	0	36,077	1,234	37,311	(17,763)	19,548	92,712

2012	0	27,058	925	27,983	(15,265)	11,793	104,505
2013	0	15,032	514	15,546	(8,726)	6,820	**111,325**

The table shows that the "**Allocated CO_2 Allowances"** (column 5) are declining. After 2013, Dover will no longer receive allocations of RGGI allowances. The Cumulative Balance (column 8) – aka "Banked Allowances") can be utilized for generation in future years (including 2013). Once the banked allowances have been fully utilized, Dover will be required to purchase allowances through the periodic RGGI auctions or through over-the-counter markets. Assuming that Dover does not sell any banked allowances, it will be able to maintain a positive balance through 2016 – 2025, depending on actual annual energy production in 2012 and beyond.

On February 7, 2013, RGGI proposed changes to its Model Rule. The proposed changes have been included in previous monthly reports. With the release of the *Updated Model Rule*, the RGGI states now plan to revise their CO_2 Budget Trading Programs through their individual state-specific statutory and regulatory processes. Each RGGI state seeks to complete their state specific processes such that the proposed changes to the program would take effect on January 1, 2014. The Delaware Department of Natural Resources expects to publish a draft rule in the Delaware Register in the near future.

Dover could elect to sell all or a portion of its banked allowances now and re-acquire allowances at a later date; however TEA is currently of the opinion that Dover will be better off retaining its banked allowances for use during future compliance years.

The most recent RGGI auction occurred on September 5, 2013; the auction cleared at $2.67 which is below the $3.21/ton auction clearing price for the June auction. The next auction will occur on December 4, 2013.

RGGI futures settlement prices posted on Intercontinental Exchange (ICE) on October 17, 2013 ranged from $2.67 to $2.85/ton, depending settlement month. **Based on the average Intercontinental Exchange prices for December 2013 settlement ($2.70/ton), the value of Dover's existing RGGI allowance bank is approximately $300,577.**

Renewable Energy Certificates

Dover owns two photovoltaic systems totaling 15 kW, consisting of (a 5 kW unit at the Utilities Administration Building and two 5 kW units at the McKee Run generating station. Dover also receives solar energy produced by the 10 MW Dover Sun Park which is owned by White Oak Solar Energy, LLC. In addition to the all of the physical energy produced by the Sun Park, Dover receives 15% of Sun Park's SRECS. Through the end of August 2013, Dover has accumulated a total of 6,007 SRECS from these renewable energy resources.

The nearest viable market for Dover's SRECs is Pennsylvania. Pennsylvania's September 2013 SREC auction cleared separately for 2012, 2013 and 2014 vintage allowances. Clearing prices and Dover's SREC market value estimate are shown in the table below.

SREC Vintage	Auction Clearing Price	SREC Quantity	Market Value
2011	$4.01	1,190	$ 4,772
2012	$5.01	2,799	14,023
2013	$9.00	2,018	18,162
TOTAL		**6,007**	**$36,957**

With the exception discussed below, TEA continues to recommend to Dover to retain these allowances for compliance with its Renewable Portfolio Standard which DEMEC is working on. Once Dover has an approved RPS in place, it may be required to retire a portion of its current SREC balance for compliance in the 2012/13 future compliance year. Any remaining SRECs could be used for the 2013/14 compliance year.

SRECs in both Delaware and Pennsylvania expire without value after 3 years. Dover currently has seven (7) 2010 Vintage SRECs which may expire in the near future. If Dover is not able to use these for compliance with its Renewable Portfolio Standard before they expire, it may not make sense to sell such a small quantity of RECs (market value of around $30).

This will become more of a concern in 2014 because Dover began accumulating SRECs from the SunPark in July 2011. TEA stands ready to transfer, retire or sell SRECs upon receipt of instructions from Dover.

D. Operations Management Summary:

During the month of September, there were no reportable or lost time accidents or injuries. The facility has now gone 1,082 days without an OSHA recordable accident and 1,082 consecutive days without a lost time reportable accident. There were zero Environmental Notices of Violations issued and there were no Near Miss incidents. In the month of September, Units 1 and 2 were dispatched once, Unit 3 was dispatched 4 times, and Unit 11 twice.

Monthly Budget Variance – The actual expenses attributable to O&M of the two sites for the month of September were $362,109 against a budgeted amount of $356,037 for an unfavorable variance of $6,072 or 1.70%. The principal reason for the unfavorable variance was due to higher expenses for electricity costs for unit operations not anticipated.

E. Risk Management Summary:

Forward power prices in PJM are little changed from last month.

The current projected cost of service is below:

Power Year	Hedge Ratio	Blended Cost ($/MWh)	Monthly Change ($/MWh)
2013-14	73%	$ 49.04	$ 0.06
2014-15	42%	$ 44.08	$ 0.04
2015-16	20%	$ 41.97	$ (0.15)

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II. Budget Report

Variance Report:

	Budget Sep-13	Actual Sep-13	Variance
Gross Load	**64,070**	**63,329**	**741**
Power Supply			
Hedged Energy	$2,441,140	$2,637,220	($196,080)
PJM - Energy, Congestion & Losses	$808,259	519,487	$288,772
PJM - ARR, Transmission and Fees	$395,000	736,528	($341,528)
Dover SUN Park Energy	$106,529	$204,853	($98,324)
Dover SUN Park RECs	$25,000	$38,516	($13,516)
Management Fees	$83,000	$83,000	$0
PJM - Capacity UCAP Obligated Purchased	$1,343,442	$1,319,506	$23,936
Subtotal - Power Supply	**$5,202,370**	**$5,539,111**	**($336,741)**
Power Generation O&M			
Plant O&M	356,212.00	$362,109	(5,897.00)
Subtotal Generation O&M	**356,212.00**	**362,109.00**	**($5,897)**
Power Generation Production Margin			
PJM - Economic and reliability dispatch	$0	$ (419,935.66)	$419,936
Fixed Fuel and Transport Charges	$0	$ 123,636.69	($123,637)
Subtotal Generation Production Margin	**$0**	**$ (296,298.97)**	**$296,299**
Power Generation Non-Production Revenue			
PJM - Generation Capacity Credit	($1,286,250)	$ (1,286,250.00)	$0
Emissions Allowance Sales	$0	$ -	$0
PJM - Black Start & Transmission Losses	($35,580)	$ (81,160.34)	$45,580
Subtotal - Non-Production Revenue	**($1,321,830)**	**($1,367,410)**	**$45,580**
SubTotal - All Generation	**(965,618.00)**	**($1,301,600)**	**$335,982**
Total - Utilities Cost	**$4,236,752**	**$4,237,510**	**($758)**
Unit Costs			
Total - Power Supply	$81.20	$87.47	($6.27)
Total - Power Generation	($15.07)	($20.55)	$5.48
Final Cost of Service to City of Dover Ratepayers	$66.13	$66.91	($0.79)

Variance Analysis:

Power Supply

- Dover consumed 741 MWh less than what was forecasted for the month.
- PJM energy costs were lower than expected as less market purchases were required. Hedged costs were higher than forecasted due to an additional layering in of hedges. PJM Fees were well above budget, driven by large reactive services charges.
- The result of higher overall costs for reactive services and solar was a net power supply cost of $87.47/MWh, $6.27/MWh higher than budget.
- For the month, the city realized an unfavorable variance of $336,741 for power supply vs. the monthly budget.
- Dover Sun Park generated 776 MWh more than forecast.

