EERE Progress

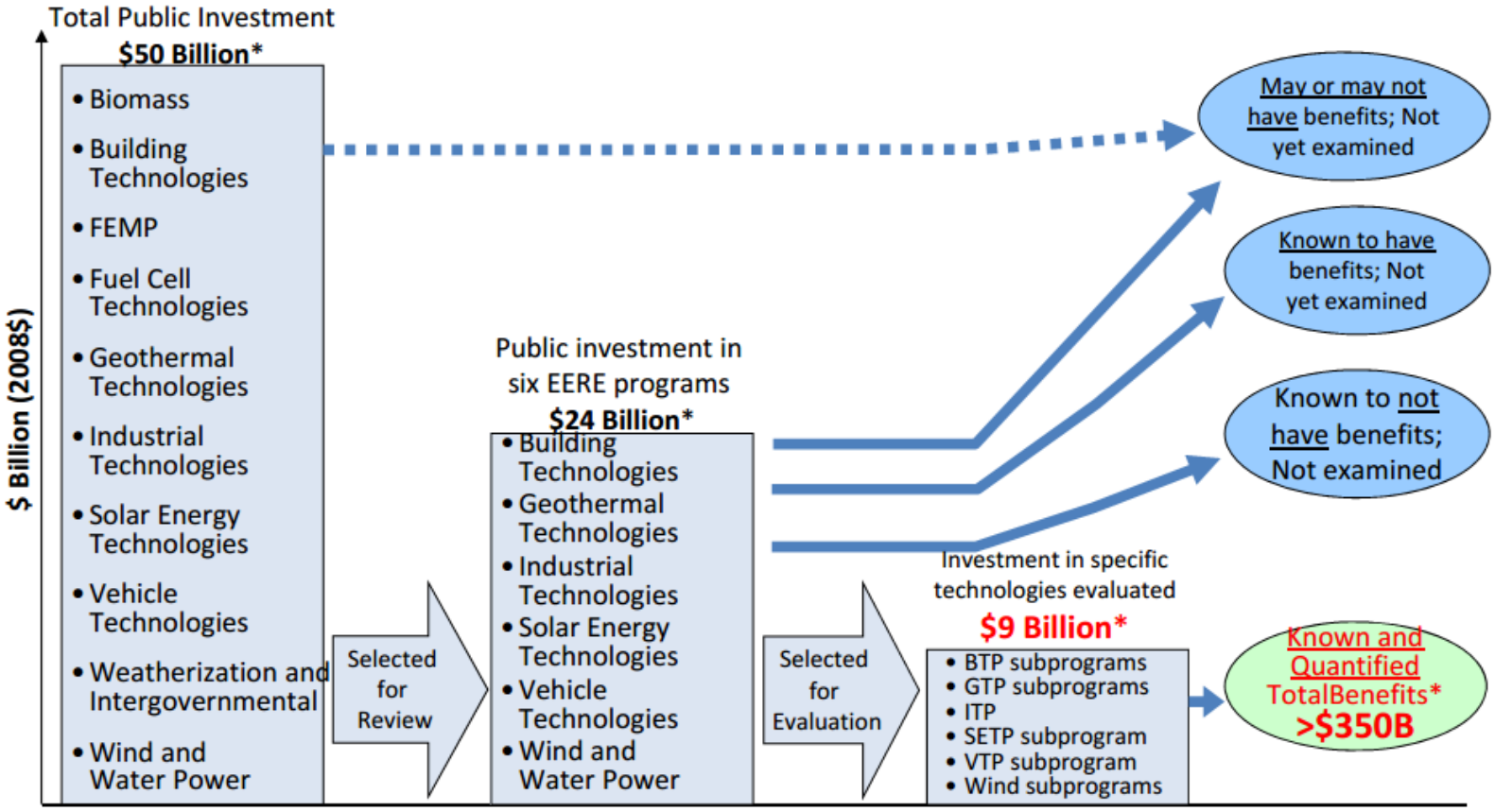
- **Merit Review**
  - Select the right projects through rigorous independent merit review

- **In-Progress Peer Review**
  - Ensure that these projects are being done right
  - Evaluation of Impact of In-Progress Peer Review: Hydrogen Program--$27M/$1.8M

