Energy Technology Perspectives 2015

Energy Technology Perspectives 2015:

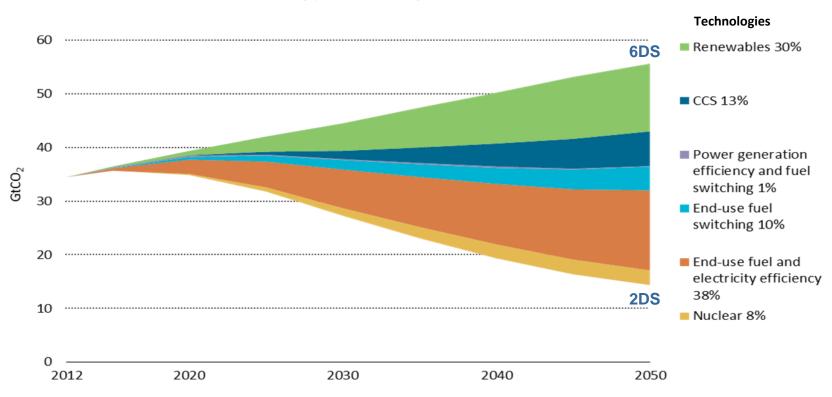
Mobilising Innovation to Accelerate Climate Action

Asia Clean Energy Forum
Manila, 18 June 2015
Jean-François Gagné
Energy Technology Policy Division,
International Energy Agency



Energy Innovation is crucial in making the 2DS possible

Contribution of technology area to global cumulative CO2 reductions



Energy innovation has already yielded solutions, but needs support and guidance to deliver on its promises



Clean energy is not ramping up fast enough - Despite some progress

ETP 2015

| 10- | > | Rene | wable power | |
|-----|-------------|--|-----------------|--|
| 8 | ~ | Nuclear power | | |
| | ~ | Gas | Gas-fired power | |
| | ~ | Coal-fired power | | |
| | 7 | Carbon capture and storage | | |
| | ~ | | Industry | |
| | 7 | Fuel economy | | |
| | 7 | Electric and Hybrid elec | ctric vehicles | |
| | ~ | Buildings | | |
| | ~ | | Smart grids | |
| | ~ | Co-generation and district heating and cooling | | |

Evidence shows that despite continued progress in many areas, for the first time none of the technologies are in line with 2DS goals



Supporting Energy Innovation: The right policy at the right time

Market deployment Time

The right support depends on the maturity of the technology and the degree of market uptake



Building innovation capacity is key to successful technology deployment



Information and awareness Knowledge diffusion (guidance, best practices) **Technology incubators** Public-private partnerships International collaboration **Education and training** Development Research Mass market Demonstration Deployment

Cooperation between industrial and emerging economies could be a win-win solution



Innovation in a diverse world: no "one-size fits all" solution

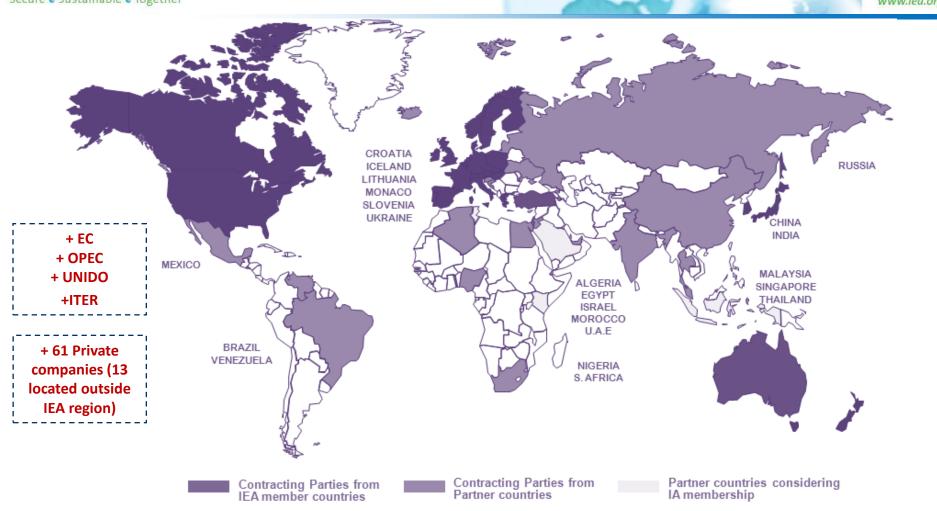
Understanding local circumstances is essential to support innovation where it has the most impact





IEA Implementing Agreements (IAs)

Secure • Sustainable • Together



More than 6,000 scientists and experts
Representing 500 government agencies, research organisations,
universities, energy companies, industries, businesses, and consultants
Over 1,400 projects completed to date









IEA Energy Technology Activities

ETP 2015

■ Where do we need to go?

■ Where are we today?

■ How do we get there?





IEA Technology Roadmaps

Mapping where we need to go....





... By building consensus among all stakeholders

- Goal to achieve
- Milestones to be met
- Gaps to be filled
- Actions to overcome gaps and barriers
- What and when things need to be achieved

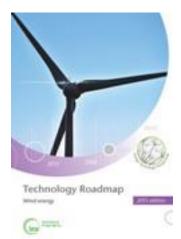






How2Guides principles

www.iea.org



IEA Global Roadmap

Engages with public and private stakeholders to establish the barriers to technology deployment and the policies needed

IEA Technology Platform How2Guide

Provides practical information for policy makers and planners to establish a national or regional technology-specific roadmap

How Guide

Roading Development and Implementation

s to achieving that vision
e response actions and selected actions,
tionale for those choices

Implementing the vision for wind energy: actions and time frames

Identified actions with corresponding milestone dates
to achieve them, identifying responsible parties, and the cost
and benefits of those actions

This section may have sub-headings such as wind technology
development, system integration, policy, finance, public
acceptance and/or international collaboration

Monitoring and adjusting this roadmap

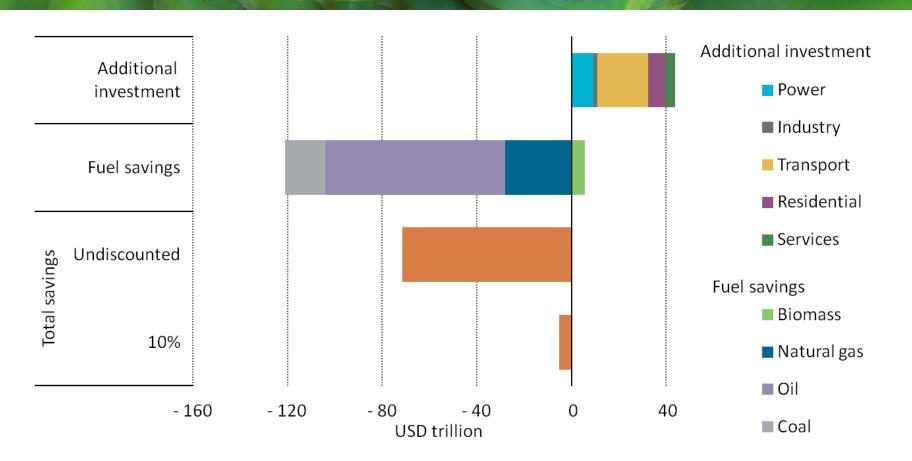
Agreed approaches to monitoring progress,
with specific metrics where possible

ntified parties tasked with monitoring implementation

iea INTERNATIONAL LOW-CARBON ENERGY TECHNOLOGY PLATFORM

Investment in our future pays off...





...and it is cost effective to make the transition

