

DNB Bank and water

DNB

Oslo, 14 October 2014

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Energy: Of decisive importance to the world's climate and environmental challenges: CO₂

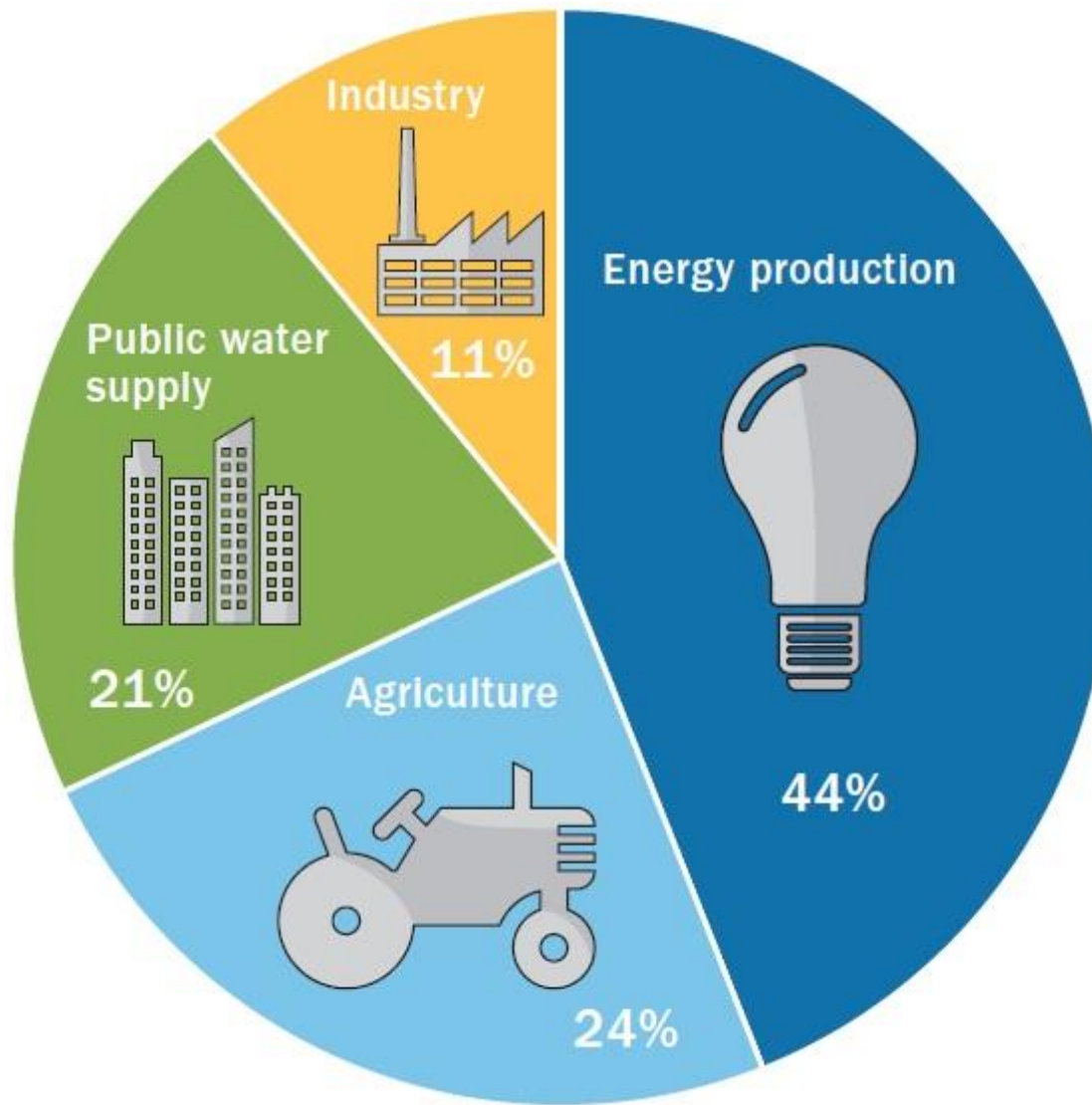
~2/3 of the world's anthropogenic carbon emissions are from energy production



Source: Climate Policy Initiative

Energy: Of decisive importance to the world's climate and environmental challenges: Water

