



2005 Energy Goals Are We Positioned To Succeed?

GSA Energy Center of Expertise

“Pathways to Profitability through Effective Energy Management”

Energy Center Mission

The ECOE Provides Energy Management Resources - Contracts, Products and People - to Help GSA, and the Federal Government as a Whole, Maximize Savings and Profitability through Efficient Energy Consumption.



Current Mandates for Energy

- EO13123 - Greening the Government through Efficient Energy Management
 - Mandates 30% BTU/GSF reduction over 1985 Baseline by FY2005 (35% reduction by FY2010) for standard facilities
 - Mandates 20% BTU/GSF reduction over 1990 Baseline by FY2005 (25% reduction by FY2010) for Industrial and Labs
 - Allows for BTU reduction credit for Green power purchases
 - Annual Report to Congress
 - Energy Scorecard - to President
 - Reduce Greenhouse Gas Emissions



We've Been Busy..

- \$310 Million Funded Energy Projects since 1990
- Financed Energy Projects
 - 17 ESPCs and 19 UESCs awarded to date which are complete
 - In Repayment (ie. Guaranteed savings already being realized...)
 - 466,000 Annual MBTu Reduction
- Green Power Procurements
 - ECOE awarded 3 to date
- Results from all current Efforts:
 - Achieved -22.5% reduction in Standard Facilities
 - Already Achieved 2010 Goal in Energy Intensive Facilities with reduction of -38.1% to date

