

**THE IOWA
STORED
ENERGY
PARK**



Iowa Stored Energy Park EESAT 2007

**Westin St. Francis Hotel
San Francisco, California
September 24, 2007**

**Kent Holst, Development Director
Iowa Stored Energy Park**

Funded in part by the Energy Storage Systems Program of the U.S. Department Of Energy (DOE/ESS) through Sandia National Laboratories (SNL).

CAPTURING THE POWER OF NATURE

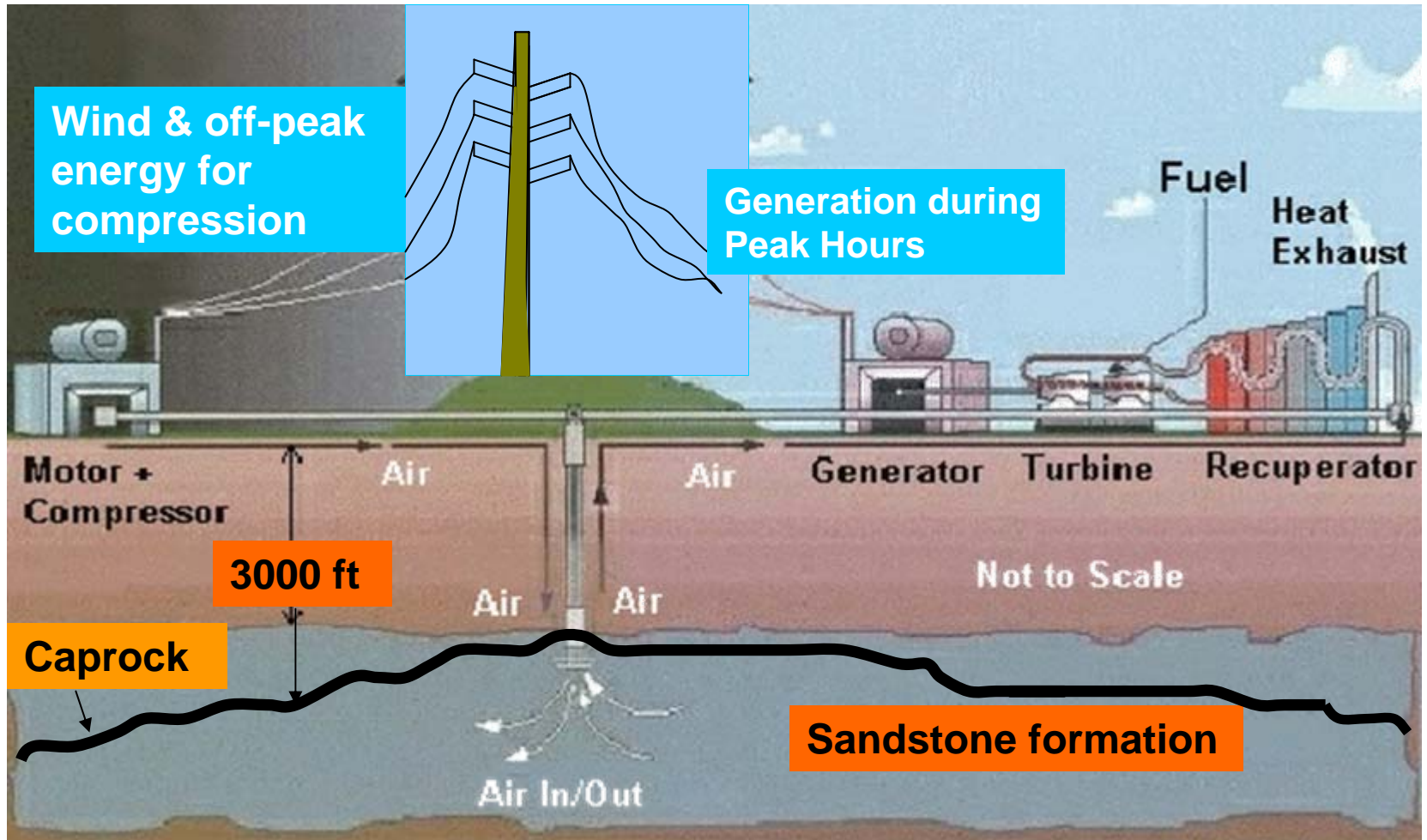
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What is CAES?