Generation

- Power generation had an favorable budget variance of $335,982.
- Plant O&M expenses had an unfavorable budget variance of $5,897 for the month.

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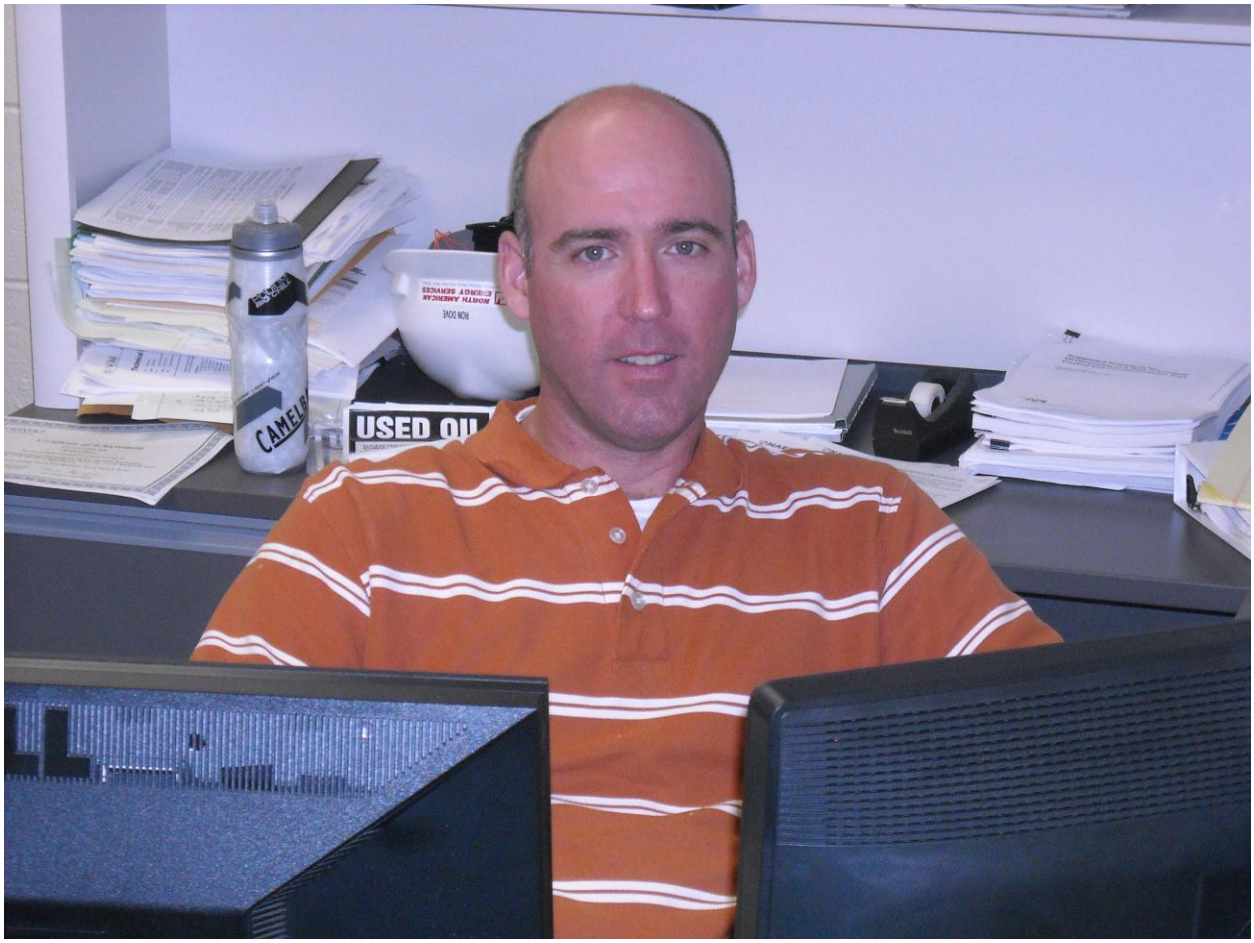
YTD Variance Report:

	Budget YTD	Actual YTD	Variance
Gross Load	**217,789**	**216,552**	**1,237**
Power Supply			
Hedged Energy	$9,346,544	$9,542,624	($196,080)
PJM - Energy, Congestion & Losses	$2,630,065	$2,663,520	($33,455)
PJM - ARR, Transmission and Fees	$1,185,000	$1,842,683	($657,683)
Dover SUN Park Energy	$430,624	$568,647	($138,022)
Dover SUN Park RECs	$75,000	$124,930	($49,930)
Management Fees	$249,000	$249,000	$0
PJM - Capacity UCAP Obligated Purchased	$4,119,890	$4,046,479	$73,411
Subtotal - Power Supply	**$18,036,123**	**$19,037,883**	**($1,075,170)**
Power Generation O&M			
Plant O&M	$1,579,018	$1,524,632	$54,386
Subtotal Generation O&M	**$1,579,018**	**$1,524,632**	**$54,386**
Power Generation Production Margin			
PJM - Economic and reliability dispatch	($230,472)	($1,742,146)	$1,511,674
Fixed Fuel and Transport Charges	$0	$831,570	($831,570)
Subtotal Generation Production Margin	**($230,472)**	**($910,575)**	**$680,104**
Power Generation Non-Production Revenue			
PJM - Generation Capacity Credit	($3,944,500)	($3,944,500)	$0
Emissions Allowance Sales	$0	$0	$0
PJM - Black Start & Transmission Losses	($106,740)	($301,513)	$194,773
Subtotal - Non-Production Revenue	**($4,051,240)**	**($4,246,013)**	**$194,773**
SubTotal - All Generation	**($2,702,694)**	**($3,631,956)**	**$929,263**
Total - Utilities Cost	**$15,333,430**	**$15,405,926**	**($72,497)**
Unit Costs			
Total - Power Supply	$82.81	$87.91	($5.10)
Total - Power Generation	($12.41)	($16.77)	$4.36
Final Cost of Service to City of Dover Ratepayers	$70.40	$71.14	($0.74)

III. Operations Management

NAES Corporation
Dover, Delaware

September 2013
Monthly Report



Ron Dove, new Compliance Coordinator, working happily at his desk at the McKee Run Generating Station.

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1.0 Environmental, Health and Safety:

During the month of September, there were no restricted work days or lost time accidents. The facility has now gone two years, eleven months and fourteen days (1,082 days) through September 30, 2013 without an OSHA Recordable Accident or a Lost Time reportable accident. There were no Near Miss Incidents or NOVs (Notice of Violations) during the month. The September (August discharge) DMR was submitted for the McKee Run site with no NPDES exceedences. There were no opacity deviations during the month. Results of the August Industrial Wastewater System discharge sample were received indicating high than anticipated levels of Arsenic. Additional sampling of wastewater streams within the plant was conducted in September to determine the source of the high Arsenic levels. Currently, plant staff is in discussions with Kent County to raise the loading level of the Arsenic, to which they seem amenable to changing.

During the month of September, there were no restricted work days or lost time accidents. The facility has now gone two years, eleven months and fourteen days (1,082 days) through September 30, 2013 without an OSHA Recordable Accident or a Lost Time reportable accident.

