

MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION

Commission Energy Management/Utilities

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Commission Energy Management/Utilities

Table of Contents

I. EXECUTIVE SUMMARY

A. Background.....	1
B. Scope, Objective and Methodology of the Audit.....	2
C. Major Audit Concerns.....	4
D. Overall Conclusions.....	5

II. DETAILED COMMENTARY AND RECOMMENDATIONS

1. Develop Formal Assessment Plan for Utility Invoice Data.....	6
2. Appoint Coordinators to Administer the Assessment Plan.....	9
3. Distribute Utility Data Analysis Reports to Management.....	11
4. Review and Update User Access to EnergyCAP.....	12

III. EXHIBIT A

M-NCPPC Utility Expenses – Fiscal Year End 2017

I. EXECUTIVE SUMMARY

A. Background

The Maryland-National Capital Park and Planning Commission (M-NCPPC) was established in 1927 to serve the bi-county areas of Prince George's and Montgomery Counties. The M-NCPPC operates over 53,000 acres of parkland in the two counties along with a variety of facilities, including community centers, nature centers, historic sites and sports venues. Facility and venue operations, and functional departments consume utilities such as electricity, natural gas, water, fuel oil and telecommunication services.

Commission Practice No. 6-40, *M-NCCPC Sustainability Standards* (the Practice), was revised on November 19, 2012, "to reflect more modern concepts in the area of sustainability." In response to the Practice's requirements, the Montgomery County Sustainability Coordinating Committee developed the Bi-Annual Sustainability Plan for Montgomery County Department of Parks and the Department of Planning.

The Central Administrative Sustainability Coordinating Committee and the Prince George's County Sustainability and Coordinating Committee developed the Bi-Annual Sustainability Plan for Prince George's County Department of Parks and Recreation, Prince George's County Planning Department and Central Administrative Services (includes Department of Human Resources and Management, Finance Department, Legal Department, Office of the Chief Information Officer and Office of the Inspector General). Both counties' plans recommend various programs and projects for implementation and compliance with Practice 6-40.

The M-NCPPC has contracted with the vendor, EnergyCAP Inc., owner of EnergyCAP online software, to facilitate the Commission's energy management program. EnergyCAP is designed to, not only pay utility bills, but to provide historical data for continuous monitoring, analysis and management (e.g., utility expense tracking, patterns, trends and anomalies).

For purposes of this review, utilities included: gas and electricity, water and sewer, and telecommunications.

The M-NCPPC incurred \$12,495,723.00 in utility expenses for fiscal year end, June 30, 2017. The following service providers accounted for 90.0% of total expenses (**See Exhibit A**):

- Pepco-Combined Accounts (\$5,682,075 or 45.0%)
- Washington Suburban Sanitary Commission (\$2,217,106 or 18.0%)
- Verizon-Combined Accounts (\$1,877,849 or 15%)
- Washington Gas-Maryland (\$1,449,139 or 12%)

B. Scope, Objective, and Methodology of the Audit

Objective: The Commission Energy Management/Utilities Program consists of decentralized processing activities performed by employees in Prince George's County Park and Recreation, Prince George's County Planning, Montgomery County Parks, Montgomery County Planning, and Central Administrative Services. For this initial audit, the scope was limited to interviewing key employees to acquire an overall understanding of the program, focusing on utility invoices. The Office of the Inspector General (OIG) specifically sought to identify strategies for strengthening the review, monitoring, and analysis of utility invoice data.

Scope: The scope of the audit included, but was not limited to, the following audit procedures:

- Reviewed Practice 6-40, *M-NCCPC Sustainability Standards*;
- Reviewed Practice 6-50, *Use of Commission-Owned Park Houses*;
- Interviewed managers and staff to understand the overall energy management/utilities program;
- Interviewed staff about the process for reviewing invoice billing data, and obtaining refunds due from utility providers;
- Interviewed staff to understand the negotiation process with utility providers for obtaining most favorable contract rates;
- Interviewed representatives of CQI Associates LLC, Energy and Sustainability Management Consultants, contracted by Montgomery County Parks and Planning to manage a portion of the energy management program;
- Interviewed Accounts Payable staff about the utility payment process and use of EnergyCAP. Note: The OIA performed an integrated (i.e. business processes and information technology controls) audit of the Commission's Accounts Payable Processes (CW-003-2017) in June 2017.

