

# Clearing the air: a role for us all

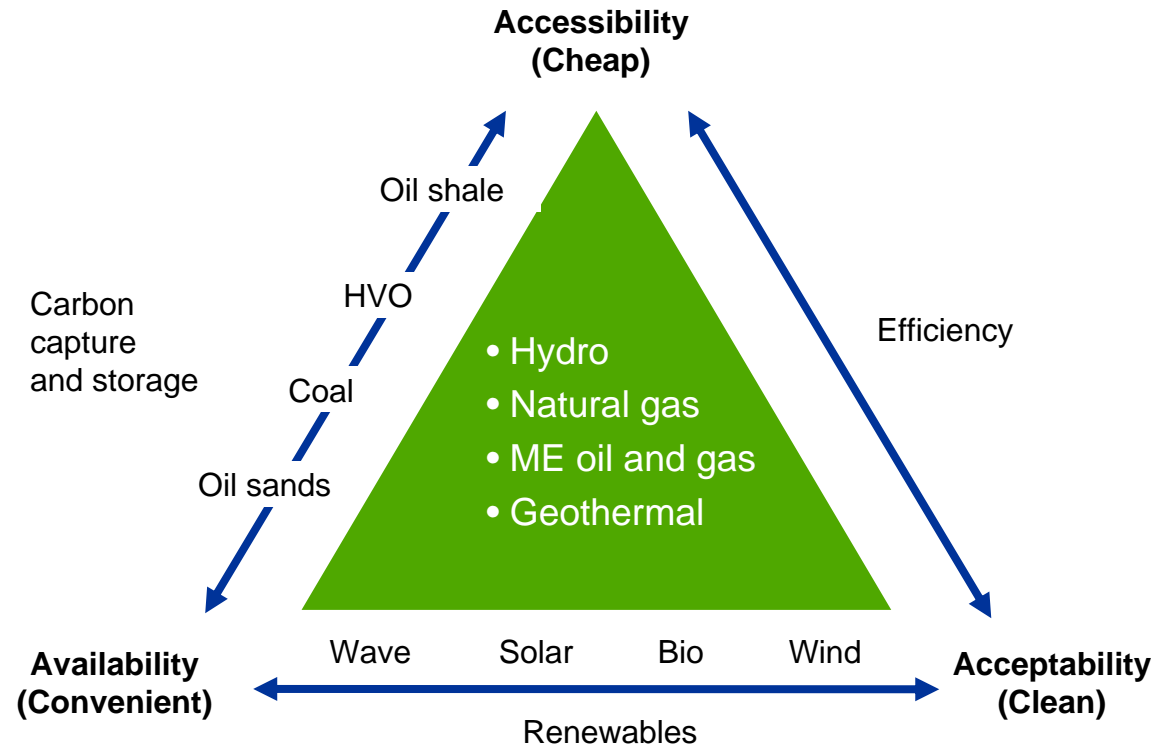
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Shell International Exploration and Production

# The Energy Challenge Trilemma

## ENERGY DEMAND

- Could more than double by 2050 as population rises and developing countries expand economies
- Hydrocarbons will continue to provide the foundation of world energy supply for at least the rest of this century
- As a result, management of the CO<sub>2</sub> footprint is a priority



# Shell Scenarios

3 HARD TRUTHS



DEMAND



SUPPLY



CO2

2 SCENARIOS



SCRAMBLE



BLUEPRINTS

1 PREFERRED  
APPROACH



BLUEPRINTS

# CO2 REDUCTION PATHWAYS

## WHAT NEEDS TO BE DONE?

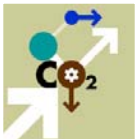
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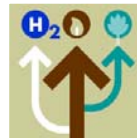
- Improve efficiency of operations, seeking to be first quartile.



- CO2 Capture and Storage (CCS).



- Technologies that increase efficiency and reduce emissions in production



- Low-CO2 sources of energy, including natural gas and low CO2 fuel options



- Help customers use less energy and emit less CO2.

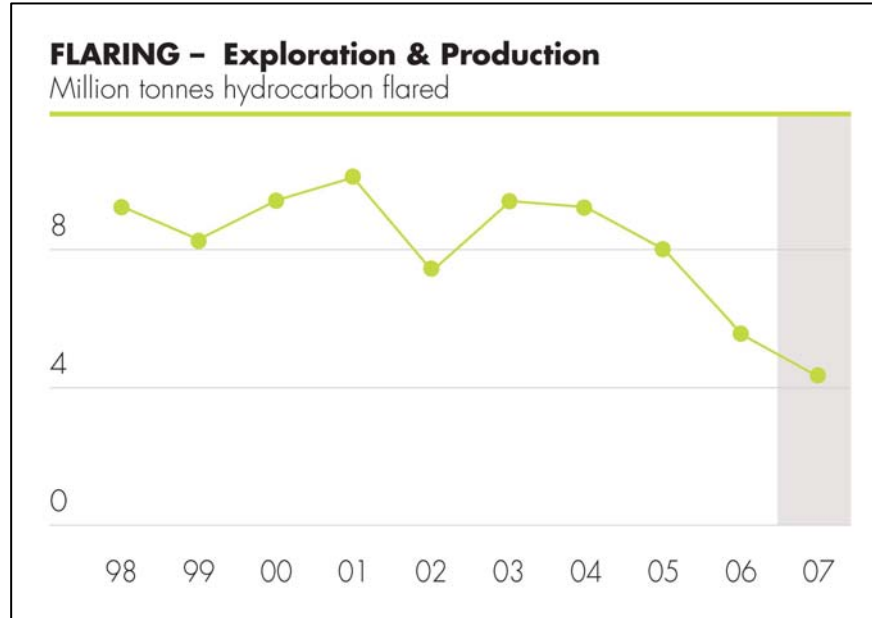


- Working with governments and advocating the need for more effective CO2 regulation.
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# Flaring