The Plant Safety training matrix has been updated for 2013 and is being tracked on a monthly basis for all plant employees. The training program includes the inclusion of the General Physics on-line training system as well as plant safety procedures and policies. Safety Procedures and associated quizzes are currently being updated. As they are completed, staff will retrain on each one to ensure they understand what changes have been made, if any, to the programs. SMP-03, LOTO, has been updated and all teams have gone through the training on the revised procedure. All training is to be completed no later than October 1, 2013.

Environmental, Health, and Safety Statistics		
	Month (September)	Fiscal Year to Date (7/1/13-6/30/14)
NOVs	0	0
Opacity Deviations	0	0
Environmental Deviations	0	1
OSHA Recordable	0	0
OSHA LTA's	0	0
First Aid cases	0	0
Restricted Workday Accident	0	0
Near Miss	0	2
Man Hours Worked	3,870	12,752.75
Date last OSHA Recordable		10/14/10
Date last Lost Time Accident		10/14/10
Days since last OSHA recordable		1,082
Days since last Lost Time Accident		1,082

Emissions (NO_x & SO_2) All data thru 9/30/13

NOx Summary – Ozone Season (May-Sep) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.7	2.2	88.7	3.3	94.7
2011	1.8	1.5	31.4	1.4	36.1
2012	1.2	1.0	35.8	1.0	33.1
2013	1.1	1.7	19.3	1.3	23.4
NOx Summary - Year (Jan-Dec) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.7	2.2	88.7	3.3	94.7
2011	1.8	1.5	32.6	2.9	38.8
2012	1.2	1.1	35.8	1.0	36.9
2013	1.1	1.7	19.4	1.3	23.5
SO_2 Summary - Year (Jan-Dec) Tons					
Year	*Unit #1*	*Unit #2*	*Unit #3*	*Unit #11*	*TOTAL*
2010	0.0	0.0	0.3	0.0	0.3
2011	0.0	0.0	0.1	0.5	0.6
2012	0.0	0.0	0.0	0.1	0.1
2013	0.0	0.0	0.0	0.2	0.2

CO2 Allowances Summary					
CO2 Allowance Vintage	**CO2 Allowances Sold YTD**	**CO2 Allowances Available (Per Facility, Prior to Sale)**		**Total CO2 Tons Emitted**	**CO2 Allowance Balance**
		McKee Run	***VanSant***		
2009	0	60,128	2,056	5,796	56,388
2010	0	48,102	1,645	32,971	16,776
2011	0	36,077	1,234	17,763	19,548
2012	0	27,058	925	15,265	11,793
2013	0	15,032	514	8,726	6,820
			Total CO2 Allowance Balance		**111,325**

***Note: CO2 allowance values are provided by the RGGI CO2 Allowance Tracking System.**
Note: All emissions (NOx, SO2 and CO2) totals for 2013 are unofficial.

CAIR NOx Allowances Summary*

CAIR NOx Allowance Vintage	CAIR NOx Allowances Sold YTD	NOx Allowances Available (Per Facility, Prior to Sale)		Total NOx Tons Emitted (Yr/ Season)	CAIR NOx Allowances Purchased YTD	NOx Allowance Balance	
		McKee Run (Yr/Season)	*VanSant (Yr/Season)*	McKee Run - VanSant		*McKee Run (Yr/Season)*	*VanSant (Yr/Season)*
2010 and earlier	3***					27/0	0/2
2011	0	77/48	5/3	33/31– 3/1	0/0 - 0/0	42/10	2/2
2012	2**	75/46	5/3	36/36 – 1/1	0/0 - 0/0	39/10	2/0
2013	0	77/48	5/3	19/19 – 1/1	0/0 - 0/0	58/29	4/2
				Total NOx Allowance Balance		**166/49**	**8/6**

***Note – Emissions allowances are deducted according to oldest vintage first or unless otherwise directed.**
****Note – The facility transferred Ozone Season allowances to a third party.**
*****Note- The facility transferred Annual allowances to a third party**

SO_2 Allowances Summary

SO_2 Allowance Vintage	SO_2 Allowances Sold - YTD	SO_2 Allowances Available (Per Unit, Prior to Sale & Reconciliation)	Total SO_2 Tons Emitted – U3 and U11 YTD	Total SO_2 Tons Emitted – U3 and U11 YTD	SO_2 Allowances Balance
		Unit #3	*Unit #11*		
2010 and earlier	0	4815	276	0	5089
2011	0	1850	138	1	1988*
2012	0	1850	138	1	1988*
2013	0	1850	138	0	1988*
			Total SO2 Allowance Balance		**11,053**

Note – Emissions allowances are deducted according to oldest vintage first, unless otherwise directed.

2.0 Financial

Financial – Current Month

Month – September			
	Actual	Budget	Variance
Personnel	235,981	248,465	(12,484)
Materials & Supplies	22,053	22,285	$232
Administrative Expenses	104,075	85,287	(18,788)
Total	**$362,109**	**$356,037**	**($6,072)**

Financial – Fiscal Year to Date

Number of Months – 3			
	Actual	Budget	Variance
Personnel	660,848	743,345	$82,497
Materials & Supplies	55,147	119,005	$63,858
Administrative Expenses	628,762	716,493	$87,731
Total	**$ 1,344,757**	**$1,578,843**	**$234,086**

2.1 Variance analysis:

The expenses for September are $362,109 against a budgeted amount of $356,037 for an unfavorable variance of $6,072 or 1.70%. The variance was due to the following:

PERSONNEL EXPENSES – A favorable monthly variance of $12,484 was due to not having a full complement of employees (Straight Time Labor), although a portion of this savings was offset by higher than budgeted overtime expenses. The corresponding Labor Burden costs were also lower than budgeted for the month of September.

MATERIALS AND SUPPLIES EXPENSES- A favorable monthly variance of $232 was due to Building Maintenance costs lower than anticipated which were offset slightly by the need to purchase water treatment chemicals to support unit operations.

ADMINISTRATIVE EXPENSES – An unfavorable monthly variance of $18,788 was due to higher Environmental Expenses due to testing of water of samples needed to support the Industrial Waste Water System operations. In addition, invoicing for the HEP / FAC work was received and paid earlier than anticipated as well as higher than budgeted Electricity costs experienced in order to support unit operations (dispatch operations and Emissions Testing).

The forecasted expenses for this fiscal year are $5,980,714 expensed versus an approved budget of $6,015,800 thereby realizing a 99.42 % expenditure rate.

3.0 Operations

Unit Operations / Outages / Trips

In the month of September, Units 1 and 2 were dispatched once, Unit 3 was dispatched four times and Unit 11 was dispatched twice by PJM.

