EL CAMINO COLLEGE IT Green Plan - Draft

Purpose: To promote environmental awareness in information technology, review policy and purchases, and continue initiatives aimed at reducing Delaware State University's IT carbon footprint.

Scope: The goals and policies of EL CAMINO COLLEGE IT Green Plan apply to all EL CAMINO COLLEGE IT staff, in cooperation with other EL CAMINO COLLEGE agencies or departments to create a campus wide awareness and consideration for creating a greener IT infrastructure, procedures and purchases. The projects and initiatives described here will be aligned with overall EL CAMINO COLLEGE IT strategic goals.

Projects: EL CAMINO COLLEGE IT will consider carbon footprint reduction in all IT projects, purchases and upgrades where appropriate. The following list projects and annual purchasing strategies already underway.

Data Center
        Power: The primary data center at District offices is purchasing more energy efficient equipment racks and adding power-metering capability. Upon completion of this project, the racks will be measurable, power may be balanced, airflow will be more efficient, and dual power will be available to all units. Additionally, new floor tiles will be purchased to aid in improving airflow thereby improving energy efficiency of the entire data center. Upon completion of the primary data center, a backup data center will be considered for similar upgrades.
        Cabling: Cabling will be standardized to ceiling mounted racks improving cable management, improving floor airflow, and providing more efficient data path management.
        HVAC: A project is planned to survey new more efficient HVAC systems for the primary data center. Upon completion, the new units will provide better efficiency through better-balanced operations. The newer units will be located on the ground level with the data center reducing piping for the airshafts and movement of air.
        EL CAMINO COLLEGE IT (Technical Services) are currently transitioning many of the over 100 servers to virtualized server environment. This will reduce the physical number of servers housed in the data center as well as consumption of energy, reduced heating requirements thereby improving HVAC efficiencies and reduction of the disposal requirements for end of life equipment.

PCs/Laptops: EL CAMINO COLLEGE IT considers purchasing more environmentally friendly products by staying current on the two major standards of energy efficiency and green product manufacturing. Those standards are EPEAT and Energy Star ratings.

        EPEAT (Electronic Product Environmental Assessment Tool). EPEAT is an IEEE1680 family of environmentally friendly standards for purchasing IT equipment from initial purchase and sustainability/life extension through end of life recycling. Currently EPEAT applies to desktops, laptops/notebooks, workstations and displays (monitors). Two IEEE Workgroups are

currently (spring 2009) working on development of a Printers and Imaging Devices standard, and a standard for Televisions. EL CAMINO COLLEGE IT will look at reviewing the current EPEAT standards when making purchases to look for the best combination of cost, operations and environmentally friendly products. (http://www.epeat.net/).

Energy Star - ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices. The ENERGY STAR label is designed to clearly identify products and practices that are energy efficient—meaning they lead to lower energy bills and help protect the environment while providing desired features and performance. The clear government backing of the label allows consumers to rely on it as credible and unbiased. EL CAMINO COLLEGE IT will look at reviewing the current Energy Star standards and labeling when making purchases to look for the best combination of cost, operations and environmentally friendly products. (http://www.energystar.gov/index.cfm?c=home.index)

Disposal – By utilizing the standards, of EPEAT and Energy Star, EL CAMINO COLLEGE can reduce initial energy consumption and provide a improved standard at disposal of end of life equipment. These standards allow for a more environmentally friendly product for recycling and reduced contamination after disposal.

MFP: EL CAMINO COLLEGE is now supporting Multi-Functional Printers and helping to phase out, where appropriate, the large number of individual desktop printers across the system. This shift will help reduce the number of toner cartridges used annually, reduce the number of machines using electricity and provide a larger number of functions available to staff and faculty that individual desktops could not do.

WOL: EL CAMINO COLLEGE will review upgraded software for desktop environment management and refining processes and procedures, EL CAMINO COLLEGE IT is looking to reduce the number of hours per day that the wake on LAN (WOL) procedure is used to update the over 1300 PCs on EL CAMINO COLLEGE campuses and facilities. Every hour of being "woken up" at night for the updates that is reduced may save up to $10,000 per hour annually. The goal is for a 30% reduction in this process time consumptiom.

LEED: (Leadership in Energy and Environmental Design) - A Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides a suite of standards for environmentally sustainable construction. LEED certified buildings typically use resources more efficiently when compared to conventional buildings, which are simply built to existing construction code. LEED certified buildings often provide healthier work and living environments, which contributes to higher productivity and improved employee health and comfort. Often when LEED certification is pursued, this will increase the cost of initial design and construction. EL CAMINO COLLEGE IT will consider LEED standards during projects involving new construction, renovations, or upgrades of the IT infrastructure. EL CAMINO COLLEGE IT will work with Facilities to consider LEED requirements during these projects for non-IT related areas of concern as well.

Awareness: EL CAMINO COLLEGE IT will work with all EL CAMINO COLLEGE staff and faculty to heighten awareness of actions EL CAMINO COLLEGE IT is taking to reduce the overall carbon footprint of EL CAMINO COLLEGE through energy reduction, increased efficiencies and cleaner IT infrastructure. EL CAMINO COLLEGE IT will work closely with EL CAMINO COLLEGE Facilities to incorporate more efficient systems and reduce energy consumption through more aware purchasing and improved operations. This process will also reduce the impact of disposing of out dated equipment or the associated costs of recycling or recovery of component materials.

Assessment: EL CAMINO COLLEGE IT will assess their role in creating a more environmentally friendly infrastructure regularly and implement new ideas, projects, and suggestions as applicable.

Standards Review – EL CAMINO COLLEGE IT will stay current on the environmentally green standards of EPEAT, Energy Star ratings and LEED annually. EL CAMINO COLLEGE IT will apply that consideration of standards when making purchases and in planning IT projects in terms of compliance, costs and operations.

Data Center Power - EL CAMINO COLLEGE IT will establish a baseline of power consumption in the main data center (at District) and the backup data center (at M&S) and review annually gains made in decreasing energy consumption. EL CAMINO COLLEGE IT will also provide guidance to each campus about the capabilities of reducing power consumption at all IT facilities on all campuses.

Projects and Upgrades: EL CAMINO COLLEGE IT will work with major projects, renovations, and upgrades involving IT facilities throughout EL CAMINO COLLEGE, to include grants, in considering all aspects of a more environmentally friendly IT infrastructure. This will be part of all project planning and will be reviewed annually.

May 2018