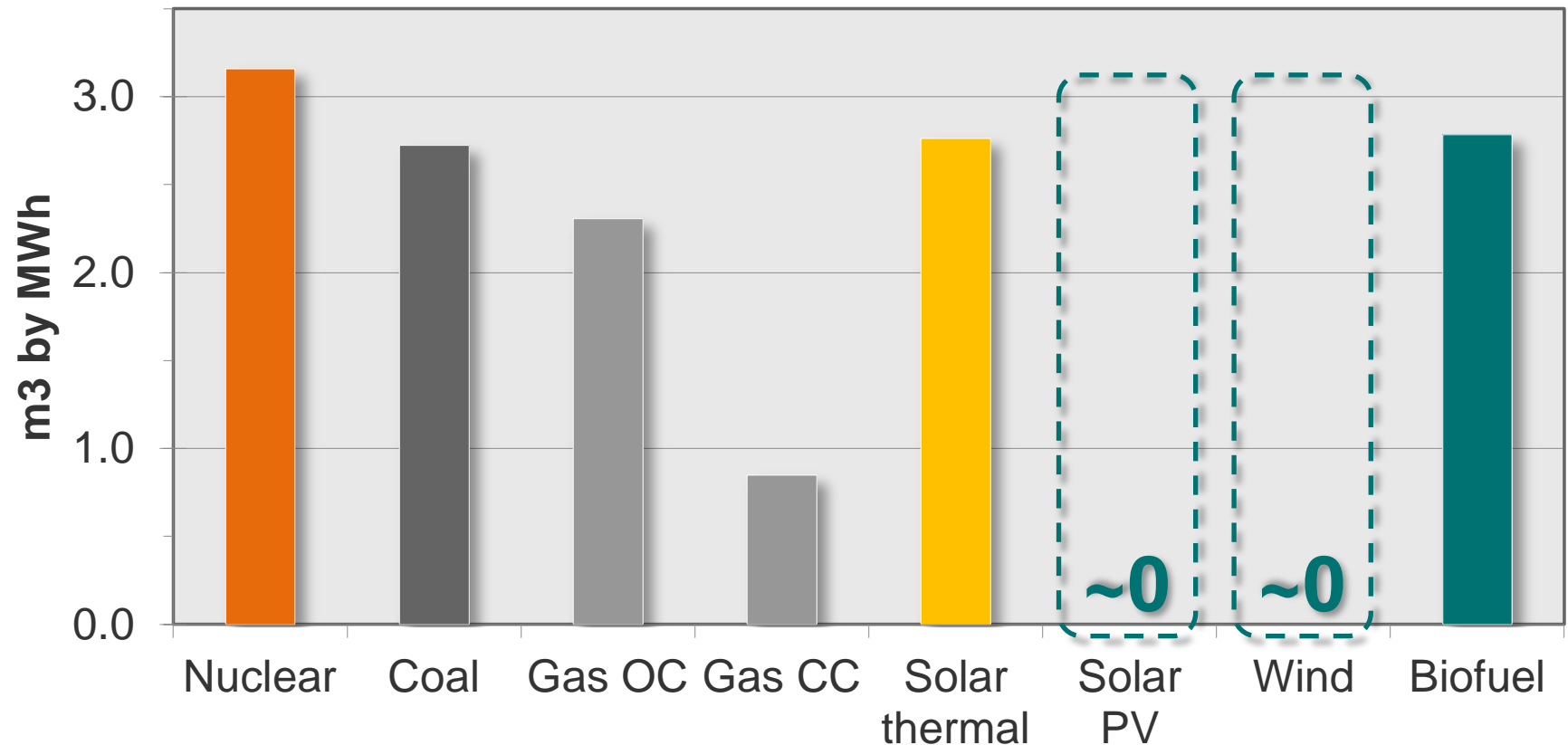
> 40% of EU's water consumption is for energy production



Energy: Of decisive importance to the world's climate and environmental challenges: Water