Month September 2013							
		McKee Unit 1	McKee Unit 2	McKee Unit 3	MRS Facility	VanSant Unit 11	Total All Units
Capacity	MW	17	17	102	136	39	175
On Line Hours	Hrs	33.249	40.200	58.332	131.781	9.466	141.247
Starts	#	1	2	4	7	2	9
Gross Generation	MWh	228.913	243.194	3,431.966	3904.073	322.359	4226.432
Net Generation	MWh	210.564	223.681	3,136.437	3570.682	322.135	3,892.817
Total Auxiliaries	MWh	49.798	50.962	507.991	608.751	0.506	609.257
Auxiliaries purchased	MWh	31.449	31.449	212.462	275.360	0.282	275.642
Fuel Gas Used	MMBTU	3,157.560	3,022.236	36,889.883	43,069.679	4,355.070	47,424.749
Fuel Oil Used	MMBTU	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Oil Used	Gallons	0.0	0.0	0.0	0.0	0.0	0.0
Total Fuel	MMBTU	3,157.560	3,022.236	36,889.883	43,069.679	4,355.070	47,424.749
Net Heat Rate	BTU/KWh	14.996	13.511	11.762	13.423	13.519	13.447
Unit Trips	#	0	1	0	0	0	1
Capacity Factor	%	1.72	1.83	4.27	3.65	1.12	3.07
Availability Factor	%	100.00	100.00	100.00	100.00	100.00	100.00
Commercial Unavailability (CU)	%	0	0	0	0	0	0
Planned Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Forced Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Reserve Shutdown Hours	Hours	686.751	679.800	661.668	2028.219	710.534	2738.753
HW Boiler Gas Usage	MMBTU				0.0		0.0
Pilot Gas Usage	MMBTU	625.500	626.500		1,252.000		1,252.000

 # Note: Does not include HWB or Pilot Gas. Fuel usage numbers are taken from fuel flow instruments.

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2013-2014 Fiscal Year-to-Date - September							
		McKee Unit 1	McKee Unit 2	McKee Unit 3	MRS Facility	VanSant Unit 11	Total All Units
Capacity	MW	17	17	102	136	39	175
On Line Hours	Hrs	74.765	170.316	183.196	428.277	51.476	479.753
Starts	#	2	4	13	19	14	33
Gross Generation	MWh	585.171	1,106.123	12,576.985	14,268.280	1,569.051	15,837.330
Net Generation	MWh	545.470	1,024.415	11,585.303	13,155.190	1,567.790	14,722.980
Total Auxiliaries	MWh	108.681	150.688	1,553.448	1812.817	4.260	1817.077
Auxiliaries purchased	MWh	111.603	154.133	561.766	827.502	2.999	830.501
Fuel Gas Used	MMBTU	7,061.376	13,801.068	132,465.224	153,327.670	18,981.931	172,309.60
Fuel Oil Used	MMBTU	1,642.633	1,671.506	0.0	3,314.14	2,937.660	6,251.80
Fuel Oil Used	Gallons	11,568	11,726	0.0	23,294	20,795	44,089
Total Fuel	MMBTU	8,704.009	15,472.574	132,465.224	156,641.81	21,919.591	178,561.40
Net Heat Rate	BTU/KWh	15.778	14.477	11.558	13.938	13.838	13.888
Unit Trips	#	0	1	0	1	4	5
Capacity Factor	%	1.45	2.73	5.14	4.38	1.82	3.81
Availability Factor	%	96.38	100.00	100.00	98.79	100.00	99.09
Commercial Unavailability (CU)	%	0	0	0	0	0	0
Planned Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance Outage Hours	Hours	0.0	0.0	0.0	0.0	0.0	0.0
Forced Outage Hours	Hours	80.000	0.0	0.0	80.000	0.0	80.000
Reserve Shutdown Hours	Hours	2,053.235	2,037.684	2,027.400	6,118.32	2,156.524	8,274.84
HW Boiler Gas Usage	MMBTU				0.0		0.0
Pilot Gas Usage	MMBTU	1,473.105	3,733.607		5,206.712		5,206.712

Fuel Oil Inventory							
	Monthly Inventory (Start)	Monthly Inventory (End)	Fuel Purchases (Month)	Monthly Inventory (Change)	FY 13-14 Inventory (Start)	Fuel Purchases (YTD)	FY 13-14 Inventory (Change)
McKee Run (#2 Fuel Oil)	430,931	430,931	0	0	454,725	0	(23,794)
VanSant (#2 Fuel Oil)	125,738	125,064	0	(674)	146,133	0	(21,069)

Note: As measured by tank level instruments. Tank levels may change due to oil temperature.

VanSant Lifetime through September 2013			
	Actual Starts	Factored Starts	Fired Hours
VanSant	1328	2,291.75	4,479.60
Since HGP - Dec 2004	246	624.05	896.02

Team Report:

Operations personnel continue to support maintenance by working on Preventative Maintenance (PM) work orders and other work orders that they have the skills to successfully complete the task. The Operations Department continues to utilize the Day Shift Workers in both the Operations and Maintenance areas to help in maintaining the plant.

Plant employees continue General Physics safety training and environmental courses to enhance their overall knowledge of permit and safety requirements. As the GPI courses are being completed the employee reviews the standard operating procedure (SMP) for the same topic they are training on to review NAES policy and score a minimum 80% on a quiz before they can complete the SMP.

The Operations staff has been continuing their work on painting the fuel oil lines now that most of the insulation has been removed from the pipeline.

Capacity Testing – FY 2013-2014

Summer 2013 (June 1- Aug 31)			Winter 2013-2014 (Dec 1- Feb 28)		
Unit	Rated Net Capability (MW)	Reported Net Capability (MW)	Unit	Rated Net Capability (MW)	Reported Net Capability (MW)
1	17	17.2	1	17*	0.0
2	17	17.8	2	17*	0.0
3	102	103.0	3	102*	0.0
VanSant#	39	40.9	11	39*	0.0
Total	175	178.9	Total	175	0.0

Note: * Denotes Unit is qualified for the PJM Winter Demonstration Period Exemption Program and data has been submitted into the PJM eGADS
Note: # Depicts Net Corrected Capacity for Ambient Air Conditions – VanSant Unit only

4.0 Maintenance

During the month of September, the Plant Maintenance staff continued addressing the backlog of work orders and preparing for outage activities. There were forty-eight work orders issued with seventy-two work orders being completed during the month. There were no safety work orders entered into the plant's Computerized Maintenance Management System (MP2) during the month. The table below summarizes the monthly work order activities.

Work Order Report

September - 2013

Priority #	Outstanding From Previous Month	Issued This Month	Completed This Month	Outstanding at the end of the month
1	13	4	7	10
2	62	6	28	40
3	45	0	5	40
4	6	0	0	6
5	21	4	1	24
SW1	0	0	0	0
SW2	0	0	0	0
SW3	0	0	0	0
SW4	0	0	0	0
SW5	0	0	0	0
PM	51	34	31	54
Totals	198	48	72	174

Note: PM Work Orders are included in the priority totals

Notable activities during the month include:

- The NAES IC&E Staff completed the repairs on 3A & 3B Boiler Feed Pump Recirculation valve air solenoid. It was determined that the weight of the solenoid valve and the air pressure regulator cause the air leak on the valve. The staff re-piped the solenoid valve and the air pressure regulator to prevent the air from recurring.

- The NAES I,C/E Staff and STI-CEMS completed the annual audit of the opacity monitors at the McKee Run and VanSant Generating Stations. All of the opacity monitors passed the audit with no issues.

- A water wall tube leak near the reheat section of the boiler was discovered on Unit 3 on September 5, 2013. To aid in identifying the exact location of the leak, the Operations and Maintenance staff completed a hydro on the boiler. Apex Pipe was called in to make the necessary repairs to the boiler which were completed in a timely manner.

