

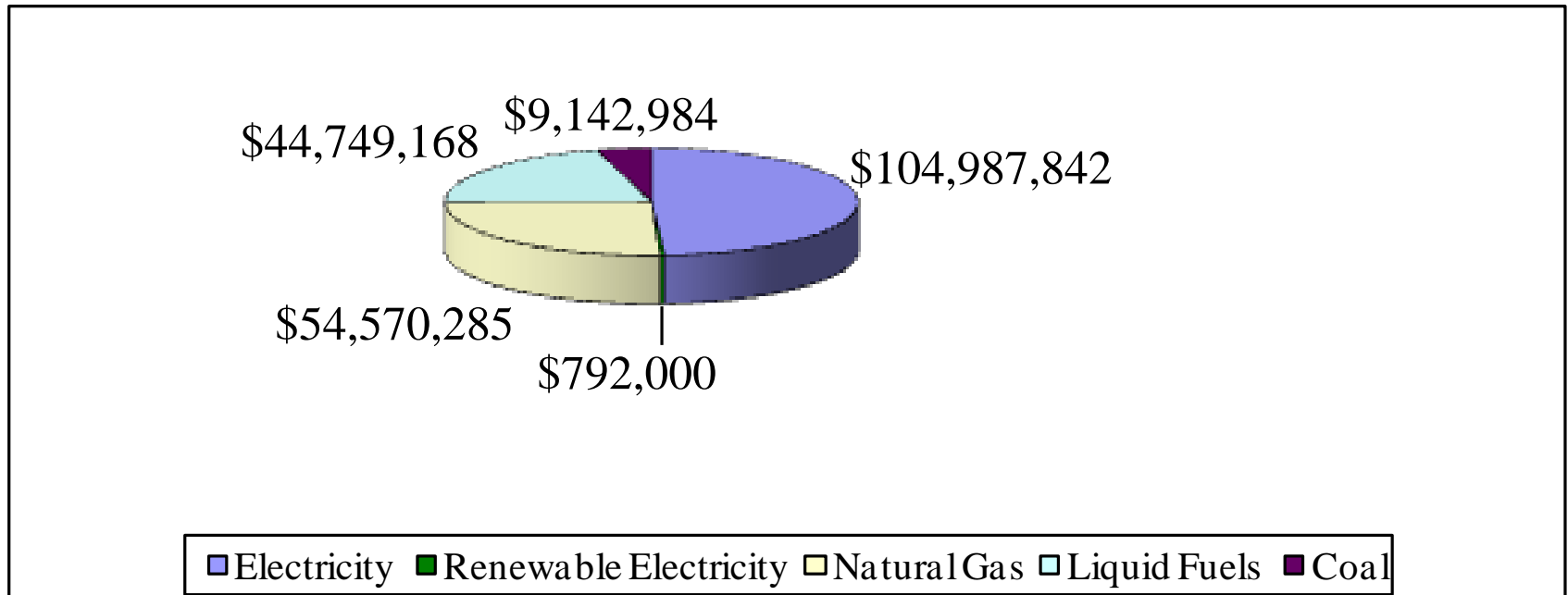


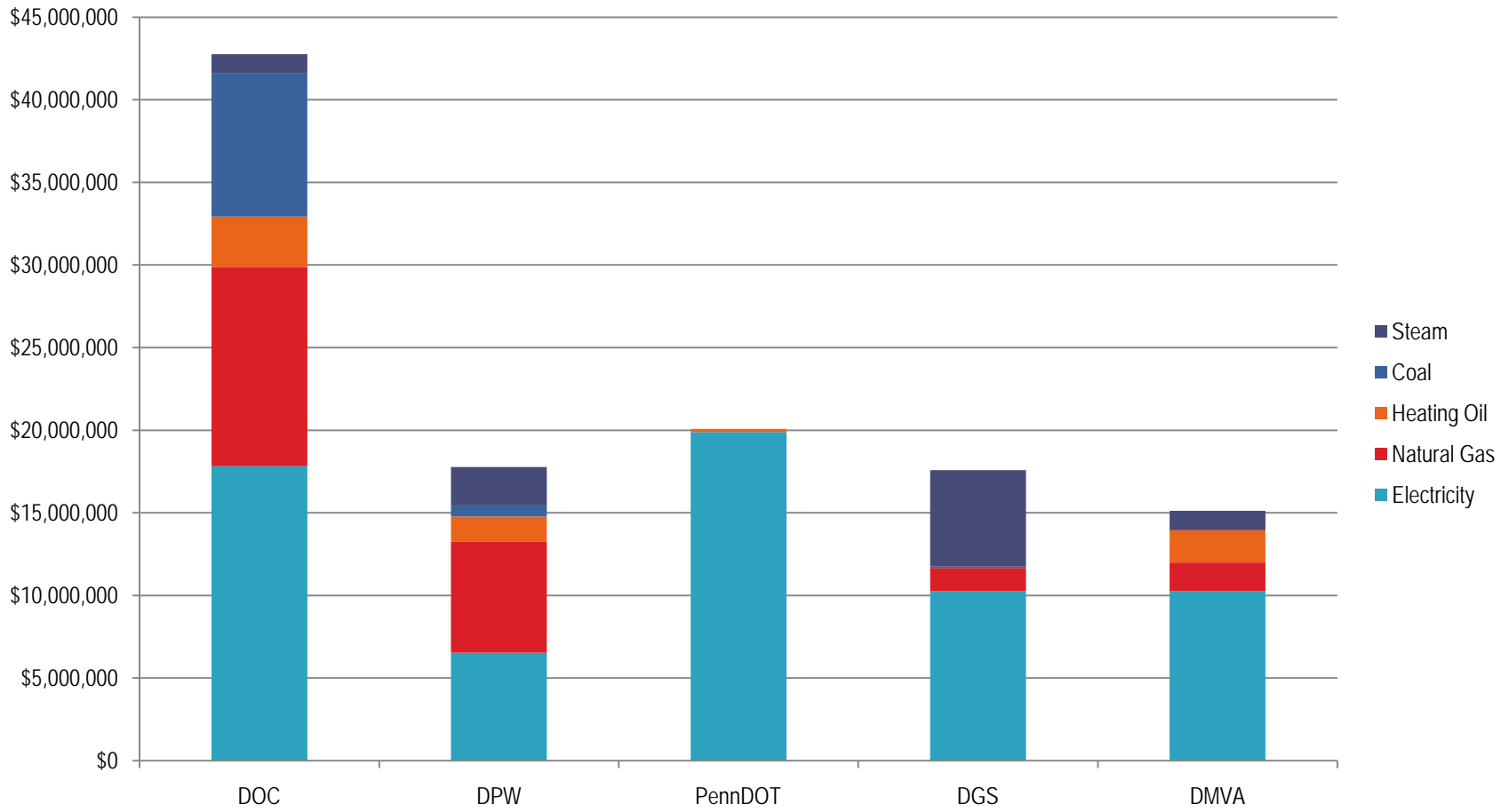
Senate Consumer Protection Committee DGS Energy Strategies

James P. Creedon, Secretary

April 13, 2010 @ 11AM

Energy costs for FY 2009 amounted to \$214M. Electricity accounted for 50% of the total costs.





I. Energy Management Strategies

Energy Management Savings

- DGS has reached its goal of a 20% reduction in facility utility consumption as of September 2009; a full year ahead of schedule.
- This reduction saves taxpayers **\$2.4 million annually.**

Guaranteed Energy Savings Contracts

- DGS has released 15 Guaranteed Energy Savings projects involving four state agencies. **Energy savings are estimated at over \$125 million over fifteen years.**

Guaranteed Energy Savings

- DGS has established an additional Guaranteed Energy Savings program to capture small energy savings projects across the commonwealth. The new program has established a pool of small business Energy Service Companies to reply to projects under \$1 million. Pilot projects are scheduled for release in the first quarter of 2010.

