



U.S. DEPARTMENT OF
ENERGY

Clean Energy Investment Center

"Addressing Challenges in Clean Energy Investment"

Clean Energy Solutions Center Webinar

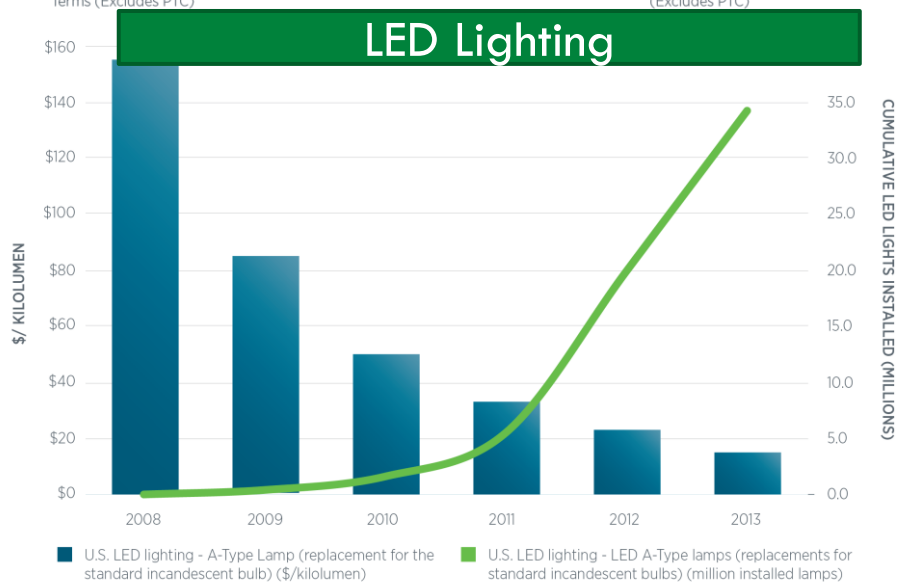
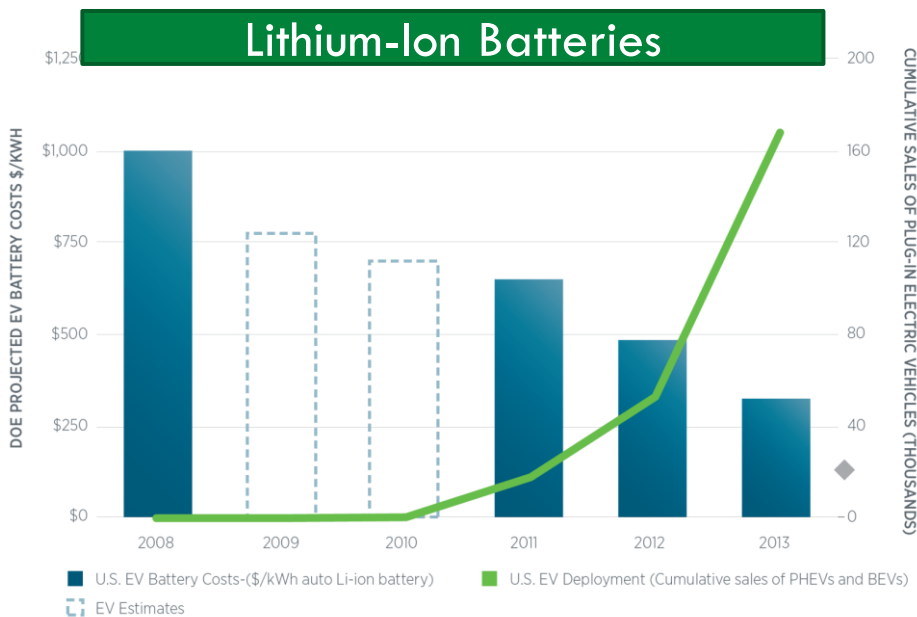
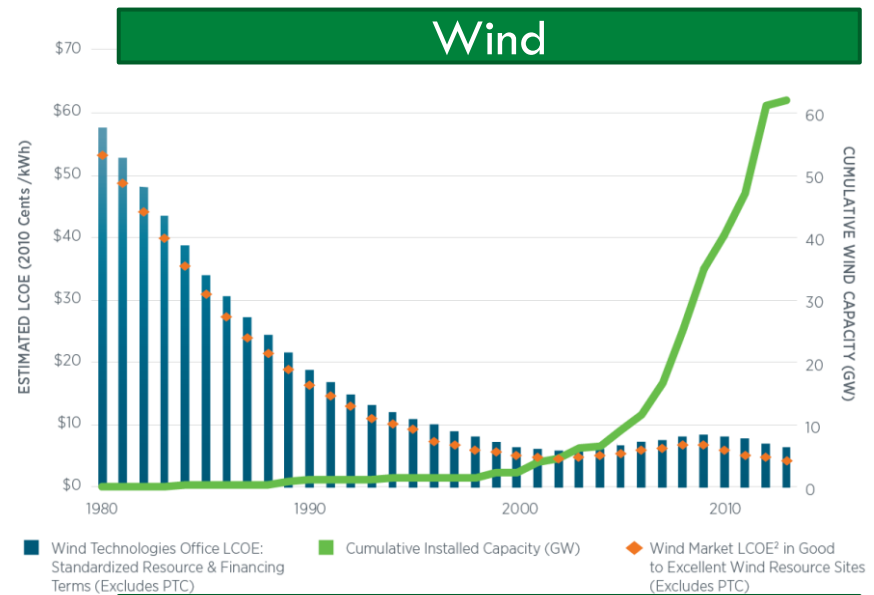
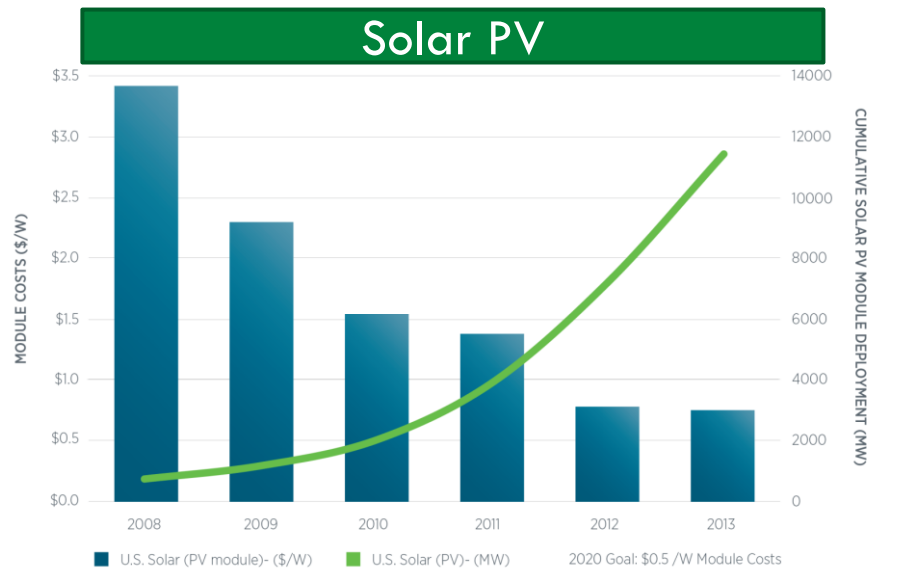
Dr. Sanjiv Malhotra, Director