5.0 Capital Improvement Projects (CIP)

Project Number	Description	Update
EG1214	MR Industrial Waste water System	Progress: Work is complete 99%. Schedule: Project to be complete in October, 2013 with the final revision of Standard Operating Procedures on the system.
EG1402	Unit #3 Cooling Tower Repairs	Progress: Bids have been received, evaluated and contract awarded. Schedule: Work planned to be completed in Fall 2013.
EG1404	McKee Run Auxiliary Component Replacement	Progress: Work is being planned and scheduled for the Fall and Spring outages. Schedule: Work activities are slightly behind due to unit operations.
EG1405	VanSant Station Component Replacement	Progress: Work scheduled for the Fall and Spring. Schedule: Planning activities are underway for Fall and Spring outages.
EG1406	McKee Run HEP Pipe Repairs	Progress: Work scope is being developed and work areas assessed for proper safety/fall protection. Schedule: Work to begin in Fall Outage period.
EG1407	Metering System Upgrades	Progress: Initial meeting set up with vendor to aid in system integration and to help determine best system for COD. Schedule: Work activities are slightly behind due to unit operations.
EG1408	McKee Run/VanSant Safety Compliance Items	Progress: Work scheduled for the Fall and Spring. Schedule: Work activities are slightly behind due to unit operations.
EG1409	McKee Run Natural Gas Block-Bleed Valves	Progress: Work scheduled for the Spring Outage. Schedule: Work activities are slightly behind due to unit operations.
EG1410	McKee Run/VanSant Crane Replacement	Progress: Crane specifications being developed and will be put out for bid in late October. Schedule: Work activities are slightly behind due to unit operations.
EG1413	McKee Run/VanSant Structural Preservation	Progress: Plant staff completed development of paint specifications and bid requests were sent out. Schedule: Bids were received in early September although work is on hold pending budget evaluation.
EG1212	Unit 3 Turbine Repairs	Progress: Plant staff continues working with OEM to determine long lead material requirements. Work scope developed and work was bid out in September. Schedule: Long lead items were procured in the spring of 2013. Some turbine parts (turbine 9th stage blades) have been ordered and

		received. List of consumables is being finalized and quotes requested thereafter. Bid meeting set up for September and bids to be received in September. Evaluation of bids is ongoing with award of contract expected to occur in November time frame.
EG1415	McKee Run Units #1-#2 Component Repairs	Progress: Cost to be incurred due to repairs on Unit 1 boiler and turbine. Schedule: Other Work activities are anticipated to be completed during the spring outage.
EG1416	VanSant Capacity Increase	Progress: Bid specifications are being developed and Environmental permit modifications are being investigated. Bid documents sent out for environmental work. Communications with PJM to get MW into system in the works with possibly a six-month wait period. Schedule: Environmental Support bids were received, evaluated and work was awarded in September. Data is now being gathered by the contractor for submission.

6.0 General Plant Information

- Ron Dove was brought on-board as the new Compliance Coordinator. He started at the plant on September 30, 2013. Ron brings a variety of Environmental and Safety skills that will be beneficial to the team.

- Plant staff continues to work to fill two current openings due to personnel changes as a result two employee terminations.

Training:

- Topics discussed during the monthly safety committee meeting were reviewed by the entire staff. The monthly safety topic was on "Seven Common Accident Causes". Topics discussed during the monthly safety committee meeting were reviewed by the entire staff.

- Plant employees continue using the General Physics safety training and environmental courses to enhance their overall knowledge of permit and safety requirements. As the GPI courses are being completed, the employee reviews the standard operating procedure (SMP) for the same topic they are training on to review NAES policy as well.

Calendar of Events	Date
DRBC Study Due	September 15, 2013
NOx Ozone Season Ends	September 30, 2013
Units 1, 2, 3 and 11 Fall Outage	October 1, 2013 to November 27, 2013
Three Year Accident Free	October 14, 2013
Winter Capacity Period	December 1, 2013 to February 28, 2014
EIA-860 Report	February 28, 2014
EIA-923 Report	February 28, 2014
NOx Emissions Reconciliation Due	March 1, 2014
SO2 Emissions Reconciliation Due	March 1, 2014
SARA III Report	March 1, 2014
NPDES Permit Renewal Due	March 4, 2014
Units 1, 2, and 3 Spring Outage	March, 2014 – June , 2014
Unit 11 Spring Outage	March, 2014 – June , 2014
Annual VanSant Black Start Test	March, 2014
Air Emission Inventory	March, 2014
NOx Ozone Season Starts	May 1, 2014
PJM Summer Capacity Test Period	June 1, 2014 – August 31, 2014
Toxic Release Inventory (TRI) Annual Report	July 1, 2014
McKee Run and VanSant Title V Semi-Annual Certification Due	August 1, 2014

7.0 Summary of NAES Performance to Date

Measure	Plant Performance FY 2013-2014 Month		Year to Date		YTD Incentive	FY Maximum Incentive
Commercial Unavailability (CU)	0.00%		0.09%		$91,087	$94,882
Safety	0		0		$17,790	$17,790
Environmental	0		0		$17,790	$17,790
Capacity Tests Completed	Summer	Winter	Summer	Winter		
Unit 1	No	No	Yes	Yes*	$3,559*	$3,559
Unit 2	No	No	Yes	Yes*	$3,559*	$3,559
Unit 3	No	No	Yes	Yes*	$21,349*	$21,349
Unit 11	No	No	Yes	Yes*	$7,117*	$7,117
Total YTD Incentive %	97.71%		***Total YTD Incentive***		$162,249*	$166,045

Note: *All units have successfully completed the PJM Summer Capacity Tests and are now included in the PJM Winter Capacity Test Exemption Program. The YTD Incentive calculation reflects this information.

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IV. Appendix – PJM Invoice Breakdown