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“It’s The Responsible Thing To Do”

Enhances value of wind energy

Controls energy costs

Safe for the environment

Conserves fossil fuels



ISEP Milestones:

2002 – IAMU Study

2003 - \$680,000 in Municipal funds.

Burns & McDonnell Conceptual Design

Began search for geological sites.



2005 – \$1,500,00 Federal earmark.

Seismic surveys

Black & Veatch Feasibility Analysis

2006 - \$1,500,000 Federal earmark.

Found suitable geologic formation.



2007 – Public announcement of site.

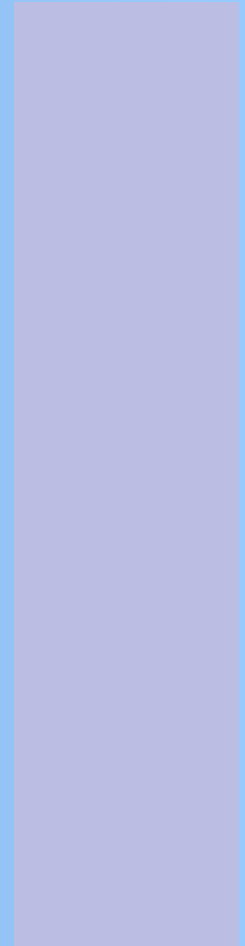
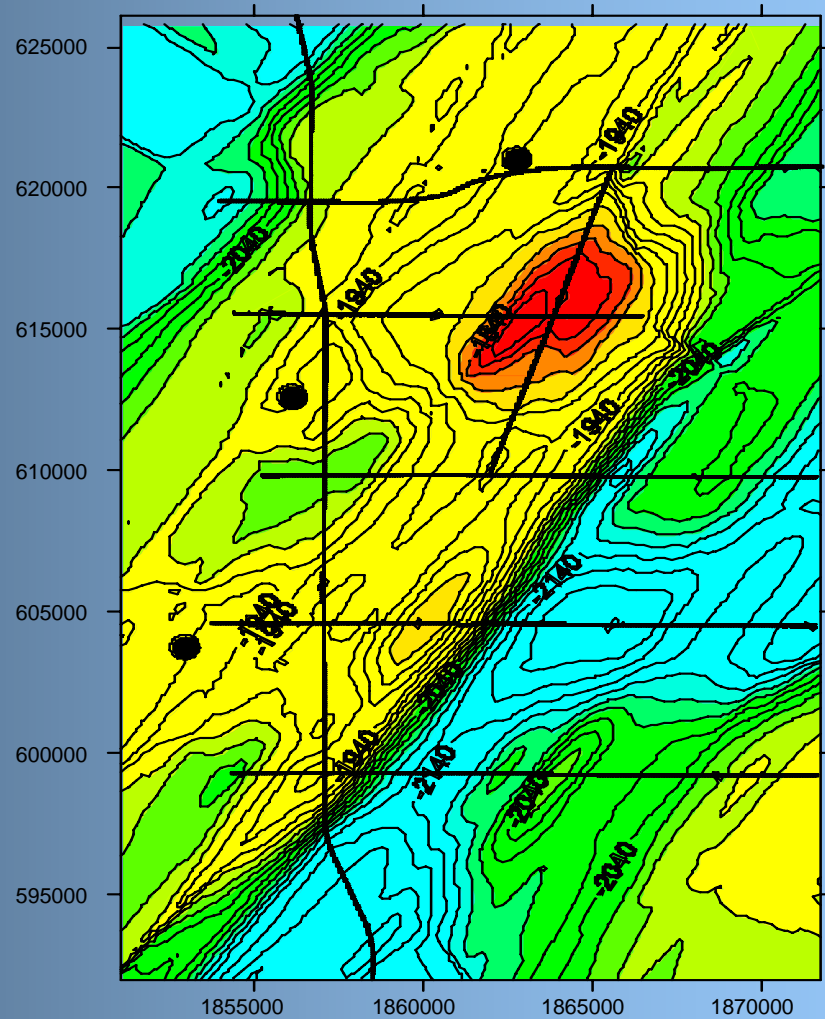
Solicitation of municipal partners.