Key Observations

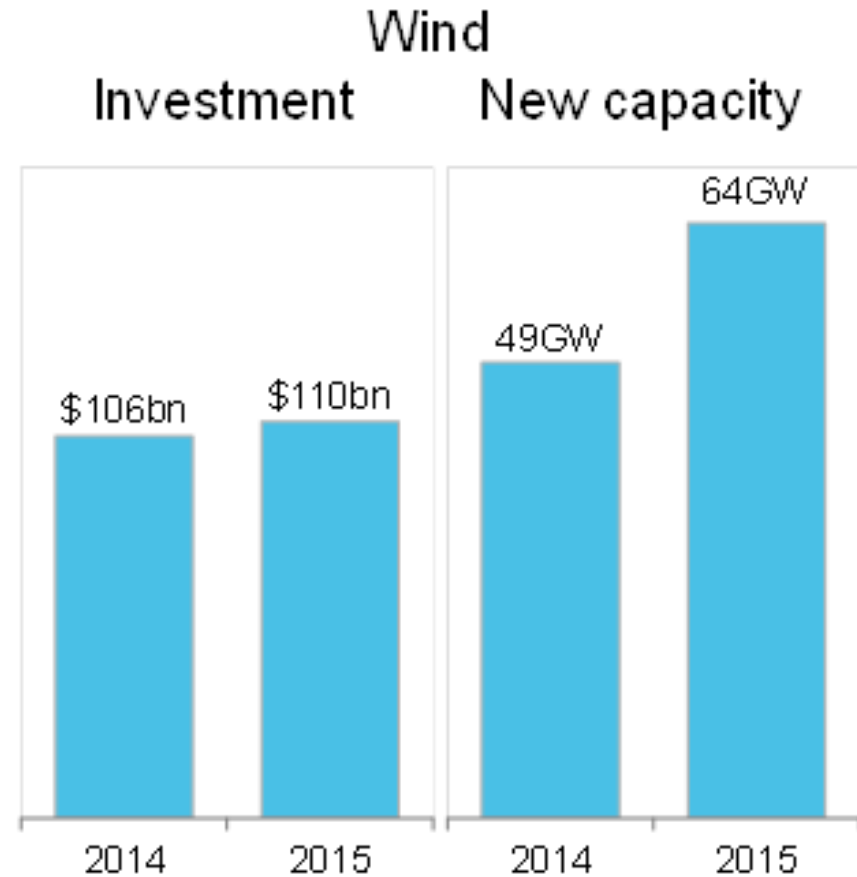
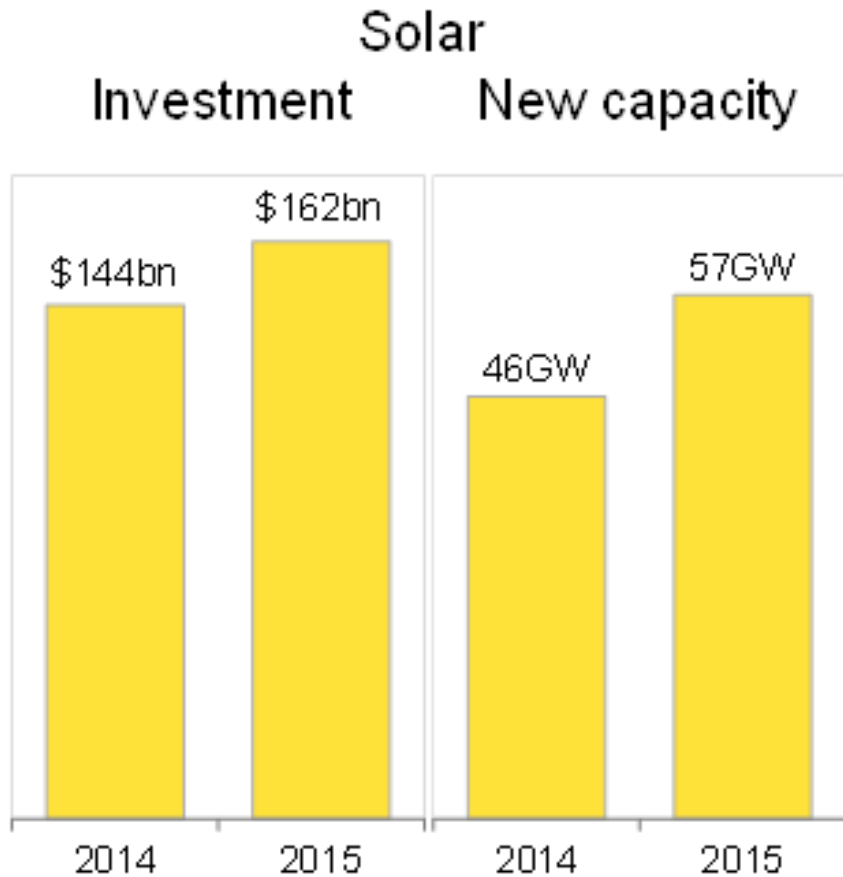
- Massive need for new capital for deployment to achieve the 2 degree Celsius warming limit
- Growth of solar and other emerging clean energy technologies
- Demand for new energy will be driven by the emerging economies, especially China, India, and sub-Saharan Africa
- Importance of Innovation



