



THE UNIVERSITY OF
TEXAS
AT AUSTIN

Opportunities for Africa in Carbon Capture and Storage (CCS)

Tim Dixon, IEAGHG

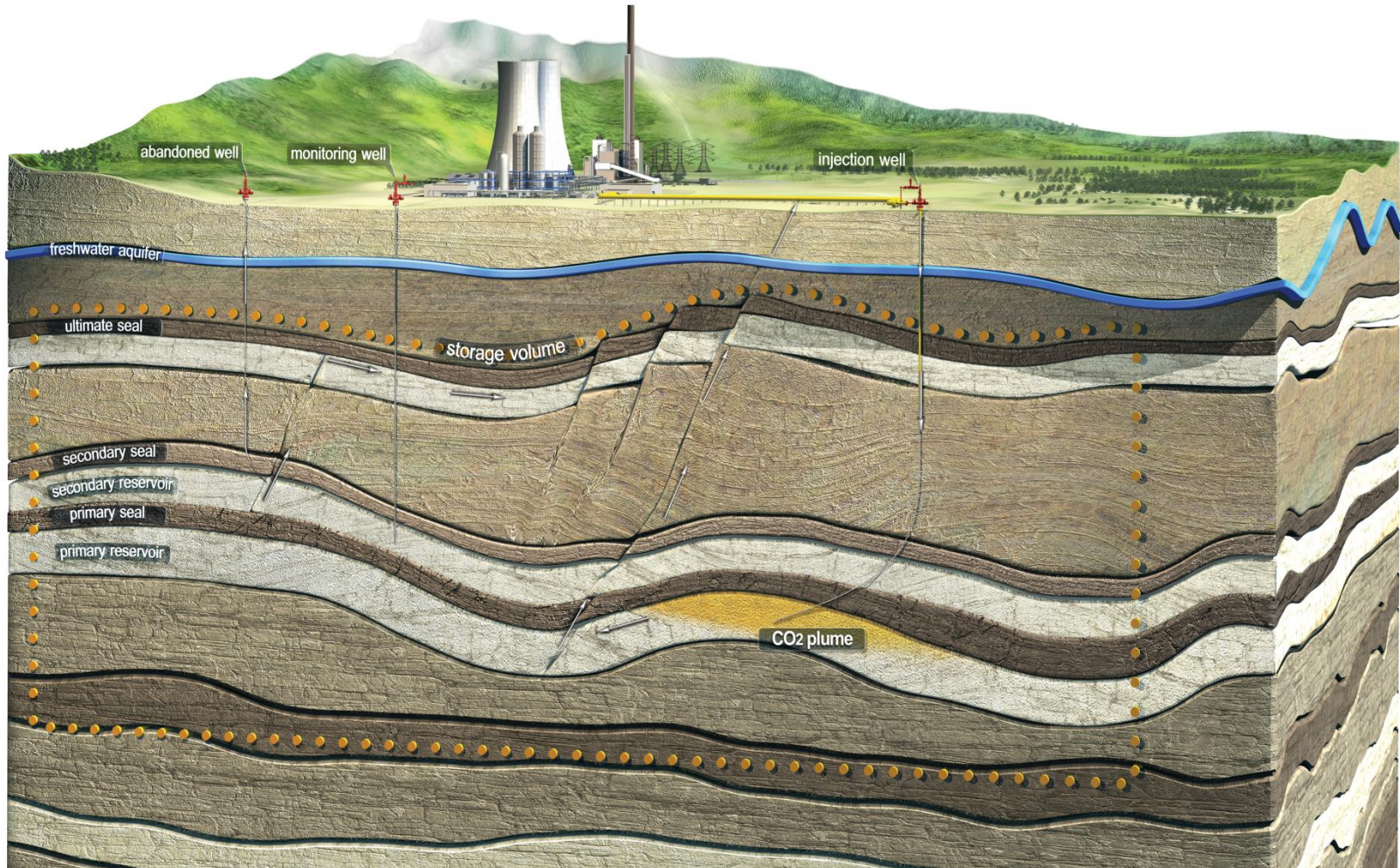
8th November 2016

UNFCCC Side Event

COP-22, Marrakech



What is CCS?