	Gen	Load	Grand Total
Auction Revenue Rights		($26,010.90)	($26,010.90)
Balancing Operating Reserve	($50,437.29)	$34,660.34	($15,776.95)
Balancing Operating Reserve for Load Response		$5.99	$5.99
Balancing Spot Market Energy	$74,427.93	$300,780.29	$375,208.22
Balancing Transmission Congestion	($3,793.05)	($86,792.34)	($90,585.39)
Balancing Transmission Losses	$2,604.92	$7,225.29	$9,830.21
Black Start Service		$2,038.91	$2,038.91
Capacity Resource Deficiency		($152.68)	($152.68)
Capacity Transfer Rights		($18,612.90)	($18,612.90)
CT Lost Opportunity Cost Allocation		($16.80)	($16.80)
Day-Ahead Load Response Charge Allocation		$1,161.22	$1,161.22
Day-ahead Operating Reserve	($2,394.97)	$11,276.65	$8,881.68
Day-ahead Operating Reserve for Load Response		$3.39	$3.39
Day-ahead Scheduling Reserve	($7,217.53)	$6,601.96	($615.57)
Day-ahead Spot Market Energy	($421,975.18)	$368,807.32	($53,167.86)
Day-ahead Transmission Congestion	($19,660.56)	($6,293.33)	($25,953.89)
Day-ahead Transmission Losses	$1,292.54	$36,959.57	$38,252.11
Expansion Cost Recovery		$427.50	$427.50
FERC Annual Recovery		$3,723.78	$3,723.78
Generation Deactivation Refund		($758.33)	($758.33)
Inadvertent Interchange		($973.80)	($973.80)
Incremental Capacity Transfer Rights		($1,704.30)	($1,704.30)
Load Reconciliation for Balancing Operating Reserve		($322.20)	($322.20)
Load Reconciliation for Day-ahead Scheduling Reserve		($2,197.20)	($2,197.20)
Load Reconciliation for FERC Annual Recovery		($15.78)	($15.78)
Load Reconciliation for Inadvertent Interchange		$2.85	$2.85
Load Reconciliation for Market Monitoring Unit (MMU) Funding		($1.00)	($1.00)
Load Reconciliation for Non-Synchronized Reserve		($15.76)	($15.76)
Load Reconciliation for North American Electric Reliability Corporation (NERC)		($2.65)	($2.65)
Load Reconciliation for Organization of PJM States, Inc. (OPSI) Funding		($0.18)	($0.18)
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service		($54.77)	($54.77)
Load Reconciliation for PJM Scheduling, System Control and Dispatch Service Refund		$1.91	$1.91
Load Reconciliation for Reactive Services		$1,454.85	$1,454.85
Load Reconciliation for Regulation and Frequency Response Service		($898.08)	($898.08)
Load Reconciliation for Reliability First Corporation (RFC)		($3.79)	($3.79)
Load Reconciliation for Schedule 9-6 - Advanced Second Control Center		($5.58)	($5.58)
Load Reconciliation for Spot Market Energy		($81,095.71)	($81,095.71)
Load Reconciliation for Synchronized Reserve		($516.89)	($516.89)
Load Reconciliation for Synchronous Condensing		($21.09)	($21.09)
Load Reconciliation for Transmission Congestion		($5,143.70)	($5,143.70)
Load Reconciliation for Transmission Losses		($3,928.69)	($3,928.69)
Load Reconciliation for Transmission Owner Scheduling, System Control and Dispatch Service		($19.71)	($19.71)
Locational Reliability		$1,339,975.80	$1,339,975.80
Market Monitoring Unit (MMU) Funding		$259.65	$259.65
Meter Error Correction		($6,345.15)	($6,345.15)
Michigan - Ontario Interface Phase Angle Regulators		$203.86	$203.86
Network Integration Transmission Service		$331,131.30	$331,131.30
Non-Firm Point-to-Point Transmission Service		($349.22)	($349.22)
Non-Synchronized Reserve		$576.87	$576.87
North American Electric Reliability Corporation (NERC)		$625.85	$625.85
Organization of PJM States, Inc. (OPSI) Funding		$43.19	$43.19
PJM Scheduling, System Control and Dispatch Service - Advanced Second Control Center		$1,683.83	$1,683.83
PJM Scheduling, System Control and Dispatch Service - Capacity Resource/Obligation Mgmt.		$913.50	$913.50
PJM Scheduling, System Control and Dispatch Service - Control Area Administration		$10,589.28	$10,589.28
PJM Scheduling, System Control and Dispatch Service - Market Support		$2,556.90	$2,556.90
PJM Scheduling, System Control and Dispatch Service - Market Support Offset		$59.80	$59.80
PJM Scheduling, System Control and Dispatch Service - Regulation Market Administration		$95.60	$95.60
PJM Scheduling, System Control and Dispatch Service Refund - Capacity Resource/Obligation Mgmt.		($28.50)	($28.50)
PJM Scheduling, System Control and Dispatch Service Refund - Control Area Administration		($369.26)	($369.26)
PJM Scheduling, System Control and Dispatch Service Refund - Market Support		($88.19)	($88.19)
PJM Scheduling, System Control and Dispatch Service Refund - Regulation Market Administration		($4.18)	($4.18)
PJM Settlement, Inc.		($59.80)	($59.80)
Reactive Services		$272,812.50	$272,812.50
Reactive Supply and Voltage Control from Generation and Other Sources Service	($29,467.58)	$34,839.52	$5,371.94
Real-Time Load Response Charge Allocation		$1,190.94	$1,190.94
Regulation and Frequency Response Service		$13,315.41	$13,315.41
Reliability First Corporation (RFC)		$894.95	$894.95
RPM Auction	($1,286,250.00)		($1,286,250.00)
Synchronized Reserve		$ 4,917.70	$ 4,917.70
Transmission Enhancement		$4,883.03	$4,883.03
Transmission Losses		($27,502.87)	($27,502.87)
Transmission Owner Scheduling, System Control and Dispatch Service		$4,650.01	$4,650.01
Grand Total	**$ (1,742,870.77)**	**$ 2,531,045.98**	**$788,175.21**

FUND SUMMARY as of 11/01/2013

Total Collected	$	957,022.92
DEMEC Admin Fee Paid	$	48,896.18
State Admin Fee Paid	$	22,292.26
Total Grant Dollars Paid	$	689,770.82
Customer Only Grants/Fees Reserved and Amount Owed	$	33,769.81
Community Project Funds Requested - Dov. Lib - Requested	$	1,970,000.00
Community Project Funds Requested - Dov. Lib -Still Owed	$	1,769,591.68
Energy Depot Fees Paid	$	46,748.99
Efficiency Program Dollars Paid	$	34,068.34
Solar Electric Power Association (SEPA) Fee Paid	$	4,317.61
*Unencumbered Funds Available Grants	**$**	**18,468.04**
Collected Funds Available for Dover Library	**$**	**58,690.87**
Current Grant Payment Delay (Months)		**0.0**