Revolution Now Report: Exciting Future from Economies of Scale

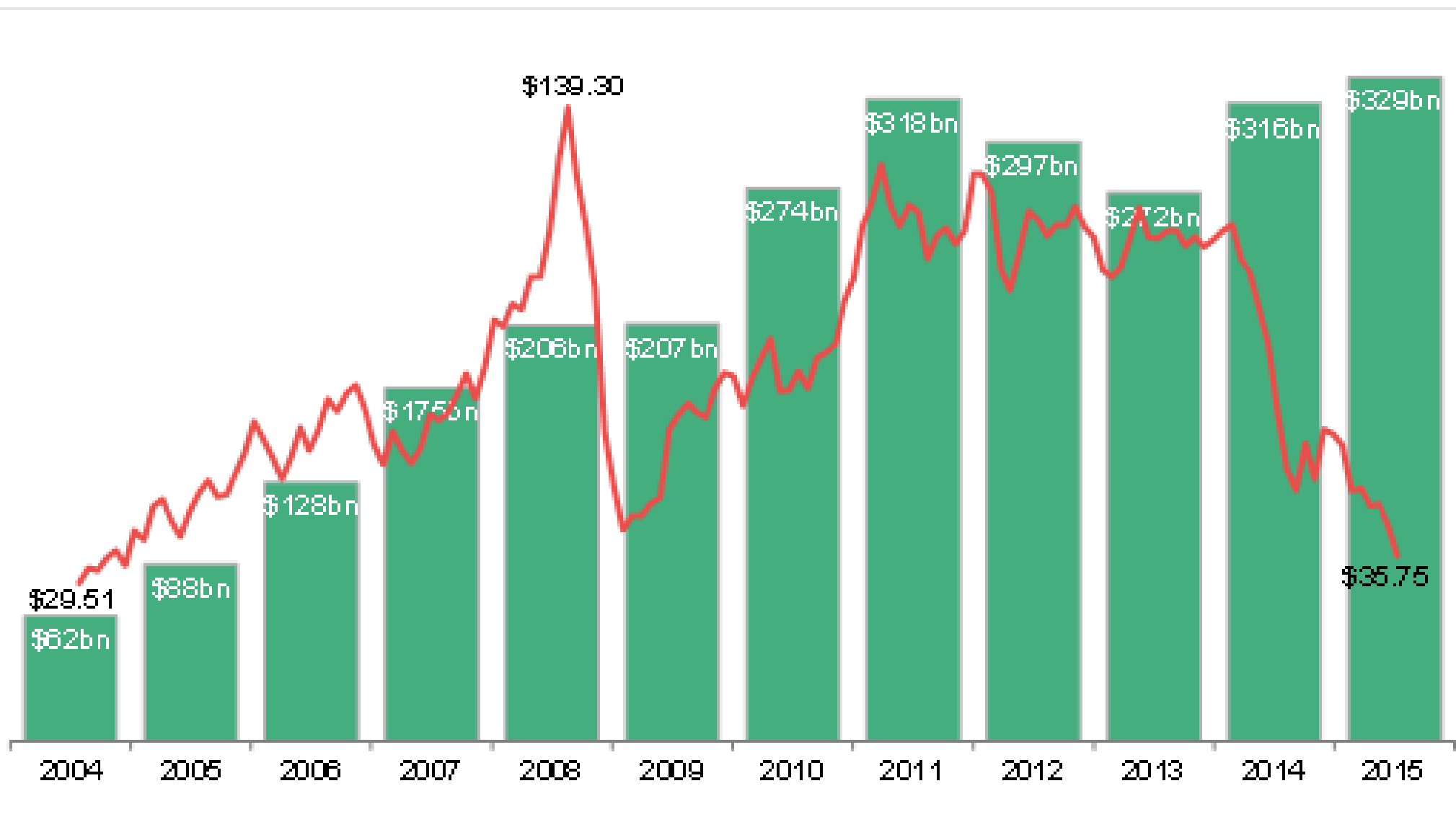


NEW SOLAR AND WIND CAPACITY ADDED 2014-15



Source: Bloomberg New Energy Finance

NEW INVESTMENT IN CLEAN ENERGY AND BRENT CRUDE SPOT PRICE 2004-15 (\$BN)