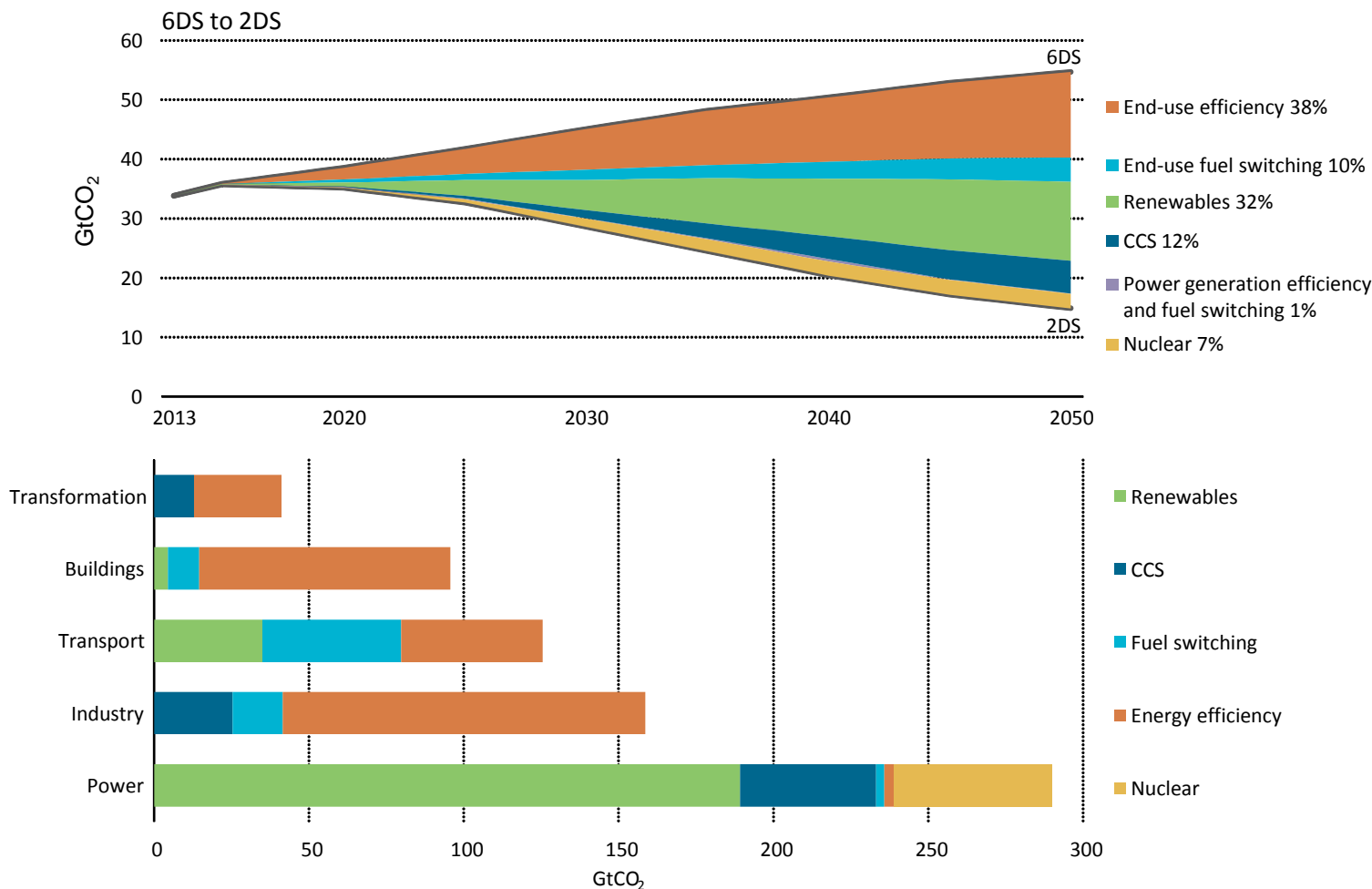


Source: DNV

The momentum from COP21 needs to be accelerated to reach 2DS ambitions

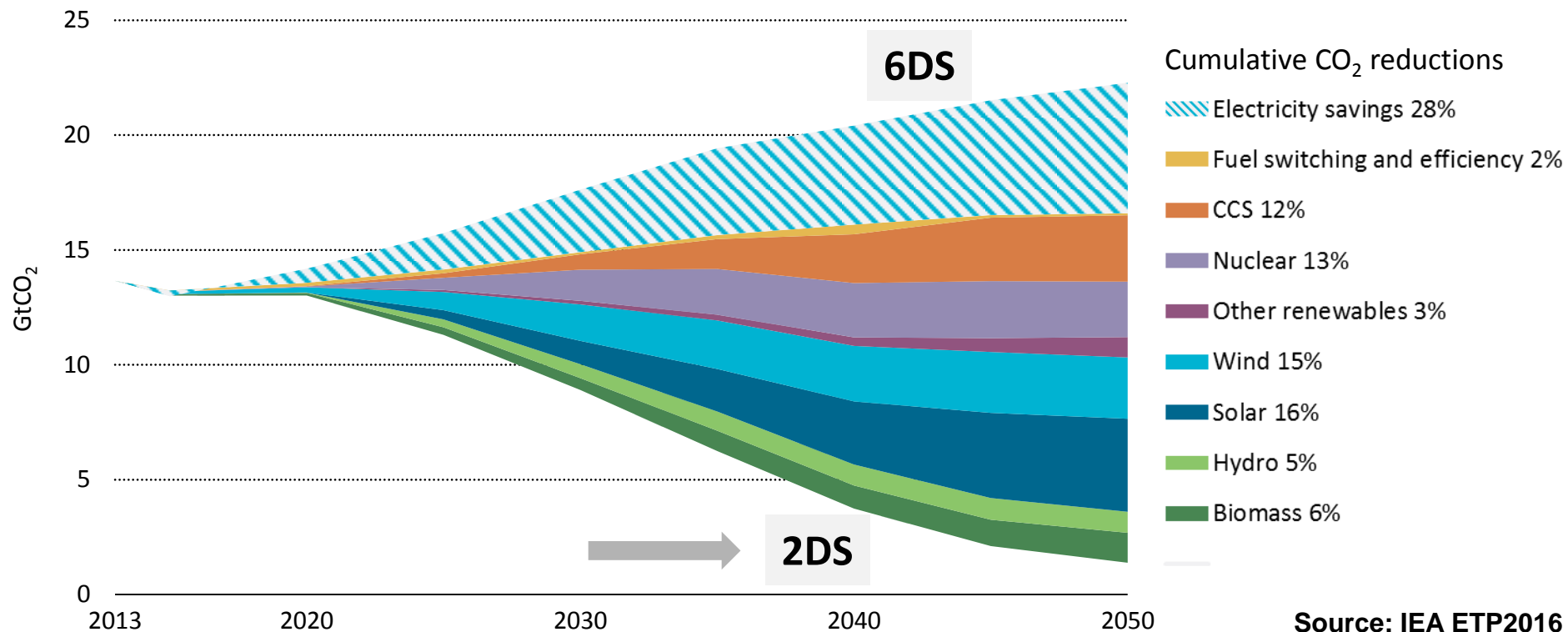
ETP
2016

Contribution of technology area and sector to global cumulative CO₂ reductions



Actions need to be pursued by stakeholders in all sectors to achieve an optimal transition strategy.

Power sector challenge



Electricity generation needs to be almost completely decarbonised in the 2DS, from a CO₂ intensity of around 530 g/kWh today to less than 40 g/kWh by 2050.



IPCC Fifth Assessment Report Synthesis Report

2nd November 2014
Copenhagen

IPCC AR5 Synthesis Report

ipcc
INTERGOVERNMENTAL PANEL ON climate change







IPCC AR5 – Role of different low-carbon energy technologies



Mitigation cost increases in scenarios with limited availability of technologies ^d

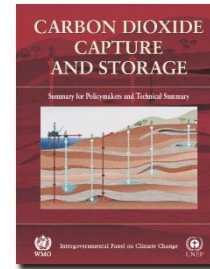
[% increase in total discounted ^a mitigation costs (2015–2100) relative to default technology assumptions]

2100 concentrations (ppm CO ₂ -eq)	no CCS	nuclear phase out	limited solar/wind	limited bioenergy
450 (430 to 480)	138% (29 to 297%) 	7% (4 to 18%) 	6% (2 to 29%) 	64% (44 to 78%) 

CCS in UNFCCC



➤ **2005 - IPCC SR on CCS**



➤ 2005– 2011 CCS in CDM?

➤ 2011 – CCS CDM Abu Dhabi workshop