* As of 11/01/2013

GRANTS PAID

Date Grant Paid	Applicant	Type	Grant Amount Paid	Review Fee Paid	Amount Owed
9/21/2007	Laura Drew Kelly	Geo - Res	$ 3,000.00	$ 225.00	$ -
12/5/2007	Domingo Reye	Solar - Res	$ 12,762.50	$ 750.00	$ -
4/16/2008	Lakeland Commercial Group	Geo - Comm	$ 10,800.00	$ 750.00	$ -
6/19/2008 & 08/25/2008	L.D. Shank - Triad Farms	Solar - Comm	$ 30,000.00	$ 750.00	$ -
10/6/2008	City of Dover	Solar - Comm	$ 40,820.00	$ 750.00	$ -
10/21/2008	Robert & Cynthia Hartman	Geo HP- Res	$ 1,800.00	$ 135.00	$ -
10/21/2008	Robert Varipapa	Geo HP- Res	$ 2,400.00	$ 180.00	$ -
2/27/2009	David Jump	Solar - Res	$ 15,000.00	$ 750.00	$ -
2/27/2009	Jakob Seren	Solar - Res	$ 15,000.00	$ 750.00	$ -
2/27/2009	William Sweet	Solar - Res	$ 15,000.00	$ 750.00	$ -
3/31/2009	LD Shank - Triad Farms	Solar WH-Comm	$ 3,000.00	$ 225.00	$ -
3/31/2009	Warren & Joan Seaver	Geo HP- Res	$ 3,000.00	$ 225.00	$ -
4/22/2009	William Sweet	Solar HW	$ 3,000.00	$ 225.00	$ -
4/28/2009	State of DE/DNREC - DE National	Solar - Comm	$ 30,000.00	$ 750.00	$ -
4/29/2009	Delaware Primary Care, LLC	Solar - Comm	$ 30,000.00	$ 750.00	$ -
9/11/2009	NCALL	Solar - Comm	$ 30,000.00	$ 750.00	$ -
9/11/2009	D. Brian Beckman	Geo HP- Res	$ 2,000.00	$ 150.00	$ -
9/21/2009	LKSC Dover, LLC Kids Cottage	Solar - Comm	$ 29,925.00	$ 750.00	$ -
10/5/2009	Mark F. Boller	Geo HP- Res	$ 3,000.00	$ 225.00	$ -
10/5/2009	John Welgan	Solar - Res	$ 15,000.00	$ 750.00	$ -
11/4/2009	LKSC Dover, LLC Kids Cottage	Geo - Comm	$ 12,000.00	$ 750.00	$ -
3/25/2010	Minaxi Patel	Solar - Res	$ 15,000.000	$ 750.000	$ -
3/23/2010	J. McGiffin Jr. & K. Doyle	Geo HP- Res	$ 3,000.000	$ 225.000	$ -
5/28/2010	Nancy Warner	Geo HP- Res	$ 1,200.000	$ 90.000	$ -
6/2/2010	David Teel	Geo HP - Res	$ 1,800.000	$ 135.000	$ -
6/2/2010	Dewey J. Barich	Geo HP- Res	$ 2,400.00	$ 180.000	$ -
7/12/2010	Mike & Sharonb Laverty	Solar - Res	$ 5,105.000	$ 382.880	$ -
8/19/2010	James Grilli	Geo HP- Res	$ 1,800.00	$ 135.000	$ -
8/19/2010	Michael Noble	Solar - Res	$ 15,000.000	$ 750.000	$ -
9/17/2010	David Teel	Solar - Res	$ 7,500.000	$ 562.500	$ -
3/8/2011	Michael & Carol Apgar	Solar - Res	$ 7,500.000	$ 562.500	$ -
3/17/2011	Elizabeth Murphey School	Geo HP - Comm	$ 9,200.000	$ 690.000	$ -
5/24/2011	Richard Avant	Geo HP - Res	$ 2,400.000	$ 180.000	$ -
6/23/2011	Charles Messina Plumbing	Solar - Comm	$ 10,000.000	$ 750.000	$ -
10/4/2011	Charles Bounds	Geo HP - Res	$ 1,800.000	$ 135.000	$ -
3/29/2011	Psychiatric Access Central DE	Solar - Comm	$ 13,187.500	$ 750.000	$ -
7/8/2011	Michael J. Kopp	Geo - Res	$ 2,300.000	$ 135.000	$ 37.50
10/17/2011	City of Dover ** Library	Geo - Comm	$ 48,267.000	$ -	$ -
3/7/2012	Ruth Ann Piper	Geo - Res	$ 1,200.000	$ 90.00	$ -
3/7/2012	Robert Hall	Geo - Res	$ 3,000.000	$ 225.00	$ -
3/7/2012	Elizabeth Murphey School	Geo - Comm	$ 13,800.000	$ 750.00	$ -
3/7/2012	Elizabeth Murphey School	Geo - Comm	$ 12,000.000	$ 750.00	$ -
3/7/2012	Elizabeth Murphey School	Geo - Comm	$ 5,400.000	$ 405.00	$ -
3/7/2012	Elizabeth Murphey School	Geo - Comm	$ 1,800.000	$ 135.00	$ -
3/7/2012	Elizabeth Murphey School	Geo - Comm	$ 10,200.000	$ 750.00	$ -
3/7/2012	Frank Daniels	Geo - Res	$ 4,400.00	$ 303.75	$ 26.25
8/15/2012	Chong S. Tamburo-Lepage	Geo - Res	$ 2,300.00	$ 172.50	$ -
12/5/2012	City of Dover ** Library	Geo - Comm	$ 152,141.32	$ -	$ -
12/19/2012	Christopher W. Los	Geo - Res	$ 3,000.00	$ 225.00	$ -
1/30/2013	Matthew and Kimberly Chesser	Geo - Res	$ 3,000.00	$ 225.00	$ -
2/25/2013	Dennis Ho	Solar - Res	$ 6,775.00	$ 508.13	$ -
6/28/2013	John DeMarie	Geo - Res	$ 3,000.00	$ -	$225.00
10/30/2013	James and Corinna Fritsch	Solar - PV - Res	$ 5,287.50	$ -	$396.56
10/30/2013	James and Deri Austin	Solar - PV - Res	$ 7,500.00	$ -	$562.50
		Total	**$ 689,770.82**	**$ 22,292.26**	**$ 1,247.81**

ARRA RELIEF GRANTS PAID

Paid by State	Customer	System Type	Amount
6/10/2011	Arturo Sanchez	Solar - PV - Res	$ 7,500.00
10/19/2011	John Diamond Enterprise LLC	Solar - PV - Com	$ 30,000.00
10/19/2011	John Diamond Enterprise LLC	Geo HP - Com	$ 10,000.00
	Total		**$ 47,500.00**

RECEIVED APPLICATIONS

Status	Applicant	Type	Grant Reservation Request	Review Fee
Approved Pending Completion	Calogero Guarraggi	Solar - PV - Res	$ 7,500.00	$ 562.50
Approved Pending Completion	Elizabeth Murphy School	Geo HP - Com	$ 3,700.00	$ 277.50
Received application - Not approved yet	Governors Avenue Animal Hospital	Solar - PV - Com	$ 13,550.75	$ 750.00
Received application - Not approved yet	Holly Pfeifer	Solar - PV - Res	$ 5,750.00	$ 431.25
	Total		**$ 30,500.75**	**$ 2,021.25**

ENERGY DEPOT FEES

Paid	Fee Period	Amount
3/3/2008	Start-up Fees	$ 5,872.50
4/15/2008	Start-up Fees	$ 1,957.50
4/15/2008	Mar, Apr, May 2008	$ 1,692.13
7/22/2008	June, July, Aug 2008	$ 1,692.13
10/10/2008	Sept, Oct, Nov 2008	$ 1,692.13
1/2/2009	Dec 08, Jan, Feb 2009	$ 1,692.13
4/3/2008	Mar, Apr, May 2009	$ 1,692.13
7/1/2009	June, July, Aug 2009	$ 1,692.13
9/11/2009	Sept, Oct, Nov 2009	$ 1,692.13
1/4/2010	Dec 09, Jan, Feb 2010	$ 1,692.13
3/29/2010	Mar, April, May 2010	$ 1,692.13
6/30/2010	June, July, Aug 2010	$ 1,692.13
10/4/2010	Sept, Oct, Nov 2010	$ 1,692.13
1/3/2011	Dec 2010, Jan, Feb 2011	$ 1,692.13
4/5/2011	Mar, Apr, May 2011	$ 1,692.13

SEPA Fees

Date	Measure	Cost
3/19/2012	2012 Annual Membership	$ 2,158.81
1/31/2013	2013 Annual Membership	$ 2,158.80
Total		$ 4,317.61