MISO market analysis



Mount Simon Elevation

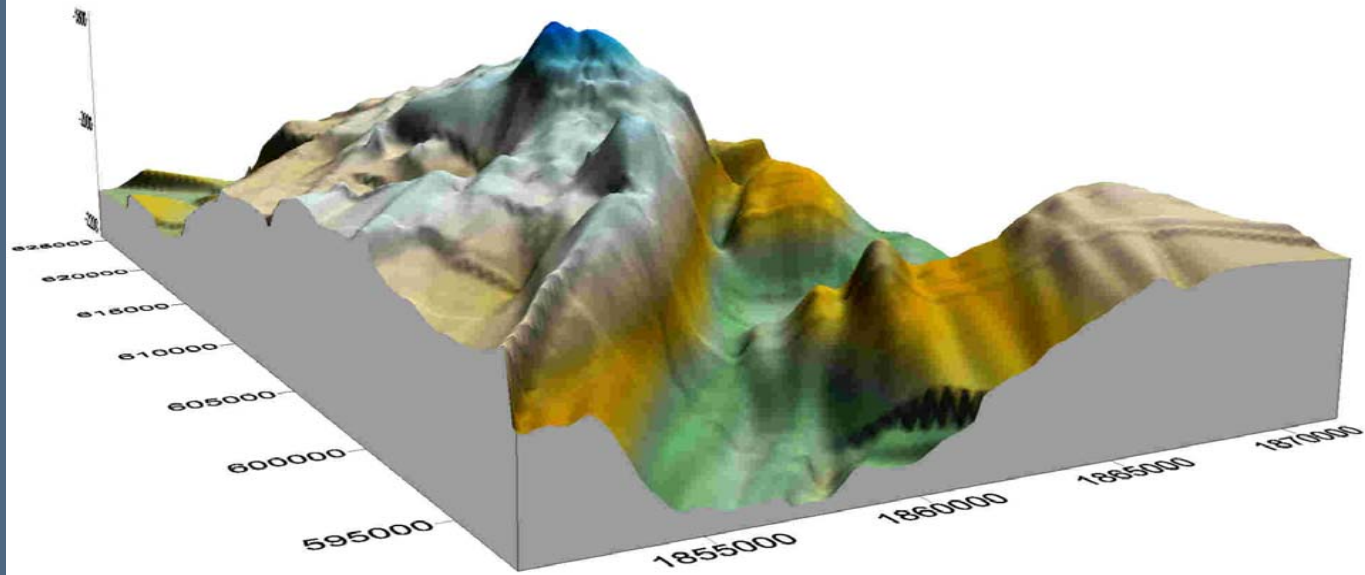
Latest
Seismic
Survey
Results:



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Mount Simon Surface



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We still need to know:

Detailed Site Characteristics

Porosity

Permeability

Oxygen Depletion

Caprock & Structural Integrity



Next steps:

“Best” place for test well(s).

When well drilling will begin.

Land acquisition details.

Where?

When?



Current Activities:

Seeking additional Dept of Energy funding.

Seeking additional municipal partners.

Conducting updated financial feasibility study.

Planning for test well(s).

Working with Dallas Center Mayor, Council,
& Industrial Development Committee.



