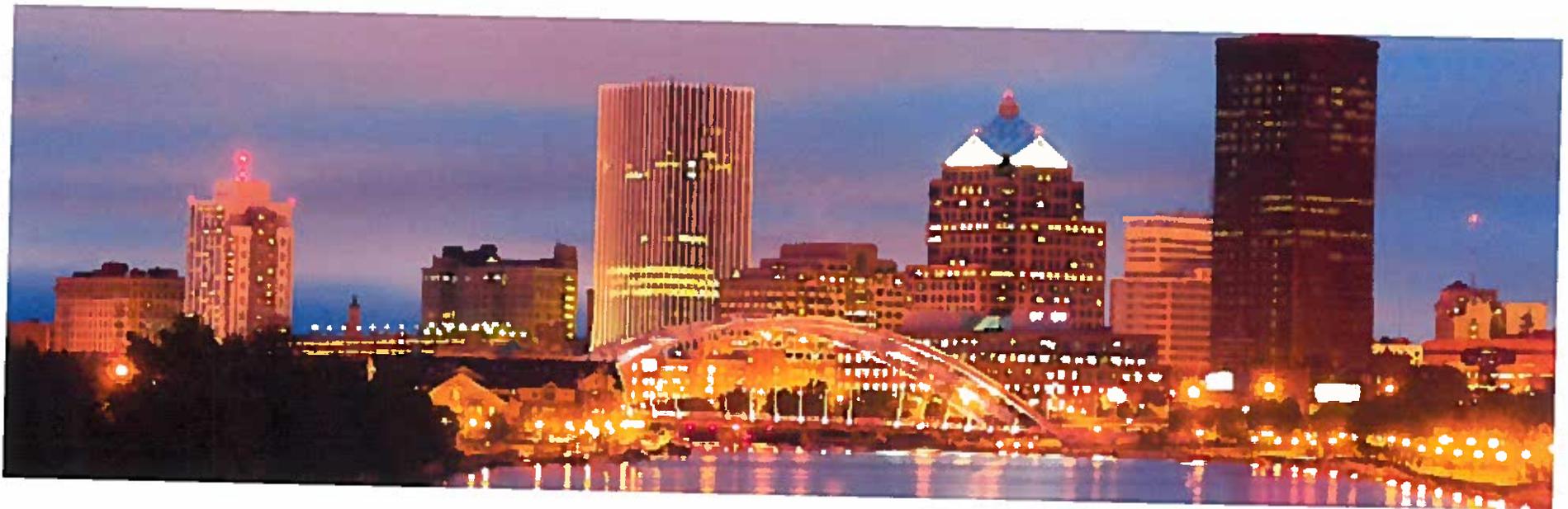


ENERGY MASTER PLAN STAFF WORKSHOP

City of Rochester



LABELLA | Engineering
Architecture
Environmental
Associates, D.P.C. | Planning

April 23, 2014

 **New York Power
Authority**
