SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

Science and Technology for SDGs
Decarbonizing the energy system

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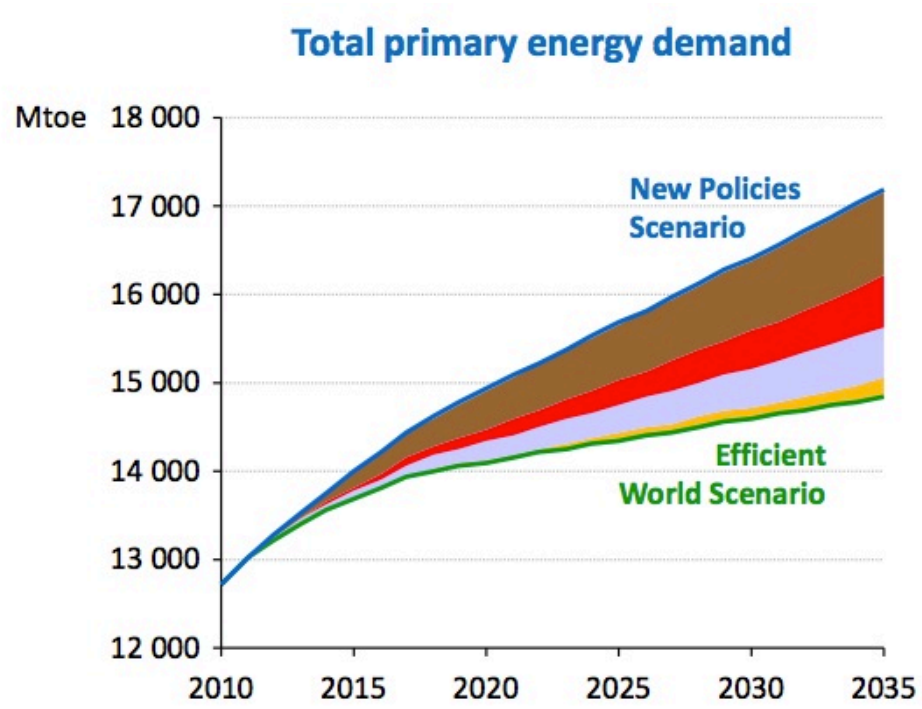
The three pillars of energy decarbonization

- Reduced energy consumption
- Decarbonized power sector
- Electrified energy systems