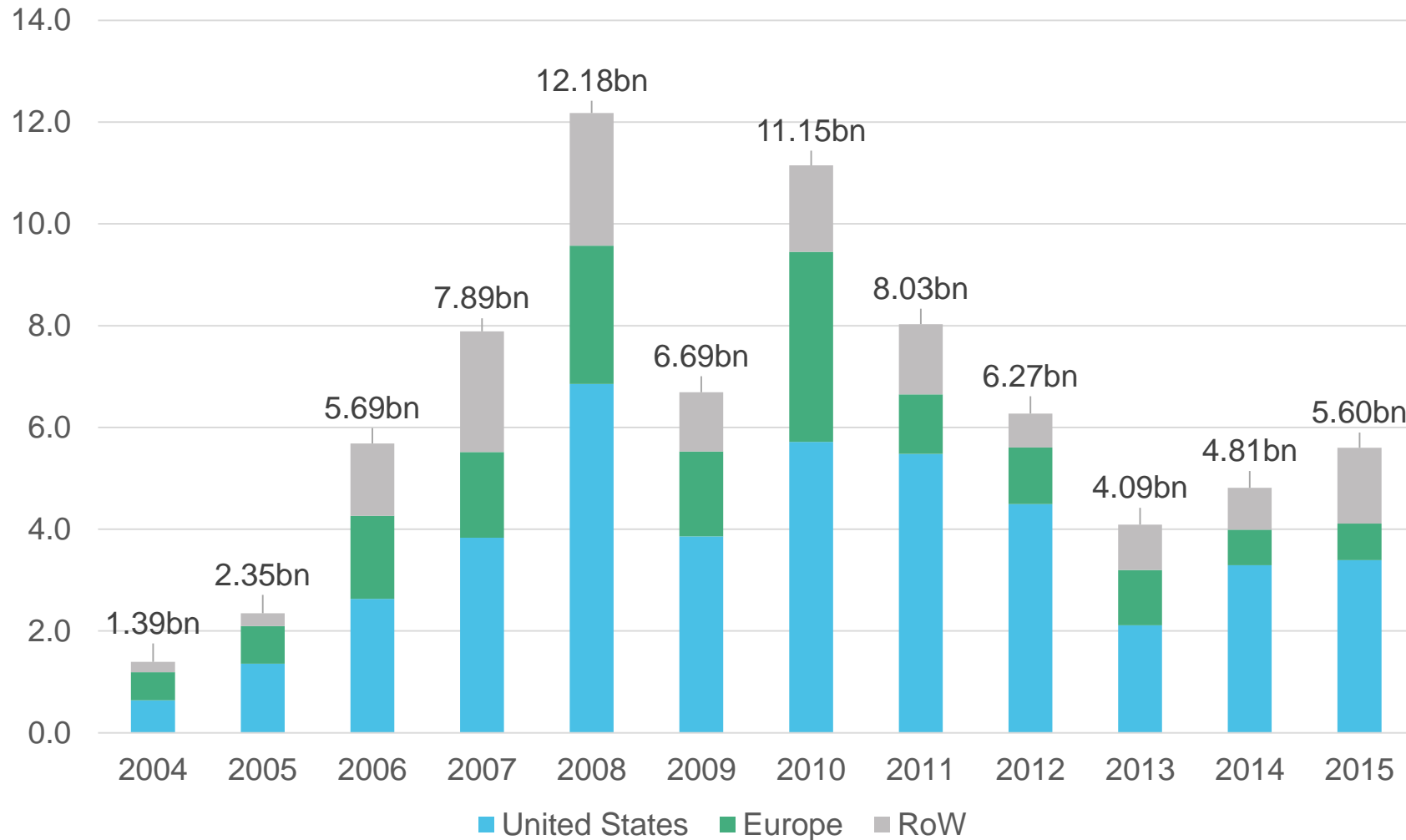


Source: Bloomberg New Energy Finance

GLOBAL VC/PE NEW INVESTMENT IN CLEAN ENERGY **Bloomberg** NEW ENERGY FINANCE

2004 - 2015 (\$BN)

- Early- and late-stage VC funding rounds as well as funds raised privately for the purposes of expansion by companies that are primarily involved in the clean energy industry according to BNEF exposure ratings.

