

**Energy Resource Team  
Strategic Plan  
FY 2015 to 2020  
(Revised Sept. 9, 2014)**

**Mission Statement**

The Mission of the Energy Resource Team is to contain consumption/costs of energy/utilities in MCPS facilities through:

- Collaboration with all MCPS departments that impact energy/utilities consumption to improve efficiency
- Budgeting and accurately maintaining utility-related expenses and consumption data
- Researching and implementing energy conservation measures (ECMs)
- Procuring and managing utilities

**Vision**

To be the model energy management program by which all K-12 institutions measure themselves.

**Customers**

- Principals/school staff/students
- School system executive staff
- Non school based MCPS employees
- The Board of Education, County Council, County Executives
- Parents/guardians and community leadership
- Community user groups and tenants of our facilities

**Stakeholders**

- Taxpayers
- Parents/guardians/students
- PTSA/MCCPTA
- Employees and families
- Neighbors/adjoining landowners
- Special Interest Groups

**Partners**

- Other MCPS offices and departments
- Federal Agencies and Staff (ie. DOE, EPA, OSHA, Education. Etc.)
- State Agencies and Staff (ie. DEP, IAC, MOSH, etc.)
- Local Government Agencies and Staff (ie. MNCPPC, DPS, CUPF/ICB, etc.)
- Municipalities
- Non Governmental Agencies (ie. WSSC, Pepco, Etc.)

- MCPS Employee Associations
- Vendors/Contractors/Consultants/Suppliers

## **Values**

- Learning
- Relationships
- Respect
- Excellence
- Equity
- Integrity

### **Learning**

We believe our work is focused on the success of all students and employees. Learning is achieved through creativity, innovation, focus, goal setting, teamwork, and lifelong learning for adults.

Therefore, we will model our commitment to achieve continuous improvement, foster professional learning communities and cross-training that develop a high-performing workforce, and provide professional growth opportunities and support for all employees.

### **Relationships**

We believe that meaningful collaboration with students, staff, business partners, and communities is a vital ingredient of our department's success and make the department more effective in fulfilling our mission. Strong partnerships are built on trust and open and honest communication.

Therefore, we will know and seek to understand the perspectives, experiences, and needs of our customers, build strong, mutually supportive relationships with our customers, stakeholders, and partners. We commit to use interest-based and other collaborative methods to identify and achieve mutually agreed upon goals.

### **Respect**

We believe that respectful behavior builds goodwill and trust that leads to high performing teams and each individual staff member's and partner's contributions add value to the quality of our services.

Therefore, we will model civility and professionalism in all interactions and encourage open and honest communications, provide opportunities for customers, stakeholders, and partners to voice their opinions, actively recognize individuals' contributions and progress, and approach others with the belief that they have positive intentions.

**Excellence**

We believe that setting and maintaining high standards, providing high-quality sustainable products and services, and actively engaged and committed employees lead to excellence in service and success for all students.

Therefore, we will use resources effectively and efficiently to meet and exceed standards, be accountable, measure performance, explore innovative and new products, practices, and solutions. We will invest in our employees' professional development.

**Equity**

We believe that every person has value; the racial, ethnic, and cultural diversity of our organization provides a wealth of valuable perspectives, and racial and cultural barriers exist and must be acknowledged and eliminated.

Therefore, we will embrace the diversity of our workforce, value individuals, be open to different perspectives, and proactively address racial and cultural inequities.

**Integrity**

We believe that integrity provides the necessary foundation for long term relationships of trust and organizational success.

Therefore, we will foster honesty and strong moral values, uphold high ethical standards, and model whole and undivided unity among team members with internal consistency.

