What should we do with the Barents Sea gas?

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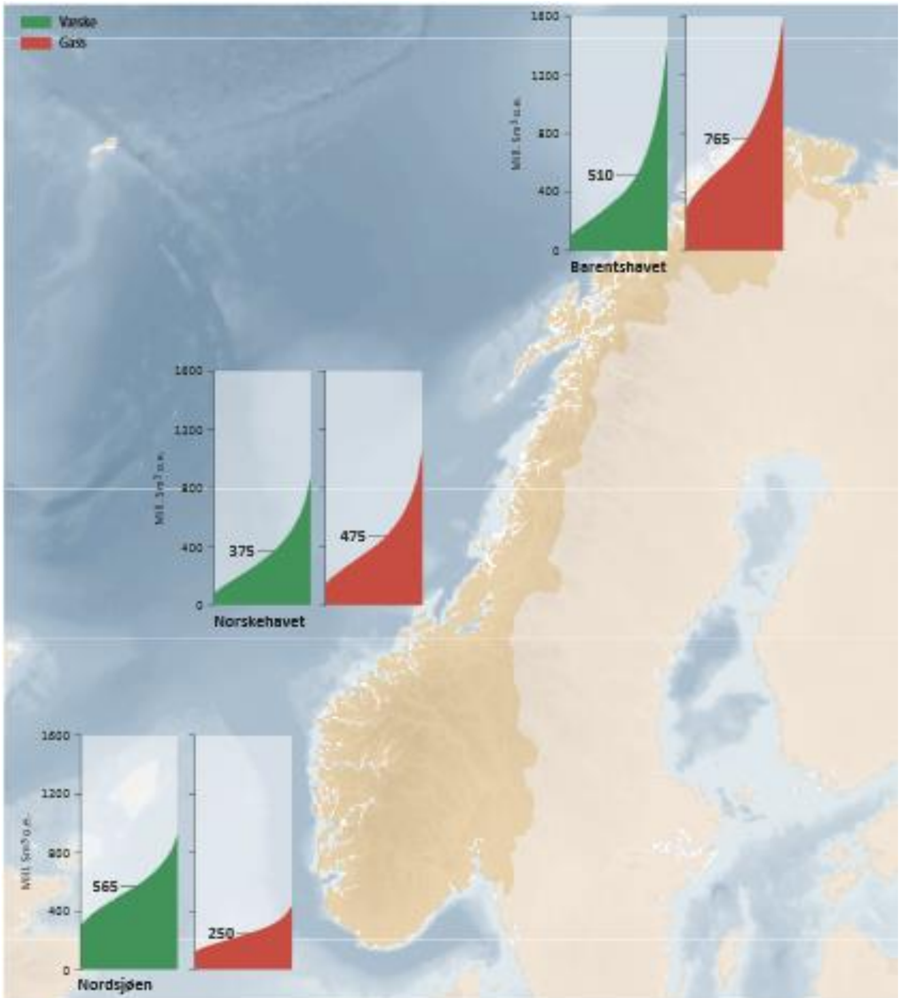
The Barents dilemma – lots of gas and nowhere to go?



Source: Norw. Petroleum Directorate

High investment cost for pipeline

- Not sufficient volumes discovered to date
  - More exploration with pipeline?

Higher gas tariff than other Norwegian gas

- Barents gas production likely to be cut first – not baseload?

Needed in Europe?

- Barents gas to an oversupplied West European/UK market impacts all gas export prices

What about LNG to the world?

- Oversupplied commodity now...

Demand outlook for gas – not like it used to be

EU gas demand flattens

- Especially in UK and Germany
  - Norway's largest markets
- Lower power demand
  - More renewables
- Lower direct use
  - More electricity and renewables

Lower prices at high supply

- Could see overflow from Asia
  - Very much LNG planned globally

European gas demand (IEA)