Decreased Energy Consumption

- The Capitol Complex 332 exterior lamp stands have been converted to new LED technology creating a LED walkway throughout the complex. **This decreases energy consumption by 70-80%.**
- DGS has installed an electric load shedding schedule within fourteen of our facilities capable of reacting to real time usage and cost.

Utility Database

- DGS, working with Penn State Facilities Engineering Institute, is in the process of upgrading a utility database server to capture utility usage of all commonwealth accounts electronically. Currently, PPL and PECO monthly statements are downloaded to the database, and DGS is working with additional utilities to increase participation.

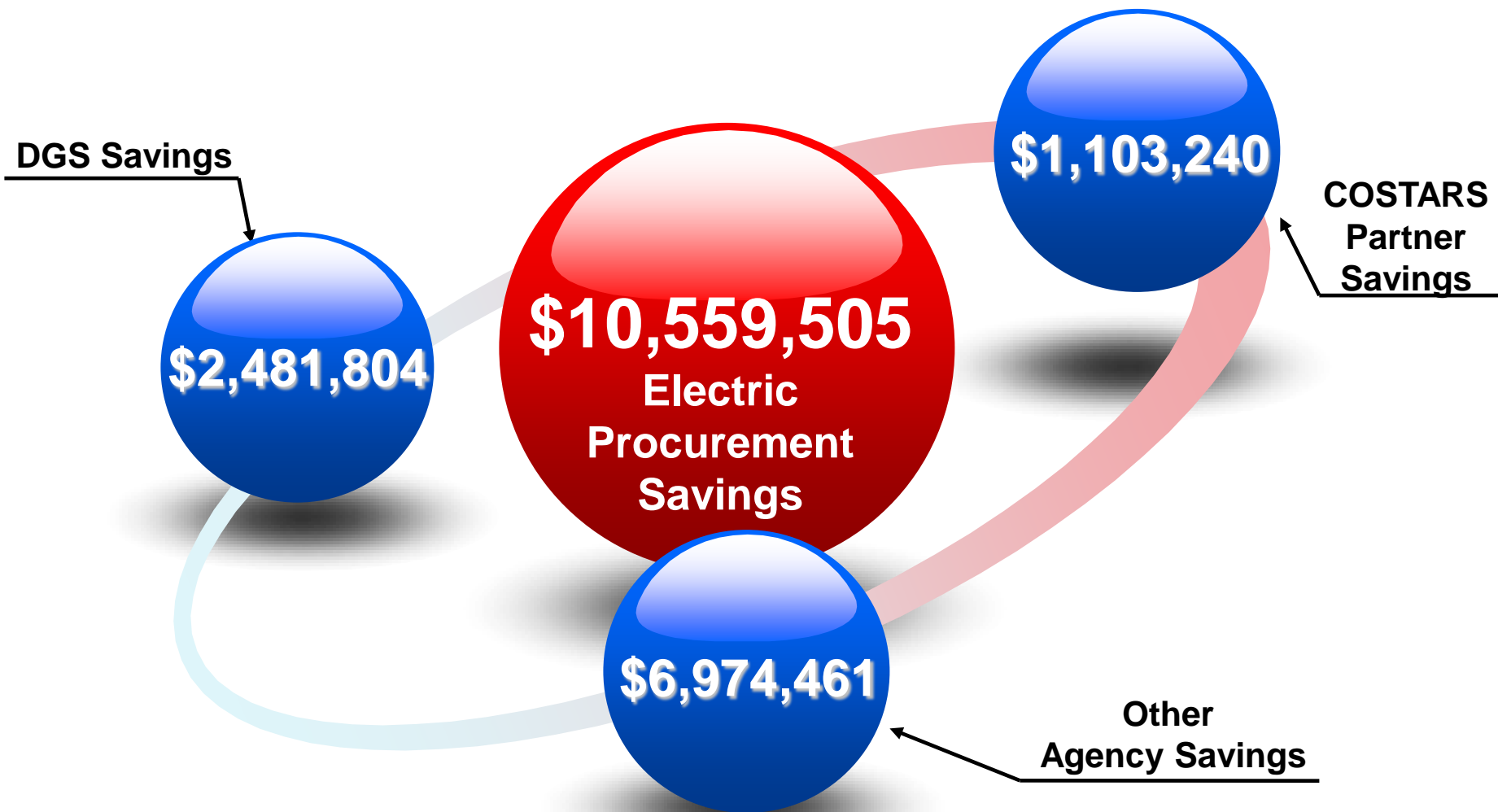
II. Energy Procurement Strategies

Green Energy Purchase

- Forty percent of the commonwealth's energy purchases in 2009 are green, compared to five percent in 2003. The Commonwealth of Pennsylvania is now in ninth place in the EPA Green Power Rankings, **leading all states in the purchase of green energy.**

