

The Energy Challenge

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The Challenge: More Energy, Less Carbon

- *Energy demand could double by 2050**
- *Ensure security, affordability and sustainability of supply*
- *Manage environmental impacts including climate change*



**Source: IEA*



How is Shell contributing?

- *Increasing investment in oil & gas production & refining*
- *Maintaining a wide range of oil and gas sources from different regions*
- *Reducing CO2*
- *Alternative energies: developing substitutes for oil in transport, and different sources of electricity*



Investment in oil & gas production

- *Investing more to find more oil and gas*
- *Focus on*
 - *Major projects*
 - *LNG expansion*
 - *Frontier locations*
- *Technology central to success*



Maintaining security through supply diversity

- *Security depends on*
 - *Geographic diversity*
 - *Different types of energy*
- *Extending lives of existing fields*
- *Technology to unlock unconventional resources*
- *Gas to liquids*
- *New frontier locations including deepwater*



Alternative Energies

- *Substitutes for oil in transport sector*
 - *Gas to liquids*
 - *Coal gasification*
 - *Bio-fuel*
 - *Hydrogen*
- *Alternative sources of electricity*
 - *Wind power*
 - *Solar power*



Managing CO₂

- *One of the first energy companies to acknowledge the threat of climate change*
- *Own operations:*
 - *Manage GHG emissions from our own operations*
 - *Energy efficiency*
 - *Carbon trading*
- *Reducing product impacts:*
 - *LNG for cleaner power generation*
 - *CO₂ sequestration projects*
 - *Developing advanced bio-fuels*
 - *Coal gasification*