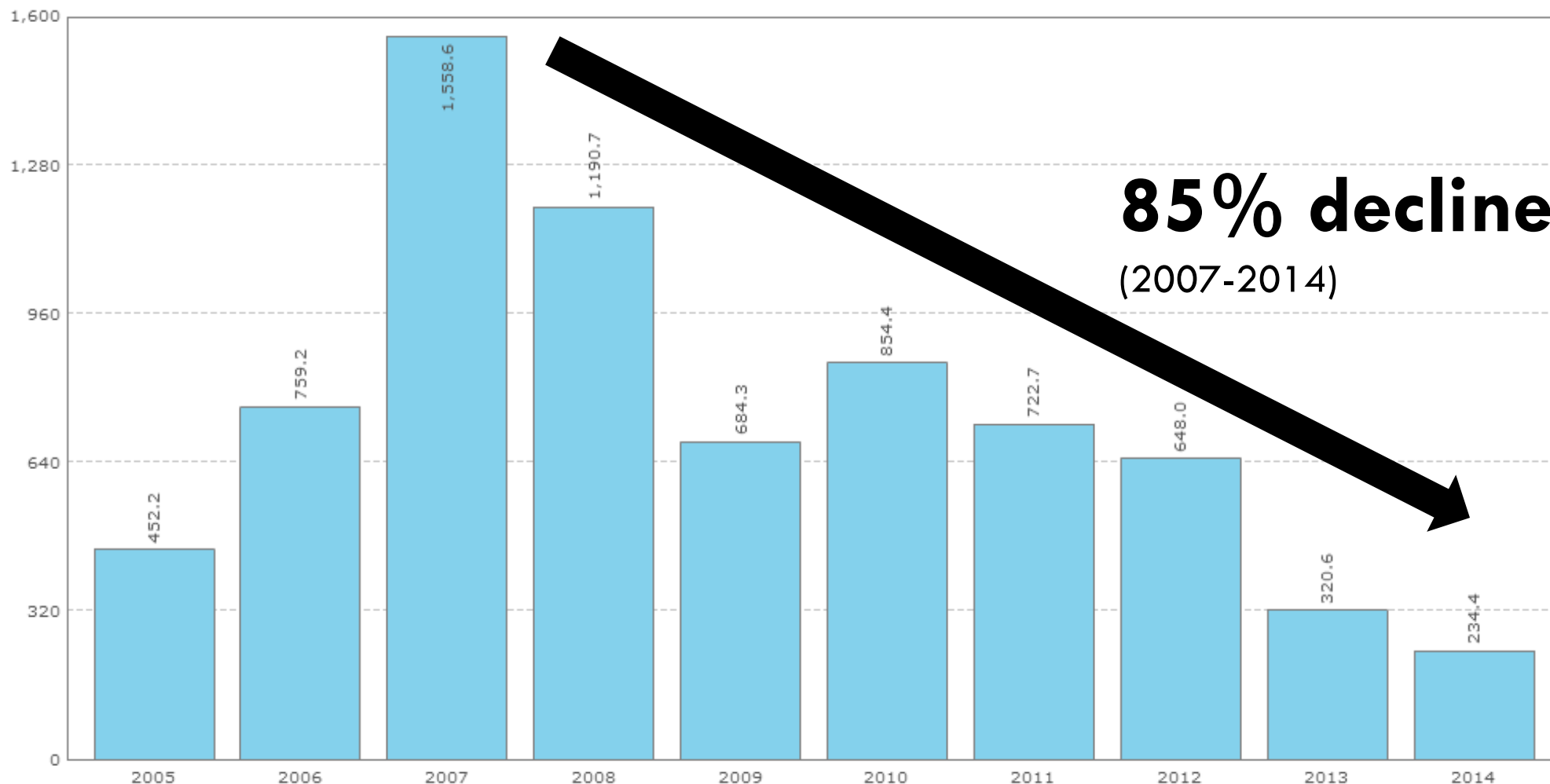


Note: Total values include estimates for undisclosed deals.