Improved energy efficiency

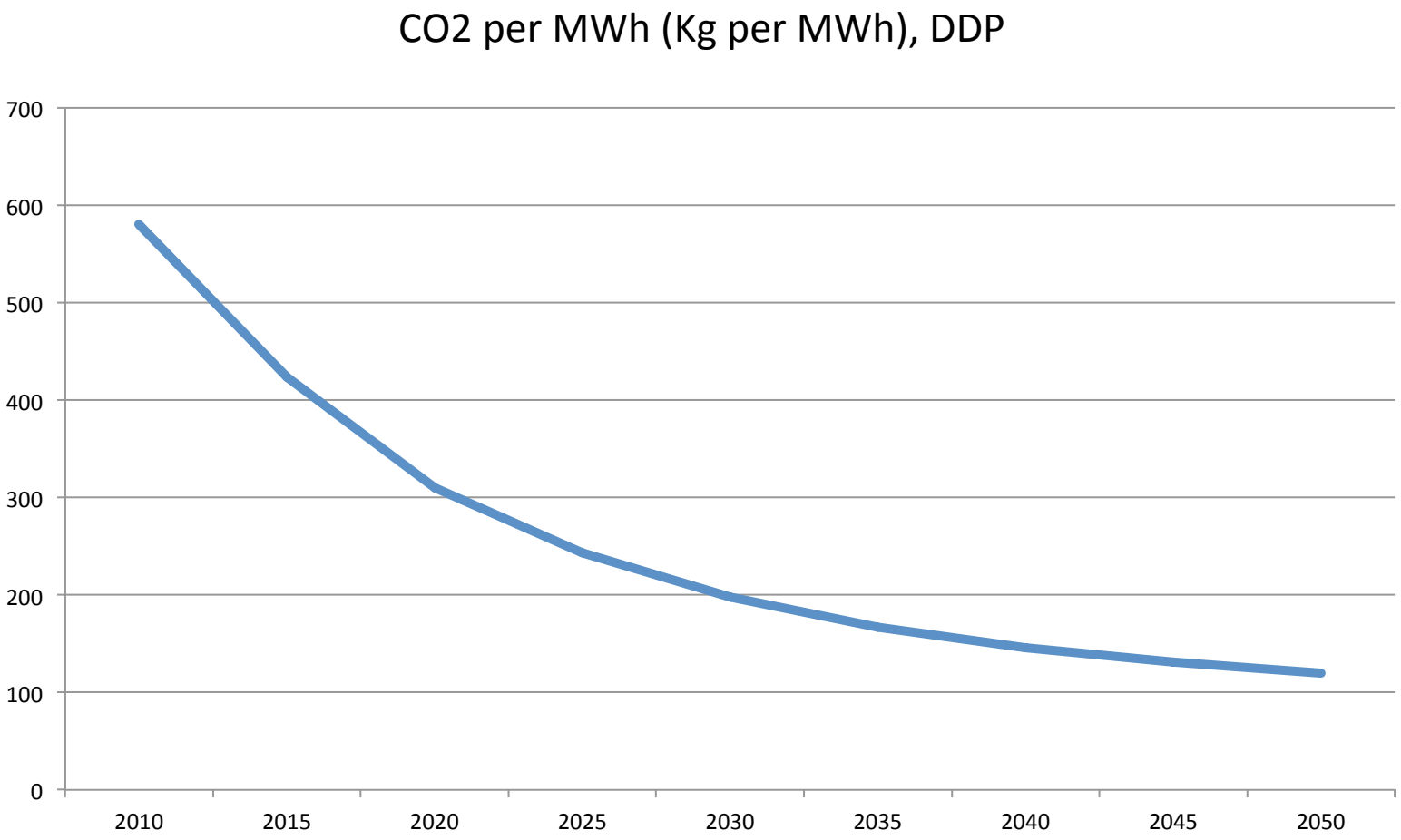
2012 IEA WEO



Reduction in 2035		
Coal	1 350	Mtce
Oil	12.7	mb/d
Gas	680	bcm
Others	250	Mtoe