All sources of electricity consume water, but some (a lot) more than others

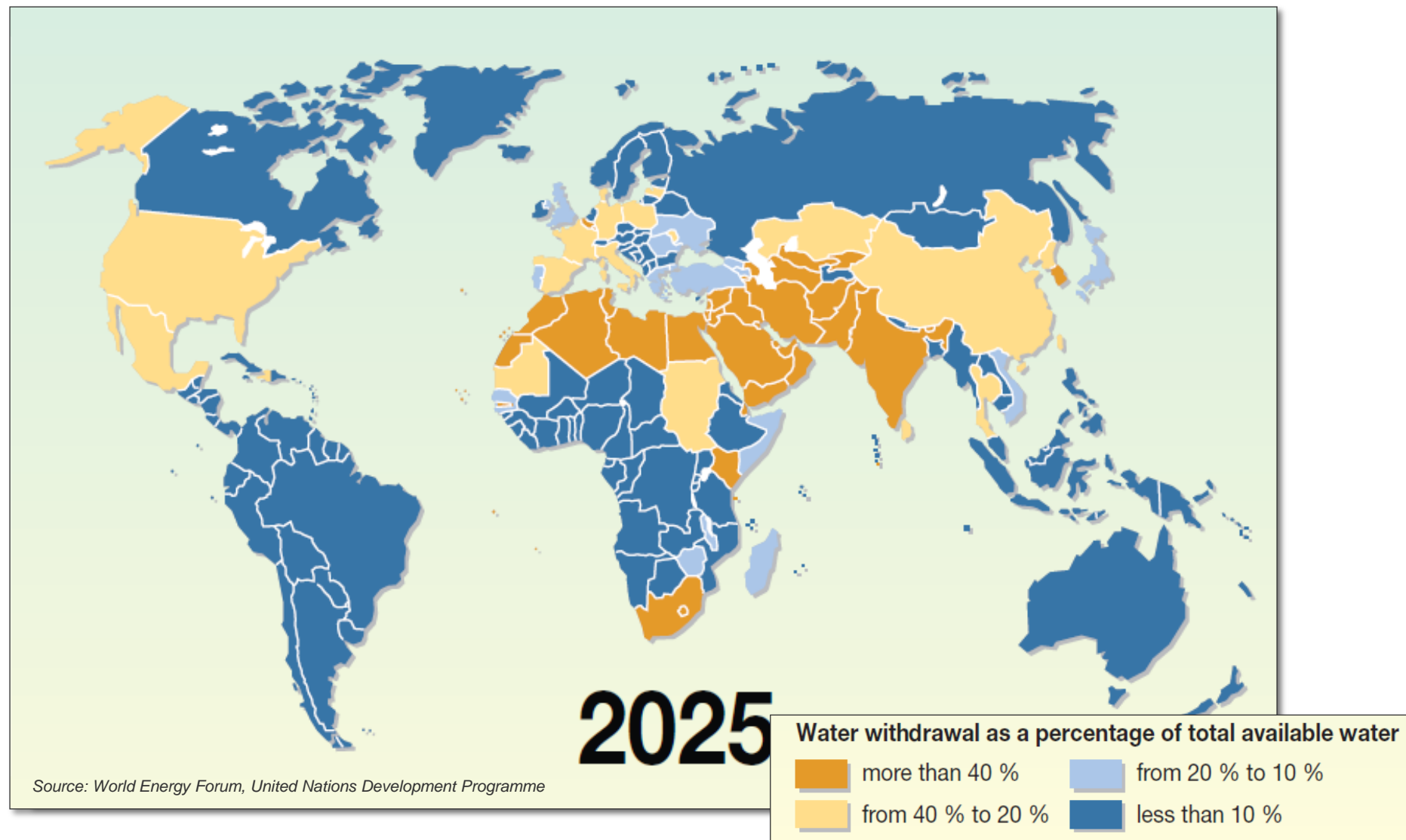
Water use by plant type



Source: Electric Power Research Institute (EPRI), US

Water: A resource as well as a risk

The number of scarcity-affected regions and people is set to grow rapidly



The stress nexus: Energy – water – food

700 WEF2014 participants ranked water, food & climate risks top

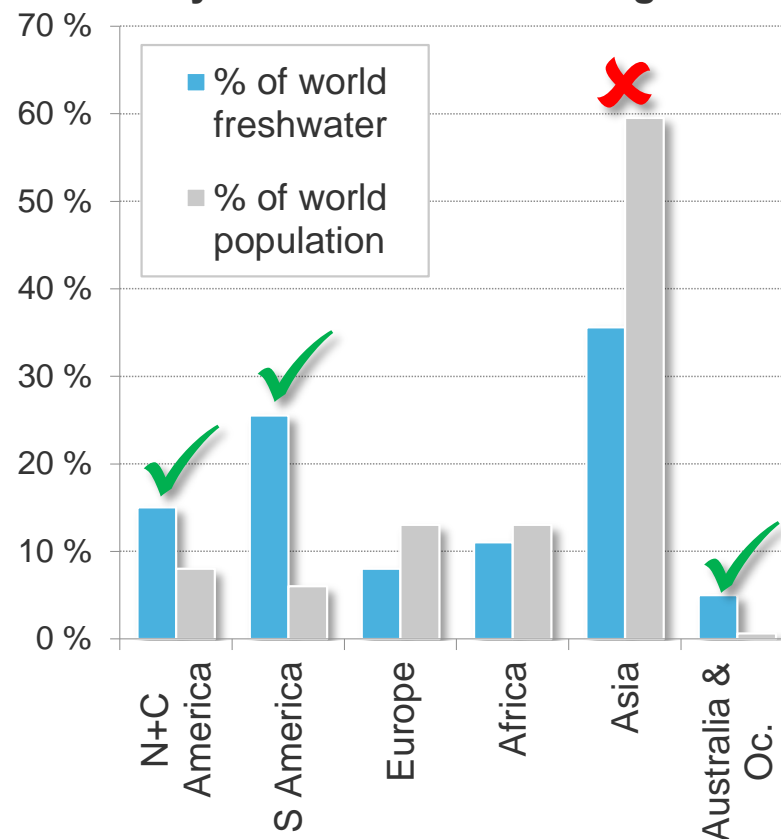
Table 1: Ten Global Risks of Highest Concern in 2014