Installing 45 MW  
Gas Turbine  
in Saly



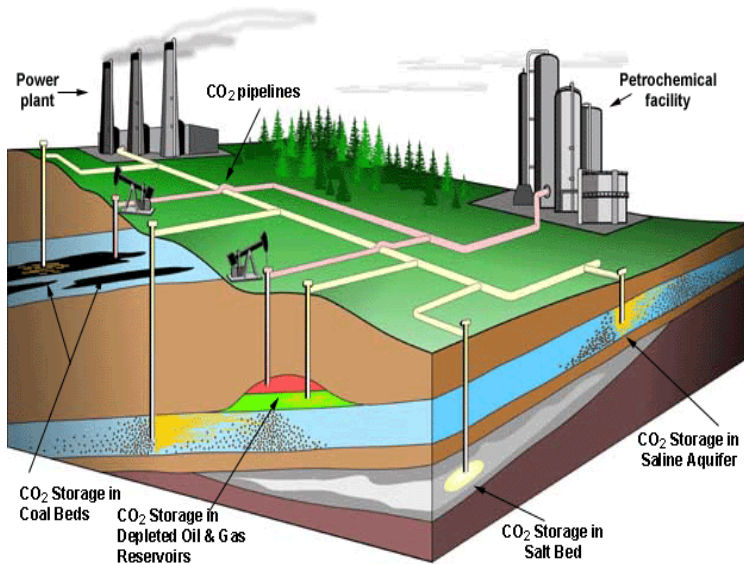
Gas Turbine Generator  
at integrated oil  
and gas project



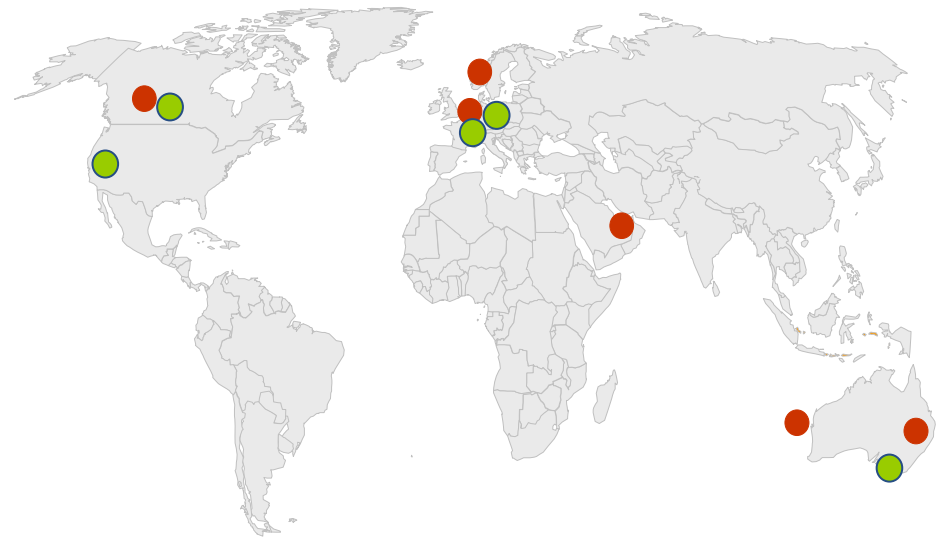
“Flares down” in Groningen

# Carbon Capture and Storage

## Illustrative potential CCS schemes



## Participating in CCS storage demo projects and developing industrial scale CCS projects



Multiple research partnerships with leading academic institutes throughout the world

# Core Messages to the Regulator



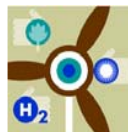
Cap & Trade

For large stationary sources, creating a global carbon dioxide market



CCS

Clear incentives



Renewables

A simple, credible target for share



Transport

Separate measures in the transport sector (e.g. vehicle efficiency standards; vehicle/road use programmes; incentivising the use of fuels based on their ability to deliver reductions in CO2 based on well-to-wheel)



Building Standards

Robust energy standards with incentives to retrofit

# What Copenhagen Needs To Deliver

## Incentives for CCS

- International CCS project mechanism
- Fully convertible certificate for one tonne of CO<sub>2</sub> stored underground.
- CDM or as a separate instrument



## Clean technology funds

- For Discovery, Development and Demonstration of key energy technologies that are still some distance from deployment.
- Must go beyond R&D and include assistance for the important commercial scale **demonstration phase** of new technologies such as CCS

**'We wish to pursue these through coalitions, and not as Shell alone'**