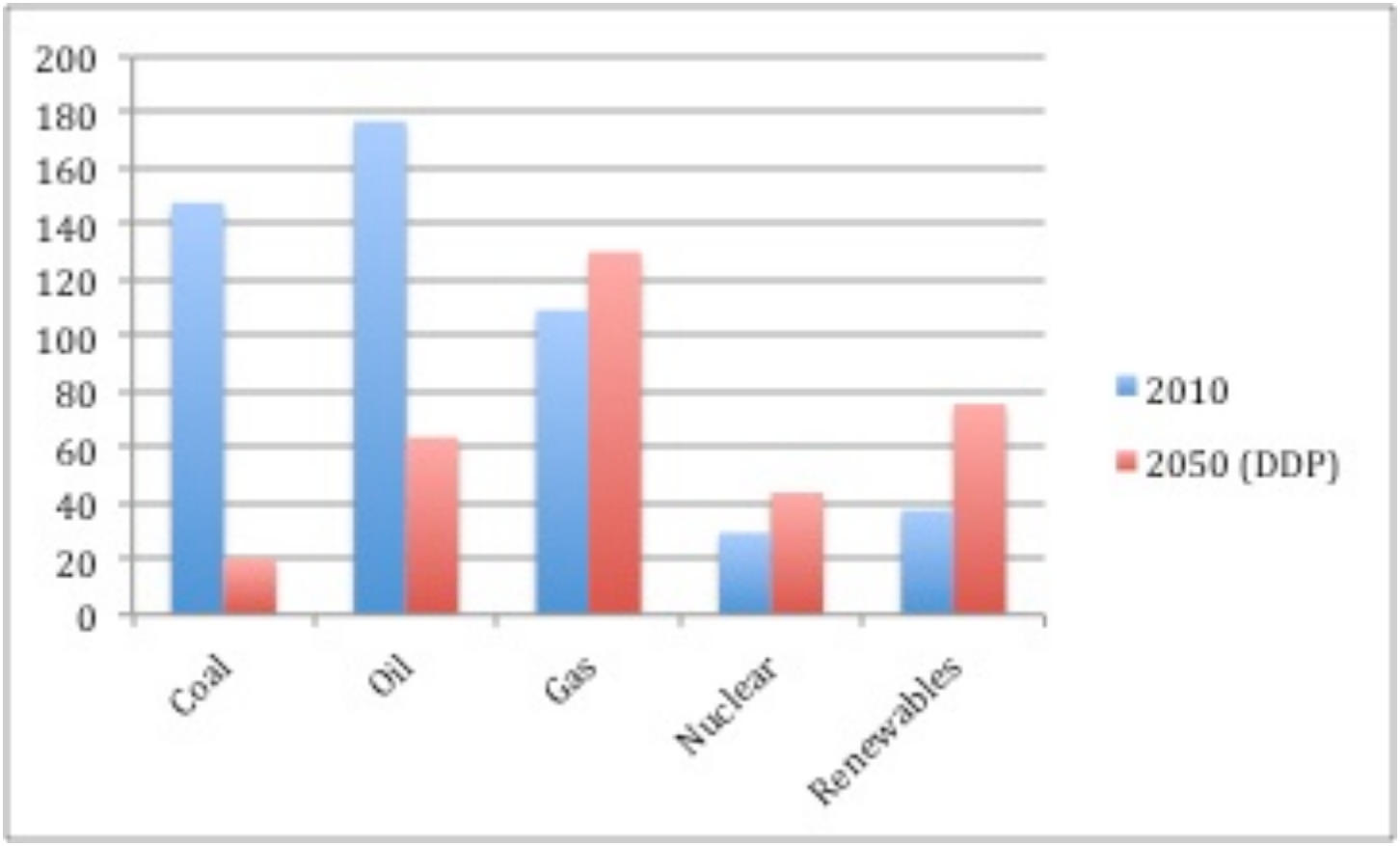
Economically viable efficiency measures can halve energy demand growth to 2035; oil demand savings equal the current production of Russia & Norway