Source: Bloomberg New Energy Finance

The need for additional sources of clean energy technology investment

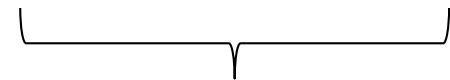
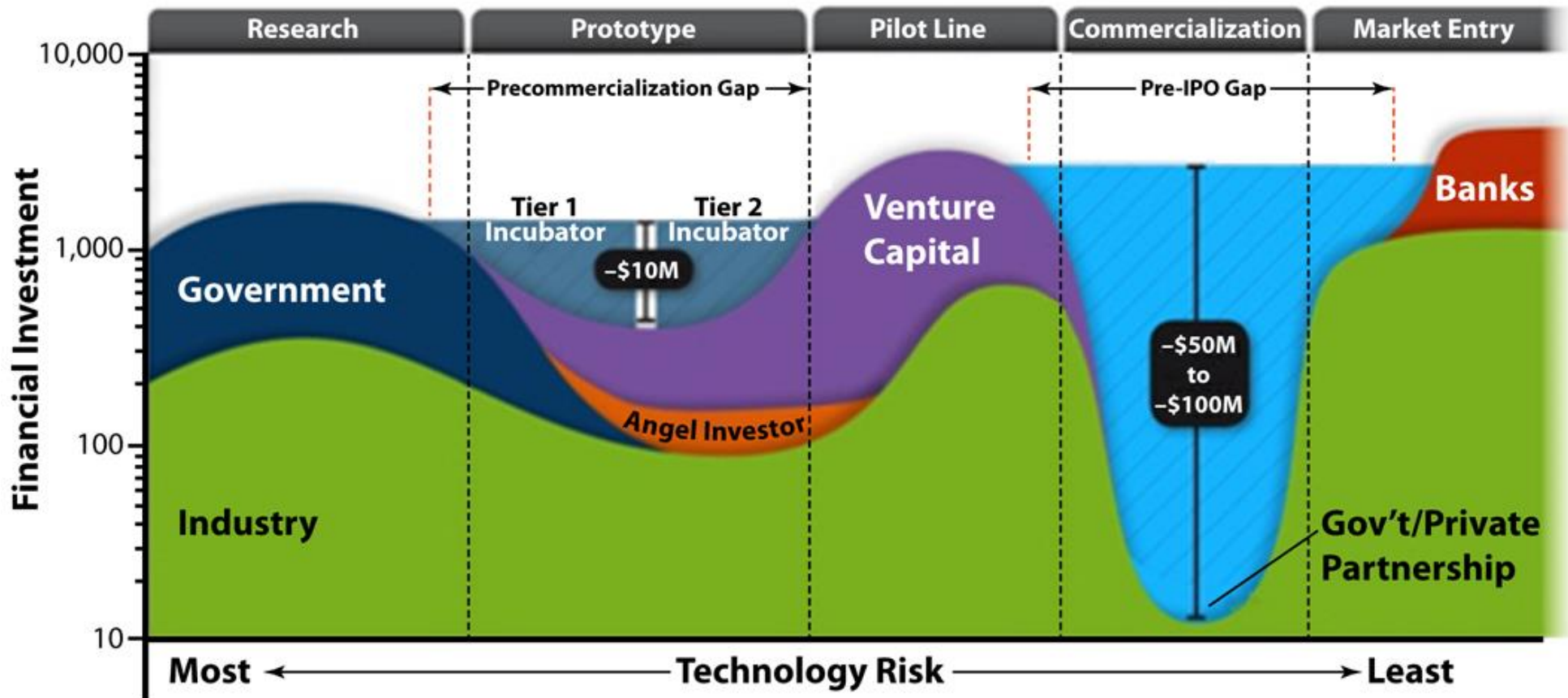
Global Early-Stage Cleantech VC Investment: 2005-2014 (\$ millions)



Source: Bloomberg New Energy Finance 2015.

Note: This data includes Seed, Series A, and Tech/Early-spinoff deals.

