Smart Grid and Cleantech

A personal assessment

Gavin Jones

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7th Smart Grids & Cleanpower 2016
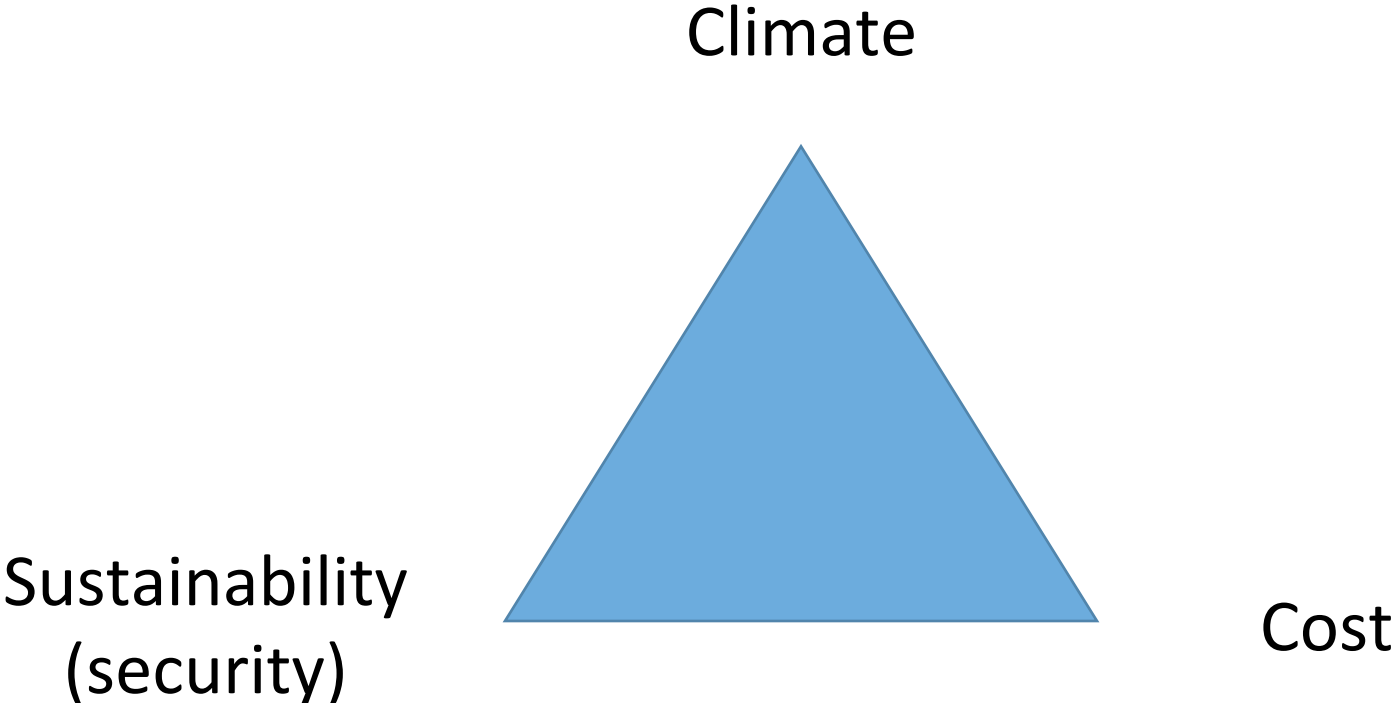Cambridge 27-28 June
www.cir-strategy.com/events

What is it?

- Smart Grid and Clean Tech is how we match demand and supply so we achieve readily available, cost effective and clean energy to meet our needs and the needs of the world

Trilemma

Climate

Sustainability
(security)

Cost

Climate

- COP21
- Renewables
- Wind Onshore
- Wind Offshore
- Solar
- Tidal (Swansea Bay)
- Lower costs
- Increased value

Sustainability

- Renewables
- Nuclear
- Gas
- LNG availability

Cost

- Oil Price
- Gas and diesel low cost
- Eco subsidies diminishing
- Higher volatility expected
- Market operation costs rising

Demand

- Domestic

- Non Domestic
  - Economy
  - High energy prices
  - Climate

Supply

- Coal
- Oil Price
- Nuclear
- Gas
- Renewables
- Interconnectors
- Storage
  - E.g. Tesla

Demand Side Response (DSR)

- Market appears to be growing (non domestic)

- New entrants appearing

- Market rules and barriers being addressed (slowly)

- Smart Meter Rollout should start in earnest this year

- Half hourly settlement introduction is being accelerated

Gas grid

- Local connection?
  - Shale Gas
  - Bio Gas
  - Hydrogen

Opportunity

- Energy consumption continues to grow
- Renewables ever greater part of mix
- Capacity margins becoming tighter
- Much more local generation
- Environmental issues against visible transmission of energy
- Technology maturing

But!

- Uncertainty
  - Oil Price
  - Access to capital
  - Future market rules
  - BREXIT

Brexit

- Financial Uncertainty
- European attitude to UK
- Global Companies attitude
- European Companies attitude
- Participation in European Energy Market
- Access to capital
- Cost of capital
- Research Funds
  - Horizon 2020

Summary

- There is a lot happening

- The technology and markets are maturing

- But there is a great deal of uncertainty

- Every reason to listen to the presentations and discussions over the next couple of days

Thank You

Gavin Jones
gavin@gavinjonesconsulting.co.uk