



# ***EM Program Planning and Budget***

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***EM Environmental Management***

***safety ❖ performance ❖ cleanup ❖ closure***

# EM Mission

*“Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research.”*



- *Largest environmental cleanup effort in the world, originally involving two million acres at 108 sites in 35 states*
- *Safely performing work*
  - *In challenging environments*
  - *Involving some of the most dangerous materials known to man*
  - *Solving highly complex technical problems with first-of-a-kind technologies*
- *Operating in the world’s most complex regulatory environment*
- *Supporting other continuing DOE missions and stakeholder partnerships*

# EM Life-cycle Cost

## Life-Cycle Cost Estimate for Current EM Scope

**\$274 - \$330B**  
**2050 - 2062**

**Remaining EM  
Work Scope  
\$205 - \$260B**

**1997 - 2007  
\$69B**

**FY 2008  
Environmental Liability**

## New EM Scope

- ❖ **NNSA, SC and NE identified cleanup work for EM consideration**
- ❖ **306 surplus facilities**
- ❖ **34 types of materials**
- ❖ **\$3.7B-9.2B Cost estimate**

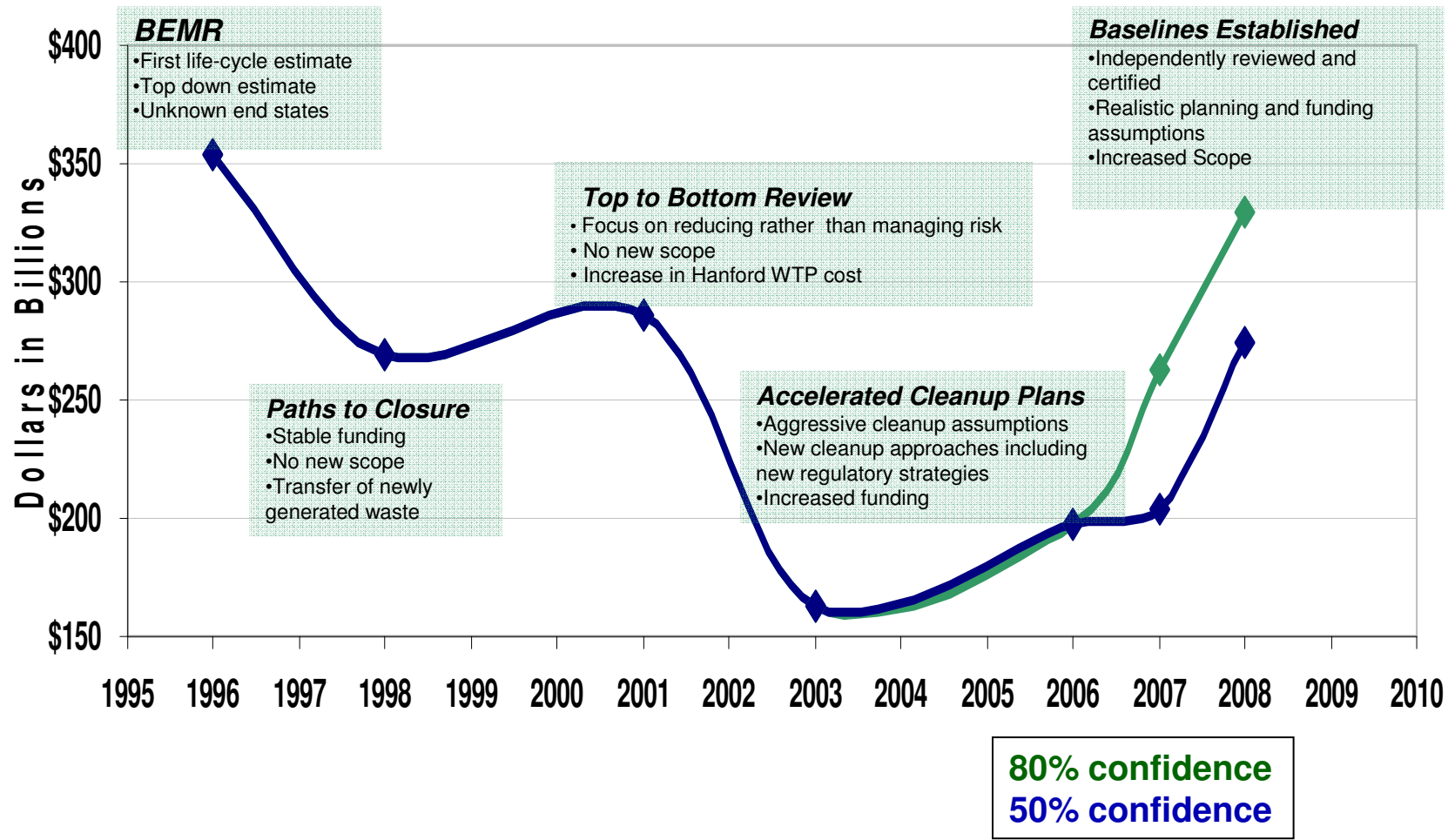


**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

# EM Life-cycle Cost

## Evolution of EM Life-cycle Cost



# EM Life-cycle Cost

## Evolution of EM Life-cycle Cost

1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

### **BEMR**

- First life-cycle estimate
- Top down estimate
- Unknown end states

### **Paths to Closure**

- Stable funding
- No new scope
- Transfer of newly generated waste

### **Top to Bottom Review and Accelerated Cleanup Plans**

- Aggressive cleanup assumptions
- New cleanup approaches including new regulatory strategies
- Increased funding
- Portsmouth & Paducah GDP D&D removed from scope
- Office of Future Liabilities responsible for any new scope
- Removal of Pu from Hanford
- Low activity tank waste treated/disposed in situ
- Transfer of spent fuel program to RW
- Transfer of H canyon to NNSA in FY2008
- No treatment of Idaho calcine waste

