



Green Campus Portfolio Project Cover Sheet

Network-based Power Management

<u>Component</u>	<u>Detail</u>
Brief Project Description & Objectives	<p>The goal of a network-based power management software project is to reduce energy consumption associated with campus computers by activating and managing the power saving modes (such as “stand by” and “hibernate”) on multiple campus computers and monitors. This project has a huge potential energy savings benefit since the average desktop PC and monitor wastes between \$25 and \$75 annually. Generally speaking, network-based power management software implementation has the potential to be your biggest project in terms of energy savings, but one of you smallest in terms of time.</p> <p>There are many kinds of power management software, some are free, others are more expensive. As a rule, the more expensive products (Surveyor, by Verdiem in particular) are best for large networks with thousands of PCs and monitors. Free software (such as EZ GPO) are great for small-to-medium sized networks (up to several hundred PCs and monitors). Green Campus efforts have focused on implementing free software since fee-based programs have costs of \$100,000 or greater.</p> <p>Interns at CSU Chico have worked with IT administrators to implement the free EZ GPO program on about 500 PCs and monitors. These efforts have yielded an estimated annual savings of almost 300 Megawatt hours - MWh (300,000 kWh).</p> <p>As a Green Campus intern, your goal is to find small-to-medium-sized networks on campus, meet with the IT administrator responsible for those networks, pitch the project to him/her (using the resources listed below), offer to assist with implementation, estimate annual savings, publicize your data, and repeat.</p>
Key Campus/Partner Stakeholders	<p>To implement this project you will need buy-in and support from:</p> <ul style="list-style-type: none"> ○ Information technology (IT) personnel, including your chief IT administrator and the IT staff responsible for various smaller networks throughout campus. ○ Campus facilities staff (e.g. Energy Manager or Facilities Director) ○ Sustainability Coordinator (if your school has one)
Project Time Frame	<p>Once you have found an IT administrator who is willing to work with you, you can implement a network-based power management project in 1-3 weeks. The challenge is finding cooperative IT administrators. In general, this is a good project to have ongoing throughout the year: once you implement the software on one set of computers, you can move on to another network.</p>



Measuring Project Success	<p>You are looking to measure energy savings in terms of kWh and MWh, and associated GHG emissions reductions (see resource list for suggestions on how to do this).</p> <p>You also should measure program success by numbers of PCs and monitors on which you have implemented the network-based power management software. This metric will allow for easier cross-campus comparisons, since total cost savings depends on age of equipment and usage patterns.</p>
Project Budgeting	<p>Minimal printing costs (to prepare resource packets for IT administrators).</p>
Project Tools & Resources	<p>General Info: http://www.energystar.gov/index.cfm?c=power_mgt.pr_pm_ez_gpo Documentation for Network Administrators: http://www.terravivum.com/docs/energystar/EZ_GPO/doc.html EZ GPO Software can be downloaded from: http://www.terravivum.com/projects/energystar/ez_gpo.html Savings Calculator (use this to estimate savings) http://pmdb.cadmusdev.com/powermanagement/quickCalc.html#calculatorTop Case Studies http://www.energystar.gov/ia/products/power_mgt/UofWisc_CPM_casestudy.pdf http://www.energystar.gov/ia/products/power_mgt/North_Thurston_Case_Study.pdf http://www.energystar.gov/ia/products/power_mgt/GPO_Case_Study_v2.pdf</p>
Green Campus Contacts/Resources	<p>CSU Chic Green Campus: Bret Bosma: bbosma@mail.csuchico.edu Jonathon Graham: jgraham11@mail.csuchico.edu</p>
Potential Project Challenges	<p>You may encounter resistance/ skepticism from IT administrators who may have security concerns or simply may not want to put in the extra work necessary to implement the network-based power management software. You can use the technical information about EZ GPO (see link above) to provide answers to some of the questions that IT folks might have, but if an IT administrators does not want to help you, it's probably best to move on and try to find one who will.</p>
Miscellaneous	<p>(What other project considerations should GC Coordinators keep in mind?) Nothing at this time.</p>