Generating more than electricity



> AGENDA

> **01**
Buildings
Data

> **02**
Building
Performance

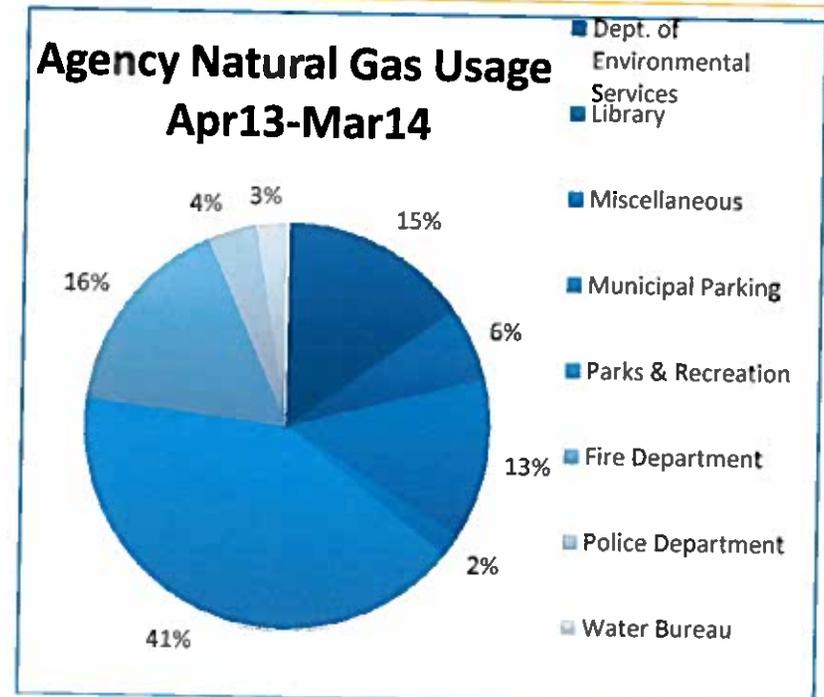
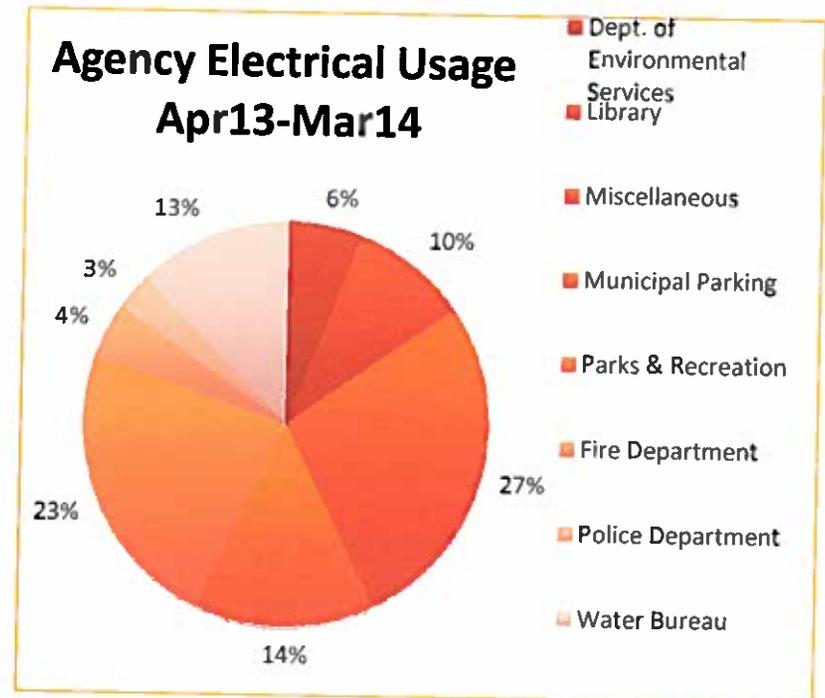
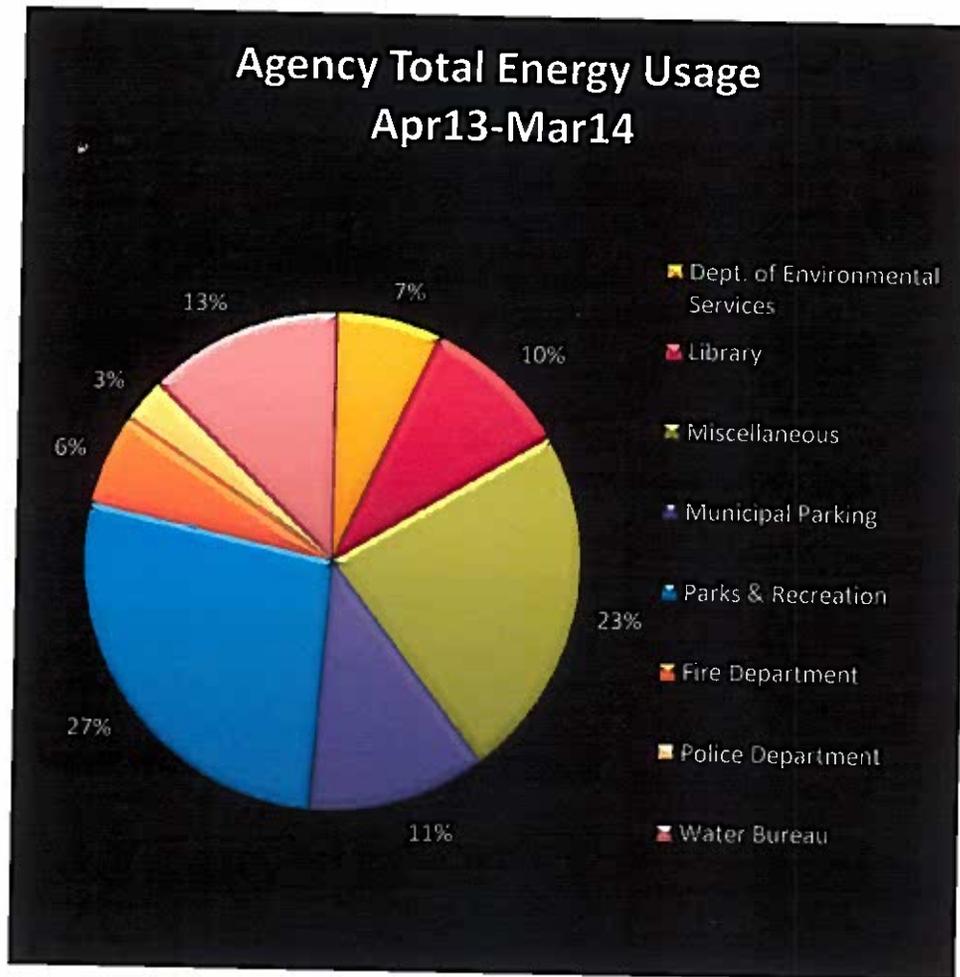
> **03**
Energy Audits
Findings