The audit was conducted in accordance with the *U.S. Generally Accepted Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The audit covered the period from 01/01/16 through 06/30/17.

Scope Limitations:

- The OIG did not select a sample of utility invoices for completeness and accuracy testing (i.e., amount paid equals amount invoiced). Based on conversations with CQI Associates and Commission personnel, overall risks with this process were considered low. In addition, the OIG completed an Audit of the Commission's Accounts Payable processes in June 2017 (CW-003-2017).
- The OIG did not design audit testing to identify inaccuracies in utility invoices (i.e., incorrect rates, building locations, etc.) This scope limitation was identified after audit testing identified deficiencies in the Commission's internal procedures invoice review. (See Audit Recommendation #1, Develop Formal Assessment Plan for Utility Invoice Data.)

C. Major Audit Concerns

The results of our evaluation and testing procedures indicated the following major audit concerns:

Utility invoice data is not reviewed, monitored and analyzed consistently to identify performance trends, patterns or anomalies, which may indicate problems with utility usage and invoice billing errors for facilities and functional areas. Currently, the review of utility invoice data is performed on an ad hoc basis, mainly to address distinctive problems identified in a particular facility. In addition, no central employee or team is formally assigned the role of leading and coordinating utility invoice data review, monitoring and analysis.

Additional information pertaining to this area can be found in the Detailed Commentary and Recommendations section of this report.

D. Overall Conclusions

The results of our evaluation and testing procedures indicate deficiencies in the design or operation of internal controls for the Commission Energy Management/Utilities function, (please refer to the definition below).

We believe all weaknesses identified and communicated are correctable and that management's responses to all recommendations satisfactorily address the concerns. It is the responsibility of management to weigh possible additional costs of implementing our recommendations in terms of benefits to be derived and the relative risks involved.

We wish to express our appreciation to management and staff of Prince George's County Parks and Recreation and Montgomery County Parks for their cooperation and courtesies extended during the course of our review.

Wanda King

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Assistant Inspector General

Renee M Kenney

Renee M. Kenney, CPA, CIA, CISA
Inspector General

December 28, 2017

Conclusion Definitions

Satisfactory	No major weaknesses were identified in the design or operation of internal control procedures.
Deficiency	A deficiency in the design or operation of an internal control procedure(s) that could adversely affect an operating unit's ability to safeguard assets, comply with laws and regulations, and ensure transactions are properly executed and recorded on a timely basis.
Significant Deficiency	A deficiency in the design or operation of an internal control procedure(s) which adversely affects an operating unit's ability to safeguard assets, comply with laws and regulations, and ensure transactions are properly executed and reported. This deficiency is less severe than a material weakness, yet important enough to merit attention by management.
Material Weakness	A deficiency in the design or operation of an internal control procedure(s) which may result in a material misstatement of the Commission's financial statements or material impact to the Commission.

II. DETAILED COMMENTARY AND RECOMMENDATIONS

1. Develop Formal Assessment Plan for Utility Invoice Data

Issue: Utility invoice data is not consistently reviewed, monitored and analyzed to identify performance trends, patterns or anomalies, which may indicate problems with utility usage and invoice billing errors for facilities and functional areas. Currently, the review of utility invoice data is performed on an ad hoc basis, mainly to address distinctive problems identified in a particular facility.