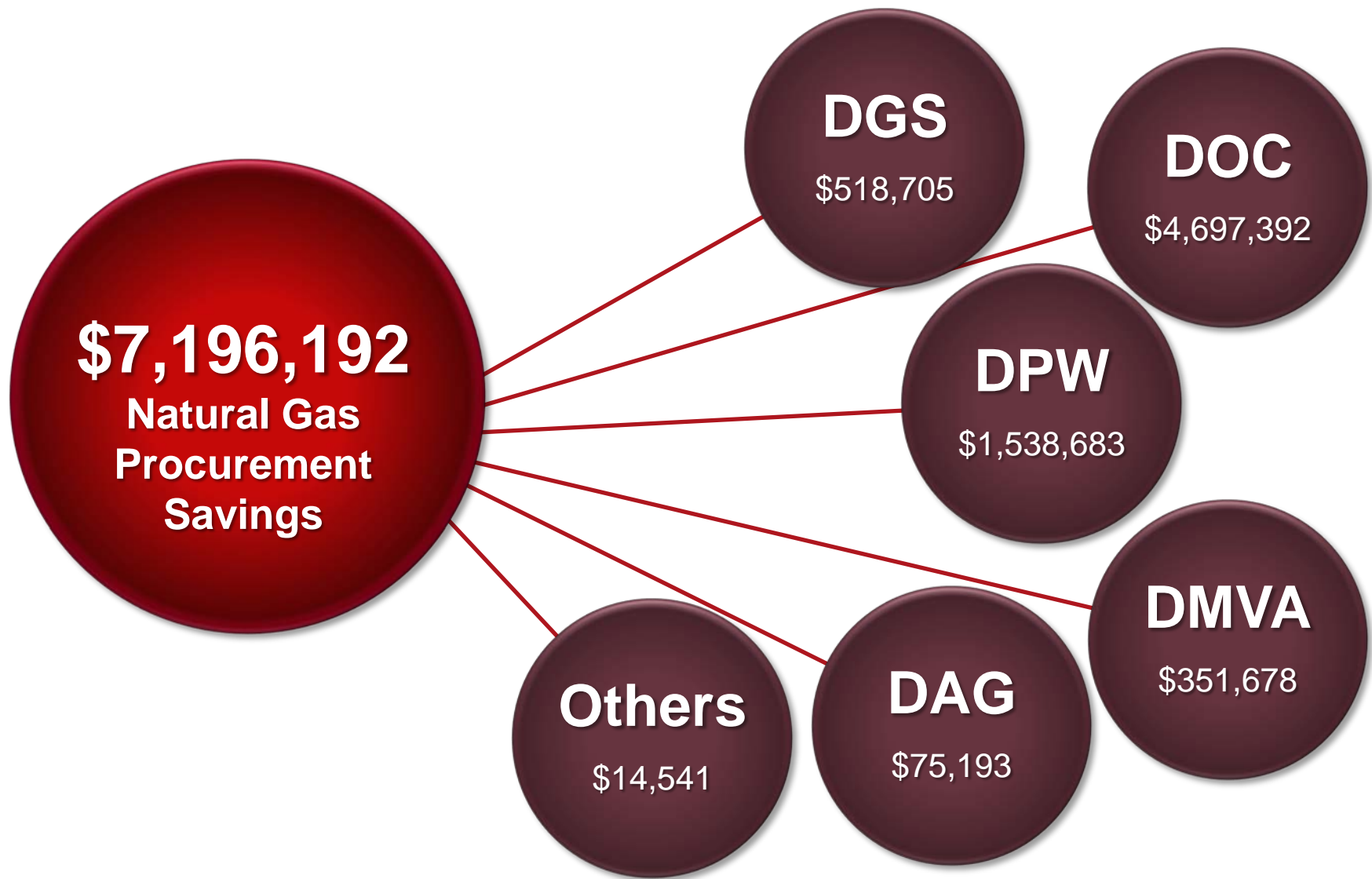
Electric Savings

- DGS, partnered with the Penn State Facilities Engineering Institute, successfully bid the commonwealth's electricity requirement for 2010, covering PPL territories. **There were 1200 accounts bid resulting in a cost savings of \$10.6 million.**
- 300 of the 1,200 accounts bid were for local governments, covering PPL territories at a **cost savings of \$1.1 million** (included in the \$10.6M).

