

GCE Subsea/Subsea Valley Seminar - OTC

May 3, 2016

The Future of Energy

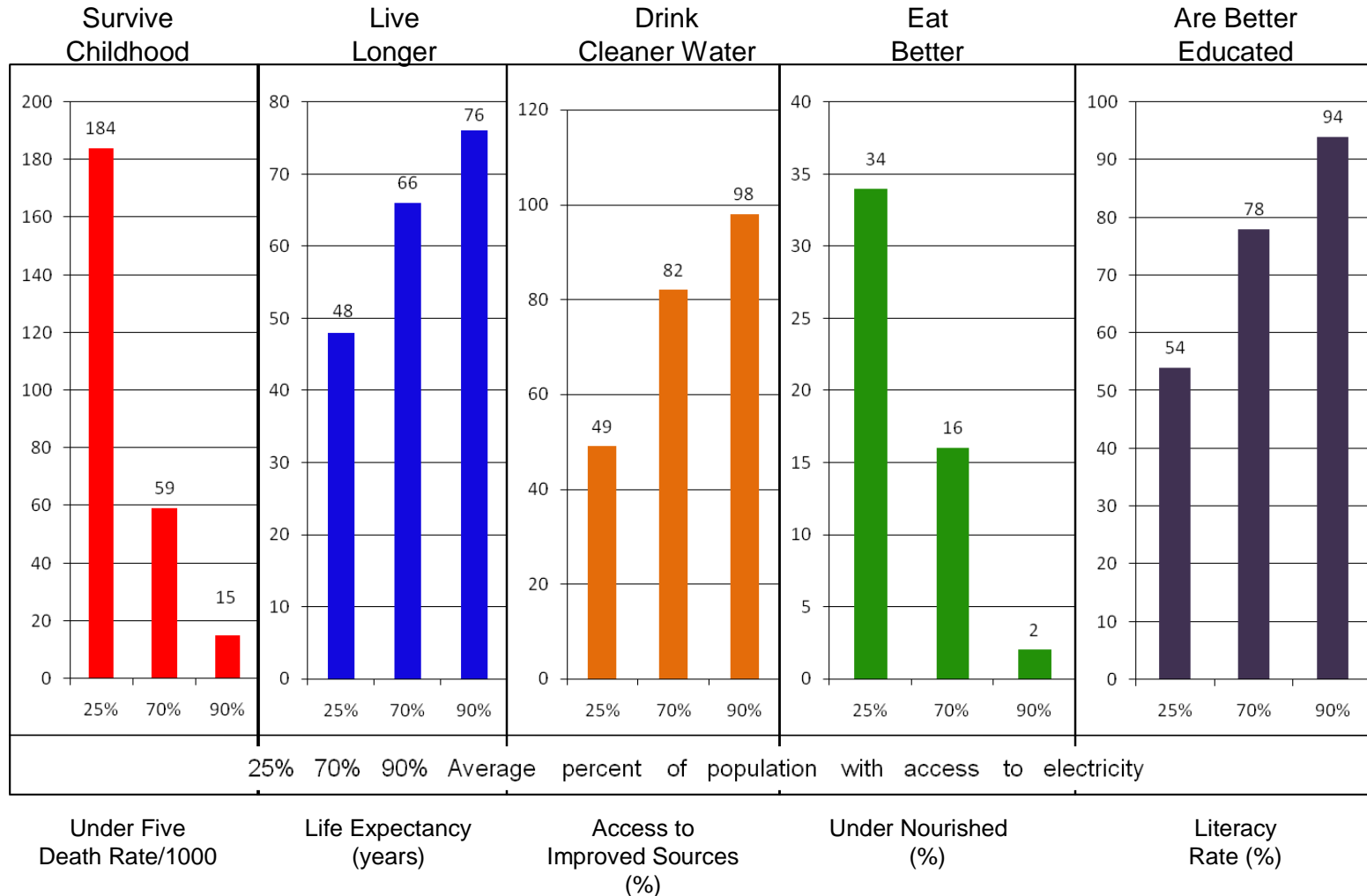
Charles McConnell, Executive Director
Energy and Environment Initiative (EEi)





Access to Electricity and the Quality of Life

People in Societies with Greater Access to Electricity:



Electricity Makes the Difference: Korea



South Korean preschool children average 3 inches taller and 7 pounds heavier than North Korean Children

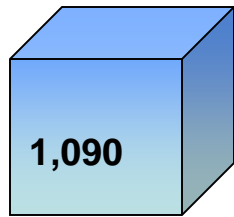
The Infant Mortality Rate in North Korea is 12 times higher than South Korea

