

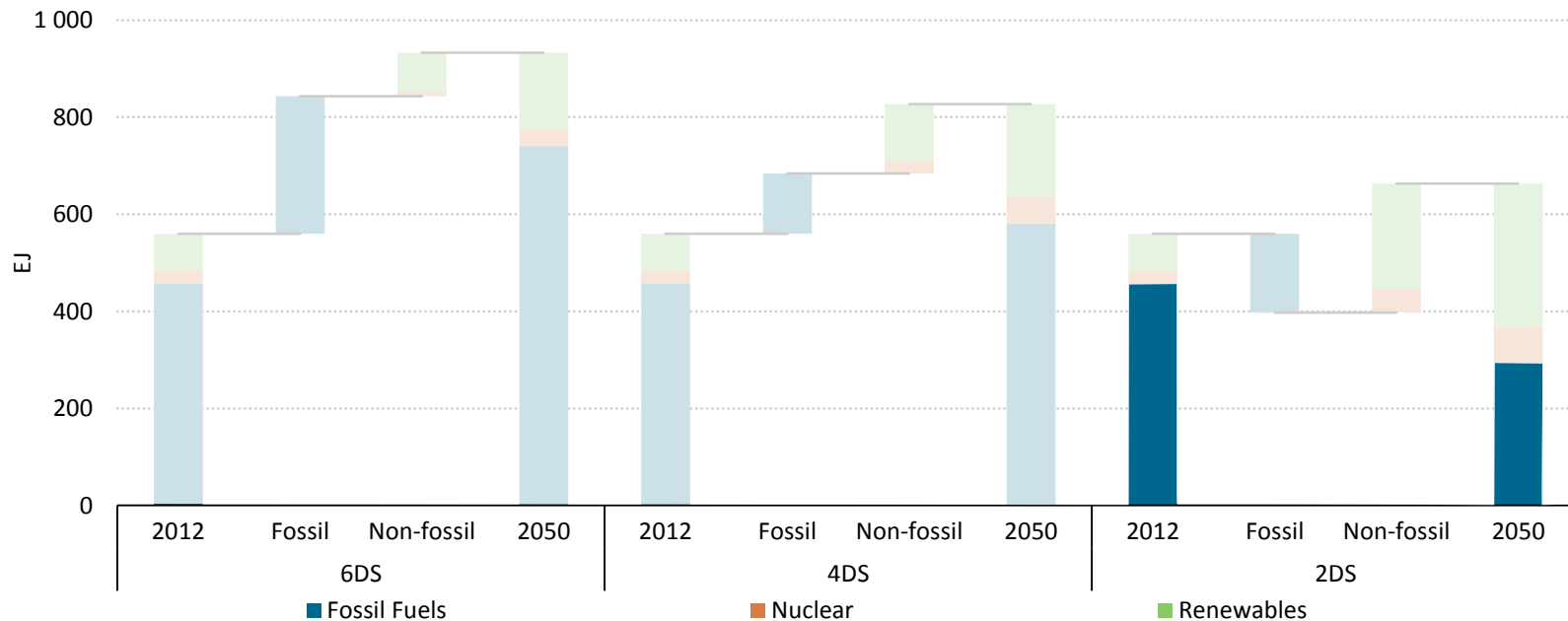
Captage et stockage de carbone (CCS): Une option *incontournable*

M. Juho Lipponen
Head of Carbon Capture and Storage Unit
International Energy Agency

Paris, 2 Décembre 2015

www.iea.org

Ambitious energy transformation: role of fossil fuels remains



Role of fossil fuels diminishes, but still has a 44% share in 2050 in IEA's climate-friendly energy scenario ("2DS")



Why CCS?



EXISTING ELECTRICITY PRODUCTION CAPACITY

- Reducing emissions through RETROFITTING
- Importance of China: >600 large power stations can be retrofitted



