



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Strategic Management of Excess Facilities and Infrastructure

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Background

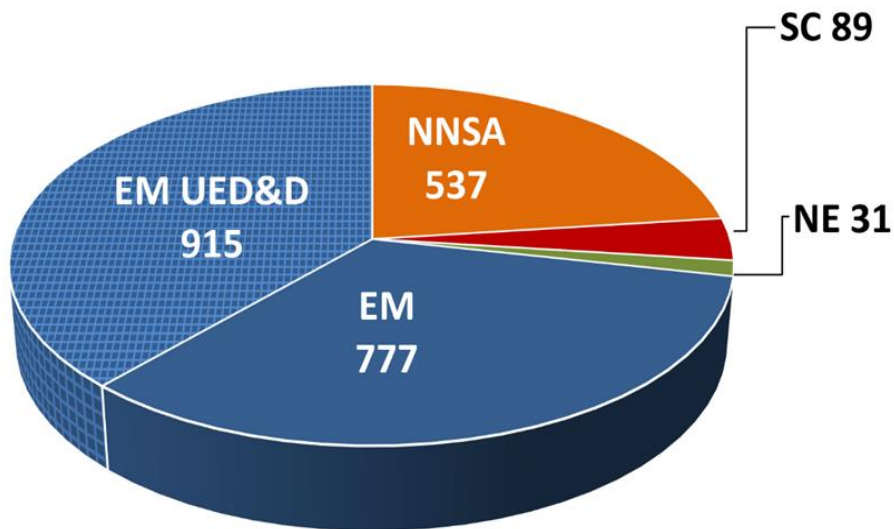
EM Established as a Program in 1989

- Since 1989, over 5,000 excess facilities assigned to EM
 - Nearly 3,000 demolished (a few transferred to community reuse)
- In 2015, the Secretary addressed infrastructure and excess facilities issues by creating the Infrastructure Executive Committee (IEC) and the Excess Contaminated Facilities Working Group (ECFWG)
 - Comprised of all major DOE Program Offices, the IEC and ECFWG address infrastructure and excess facilities issues from a DOE corporate perspective
 - Has led to broader understanding of infrastructure/facilities issues across DOE program offices
- IEC and ECFWG analysis and documentation resulted in Congressional plus-ups for both infrastructure and excess facilities

Excess Facilities The Challenge

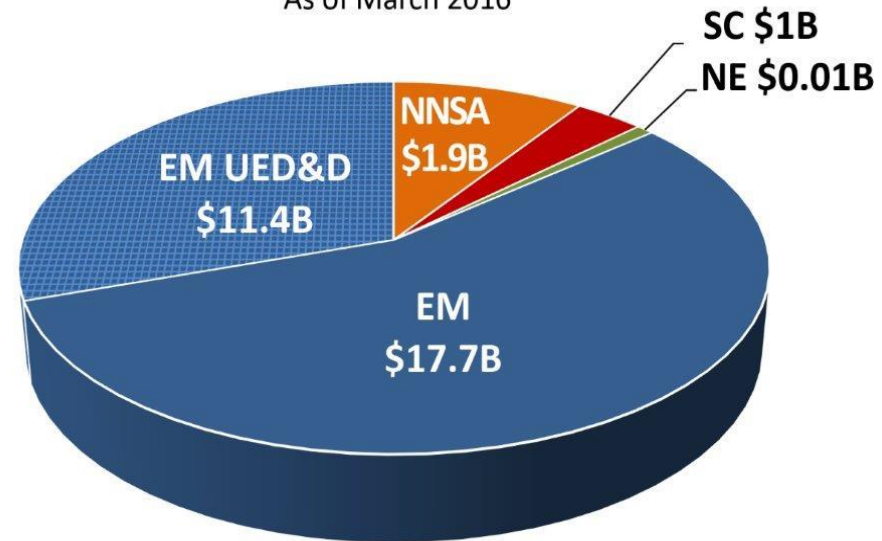
Total Number of Excess Facilities: 2,349