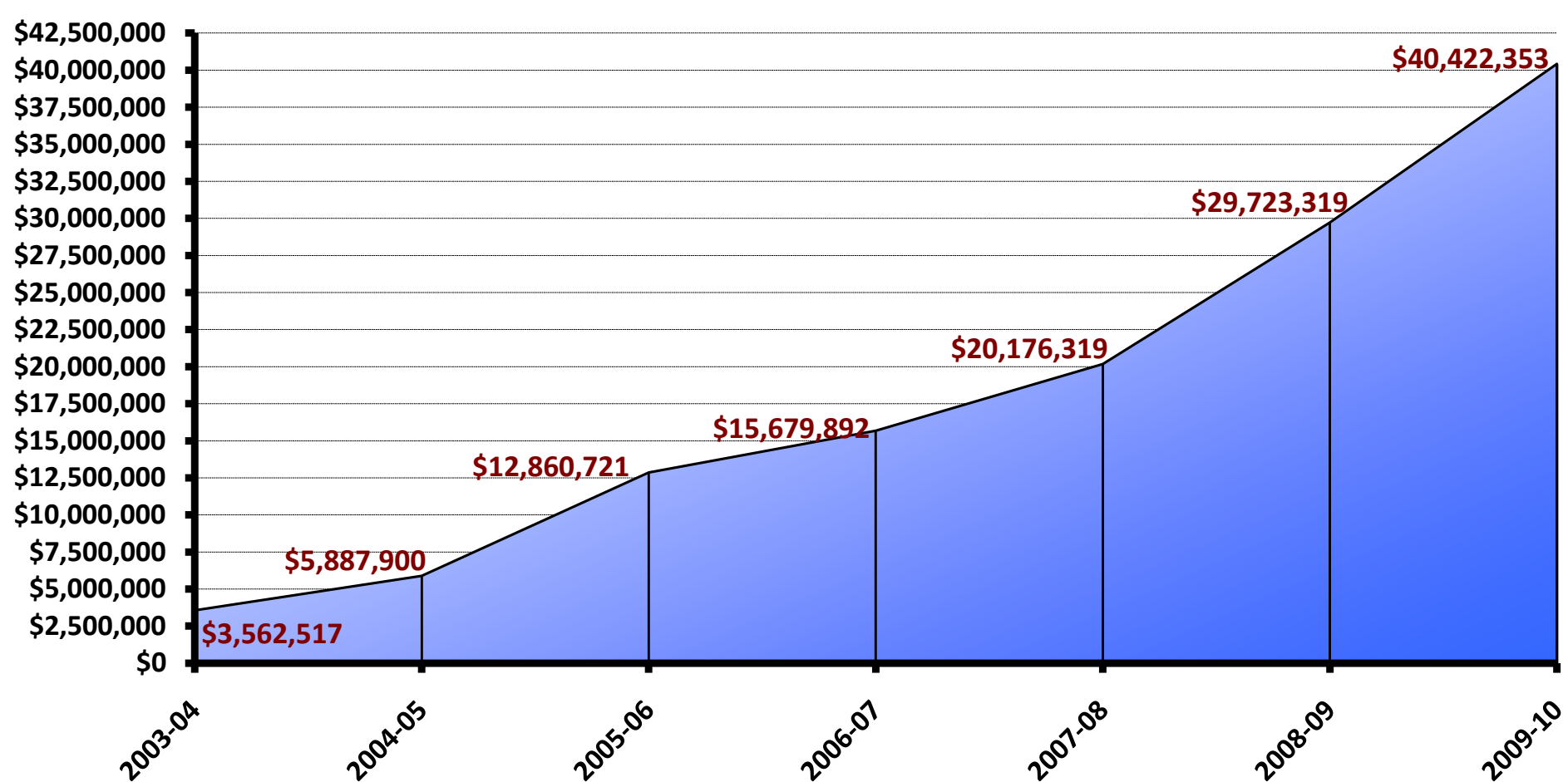


Natural Gas Savings

- DGS, through forward market contracting, has **saved \$7 million in natural gas costs versus tariff.**



Cumulative Commonwealth Annual Avoided Costs Electric and Natural Gas Procurement



CFL Lights

- DGS continued implementation of the Compact Fluorescent Light (CFL) bulb program. This program reduces electric consumption and generates an estimated \$1 million in annual savings.

III. Next Steps

Alternative Energy Generating Facilities

- DGS is developing a program to allow for us to place alternative energy generating facilities at Department of Corrections and Department of Public Welfare sites. These solar, wind or geothermal projects could power all or part of the facilities and also allow the sale of excess energy back to the grid.

Electric Demand Reduction

- DGS has implemented an electric demand reduction program. Using this program, the PJM grid pays the commonwealth for load reduction during peak demand periods at a cost savings of potentially \$1 million annually.

PJM Membership

- DGS petitioned the PJM Electric Grid for membership.
- PJM is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of 13 states and D.C.
- Members – parties who have signed the [PJM Operating Agreement](#) – share the benefits of power pooling and wholesale electricity markets through the coordinated operation of the electric system and organized markets in the PJM region.

If membership is approved, the commonwealth has the potential to save an additional 5-10% in energy costs.

Membership could result in \$15M in avoided costs.

We purchase 1 Million MW/yr (29% via PPL) at \$104.9M.

We expect to pay \$20M more with the rate increase.

We expect to pay \$12M more if we use 3rd party bidding and management.

We expect to pay only \$5M more if we use block and index via PJM, avoiding \$15M in rate increases.