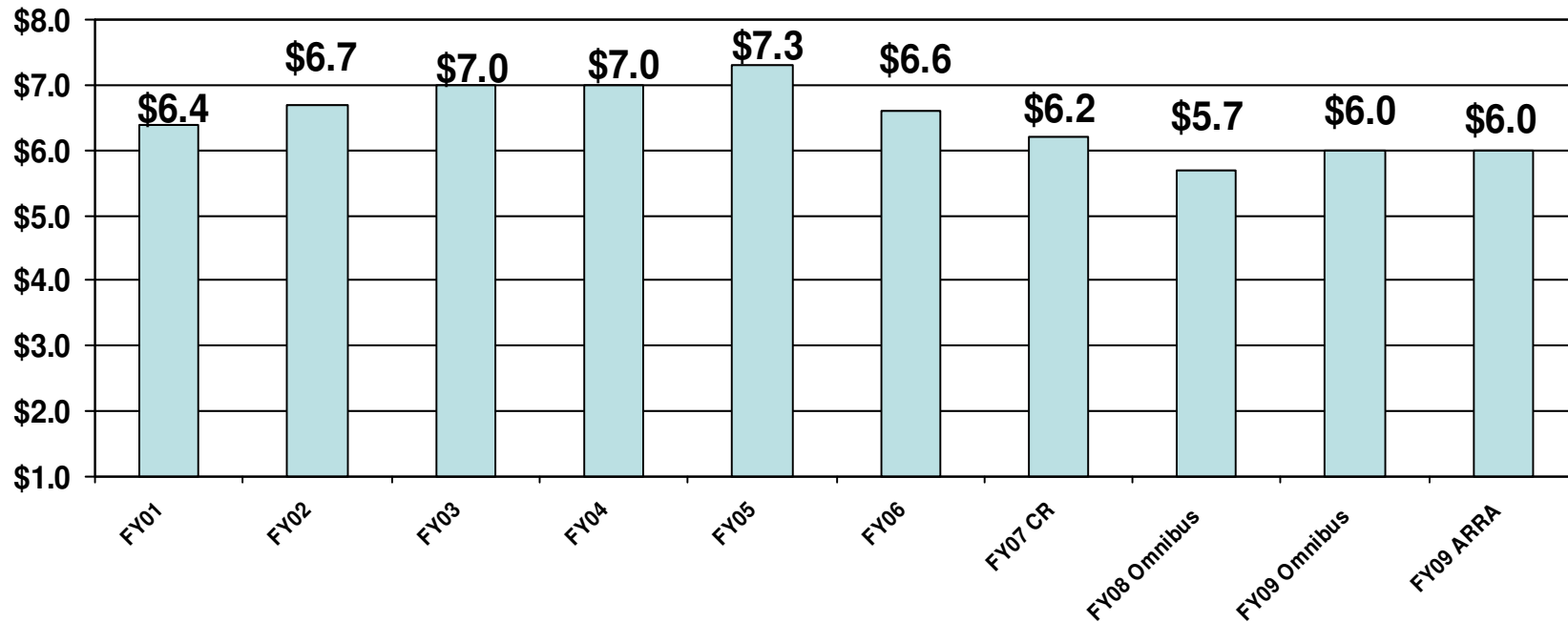
### **Certified Baselines**

- Re-baseline to more realistic funding assumptions
- Increased Scope:
  - Hanford WTP due to changing requirements
  - More robust design criteria for SRS Salt Waste Processing Facility
  - Los Alamos Consent Order
  - Portsmouth & Paducah GDP D&D
  - Pension & benefit liabilities
  - SNF program remains in EM
- New scope:
  - IFDP at Oak Ridge
  - Treatment and disposal of U233 in Building 3019 at Oak Ridge
  - Consolidation of Pu at SRS
  - Disposition of 13 MT of Surplus PU utilizing H-canyon
  - No in tank disposal of low activity waste activity tank
  - Treatment of Idaho calcine waste