Examples of current ad-hoc assessments include:

- The contracted vendor, Telanalysis LLC, reviews monthly Verizon telephone billing data in EnergyCAP for Montgomery County Parks, Montgomery County Planning and Prince George's County Parks and Recreation. The vendor engages directly with the utility service provider to ensure correction of billing errors and accurate application of refund credits owed to utility accounts.
- Montgomery County Parks and Montgomery County Planning has contracted with vendor, CQI Associates LLC, to assist with its Energy Management Program and required reporting to Montgomery County. The vendor reviews utility usage and billing for those facilities that may identify specific problems such as unusual spikes. Annually, the vendor performs full comprehensive energy audits of selected facilities.
- Members of the Enterprise Asset Management (EAM) Data Entry Team currently review utilities on an ad hoc basis, as requested by the facilities. Note: The team recently completed a two-year project on the behalf of Accounts Payable to analyze Pepco monthly utility invoices. The project team, which reviewed Pepco's invoices before payment, identified several billing errors. However, the time required for review and analysis resulted in invoice payment delays and subsequent late payment fees.
- Montgomery County Parks, Montgomery County Planning, and Prince George's County Parks and Recreation have assigned staff members who review utilities for Commission owned leased park housing.

Criteria/Risk: The development and implementation of a formal assessment plan would require assigned staff to consistently review and analyze billing data. The plan would assist with identifying problems and applying timely corrective action. It would also help detect opportunities for cost savings.

Commission Practice 6-40, *M-NCPPC Sustainability Standards*, provides guidance to assist with the development of Sustainability Plans. In the practice, *Part I., Section A, Utility Measurement and Monitoring* states: “Department sustainability coordinators shall collect utility use information to develop/enhance utility management standards and track the cost of each facility’s consumption over time.” It is reasonable to infer that a formal assessment plan would facilitate the requirement as indicated in the Practice. Failure to collect, track and monitor utility consumption data over time may affect management’s decision making, ultimately impeding the Commission’s ability to implement operational efficiencies and meet financial goals.

Recommendation:

We recommend that Commission management develop and implement a formal utility invoice data assessment plan to assist with proactive analysis, decision making, timely corrective action and compliance with Practice 6-40.

Some fundamental steps/processes to consider incorporating into an assessment plan include, but are not limited to:

- Collect and track utility invoice data, housed in EnergyCAP, for all Commission facilities and functional areas.
- Analyze the data, using EnergyCAP to help identify billing errors, usage patterns, unexpected trends and anomalies.
- Contact utility service providers to correct billing errors and to ensure refund credits owed are accurately applied to Commission utility accounts.
- Periodically examine facility equipment (e.g., meters) to identify required maintenance and repairs, which may help decrease utility expenses.
- Continuously monitor actual utility expenses, comparing them with budgeted utility expenses. Note that interviews with a sample of budget managers disclosed that they investigate unusual or significant variances.

The development and execution of a formal assessment plan should yield valuable benefits:

- Quantifying energy usage costs of each facility and functional area over a period of time, along with the associated effects on the Commission’s operating expenses.
- Identifying high energy performance facilities as well as identifying and prioritizing those with poor energy performance.

- Assisting with timely detection and collection of credit refunds owed from utility service providers.
- Decreasing late payment penalty fees paid to utility service providers, if analysis of historical data discloses a pattern of such payments.
- Developing historical context and reference points for supporting future operational and financial planning, decisions and actions.

In addition, management should ensure that staff, who are assigned responsibilities for facilitating the assessment plan, are trained to use EnergyCAP, which is fundamental to invoice billing review and analysis. Audit interviews disclosed that staff may benefit from additional training.

Risk: High

Management Response: General agreement with auditor's recommendations. These bullets represent sound business practices and should be implemented as soon as possible.

A Commission wide task force will be established to develop a formal assessment plan for utility invoice data. Senior personnel from Prince Georges County Department of Parks and Recreation, Administration and Development and Montgomery County Department of Parks, Facility Management will build the framework for the task force. Membership of the task force will include representation from all five Commission Departments¹.

We believe the Office of the Chief Information Officer (OCIO) should be involved in all task force committee discussions. The OCIO should be engaged to develop a data trail to the most relevant and widely used program, ECap, EAM, Lawson, as appropriate to insure facilities managers have access to relevant data.

Expected Completion Date: The first task force meeting will be held by January 31, 2018. Substantial completion of the identified framework should be completed by January 31, 2019.

Follow-Up Date: February 2018 and February 2019.

