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# Exploring No-Cost Opportunities for Public Sector Information Systems Energy Efficiency: A Tennessee Application

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## Abstract

The Tennessee Department of Environment and Conservation (TDEC) completed a pilot project within its Central Office spaces to test the utilization of computer power management (CPM) technologies to implement power saving settings on state-owned, network-connected computer equipment. Currently, the State of Tennessee has no clear protocol regarding energy-conserving power settings on state-owned machines. Activation of monitor sleep modes and system standby and hibernation modes on 615 Central Office computers over an 18-month period reduced energy consumption by an estimated 8093 kWh and $526 per month, amounting to approximately $6312 in cost savings for Tennessee annually. If implemented

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throughout State of Tennessee executive agencies across the state, energy cost savings could amount to an estimated $323,341 annually. The research endeavored to understand both positive and negative impacts that strategic power management approaches can have on energy consumption, worker productivity, network security, and state budgets. Nearly all impacts discussed were positive. Based on successful results within TDEC Central Office spaces in Tennessee Tower, and considering the potential cost savings that could be achieved, expansion of the implementation of computer power management policies to machines in offices across the state was recommended.

*Keywords:* computer energy management; public sector energy efficiency; public sector computer energy consumption; public sector sustainability; computer energy conservation

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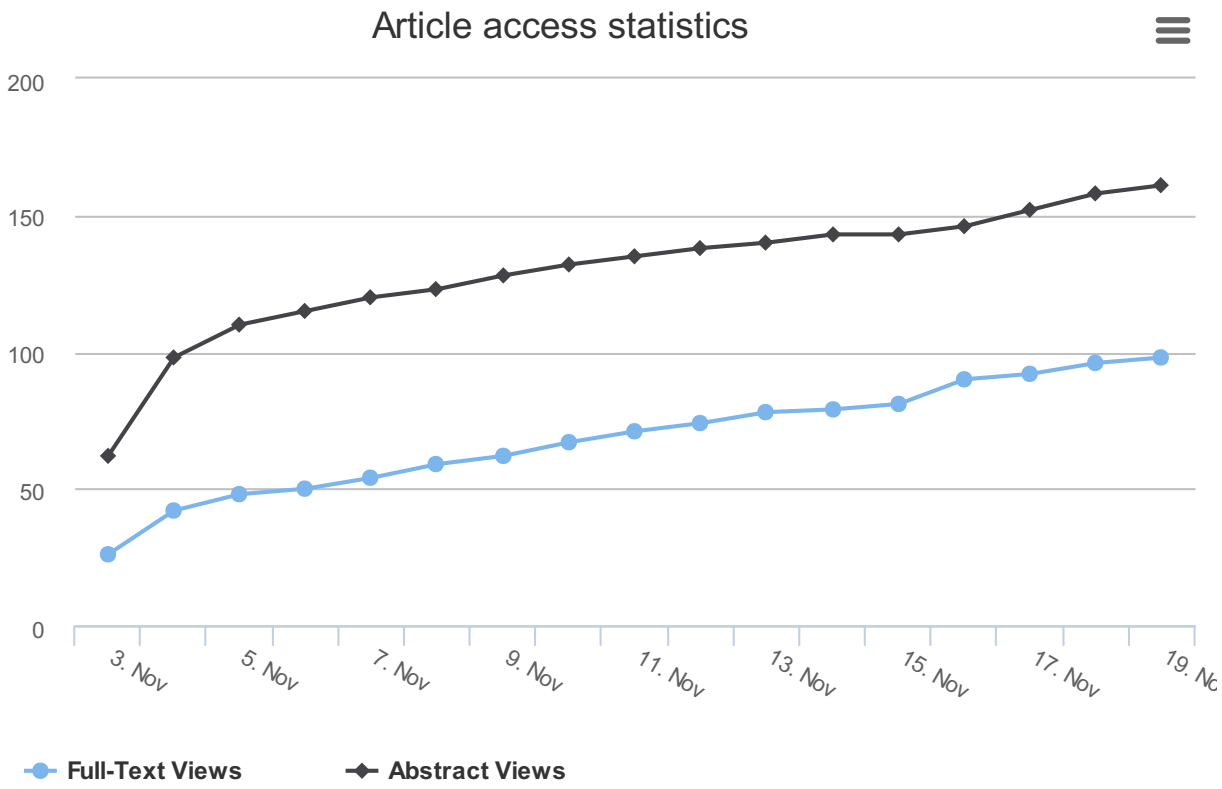


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