As of March 2016



Estimated ROM Cost to D&D 2,349 Excess Facilities by Current Owner: \$32B

As of March 2016



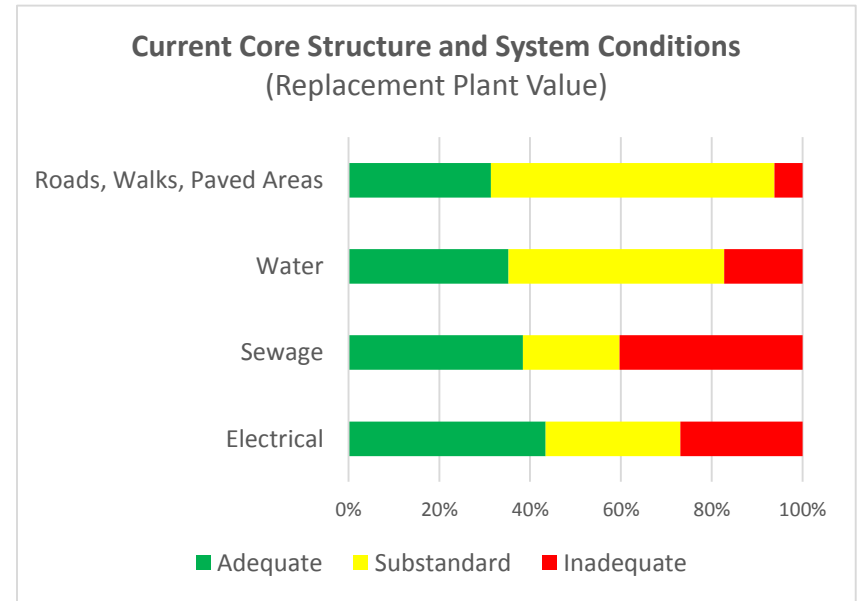
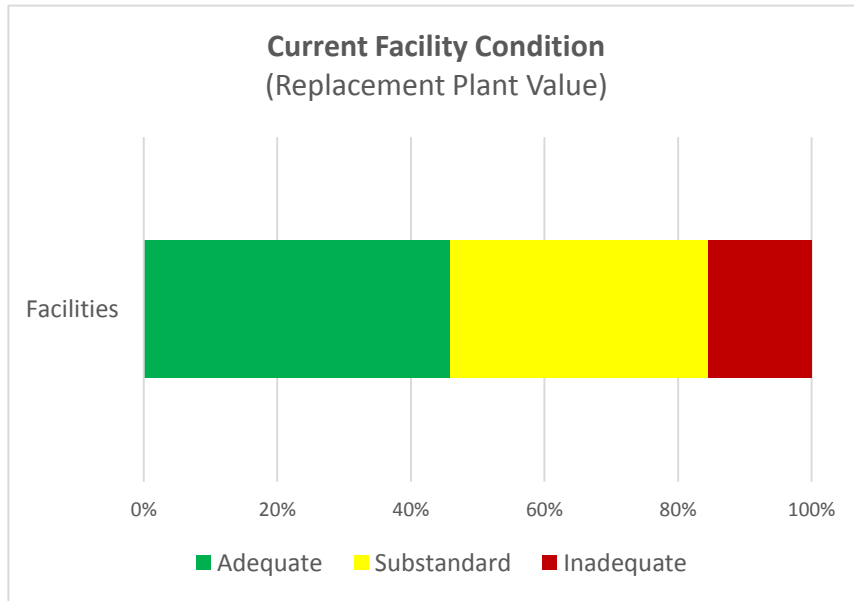
General Purpose Infrastructure

The Challenge

- Average age of buildings: 35 years
- Average age of supporting infrastructure: 39 years
- Scope
 - 10,095 buildings totaling 119 million square feet (owned and leased)
 - \$131 billion Replacement Plant Value (excluding land)
 - 2.4 million acres
 - \$2 billion in annual operating costs

