

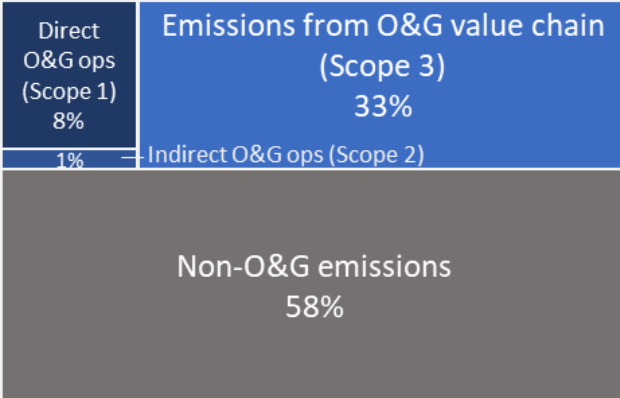
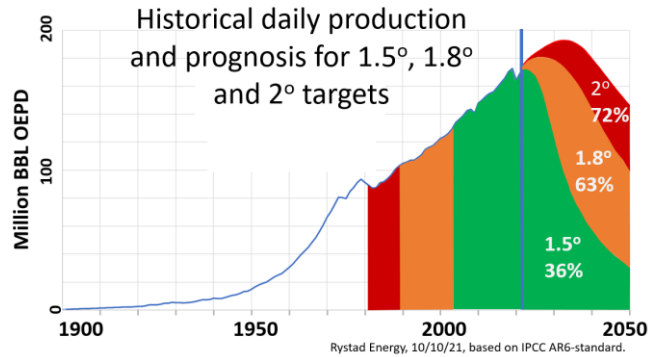
Lower emission oil and gas production



The challenge

While the world is transitioning toward net-zero, the energy balance and global need for energy make it inevitable that significant volumes of oil and gas will still have to be produced. From a historical perspective, reaching the 1.8-degree target still means producing 63% of all the oil and gas produced to date; reaching the 2-degree target means 72%, equivalent to all production since 1980.

Knowing that oil and gas operations stand for 9% of the world's carbon emissions it is clear that hydrocarbons can and must be extracted at lower emissions.



Opportunities for Norwegian companies

- Growing pressure from regulators, investors, and others to decarbonise operations as operators need to comply to
 - Retain social license to operate
 - Limit the negative impact on the business
 - Secure new avenues for revenue growth
- Market opportunity for incremental or transformative technology that can add green value
- Opportunity for suppliers and NORWEP Partners with the right mindset, technology or services
- “If the amount of methane released is reduced to the same levels as in Norway, there is a potential to reduce 40% of total emissions from oil production.” *Masnadi et al, Science*

Norway's lower emissions technology made available to the world

- Resulting from government legislation, taxation and initiatives, Norway has over decades developed technologies to decarbonise the petroleum sector
- NORWEP has partners that can provide technologies and services to help operators globally to lower total emissions that are
 - Greener and cleaner
 - Secure and reliable
 - Affordable and available



NORWEP initiative

NORWEP has initiated an initiative to identify and promote solutions that can minimise the GHG footprint with the aim to

- Raise awareness within NORWEP partners of the importance of identifying their lower emission solutions
- Support NORWEP Partners in formulating their lower emission solutions as Unique Value Propositions (UVPs), addressing client problems on a synopsis level as well as a detailed level with case histories and reduced GHG footprint.
- Create an arena for marketing Norwegian lower-emission solutions through dedicated client meetings, tech days and business-to-business meetings
- Position the Norwegian supplier industry long term as the lower emissions alternative
- Enable NORWEP partner's active contribution to a net-zero future

Unique Value Proposition (UVP) Synopsis can be found at www.norwep.com, Technologies and Solutions. Search for "LEOG"

Direct emission from O&G Ops (Scope 1)	8
Indirect emission from O&G Ops (Scope 2)	1
Emissions from O&G value chain (Scope 3)	33
Non-O&G emissions	58