NEW ELECTRICITY PRODUCTION CAPACITY

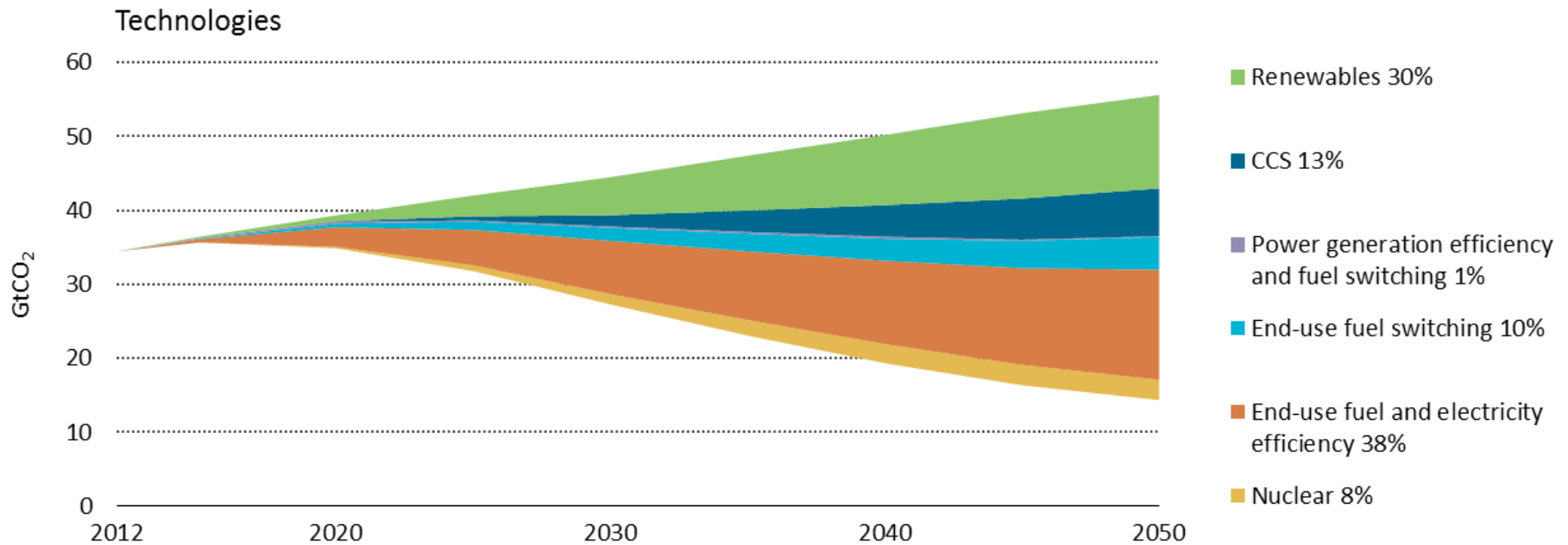
- Using CCS on coal and gas power stations where relevant
- Will help reduce overall investment cost

APPLICATIONS FOR VARIOUS PROCESS INDUSTRIES

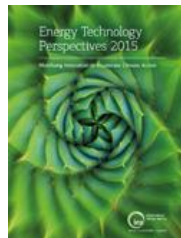
- Cement, steel, chemicals, refining, natural gas production etc.
- No other options known for deep emission reductions



Pas de “solution miracle” – Un portefeuille de technologies



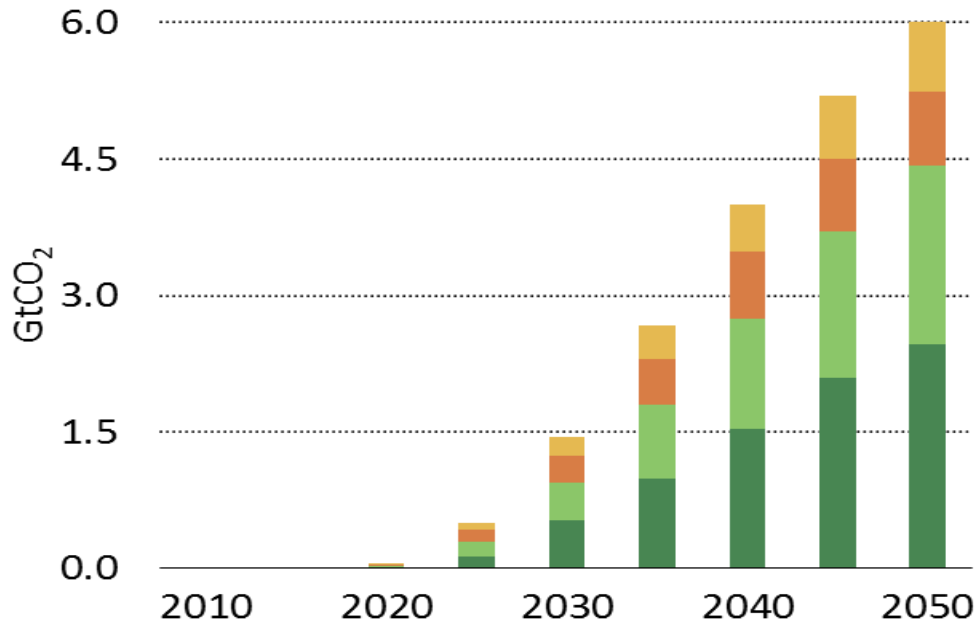
CCS is one solution amongst many others – but critical for many sectors.



2000 installations by 2050?



CO₂ captured and stored



Non-OECD Electricity sector Industrial applications
OECD Electricity sector Industrial applications

- *100 Gt CO₂ captured and stored by 2050*
- *CCS is important in both electricity and industry (“50-50”).*
- *Over 2/3 of CO₂ captured is in non-OECD countries.*
- *Reaching climate goals without CCS is more costly: +138% (IPPC)*



Technology is there... ...but where is policy?



Long-term vision for CCS deployment



Technology RD&D framework

Research and
development
policy and
programmes

Demonstration funding



Incentive framework

Targeted
deployment
incentives

Prices or
limits on
emissions



Permitting framework

Efficient
resource
management

Regulation
for safe,
effective
storage

Targeted policy measures required to advance CCS: national policy frameworks and international progress within UNFCCC.



Thank you.

juho.lipponen@iea.org