No.	Global Risk
1	Fiscal crises in key economies
2	Structurally high unemployment/underemployment
3	Water crises
4	Severe income disparity
5	Failure of climate change mitigation and adaptation
6	Greater incidence of extreme weather events (e.g. floods, storms, fires)
7	Global governance failure
8	Food crises
9	Failure of a major financial mechanism/institution
10	Profound political and social instability

Source: Global Risks Perception Survey 2013-2014.

Note: From a list of 31 risks, survey respondents were asked to identify the five they are most concerned about.

Water stress is not only a “poor, arid country” issue! 2009 OECD figures:

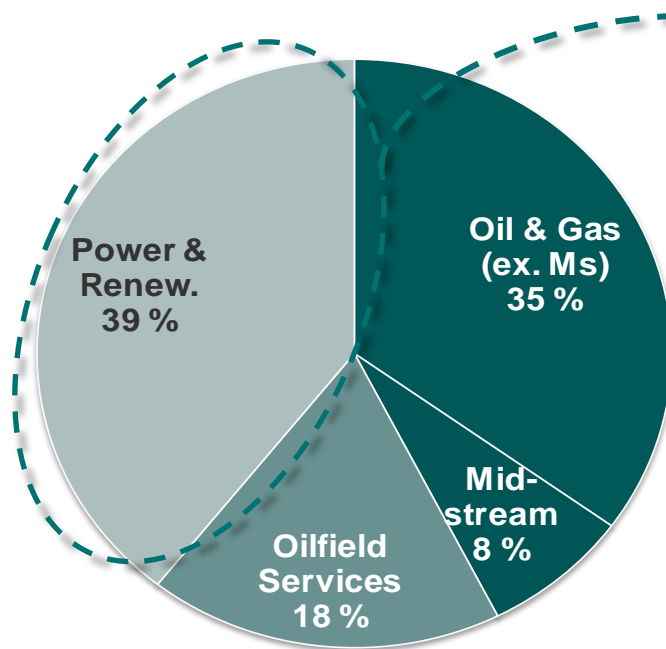


Sources: OECD Environment Outlook to 2050

World Economic Forum in collaboration with Marsh & McLennan Companies, Swiss Re, Zurich Insurance Group, National University of Singapore, Oxford Martin School, University of Oxford, Wharton Risk Management and Decision Processes Center, University of Pennsylvania. BofAML “Peak Water”, April 2014; Shell Energy-water-food

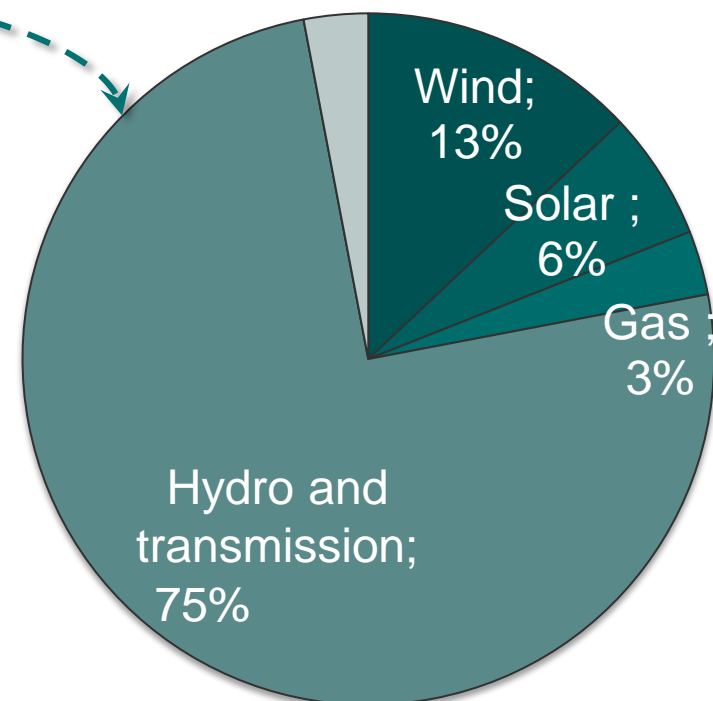
DNB's energy portfolio is evenly split between “conventionals” and renewable sources

Total DNB Energy EaD split per 31 Dec 2013



NOK 141bn

Hydropower and transmission = 75% of P&R's portfolio







IEA recently published new investment estimates to 2035

A massive amount of resources needed to keep wheels turning and lights on