South Korea ranks 32nd in GDP/capita. North Korea ranks 156th

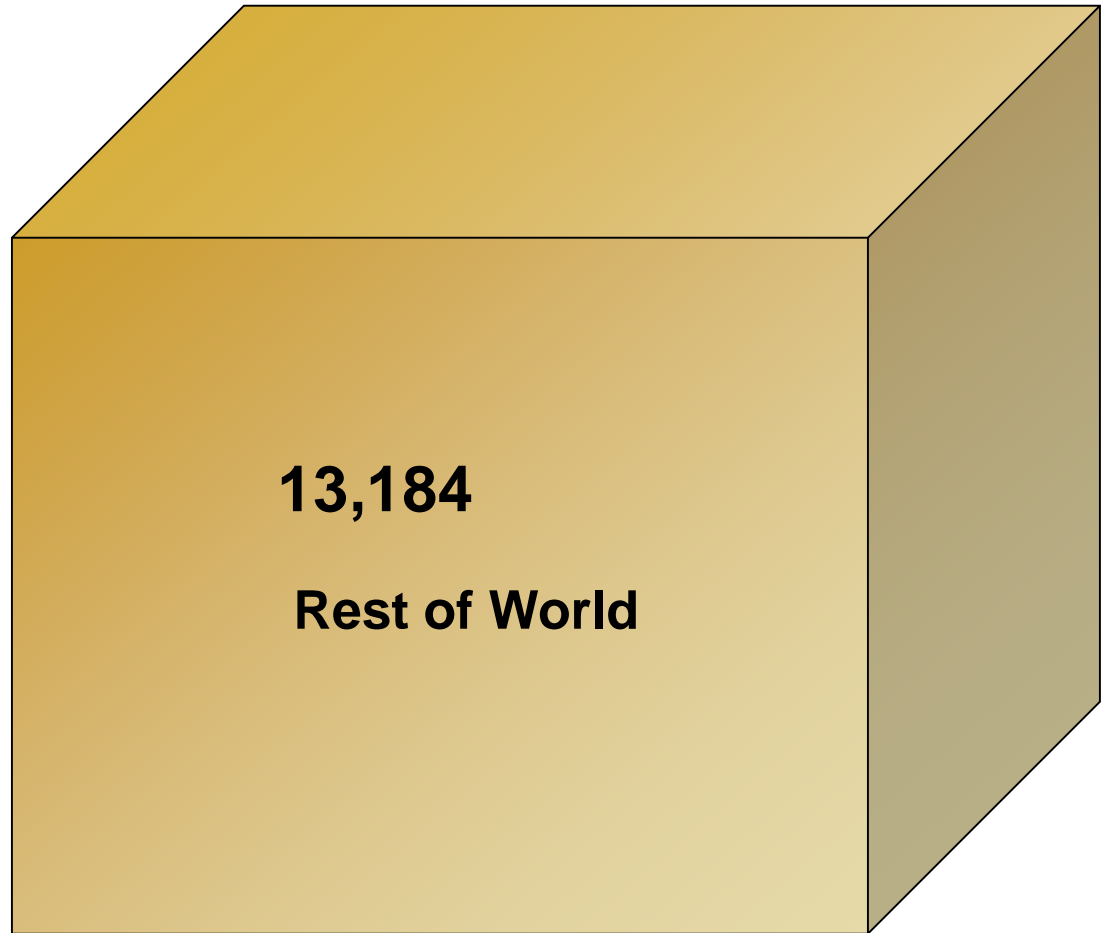
WHY THE DISPARITY?

Only 20% of North Koreans have access to electric power. South Korean access approaches 100%

Billion Kilowatt Hours



USA

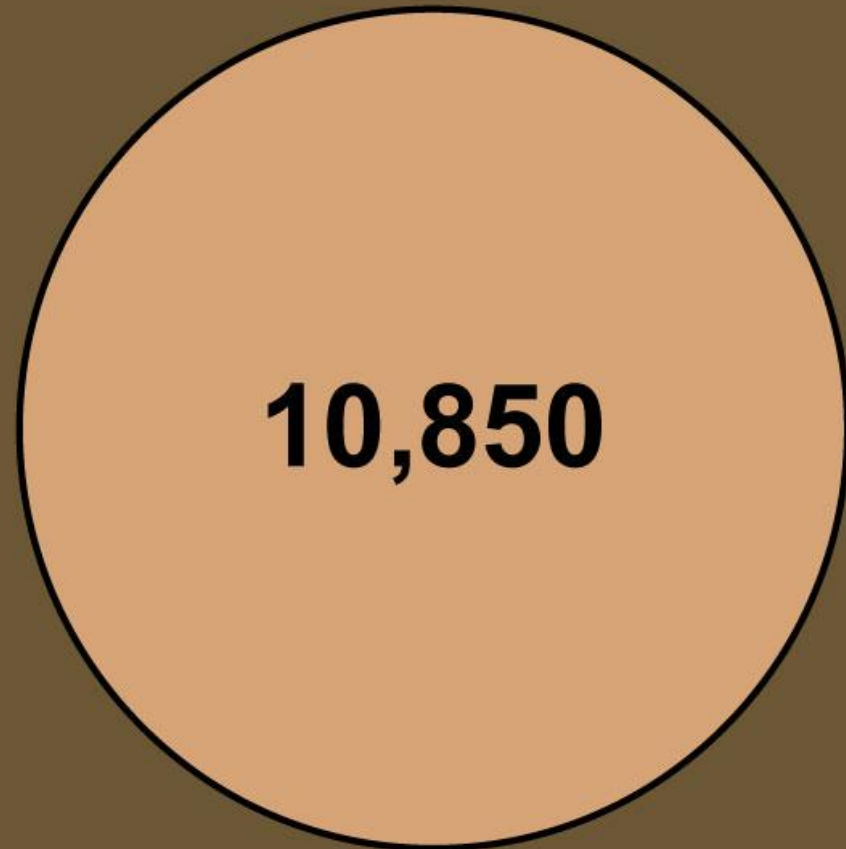


Increase in Billion Kilowatt Hours (2006 – 2030)

Million Metric Tons



United
States



Rest of World



2.