- **Stage-Gate Review**
  - Graduation, Termination, perhaps further Gestation

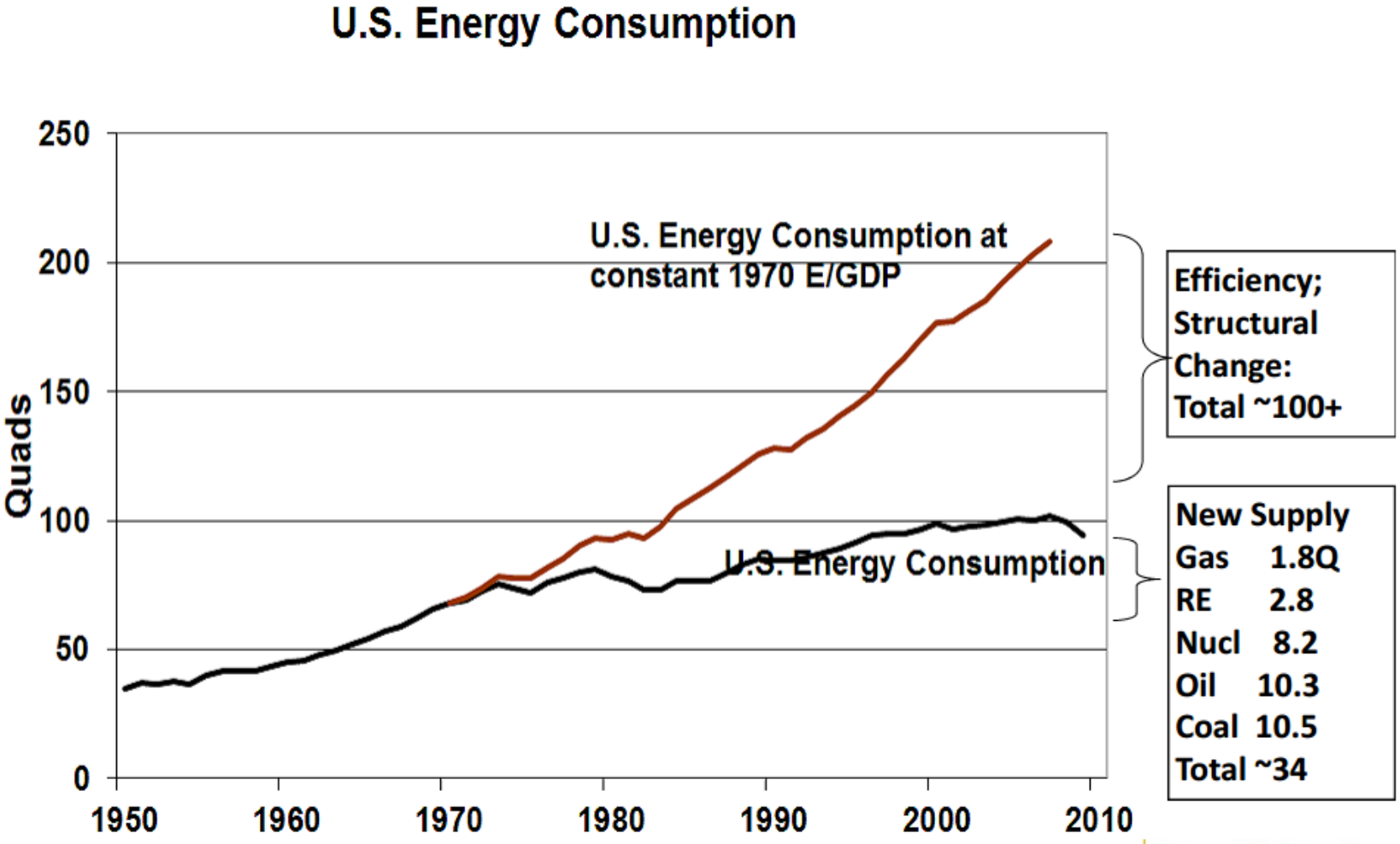
- **Impact Evaluations:**
  - Completed more than 20 impact evaluation studies since 2008
  - Completed 5 knowledge diffusion impact studies
  - More than 90% of DOE's retrospective impact evaluations conducted since 2008 have been done by EERE. Several EERE program evaluation resource guides have been made available to Federal Evaluators (Government-wide) by GAO.
  - http://www1.eere.energy.gov/ba/pba/performance_evaluation.html
  - http://www1.eere.energy.gov/analysis/pe_plans_reports.html