¹ Prince George's County Department of Parks and Recreation, Prince George's County Planning Department, Montgomery County Department of Parks, Montgomery County Planning Department, and Central Administrative Services.

2. Appoint Coordinators to Administer the Assessment Plan

Issue: No employee or team is formally assigned the role of leading and coordinating utility invoice data review, monitoring and analysis.

The formal appointment of an employee or team to lead and coordinate utility invoice data review provides strategic advantages:

- Assisting management with the development and implementation of a formal assessment plan for utility invoice data analysis.
- Holding assigned staff accountable for executing the assessment plan, ensuring they track, monitor, evaluate and report performance results to management.
- Serving as the central point of contact between management and staff responsible for executing the assessment plan.

Criteria/Risk: Commission Practice 6-40, *M-NCPPC Sustainability Standards*, provides a comprehensive framework for Sustainability Planning, including the appointment of department Sustainability Coordinators to oversee aspects of utility measurement and monitoring. Failure to appoint Sustainability Coordinators may result in noncompliance with the practice, ultimately impeding the Commission's ability to implement operational efficiencies and meet financial goals.

Recommendation:

- Management should assign roles and responsibilities for leading and coordinating utility measurement and monitoring activities, including the development and implementation of a formal assessment plan for utility invoice data.
- Management should consider Sustainability Coordinators as the plausible choice for the leadership roles, as these positions appear to be provided for in Practice 6-40.
- Note that Montgomery County Park and Montgomery County Planning appointed a dedicated Sustainability Coordinator during fiscal year 2017. Management should also appoint Sustainability Coordinators for Prince George's County Park and Recreation and for Central Administration Services. Based on recent discussion with management, these appointments are under consideration.

Risk: High

Management Response: Please see response to Audit Recommendation #1.
Project deliverables will include the identification of utility coordinators.

Expected Completion Date: January 2019

Follow-Up Date: February 2019

3. Distribute Utility Data Analysis Reports to Management

Issue: Management does not consistently receive reports that provide analytical information and results of utility billing data and energy consumption for Commission facilities and functional areas.

Analytical results should be communicated to Department senior management and facility directors on a regular basis (e.g., monthly, quarterly). The reports should illustrate and explain data such as utility usage, costs, trends and anomalies, which would assist with timely decision making, cost savings and ultimately contribute to more efficient energy use throughout the Commission.

Criteria/Risk: Commission Practice 6-40, *M-NCPPC Sustainability Standards*, provides some guidance for communicating utility data analysis to management in *Part I., Section A. Utility Measurement and Monitoring*: “Utility consumption trends shall be made available to facility managers and Department Directors to evaluate and refine utility and cost saving practices.” Failure to provide management with timely and useful information for decision making may negatively affect the Commission’s operational efficiency and financial goals.

Recommendation: The Energy Leaders or Coordinators should develop and distribute informational reports on a consistent basis to management, at least quarterly, to assist with proactive analysis, decision making and timely corrective action.

Risk: Medium

Management Response: Please see response to Audit Recommendation #1. Project deliverables will include the promulgation of data analysis reports to management.

Expected Completion Date: January 2019

Follow-Up Date: February 2019

4. Review and Update User Access to EnergyCAP

Issue: Review and update user access to EnergyCAP. OIA reviewed the user access list and observed some terminated employees on the list as having user access.

Criteria/Risk: Industry best practices encourage periodic review and updating of user access to data, including the disabling of employees' access once they are no longer with an organization. It is important to manage user rights when employees are leaving to ensure that former staff cannot access organizational data.

Recommendation: Enterprise Information Technology (EIT) management should:

- remove user access for employees no longer employed at the Commission; and
- review user access for current employees to ensure access is granted based on the principle of least privilege.

Risk: Low

Management Response: The EIT team will:

- manage all user access, training and support for the EnergyCAP application;
- remove all access for employees no longer employed, or whose job position has changed; and
- review all user access for current employees and ensure access is granted based on the principle of least privilege.

Expected Completion Date: July 2018

Follow-Up Date: February 2019

Exhibit A

**M-NCPPC Utility Expenses
Fiscal Year End 2017
\$12,495,723.00**