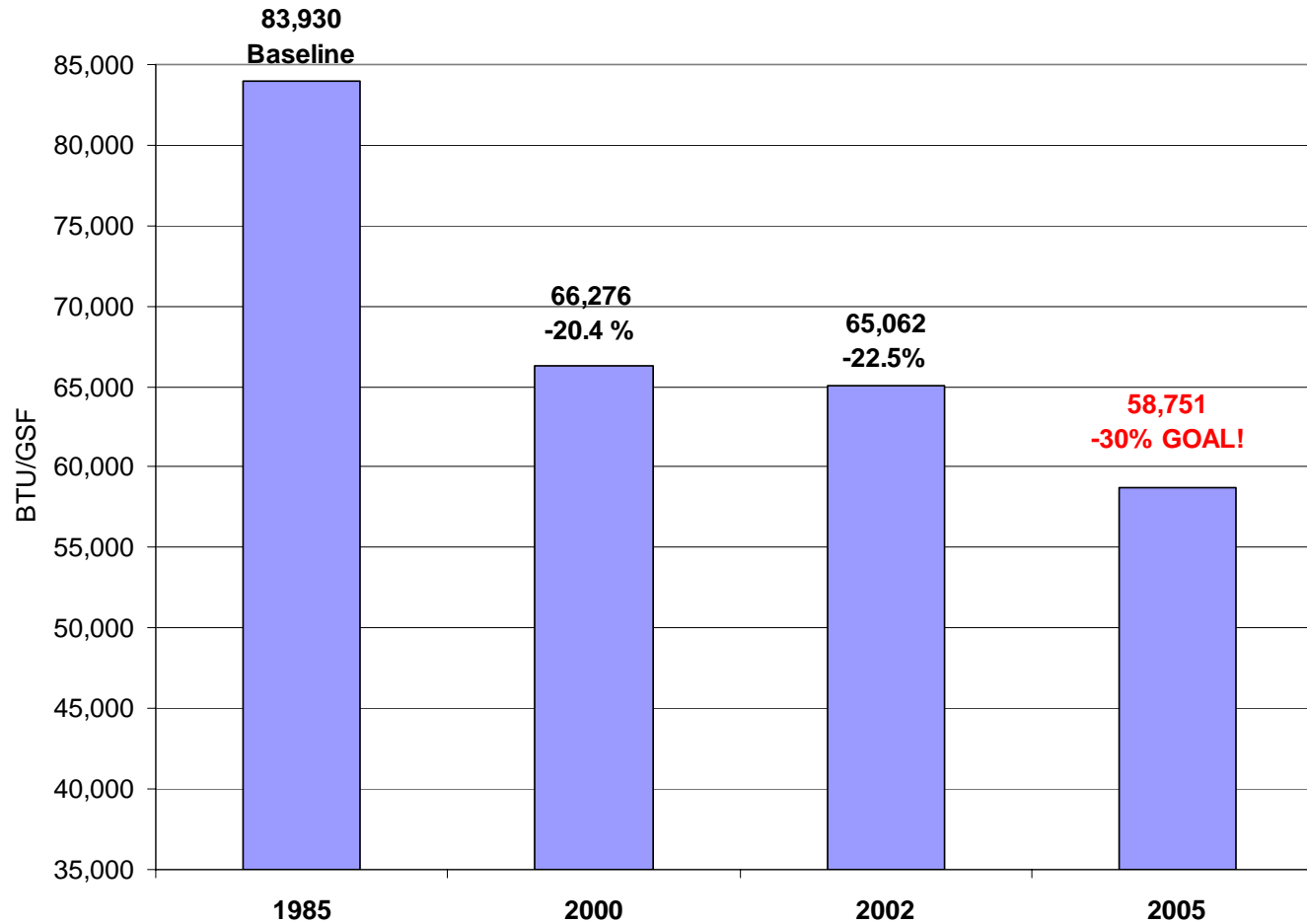


Current Reductions in Progress

- **FY02 Funded Energy Line Item Projects**
 - Issued \$2.4 Million in Allowances
 - Anticipated Annual 22,000 MBTu reduction
- **Financed Energy Projects - Awarded but not complete**
 - 42,100 Annual MBTu Reduction
 - Expect these reductions to be realized late FY03/early FY04
- **Anticipated Results from these Efforts:**
 - 64,100 MBTu reduction
 - Down to -22.8% reduction



GSA Energy Reduction Progress



Achieve Next Level.....

- Outstanding Effort to date -- 2005 Goal difficult to achieve
- Will require multi-tier strategy sustained over next 3 years
- Cooperative effort with all GSA programs and objectives
- Senior Management commitment
- 1,096,455 MBTus to GO!!



Energy Center Multi-Tier Strategy

- **TIER 1.1** BA55/54 Investment in FY03
- **TIER 1.2** ESPC/UESC Implementation
- **TIER 2:** FY03-FY05 Green Power Buys
- **TIER 3:** FY04/FY05 Continuous Commissioning Effort
- **TIER 4:** Energy Project Database Initiative / Savings Validation Effort
- **TIER 5:** Energy Awareness Campaign



Energy Center Multi-Tier Strategy

- **TIER 1.1: BA55/54 Investment in FY03**
 - Current Unfunded Projects Database \$34.4 Million
 - Projected 312,616 MBTu reduction realized by start of FY05 if funded in FY03
- **TIER 1.2: ESPC/ UESC Awards**
 - Project that 10 awards will be made in FY03 resulting in 61,000 MBTu reduction
- **Together these strategies:**
 - Meet other mandates of EO such as renewable project implementation, water conservation and EnergySTAR Labelled Bldgs
 - Benefit: Spend money now and reduce operating (utility and O&M) costs moving forward (reduced \$/GSF)