Activities over the next two years:

Land Acquisition

Drill Test Well(s)

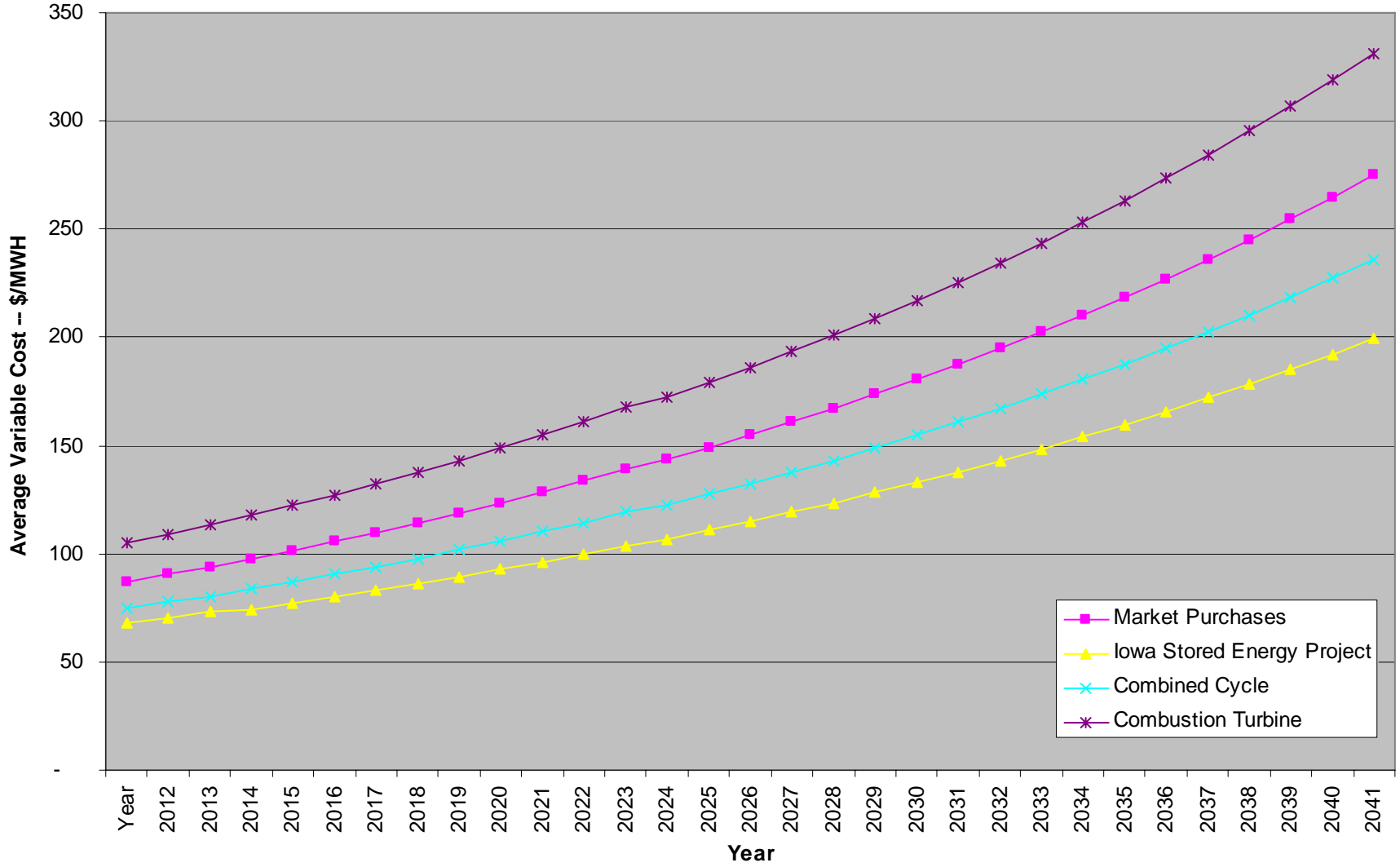
Perform pumping tests.