Decarbonized power sector



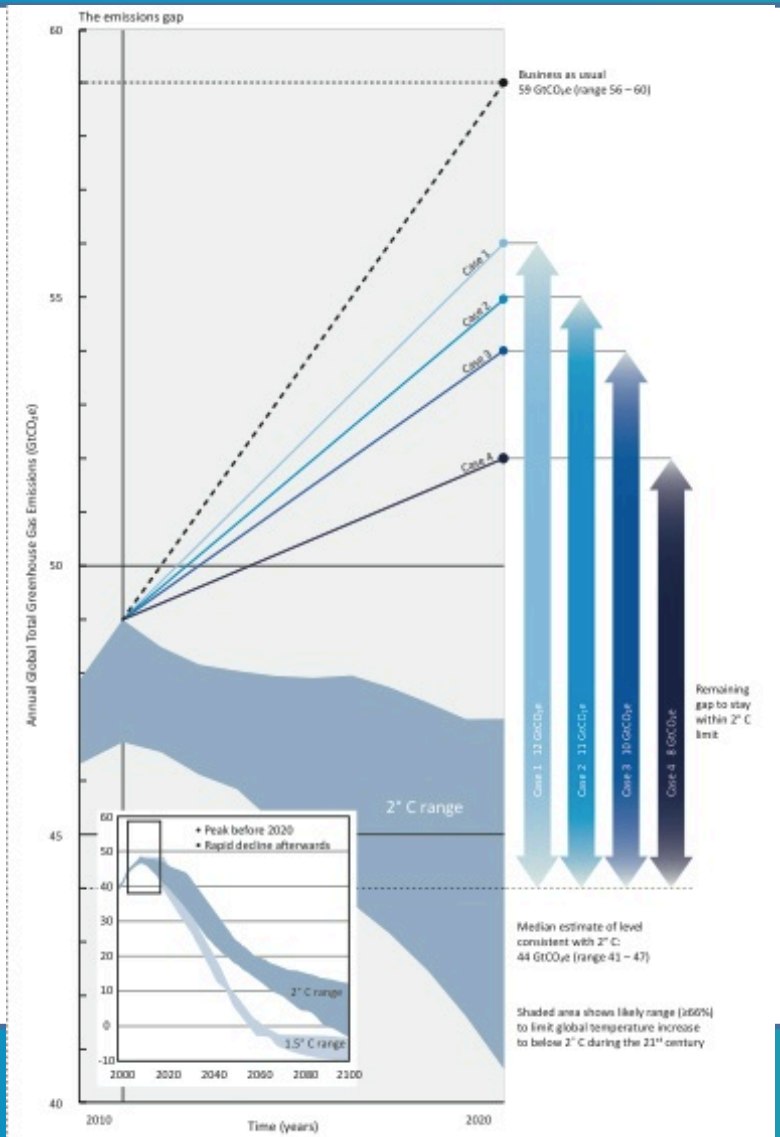
Change in Primary Energy Supplies

(Quads), 2010-2050, DDP



We are not even close

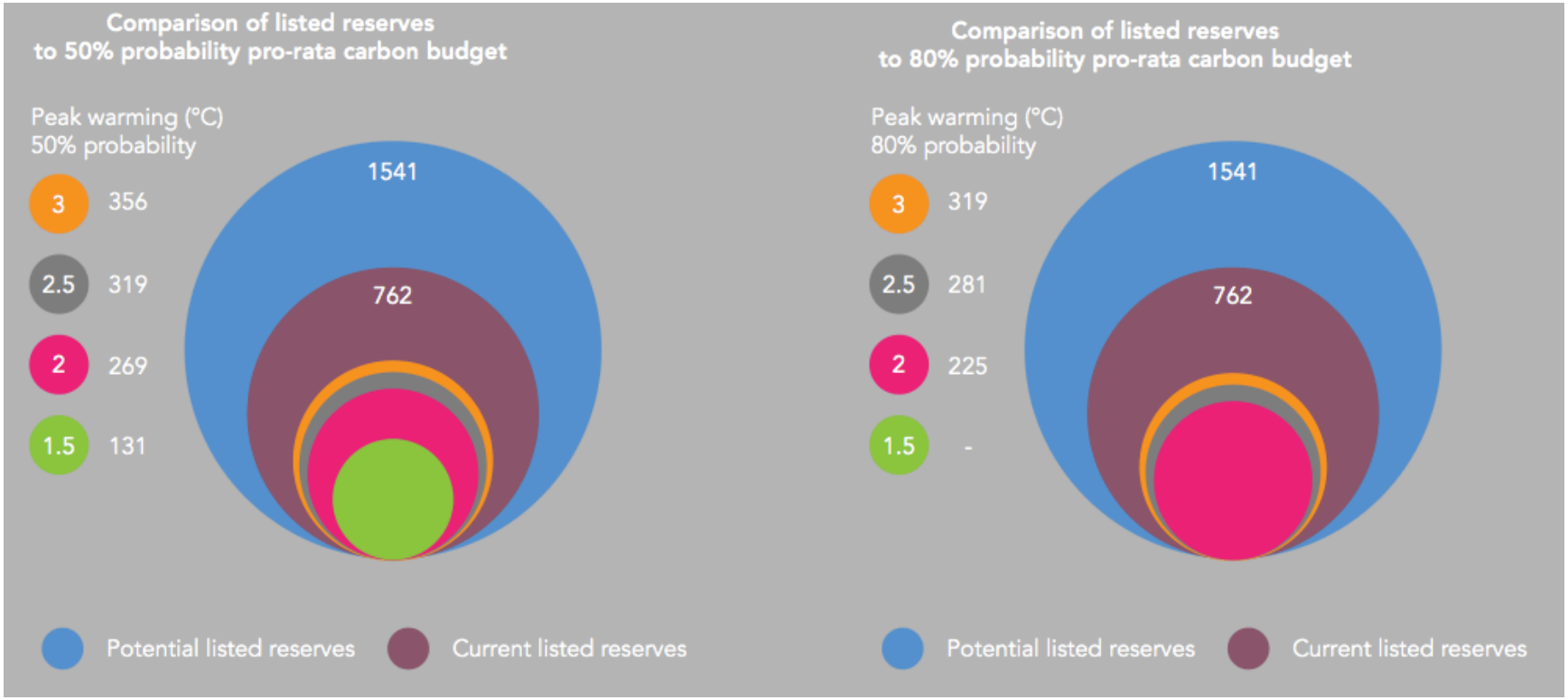
8 to 12 Gt CO2e emissions gap by 2020



2013 UNEP Emissions Gap Report

We are building stranded assets

2013 Carbon Tracker report



The need for national deep decarbonization pathways

- The Deep Decarbonization Pathways Project (DDPP)

- An initiative of the SDSN, IDDRI, and research institutions in 12 countries (Australia, Brazil, China, European Union, India, Indonesia, Japan, Mexico, Russia, South Africa, South Korea, the United States of America), covering more than 70% of global C02 emissions

DDPP

- Objectives of the DDPP
  - Prepare transparent and practical national deep decarbonization pathways to 2050 to help countries adopt and implement policies to achieve deep decarbonization.
  - Support positive outcomes of the 2014 World Leaders Climate Summit, convened by the UN Secretary General Ban Ki Moon, and the 2015 Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change (UNFCCC), under French Presidency.
  - Build an on-going global network to facilitate learning and promote problem solving in the implementation phase of national of deep decarbonization strategies after 2015.