Key Scope Assumptions

# EM Funding History

\$ in billions

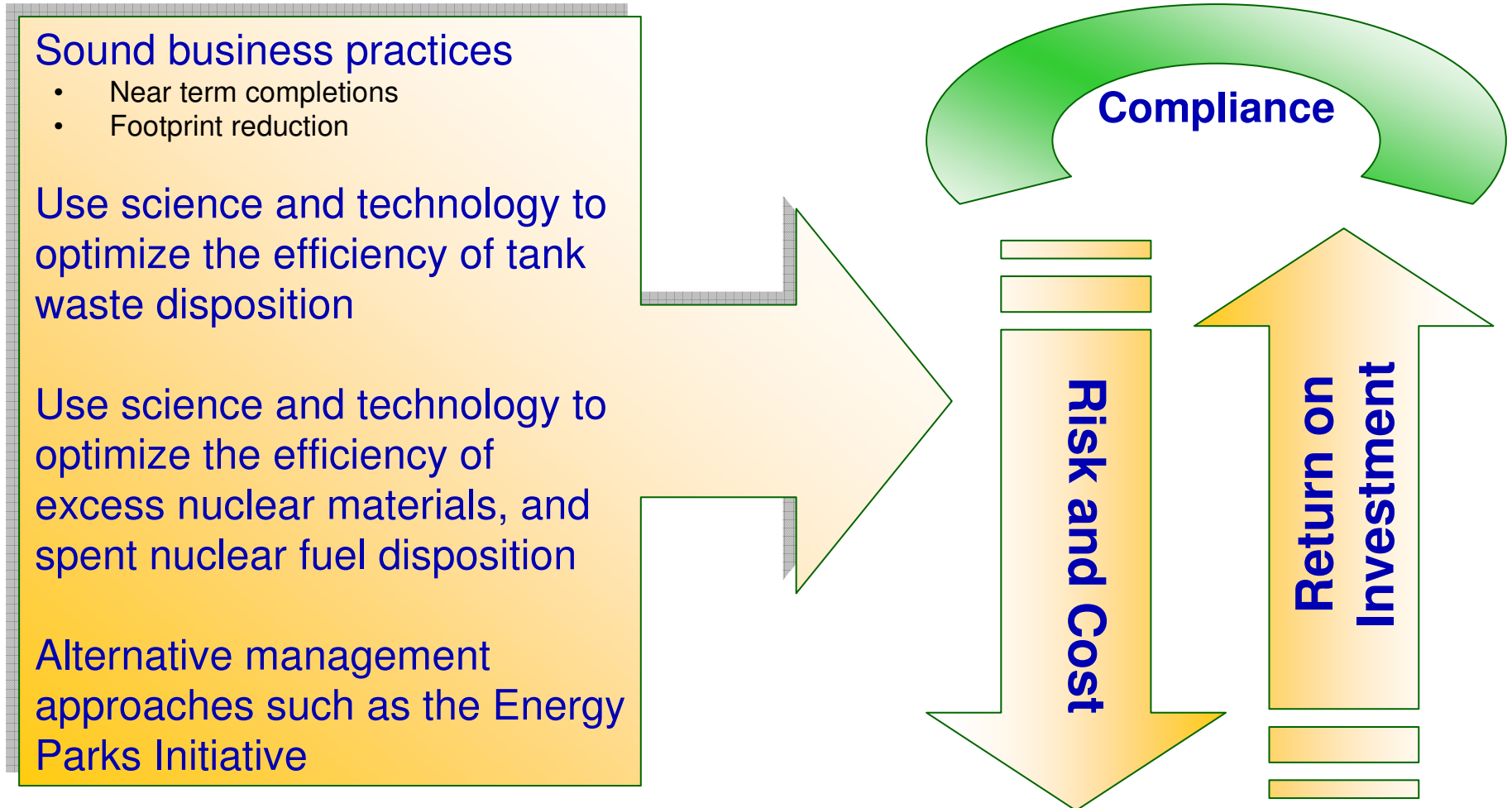


# Top-Level Goals

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- *Risk Reduction*
  - *Ensure the safety and health of the public and the workers*
  - *Protect the environment*
- *Compliance*
  - *37 compliance agreements with state and federal regulatory agencies*
- *Complete building the capability for dispositioning tank waste, nuclear materials, and spent nuclear fuel*
  - *Improve construction project performance*
- *Footprint Reduction*
  - *Reduce the active area and number of sites*
  - *Provide maximum return on money invested in EM – reduces overall life-cycle cost of cleanup program*
  - *Focus on proven successes – solid waste disposal, D&D of contaminated facilities, and soil and groundwater remediation*
  - *Create thousands of jobs through economic recovery investment*
- *Reutilization of Assets/Energy Parks*
  - *Transform EM resources: land, infrastructure, technologies, highly-skilled workforce into Energy Parks*

# Cleanup Approach





# Program Priorities

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- *Essential activities to maintain a safe and secure posture in the EM complex*
- *Radioactive tank waste stabilization, treatment, and disposal*
- *Spent nuclear fuel storage, receipt, and disposition*
- *Special nuclear material consolidation, processing, and disposition*
- *High priority groundwater remediation*
- *Transuranic and mixed/low-level waste disposition*
- *Soil and groundwater remediation*
- *Excess facilities deactivation and decommissioning (D&D)*

# Recovery Act Priorities

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- *Maximum return on money invested*
- *“Shovel Ready” Projects*