> **04**
Building
Management
Approaches

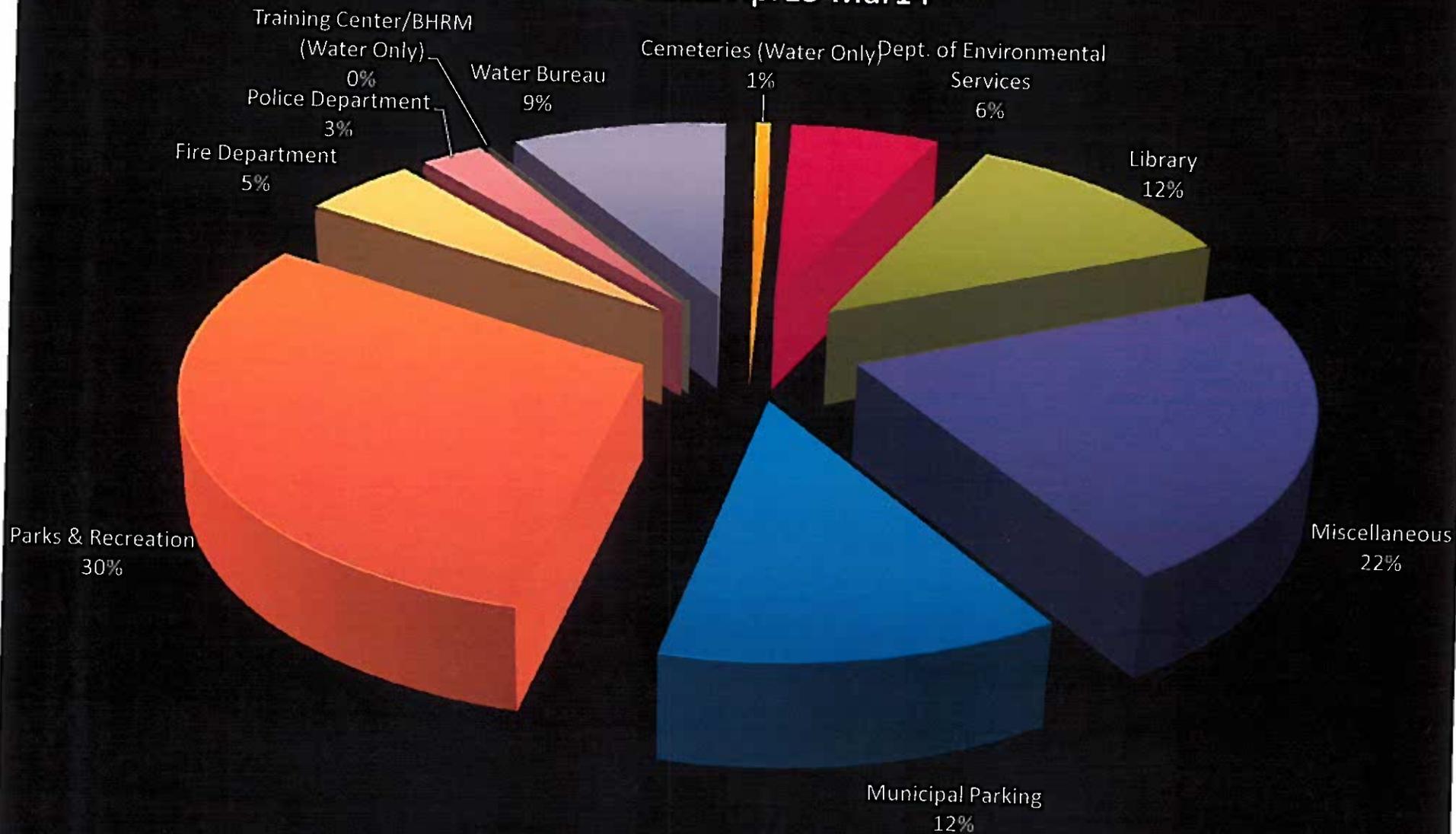
> **05**
Next Steps

> **01** Buildings Data

Buildings Energy Usage and Cost Data



Total Costs Apr13-Mar14



> **02** Building Performance

Portfolio Manager Findings

- **EPA Energy Star Portfolio Manager**
- **Energy use Intensity (EUI)**
 - **Weather Normalized**
- **Benchmarking Buildings > 10,000 sq. ft.**
 - **Forty-three Buildings**
 - **50% better than National Average**
 - **10% at the National Average**
 - **40% less than the National Average**

> 03 Energy Audits Findings

Previous Energy Audits - Reviewed

Facility Energy Audits –

August 2010:

- Court Street Parking Garage
- High Falls Parking Garage
- Sister Cities Parking Garage
- South Avenue Parking Garage
- Washington Square Parking Garage

Facility Energy Audits –

June 2012:

- Hemlock Filtration Plant
- CVMF Complex
- City Hall
- Rundel Library
- Bausch and Lomb Library
- Port Terminal/Gate
- Genesee Valley Pool & Rink
- Campbell Street Rec Center

- 911 Center
- Edgerton Recreation Center
- Water Bureau – Operations Center
- Hemlock Operations Center & Shop
- High Falls Cultural building/Museum
- RPD – Clinton Section
- RFP – Engine 17, Attack 1
- RFP – Engine 1, Truck 1
- Mt. Hope Cemetery and Crematory
- Water Bureau – Holly Pump Station
- Solid Waste Division
- Wheatley Branch Library
- Lincoln Branch Library
- Monroe Branch Library
- RPD – Tactical/K-9
- Winton Branch Library
- Carter Street Rec Center

Audits Completed Spring 2014

Building	gsf
Blue Cross Arena	275,792
Building Services – 414 Andrews Street	39,956
Parks Maintenance and Operations Dewey	29,011
High Falls Center	91,900
David F. Gantt Community Center	29,584
Hemlock Filtration Plant & Operations Center	37,697
Sahlen's (Rhinos) Stadium	66,201
Crossroads Parking Garage	383,700
Mortimer Street Parking Garage	139,298
Total:	1,093,139

Recommended Buildings Initiatives

Category	Description
Lighting/lighting controls upgrades	Develop city-wide contract to upgrade lighting & controls to reduce energy consumption.