7/8/2011	June, July, Aug 2011	$ 1,692.13
10/4/2011	Sept, Oct, Nov, 2011	$ 1,692.13
1/3/2012	Dec 2011; Jan, Feb 2012	$ 1,692.13
4/5/2012	Mar, Apr, May 2012	$ 1,692.13
7/2/2012	June, July, Aug 2012	$ 1,692.13
10/2/2012	Sept, Oct, Nov 2012	$ 1,692.13
11/30/2012	Dec 12, Jan, Feb 2013	$ 1,692.13
2/25/2013	Mar, Apr, May 2013	$ 1,692.13
7/22/2013	June, July, Aug 2013	$ 1,692.13
8/26/2013	Sept, Oct, Nov, 2013	$ 1,692.13
	Total Paid	**$ 46,748.99**

ENERGY EFFICIENCY CAMPAIGNS/EDUCATION PROGRAMS

Paid	Program Measure	Amount
10/21/2008	1,500 CFL Campaign & Educational Literature	$ 5,012.29
12/11/2008	Reimbursement for Green	$ 3,459.12
3/31/2009	Thermal Imager for Home Audits Program	$ 5,581.12
1/4/2011	Eco @ Home Energy Conserve. Calendars	$ 20,015.81
	Total	**$ 34,068.34**

10/30/2013

Dover Library Community Funds Collection - **$ 1,970,000.00** Allocation change from Dover

Collections	
$ 5,021.15	1/2 of Oct 2009 GEF Payment
$ 4,783.94	1/2 of Nov 2009 GEF Payment
$ 4,813.23	1/2 of Dec 2009 GEF Payment
$ 5,454.02	1/2 of Jan 2010 GEF Payment
$ 5,147.49	1/2 of Feb 2010 GEF Payment
$ 4,897.69	1/2 of March 2010 GEF Payment
$ 3,976.14	1/2 of April 2010 GEF Payment
$ 5,638.90	1/2 of May 2010 GEF Payment
$ 5,645.35	1/2 of June 2010 GEF Payment
$ 6,590.60	1/2 of July 2010 GEF Payment
$ 7,786.09	1/2 of August 2010 GEF Payment
$ 6,415.31	1/2 of Sept 2010 GEF Payment
$ 5,327.96	1/2 of Oct 2010 GEF Payment
$ 4,787.73	1/2 of Nov 2010 GEF Payment
$ 4,939.75	1/2 of Dec 2010 GEF Payment
$ 5,452.55	1/2 of Jan 2011 GEF Payment
$ 5,410.35	1/2 of Feb 2011 GEF Payment
$ 4,646.32	1/2 of March 2011 GEF Payment
$ 4,742.22	1/2 of April 2011 GEF Payment
$ 4,702.48	1/2 of May 2011 GEF Payment
$ 5,664.97	1/2 of June 2011 GEF Payment
$ 6,430.15	1/2 of July 2011 GEF Payment
$ 6,916.50	1/2 of Aug 2011 GEF Payment
$ 6,149.31	1/2 of Sept 2011 GEF Payment
$ 5,243.92	1/2 of Oct 2011 GEF Payment
$ 4,829.91	1/2 of Nov 2011 GEF Payment
$ 4,531.81	1/2 of Dec 2011 GEF Payment
$ 4,990.50	1/2 of Jan 2012 GEF Payment
$ 5,071.81	1/2 of Feb 2012 GEF Payment
$ 4,828.32	1/2 of March 2012 GEF Payment
$ 4,857.07	1/2 of April 2012 GEF Payment
$ 4,230.04	1/2 of May 2012 GEF Payment
$ 5,711.19	1/2 of June 2012 GEF Payment
$ 6,085.89	1/2 of July 2012 GEF Payment
$ 7,347.66	1/2 of Aug 2012 GEF Payment
$ 6,453.66	1/2 of Sept 2012 GEF Payment
$ 4,886.43	1/2 of Oct 2012 GEF Payment
$ 4,132.99	1/2 of Nov 2012 GEF Payment
$ 5,513.86	1/2 of Dec 2012 GEF Payment
$ 5,187.25	1/2 of Jan 2013 GEF Payment
$ 5,307.83	1/2 of Feb 2013 GEF Payment
$ 4,783.25	1/2 of March 2013 GEF Payment
$ 4,903.40	1/2 of April 2013 GEF Payment
$ 4,673.21	1/2 of May 2013 GEF Payment
$ 5,322.04	1/2 of June 2013 GEF Payment
$ 6,352.74	1/2 of July 2013 GEF Payment
$ 6,519.11	1/2 of Aug 2013 GEF Payment
$ 5,995.23	1/2 of Sept 2013 GEF Payment
	All of Oct 2013 GEF Payment
	All of Nov 2013 GEF Payment
	All of Dec 2013 GEF Payment
$ 259,099.20	**Total Collections**

Per Allocation Request from Dover 10/30/2013

Dover Library Community Grant Payment Schedule

Payment Due Date	Requested Amount	Funds Available	Funds Paid to Date
10/17/2011	$ 48,267.00		$ 48,267.00
12/5/2012	$ 152,141.32		$ 152,141.32
June 1, 2014	$ 98,500	$ 58,690.87	
June 1, 2015	$ 98,500		
June 1, 2016	$ 98,500		
June 1, 2017	$ 98,500		
June 1, 2018	$ 98,500		
June 1, 2019	$ 98,500		
June 1, 2020	$ 98,500		
June 1, 2021	$ 98,500		
June 1, 2022	$ 98,500		
June 1, 2023	$ 98,500		
June 1, 2024	$ 98,500		
June 1, 2025	$ 98,500		
June 1, 2026	$ 98,500		
June 1, 2027	$ 98,500		
June 1, 2028	$ 98,500		
June 1, 2029	$ 98,500		
June 1, 2030	$ 98,500		
June 1, 2031	$ 98,500		
June 1, 2032	$ 98,500		
June 1, 2033	$ 98,500		
Total	**$ 1,970,000.00**	**$ 58,690.87**	**$ 200,408.32**

City of Dover
Electric Revenue Fund
FY14 - White Oak Solar Park Incremental Cost

	July	August	September	YTD	Original Budget
Power Supply & Generation					
Dover Sun Park - Energy	$ 187,421	$ 166,840	$ 194,352	$ 548,613	$ 1,565,800
Dover Sun Park - REC's	43,005	38,516	42,894	124,415	300,000
Total Power Supply Cost	230,426	205,356	237,246	673,028	1,865,800
Non-Solar Power Supply Cost	(180,264)	(154,824)	(154,922)	(490,010)	(504,734)
Incremental Energy Cost	$ 50,162	$ 50,532	$ 82,324	$ 183,018	$ 1,361,066
Revenues					
Customer Sales - Electricity	(9,404)	(7,389)	(7,538)	(24,331)	(26,300)
Rent Receipts	(14,446)	-	-	(14,446)	(58,300)
Total Revenues	(23,850)	(7,389)	(7,538)	(38,777)	(84,600)
Incremental Sun Park Cost	$ 26,312	$ 43,143	$ 74,786	$ 144,241	$ 1,276,466
MWh Purchased/Generated - Solar	2,053.000	1,816.000	2,000.000	5,869.000	18,159.000
MWh $ Solar Energy	91.29	$ 91.87	97.176	$ 93.48	$ 86.23
Solar REC's MWh	308.000	272.000	272.000	852.000	
MWh $ Solar REC (one month lag)*	$ 139.63	$ 141.60	157.70	$ 146.03	
MWh $ Non-Solar Energy	$ 87.81	$ 85.26	$ 77.46		

Note: Solar REC's is one month behind due to the time the invoice is received.