General Purpose Infrastructure

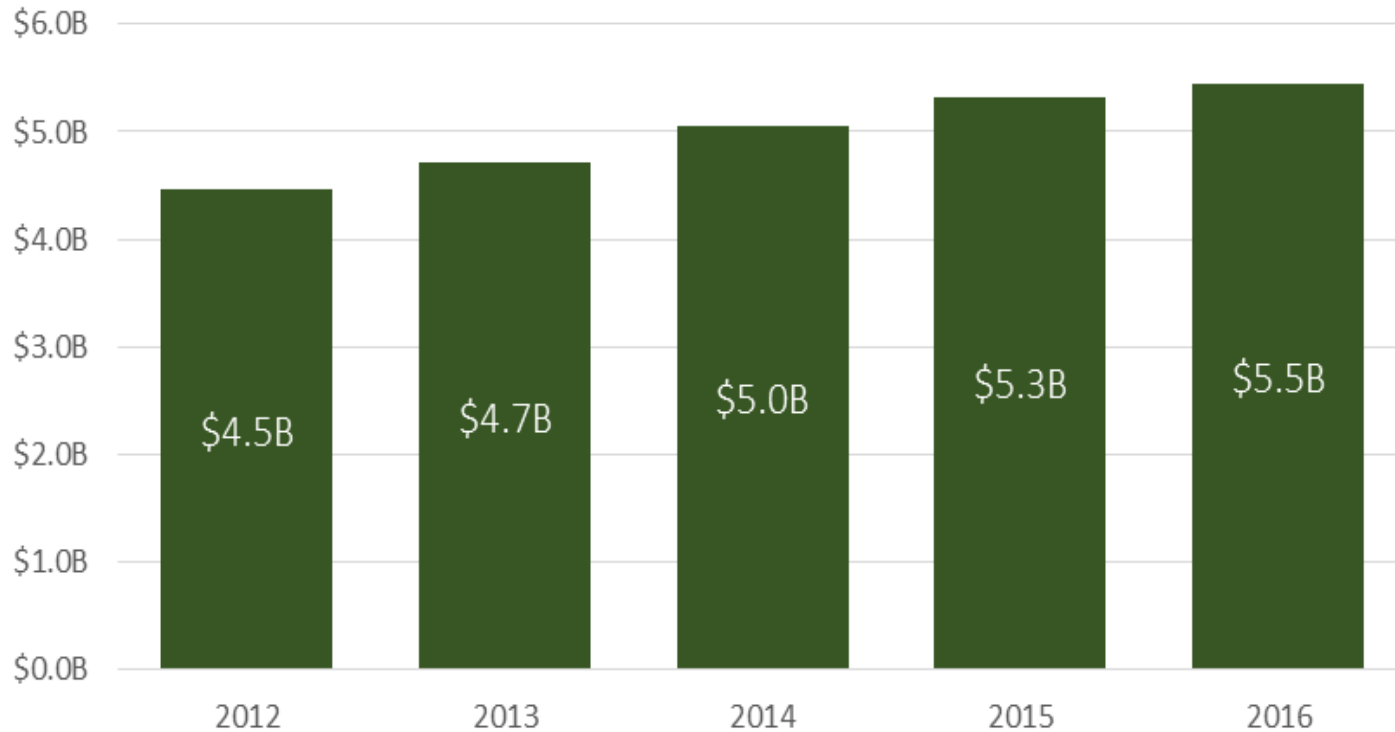
The Challenge



- \$5.5 billion in deferred maintenance
- About \$9 billion in repair needs

Deferred Maintenance The Challenge

Deferred Maintenance



Constraints/Barriers & Risks

- Constraints/Barriers
 - **Budgetary considerations**
 - **Regulatory Agreements** drive a waste management focus
 - **Program and Site focus** vice DOE Complex focus
- Risks
 - **Continued degradation** of infrastructure and facilities will impact ability to support the EM mission in a timely and cost effective manner
 - **Cost and schedule** of mission completion will **increase**
 - **Increased probability & frequency of accidents**, e.g., WIPP incidents from 2014, PUREX tunnel partial collapse in 2017

Actions Taken

- **Mechanism to identify and prioritize necessary investments** across all DOE sites – the Integrated Facilities and Infrastructure Crosscut
- After incidents at WIPP, EM analyzed deferred maintenance on Safety Systems and identified conditions which would increase risk
- Following the PUREX Tunnel collapse, a new effort to take a broader look at surveillance and maintenance, deferred maintenance and similar activities is underway – **Extent of Condition Review** ongoing
- EM reviewed “min safe” costs at all sites to understand drivers and found that costs associated with maintaining aging infrastructure are increasing

Moving Forward

- Improved approaches to **capture, analyze and forecast condition of infrastructure/facilities** and associated maintenance & repair cost
- Develop and implement improved approaches to **ensure the highest priority needs are identified** and considered for funding
- **International collaboration** ongoing (US – UK – Canada) to address issues and benefit from lessons learned
- Seek opportunity for inclusion in the **Administration's infrastructure focus**
- Continue to research budgetary options (possible **alternative financing** opportunities)
- Continue investment in **innovative technologies** and efficient approaches