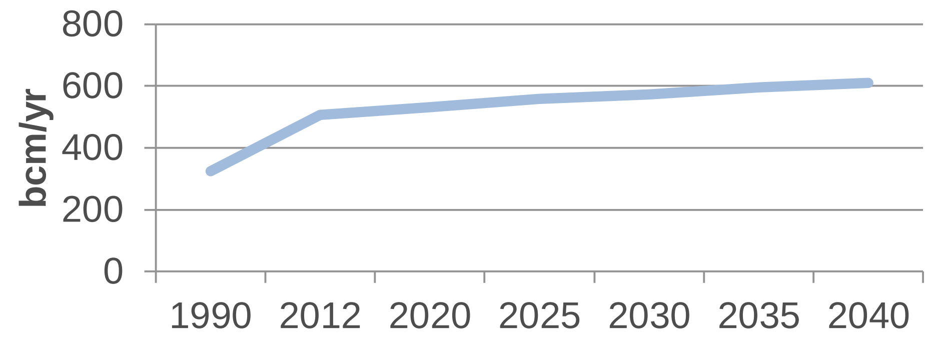
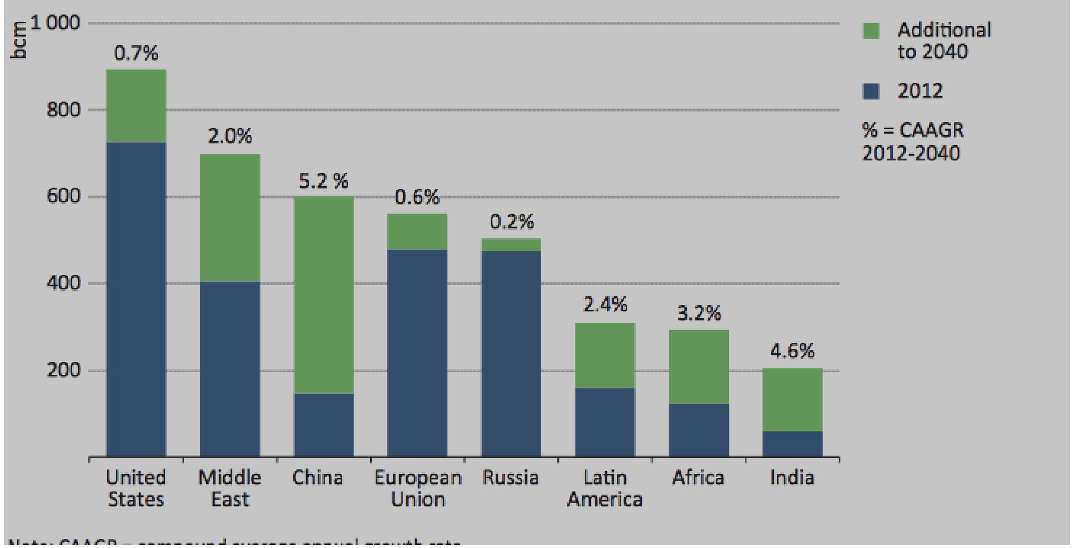


Figure 4.2 ▹ Natural gas demand by selected region in the New Policies Scenario



What is the main driver to develop Barents gas?

The normal reason?

- National income and employment?
  - What would be positive impact on Northern region?

Associated gas from oil fields only?

- Gas production only for reinjection/reservoir management?
  - No “evacuation” options in view

Environmental friendly?

- Supply gas to replace coal along the lines that the world needs us?

Other reasons?

- Local demand – distribution and LNG to ships?
- Geopolitics I foothold for Norway
- Geopolitics II cooperation with other Arctic nations

Several reasons voiced for delay/cancellation

Environmental opposition to drilling in the Arctic

- Vulnerable area – especially closer to the ice
  - Growing opposition also to natural gas
- Oil and gas production on Norwegian shelf more environmental friendly than elsewhere in the world?
  - No geopolitical premium for being Norwegian

Oversupply situation could last

- More gas lowers prices even more
  - Initial impact on other Norwegian gas
  - Demand side – is more commodity gas needed or wanted?
- More renewables and efficiency – falling demand for oil and gas
- Much global gas available for remaining expected “life” of fossil fuels in Europe
- Closer gas resources, preferably own, improve own economy and reduce import dependency

Will Barents gas be economic – if so when?

Gas demand in Europe is stagnating:

- The more gas supplied - the lower the price
  - Barents gas will contribute to lower margins of all gas supplies to Europe
- Other markets more attractive?

The more costly (e.g. far north) the least profitable

- Cost of associated gas considered very low
- Building infrastructure in this region more risky than other infrastructure
  - More uncertain flows long term
  - Not sufficient gas found yet to justify building infrastructure at any event

Time to adjust expectations?

- Shtokman cancelled for these reasons – several years ago…

We are happy to discuss further

We offer strategic /commercial advice and partner selection

- Producers, TSOs, large buyers, governments
- Gas, electricity, environment and more

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