**SWOT ASSESSMENT****STRENGTHS**

- Flexibility
- Dedicated energy staff
- Leadership is open to innovation
- Staff is aware of developing ECMs and technology
- Scheduling capabilities (EMS)
- Ongoing capital improvement programs (building envelope, new systems)
- Culture of willingness to cooperate
- Scheduled ongoing preventative maintenance
- Commissioning
- Ongoing training and recognition
- Previous and ongoing commitment and success to implementing ECMs
- Existing tracked data to evaluate progress
- Method of effectively communicating efforts to schools, facilities, community, and staff
- Commitment to energy efficient design
- Summer reduced occupancy

## **WEAKNESSES**

- Budget Constraints
- Outdated systems
- Back log of replacement needs
- Cases of “band aid” issues, that were not properly fixed
- Operational demands
- Lack of “best value” life cycle decision making
- Increasing complexity of systems due to ever changing technology
- Limited staff
- Lack of standardization (both in capital and operations)
- Ability to balance innovation and standardization
- Inconsistent operations and processes
- Lack of comprehensive preventative maintenance program
- Competing Priorities

## **OPPORTUNITIES**

- Supportive political environment
- Competitive pricing from vendors
- Emerging technology
- Financial incentives
- Advanced knowledge of future rates
- Prior knowledge of occupancy trends
- Eager partners
- Free sources of expertise
- Various project delivery methods
- An aggressive and demanding industry for energy standards
- Federal, State, or Local regulations that drive savings

## **THREATS**

- Economy
- Political Environment
- Outside interest groups with competing agendas
- Codes and Regulations
- Potential volatility of utility costs
- Potential cuts in both operational and capital budget cuts
- Unfunded mandates

## **Strategic Issues/Challenges**

- Collaboration – How to effectively collaborate with MCPS departments to achieve energy efficiency?
- Energy Conservation Measures (ECM) – How to improve energy efficiency through ECM projects/programs?
- Operations – How to increase energy efficiency through operations?
- Utility Data and Billing – How to maintain integrity of utility data and billing?
- Utility Procurement & Risk Management – How to effectively and efficiently manage deregulated energy commodities?

## **Strategic Goals**

- ERT collaborates among stakeholders to facilitate improvements in energy efficiency and cost avoidance. (SI #1,2,3,4)
- Best Practice ECMs are incorporated into capital programs/projects and operations to support effective and efficient operations (SI #1,2,3)
- Utility data is effectively managed to support the various tasks to make MCPS more energy efficient
- Utility budgeting and financial forecasting is accurate, and provide energy information to all stakeholders (SI #1,4,5)
- Utility supply purchasing strategies are implemented to effectively manage market volatility and obtain low cost energy supplies (SI #1,3,4,5)

## **Performance Goals**

- Energy use index (kBTU/SF) – systemwide 45 kBTU by 2024 (Environmental Mgt Sustainability Plan 2014)
- Increase the amount of energy purchased through solar PV power purchase agreements by increasing arrays to 3.6 MW by 2017
- Reduce water consumption from 16.5 gallons/SF to 13.5 gallon/SF by 2024 (20% reduction)
- Cost recovery of utility billing disputes exceeding \$200,000 per year – ongoing basis
- Net variance of utility budget is within 3 percent of actual expenditures

## **Strategies**

- Provide energy performance reports and analysis to support other departments related to their energy efficiency improvements (SG #1,2)
- Provide expertise in energy efficiency to other departments to support the improvement of energy efficient operations and inclusion of energy efficient technology and systems (SG #1,2,3)
- Improve and maintain the processes and implement technology for managing utility billing and smart meter data (SG #3,4,5)
- Continue to improve risk mitigation and low cost energy commodity procurement by using the wholesale portfolio methodology (SG# 5)

- Research, pilot, and analysis performance of emerging high performance energy technologies that are appropriate for use in MCPS (SG #1,2)

### **Objectives/Actions**

- Develop a phase III of the solar PV program.
- Continue to develop the pilot LED auditorium lighting program.
- Continue to support the water reduction efforts with accurate water consumption reports.
- Replace utility billing date system with system that incorporates billing data, smart meter data, and real-time power outage monitoring.
- Continue to support and improve Peak Load Management with timely accurate electric profile information.
- Upload and maintain EPA Portfolio Manager with MCPS utility data for benchmarking and compliance with new Montgomery County law.
- Continue to support and improve utility budget forecasting and monitoring.
- Continue to support and improve utility bill quality control and cost recovery of billing errors.
- Continue to support and improve the energy analysis and reporting for MCPS departments, (SERT, Construction, and OCTO) to evaluate energy efficiency.
- Continue to implement and monitor wholesale portfolio electricity and natural gas procurement.