➤ **2011 - COP-17 CCS in CDM**



➤ 2014 - ADP TEM on CCS – project focussed



➤ 2014 - COP-20 – CCS projects Side Event



➤ 2015 - COP-21 – CCS projects Side Event





- **‘Climate Action Now’
UNFCCC - 18 Nov 2015**
- High level summary of policy actions with high mitigation potential at 2020
- Builds on Technical Expert Meetings (TEMs)
- Includes CCUS as one of the six priority areas
- Significance of Boundary Dam CCUS project
- Solutions through international cooperation - IEAGHG



Climate Action Now

Summary
for Policymakers
2015



United Nations
Climate Change Secretariat



Opportunities for Africa in CCS

- **CCS Economic Development Opportunities for Africa** - Joseph Essandoh-Yeddu, Energy Commission, Ghana
- **CCS Developments in South Africa** – Tony Surr ridge, SANEDI, South Africa
- **Collaboration Opportunities at the International CCS Knowledge Centre** - Mike Monea, International CCS Knowledge Centre, Saskatchewan, Canada
- **CO2 Storage Pilot Projects in the EU – Opportunities for Collaboration** - Ton Wildenborg, CO2GeoNet, EU
- **Offshore storage opportunities, CSLF and CTCN** - Katherine Romanak, University of Texas, USA
- **CCS Opportunities in Nigeria** – Felicia Mogo, NIMASA, Nigeria



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Carbon Capture &
Storage Association