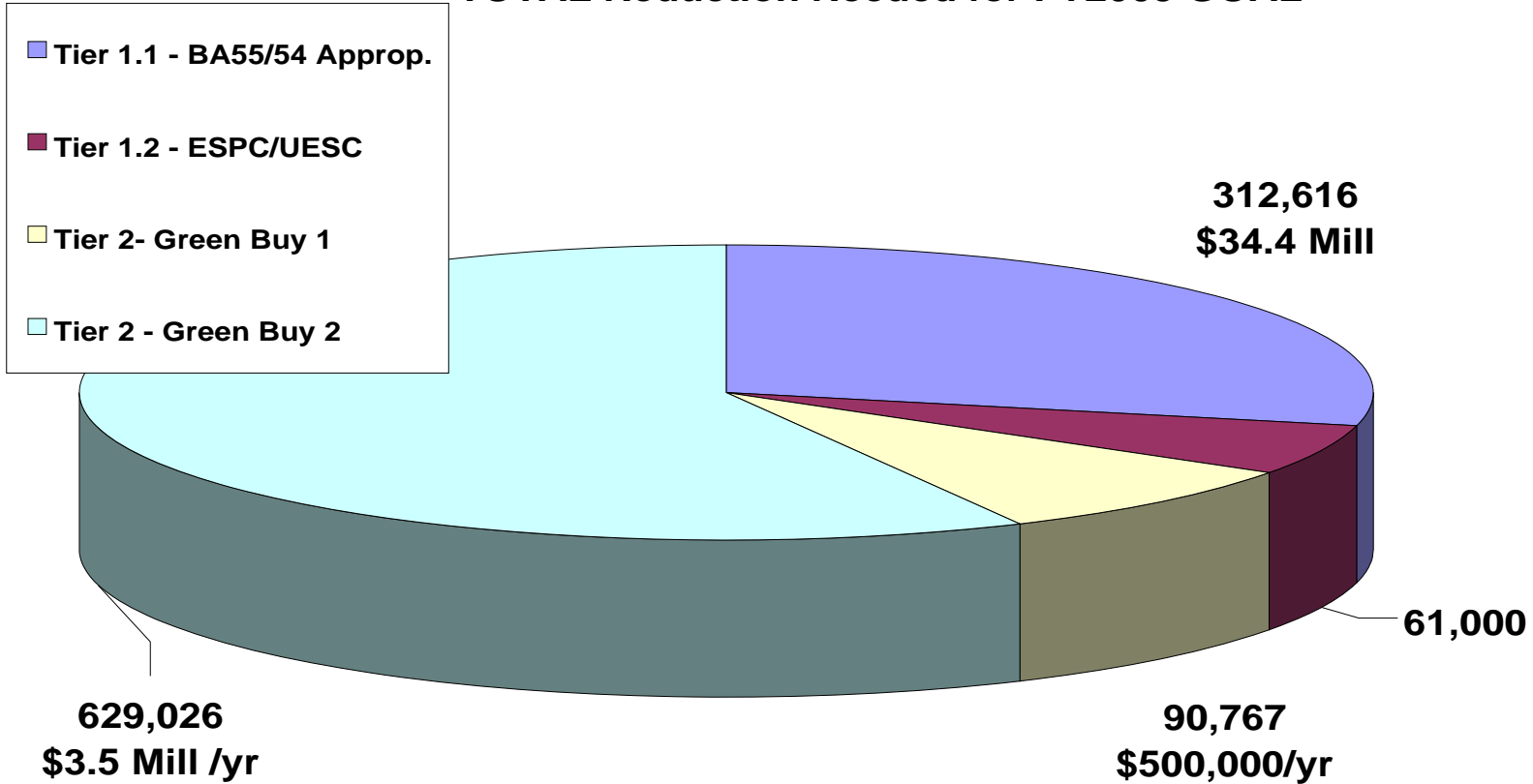
Energy Center Multi-Tier Strategy

- **TIER 2: Green Power Procurements**

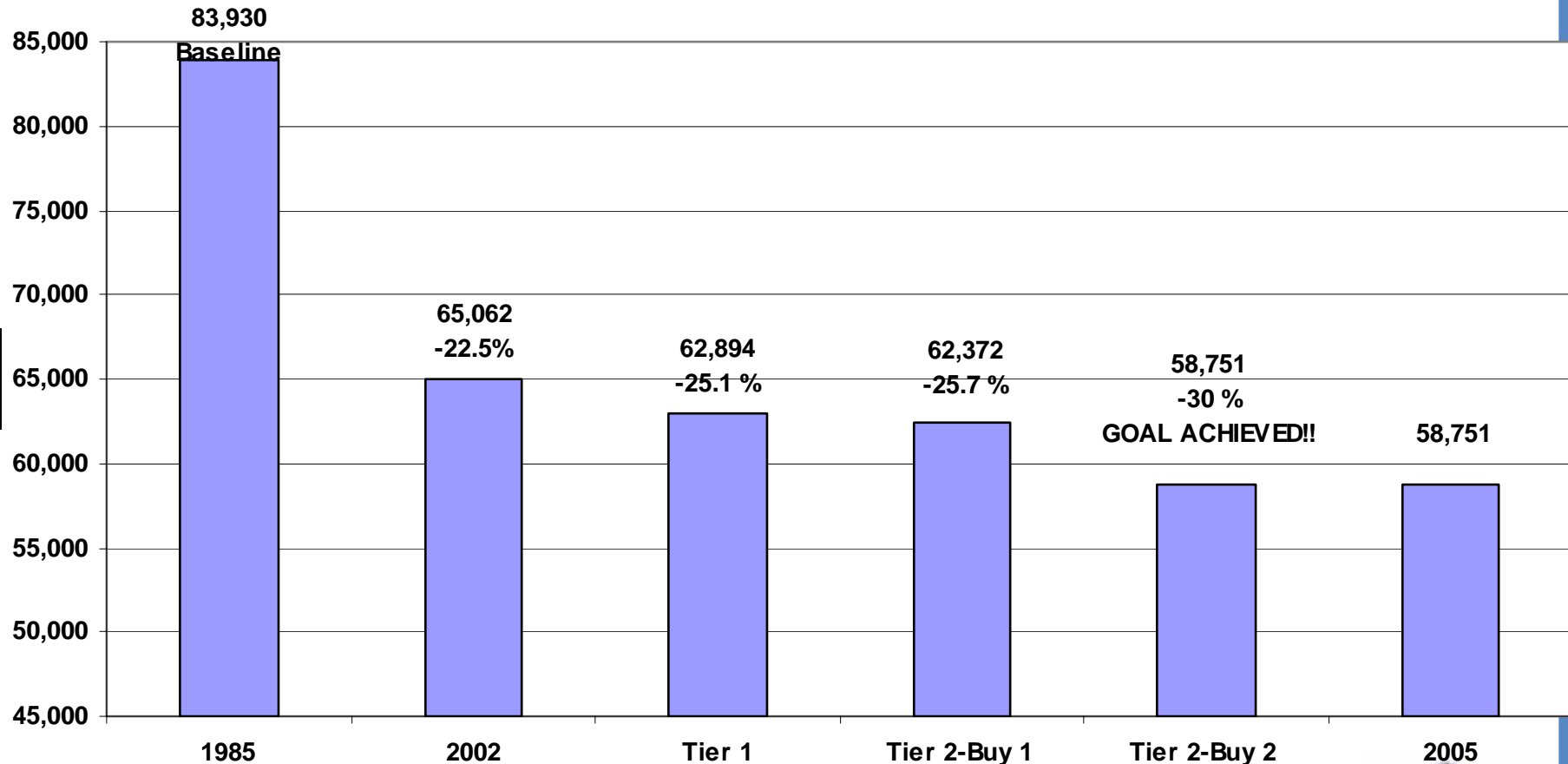
- Procurement 1: In FY03 extend current renewable Purchases through FY05: Provides for 90,767 MBTu Reduction Credit at a cost of \$500,000
- Procurement 2: Increase Purchases in FY04 and FY05 by an estimated 184,357 MWh at additional cost of \$3.5 Million Annually, reduction of 629,026 MBTu to achieve 2005 GOAL
- Procurement 3: If necessary in FY05– purchase enough green power to account for any shortfall in reduction levels – unknown costs associated
- Award contracts such that renewable power purchase extends through entire FY05
- Premium will vary by Region and need to be budgeted for in BA61
- Benefit: Reductions are very measurable/predictable and will occur when needed in FY05



MBTu Reduction Sources TOTAL Reduction Needed for FY2005 GOAL



GSA Reduction Plan Results



Energy Center Multi-Tier Strategy

- **TIER 3: Continuous Monitoring Effort**
 - Critical to maintained success of energy measures
 - Utilize ECOE metering capabilities to monitor real time energy use
 - Focus monitoring effort on 61 Bldgs in GSA inventory that comprise 50% of the utility budget
 - Interact on daily basis with Building Mgrs and Operators to realize savings opportunities



Energy Center Multi-Tier Strategy

- **TIER 4: Energy Project Database Integration**
 - Contracting to develop Energy Project database - pulls realtime info from IRIS, EUAS databases and weather
 - Capability to monitor progress of funded energy projects and actual realized savings
 - Implement in FY03
 - Validation tool - share with the Regions

- **TIER 5: Energy Awareness Campaign**
 - Necessary throughout all tiers
 - Intensify efforts in FY05 including tenant education and awareness