Buying wholesale vs. retail saves taxpayers \$.

Allows development /execution of a long-term procurement strategy, mitigating market risk.

- Purchase incremental blocks of power of varying term lengths to cover base load
- Remainder of usage can be purchased in real-time or day-ahead markets based on pricing expectations.

More transparency for daily trades.

- Integrity of COPA spend with 3rd party trading

Opportunity for moving electrons on a least cost basis.

Opportunity of net metering between locations versus selling to the Grid.

- Applicable to COPA cogeneration facilities

Voice in decision making process at PJM Grid.

- Understand all elements of the power cost vs. 3rd party

Opportunity for trading and cashing in on Emission Reduction initiative once the new Fed Bill on CO₂ and emissions is passed.

Opportunity to receive/utilize FTR to mitigate congestion charge that are part of charges incurred for the transmission of electrons within the PJM Management area.

How to Mitigate our Risk:

- Manage using 3rd party
- Partnership & guidance from Penn State
- Doing nothing has the same risk as joining PJM. PPL, or any other utility, can raise rates and the user has no choice but to pay
- Modify the PJM Operating Agreement to:
 - Authorize DGS to act as the purchasing agency for state agencies as provided by law

- Modify the PJM Operating Agreement to:

Waive the working capital requirement as it is unconstitutional for DGS to incur debt on behalf of the state

Waive the default allocation assessment and indemnification requirement due to the conflict with Pennsylvania's sovereign immunity

Allow that all contractual dispute resolution be governed by the terms of the DGS Contract and not PJM dispute resolution procedure

Our Energy Strategy:

- Focus on demand management
- Focus on procurement of energy
- **Adjustment/learning to stay ahead of market conditions**