Operating Sequences in Unoccupied Times	Operating sequences should minimize operating costs when spaces or systems are not being used.
High Efficiency Equipment Drives	Employ higher efficiency equipment drives, including VFDs, to lower energy consumption.
Seal Building Envelope Components	Sealing building cracks and openings reduces infiltration and drafts, lowering the building energy consumption.

Summary of Energy Audits

CITY OF ROCHESTER - ENERGY AUDIT ECM SUMMARY										
Energy Conservation Measures (ECMs)	Blue Cross Arena	Building Services	DF Gantt Community Ctr	High Falls Center	Parks Maintenance & Operations	Crossroads Garage	Mortimer St. Garage	Rhino Stadium	Hemlock Filtration Plant	
Lighting and Lighting Controls	4	2	3	3	4	3	2	3	3	
HVAC Controls, Sequences of Operations	2	---	1	1	1	---	---	?	?	
Motors and Drives	---	---	---	---	---	---	---	?	?	
HVAC Equipment and Systems	1	---	1	1	1	---	---	?	?	
Building Envelope	---	2	---	---	2	---	---	?	?	
Miscellaneous	---	---	---	---	---	---	---	?	?	

> **04** Building Management
Approaches

Potential Building Management Initiatives

Category	Description
Incentivize energy efficiency	Allow EE savings to accrue to a dedicated EE fund within the centralized facilities department.
Utilize performance contracts	Release bid for performance contract for EE improvements in city buildings. (Potentially partner with others to do so.)
Engage employees in saving energy	Create guidebook and rewards for city employees related to best practices.
Set uniform protocol for energy use and procurement	Standardize energy use guidelines and equipment procurement.

> **05** Next Steps

Next Steps

May 1-8

- City/ Community Stakeholder Group Meetings
- Review/ Discuss Preliminary Recommendations
- Articulate overall Goals and Objectives
- Select key initiatives

May-
June

- Develop implementation strategy
- Review Draft Plan

July-
August

- Finalize Plan

Sept-
ember

- NYPA/ City Presentations