The Cleantech Valley(s) of Death



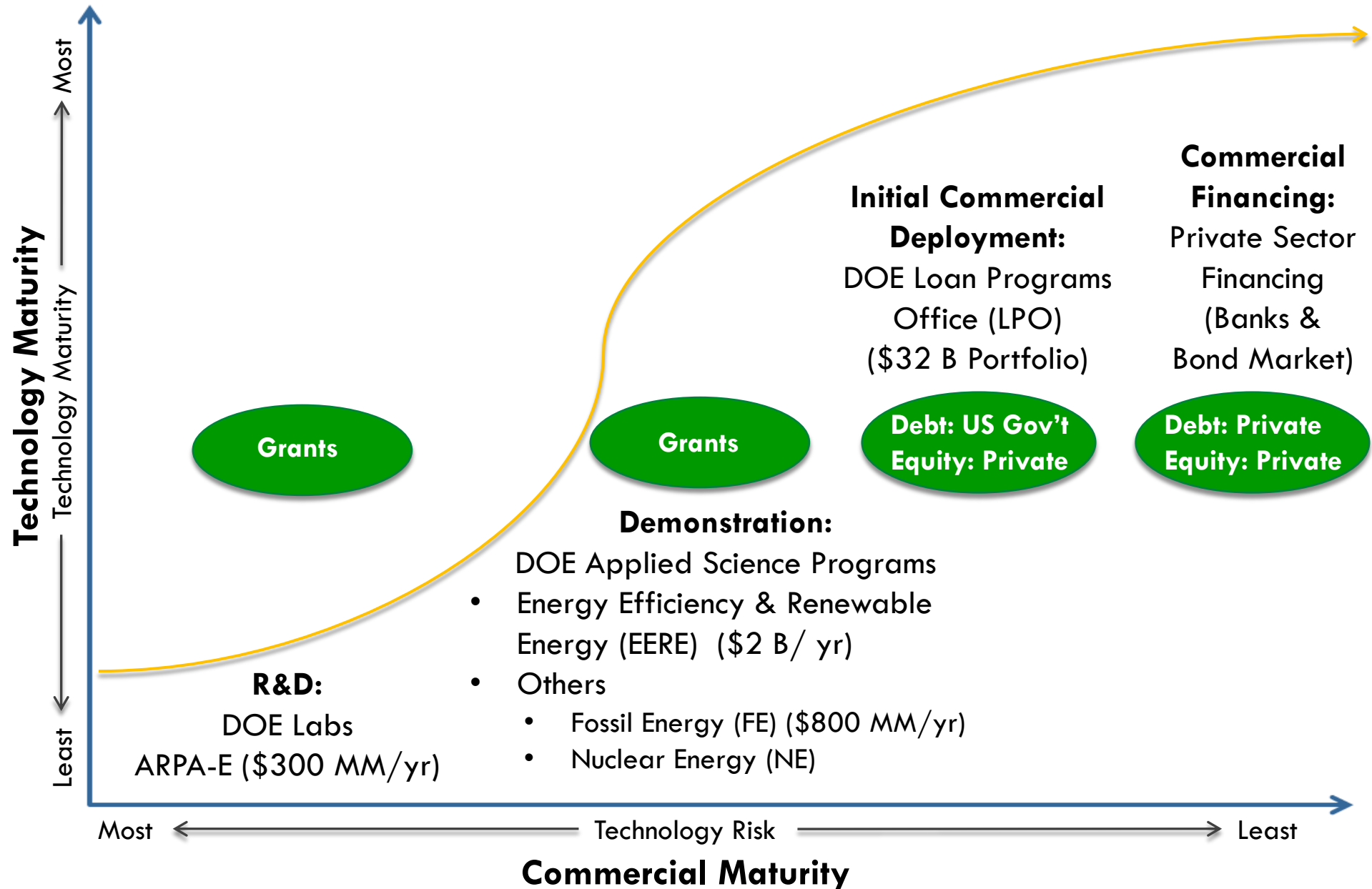
1st Valley of Death



2nd Valley of Death



DOE Programs Support the Full Arc of Commercialization



Mission Innovation at COP 21



November 30, 2015 Announcement at Paris COP

Commitments:

- **Mission Innovation**
 - 20 Country Commitments to Expand Clean Energy R&D
 - Countries cover more than 80% of global carbon emissions
- **Breakthrough Energy Coalition**
 - Private Sector Investment Commitments
 - 27 investors
 - Led by Bill Gates



Clean Energy Investment Center

Laboratory Partnering Service

- Connection Platform for Investors and SMEs at National Labs

Laboratory – Investor Knowledge Seminars (LINKS)

- Meetings between DOE National Laboratories and Investors
- Discussions of Partnership Opportunities

Innovation Interface (I2)

- Sessions at DOE HQ with Investors and DOE Technical Experts/Program Managers

Project Data Initiative

- Provide access to DOE portfolio of investable clean energy opportunities

Technical Assistance

- Share research and analysis produced by DOE and its National Laboratories on relevant developments in clean energy technology.





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ENERGY

Office of
Technology
Transitions

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