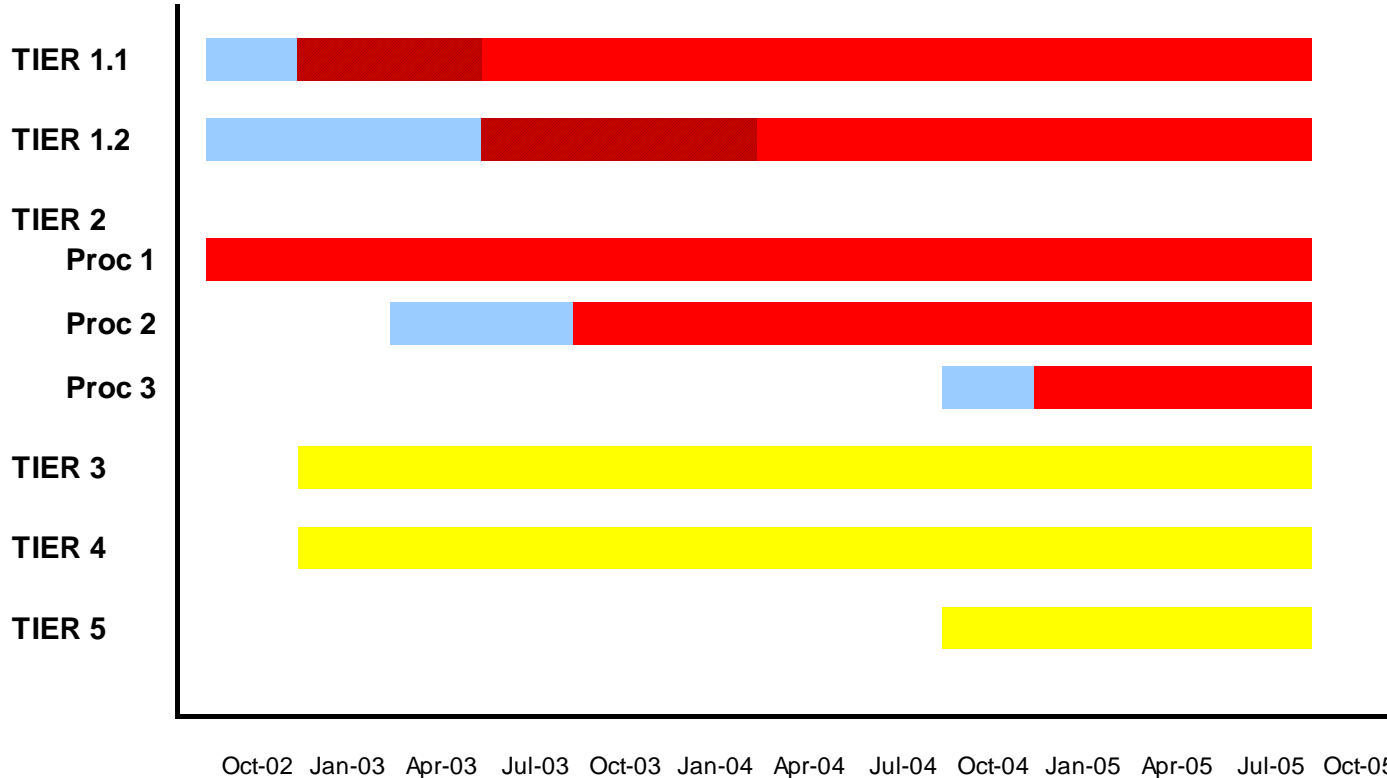


Cooperative Efforts Needed

- FY03 Senior Mgmt commit to allocation of adequate Funding levels and Project Implementation Commitment from Regions
- FY03 - FY05 Support Green Power Premium in Budget Process
- In FY03 - Major Renovations - Focus on Energy Performance through Integrated Quality Assurance program
- FY05 - Major Energy Awareness Campaign



TIMELINE for Rollout of Strategy



Tier 1.1 : BA55/54 Appropriation

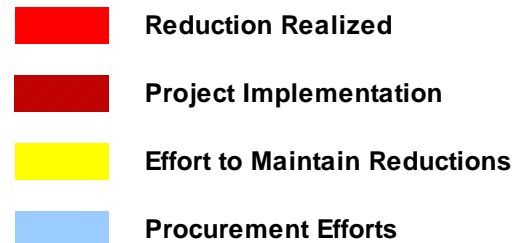
Tier 1.2: ESPC/ UESC Implementation

Tier 2: Renewable Power Procurments

Tier 3: Continuous Commissioning Efforts

Tier 4: Energy Project Database Integration Effort

Tier 5: Energy Awareness Campaign



Additional Factors

- **New Construction / Major Renovation**
 - Often coming online with higher BTU/GSF than current Regional levels
 - Validation of effectiveness of LEEDS and Energy Targets initiative on the above trend
- **Additional Needs of Customers**
 - Computer Rooms
 - Longer Operating Hours
- **Weather Variations can account + / - 1% of goal**
- **Inventory Changes**



Summary

- CRITICAL: All actions are funding dependent
- Current Status Quo – not on track to meet goal
- Grand Scale of things
 - \$224 Million Electric costs annually
 - \$4 Million for Green Purchases represents → 1.7% of annual budget



Resources

- GSA Energy Center of Expertise
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