Economic returns analyzed to date



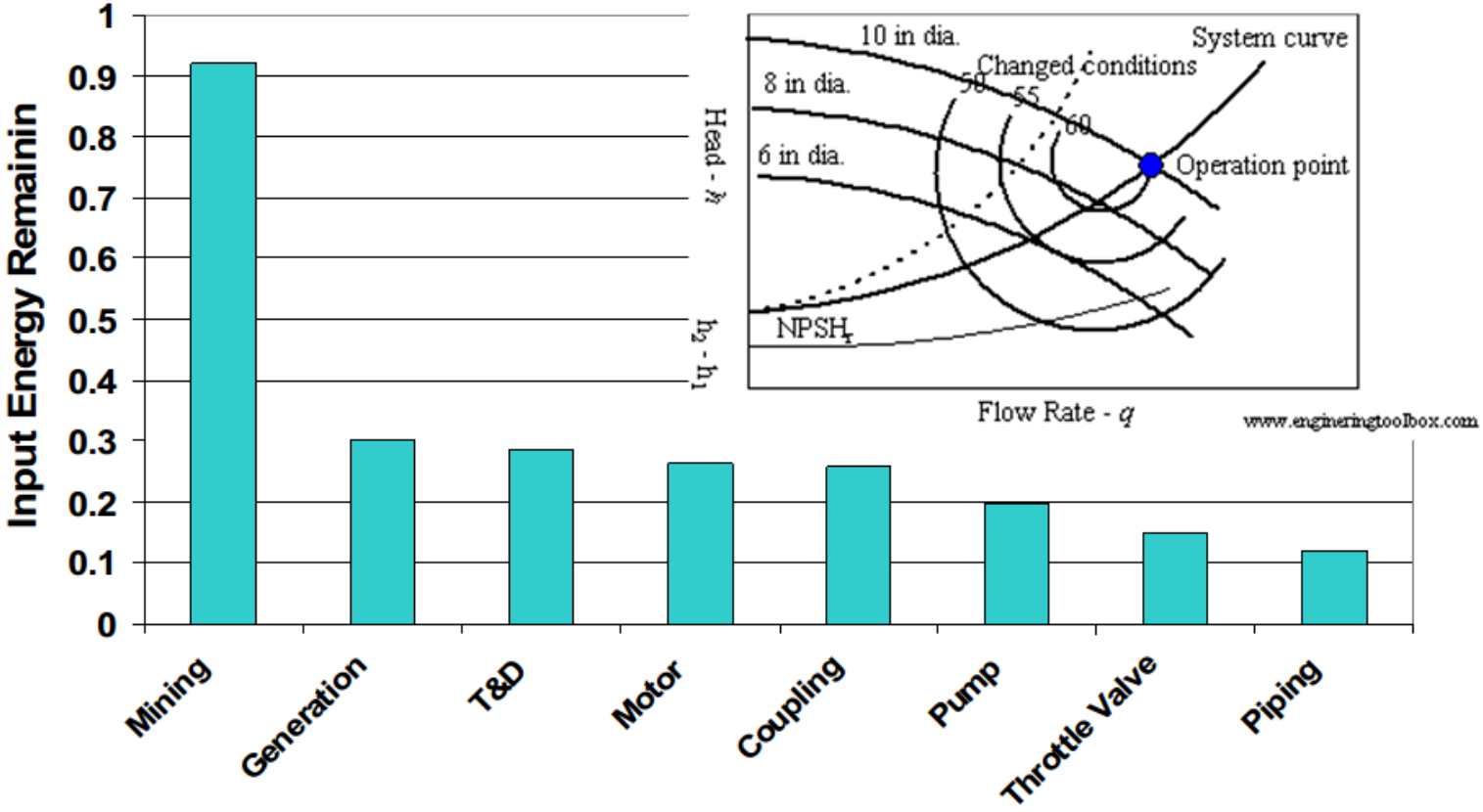
[a] *All dollars are expressed in 2008 inflation-adjusted dollars, not discounted.*
[b] *$326B net benefits = $350B total benefits - $24 investment in six programs.*
* *Preliminary*

