

*Vienna Energy Transition Forum, Vienna, June 6 – 7, 2019*

**Presentation by Nick Butler,  
King's Policy Institute, King's College, London, UK**

Great to be here.

Not an expert on the region. Will talk about issue of energy transition and role of oil and gas companies which is global but which clearly has a regional impact.

Need to understand facts first

The energy transition has hardly begun.

Hydrocarbons 81 per cent of global energy demand in 2000. Still 81 per cent (of a bigger total) in 2018.

In South East Europe percentage is even higher.

Outlook is for continued oil use

- 100 million barrels per day for next three decades. Use in vehicles limited by electric vehicles but still only 3 million EVs against 1.1 billion internal combustion engine vehicles.
- No obvious substitutes for use of oil in freight or aircraft or petrochemicals.
- Gas use also rising – worldwide if not in Europe

Result emissions still rising worldwide.

In that context what is the role of oil and gas companies

First – manage and reduce emissions from their own activity

- Methane
- Other waste losses
- Fuel mix – replacing coal with gas where possible.
- Efficiency of energy use – clean petrol, vehicle mileage per gallon, reduction of emissions per unit of energy consumed.

Companies beginning to do much of this.

Then start to develop low carbon businesses.

Each company will do different things but all can use global reach, skills and technology to experiment and establish knowledge of low carbon businesses.

Industry has started doing some of this but very small – less than 5 per cent of capex last year.

Problem is different rates of return.

Oil field development – IRR 20per cent plus

Wind farms – at most 8 per cent.

Two sectors very different. Low carbon part of electricity sector – highly competitive with few barriers to entry.

Challenge for investment decisions.

Next step – organisational change to create distinct entities

Daughter companies

- Cross subsidised.
- Sharing some skills and brand
- But separate balance sheet
- And separate investment criteria

Daughters can grow and one way take over.

Other necessary step is research.

Wind and solar cheaper now but still not able to compete for large scale supply of power without back up.

Energy transition dependent on going beyond the lifestyle choices evident in Europe.

Needs to penetrate markets like India – rapid growth but not rich.

Need to combine low cost and low carbon solutions.

That means storage and grid technology.

China doing well – Europe should do that same – eg a pan European grid.

Research should be a priority. That will position companies for the future.

...

Challenge for companies is that climate change continues.

Emissions likely to keep rising.

NGOs have reached limit of campaigning against Governments – refocusing on companies.

For oil and gas sector problem is not supply ( there is plenty ) or demand .  
Challenge is how to maintain trust as they work in a business which is increasingly seen as doing damage.