Review background

- IEA conducts regular reviews every 5 to 6 years
- The review took place in November 2010
- Based on the IEA’s Shared Goals and three pillars
  - Energy security
  - Economic growth
  - Environmental sustainability
- Peer review by experts from other IEA member countries, the European Commission (EC), and the IEA Secretariat
Notable changes since the last review

- Significant reforms have continued, despite the economic downturn
  - Electricity and natural gas markets
  - Renewable energy
  - Energy efficiency and climate change
Primary Energy Supply is hydrocarbon-based

- **Fossil fuels = 95%**
  - Oil is 48% TPES, remains largest energy source
  - Coal (9%) and peat (6%) declining; still sizeable
  - Gas growing, now 33% TPES

- **Push for renewables**
  - Huge wind potential
  - Biomass small; developing
  - R&D in ocean energy

- **Not in energy mix**
  - Solar and hydro limited
  - No nuclear allowed
Decarbonising electricity generation

- Renewables policy emphasis – 40% generation by 2020
  - Favourable REFITs extended
  - Wind =10%; 30% 2020 target
  - New REFITs for 2nd gen. biomass

- Gas is the dominant fuel
  - Now accounts for 62% of power
  - Will grow in tandem with growth in variable renewables

- Coal and peat are declining
  - Carbon tax disincentive
  - Peat subsidies phased out
Decarbonising with demand-side measures

- Very proactive energy efficiency policy
  - National target of 20% savings in 2020 (compared to 1990)
  - Public sector to be exemplary, with a target of 30% savings
  - Detailed NEEAP outlines 90 measures across all sectors of the economy

- Energy R&D into low-carbon technologies
  - Public funds quintupled from 2005 and 2008; maintained despite crisis
  - Strong engagement with ICT companies
  - World leader for smart grid development
  - Encouragement of electric vehicles
  - Deployment of smart meters
  - Strong potential for ocean energy in the future
Importance of infrastructure projects

- **Electricity**
  - East-West interconnector to GB
  - Grid25 for wind integration
  - Extra North-South line needed

- **Gas**
  - Possible Shannon LNG project
  - Corrib field still not producing
  - Gas storage is needed

- **NIMBY problems**
  - Local community concerns
  - Consenting process important
Addressing energy security concerns

- Electricity production increasingly based on renewables
  - Gas to provide power when the wind generation is not available
  - 500 MW East-West interconnector to Great Britain in 2012

- Importance of reliable gas supplies
  - 93% of gas supply comes through one entry point, Moffat
  - Poor geology for gas storage to meet peak demand
  - Efforts to diversify gas supply – Corrib, Shannon LNG

- Future of the sole oil refinery is uncertain
  - 75 mb/d Whitegate refinery could close after 2016
  - ...but the North-West Europe product market is abundant and diversified
  - And Ireland is increasing its domestic stockholding levels
Deepening regional integration

- Push for all-island market with Northern Ireland
  - Electricity: SEM has been successfully implemented
  - Gas: CAG seeking to emulate success of SEM

- Integrating with UK and EU markets
  - 500 MW East-West interconnector to Great Britain
  - Affected by ongoing UK electricity market reform?
  - Implications of EU target models for gas and electricity?

- Regulator’s oversight and empowerment is key
Key recommendations (1/2)

The government of Ireland should

- Support diversification and flexibility of gas supply
- Enhance the consultation, planning and consenting process for infrastructure projects
- Maintain funding for new low-carbon technologies, such as wind, biomass, ocean and smart grids
Key recommendations (2/2)

The government of Ireland should

- Ensure that participation in regional energy markets brings benefits to Irish consumers and investors
- Ensure that regulator’s powers are sufficient
Implementing our recommendations will help Ireland to

- Improve its energy security, at a time of heightened risks
- Create new jobs in the new entrants to the electricity and gas sectors
- Limit the need for energy use and make the economy more energy-efficient
- Help the country become a 21st century low-carbon economy