Initial engineering design

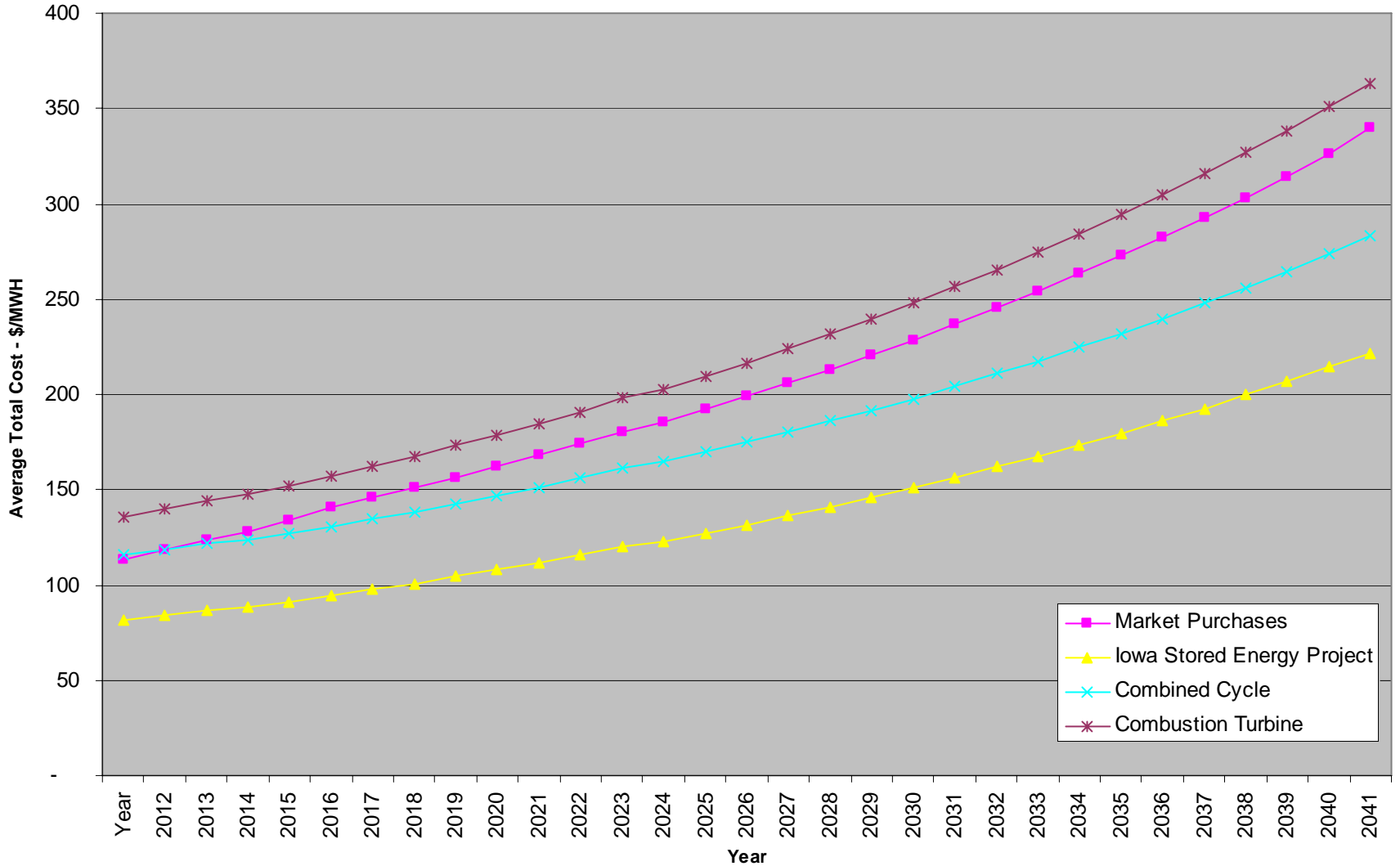
Permitting

Ownership documents

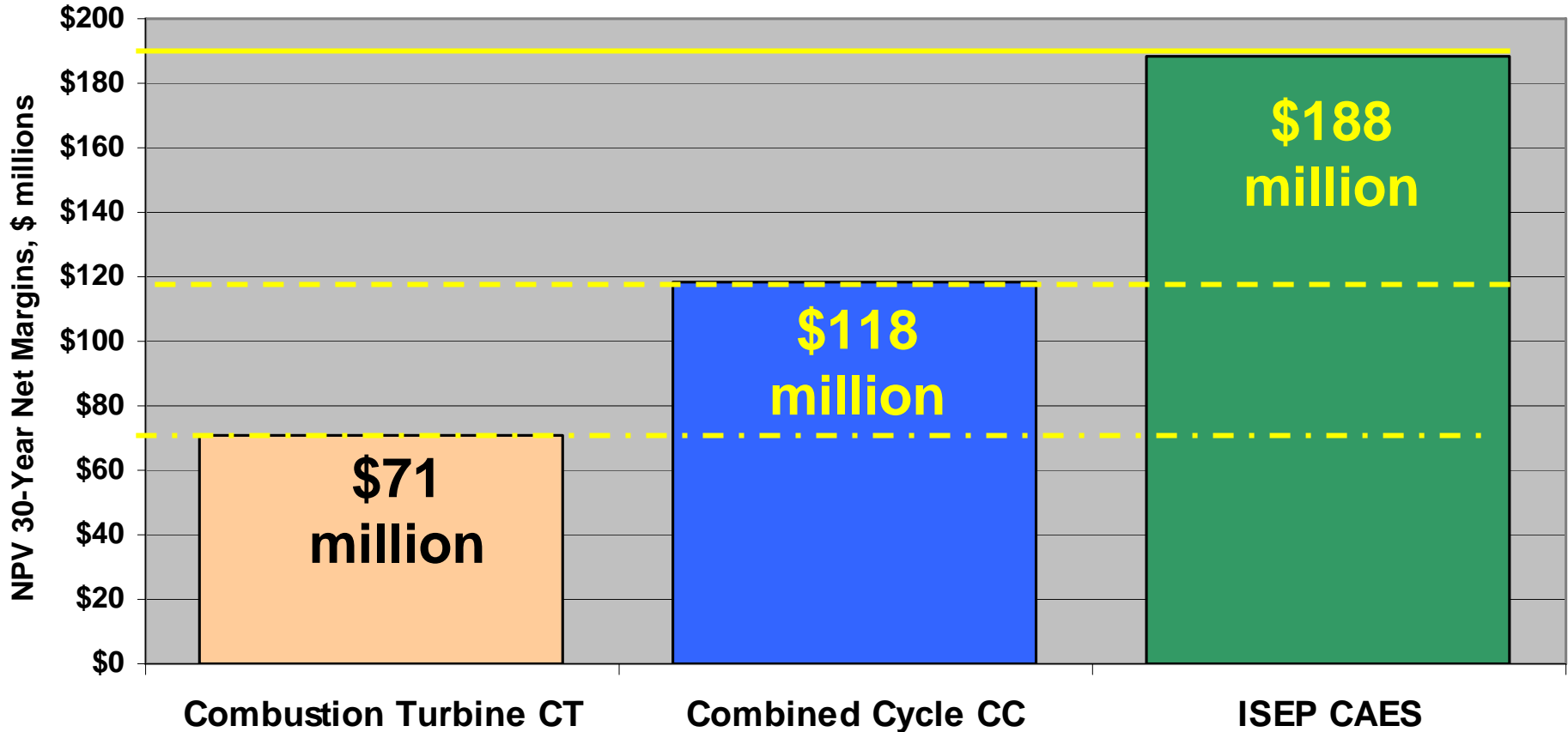
Intermediate Resource Variable Cost Comparison - \$/MWH



All-In Average Cost for Same Hours of Operation as ISEP - \$/MWH



Expected Value of NPV of 30-Year Net Margins, by Technology





Special Recognition for much of the success
in this project must go to:

Dr. Imre Gyuk, US Dept of Energy

Georgianne Peek, Sandia National Labs

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Questions?

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