  - *Fully defined cost, scope and schedule*
  - *Established regulatory framework*
  - *Proven technology*
  - *Proven performance*
- *Contractual mechanisms in place*
  - *Ability to deploy resources quickly and accountability for results*
- *Ability to place “Boots on the Ground”*
  - *Create and / or preserve jobs*



# Recovery Act Scope

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- *Scope that can most readily be accelerated to take advantage of Recovery Act funds*
  - *Soil and water remediation*
  - *Radioactive waste disposition*
  - *Facility decommissioning*
- *Site closure and EM completions*
- *Reduce the EM footprint*
  - *Across the complex*
  - *Within a site*



# Recovery Act Status

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- *Aggressive implementation—ARRA funding within two weeks*
- *Opportunities identified at 17 sites in 12 states meeting ARRA principles (totaling \$6B through FY 2011)*
  - *ARRA proposals developed by sites with site priorities in mind*
  - *ARRA proposals accelerate work activities that have compliance milestones associated with them*
  - *Flexibility in work scope, but first and foremost, ARRA funds are about job creation*
- *Applying Project Management Principles*
  - *Graded approach*



# Recovery Act

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- *EM has been given the opportunity to make additional investments in lower risk activities and complete building the capability for dispositioning tank waste, nuclear materials, and spent nuclear fuel*
- *With the additional funding EM will be expected to achieve results*
  - *Create and preserve thousands of jobs*
  - *Provide significant environmental cleanup*
  - *Make large tracts of land available for re-utilization*