The Cloud's Growth is Exponential:

• **2014 Hourly Internet traffic > 2000 Annual traffic**

• **Last year, the Cloud consumed more power than global lighting in 1985
(3X all the Wind+Solar in the World)**

• **Next Year, the Cloud Will Consume More Electricity than Any Nation
(Except U.S. & China)**

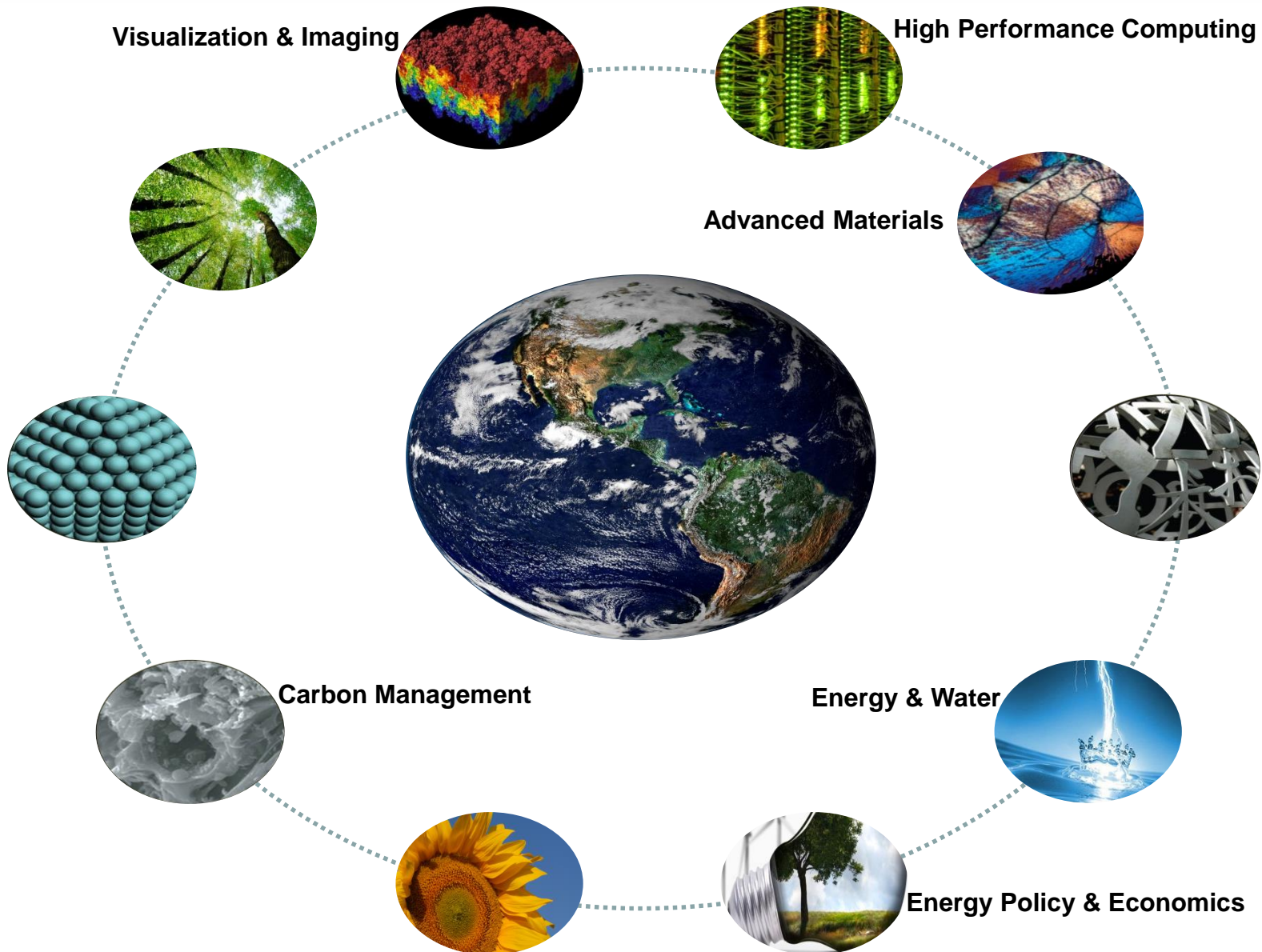
❖ Technically Recoverable Resources

- 120 years of Nat Gas
- 206 Years of Oil
- 464 years of Coal

❖ In-place Resources

- 586 years of Nat Gas
- 536 years of oil
- 9,844 years of coal

Transformational technologies for a sustainable energy future





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