Energy Efficiency: 1970-2010



End-use Efficiency Upstream Leverage

Motor Drive System Efficiency



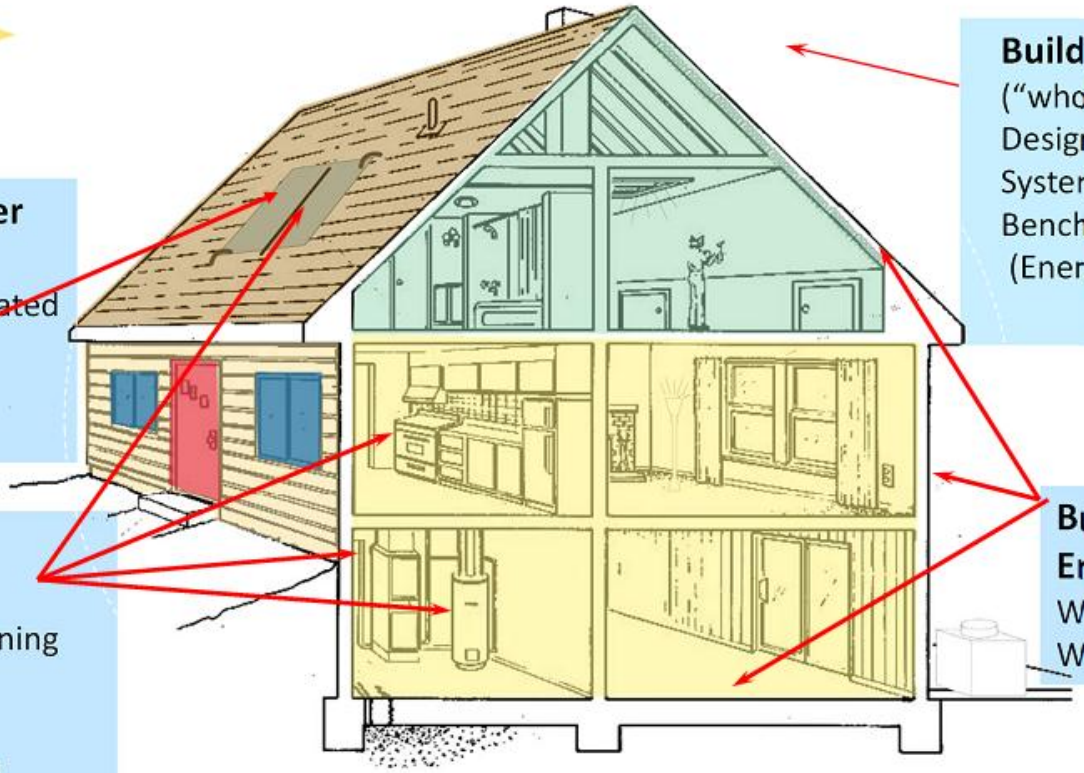
Reducing energy loss in end-use systems has large leverage upstream!

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Low-Energy Buildings

(Buildings use ~40% of all energy, ~70% of electricity)

On-Site Power Systems
Building Integrated Photovoltaics
Fuel Cells



Building Systems
("whole-systems")
Design tools
System Integration
Benchmarking
(EnergyStar, LEED)

Building Equipment
Space conditioning
Lights
Appliances
Smart Controls

Building Envelope
Windows,
Walls, Floors

Reduce total building energy use by 60–70 percent

Highly efficient, cost-effective solid-state lighting technologies, advanced windows and space heating and cooling technologies.

Source: BTP

Solar Decathlon

8-18 October 2009

Architecture
Engineering
Market Viability
Communications
Comfort

Appliances
Hot Water
Lighting
Energy Balance
Net Metering

Cornell; Iowa State; Penn State; Rice; Team Alberta (U. Calgary, SAIT Polytechnic, Alberta College, Mount Royal College); Team Boston (Boston Architectural College, Tufts); Team California (Santa Clara U., California College of Arts); Team Missouri (Missouri S&T, U. Missouri); Team Ontario/BC (U. Waterloo, Ryerson, Simon Fraser); Technische Universitat Darmstadt; Universidad Politecnica de Madrid; Ohio State; U. Arizona; U. Puerto Rico; U. Illinois-Urbana; U. Kentucky; U. Louisiana-Lafayette; U. Minnesota; U. Wisconsin-Milwaukee; Virginia Tech.