



STEPPING UP ENERGY AND CLIMATE ACTION

Ricardo Gorini, DSc
REmap Senior Programme Officer

Vienna - 10 October 2018

2nd Energy and Climate Technical Working Group / Talanoa Dialogue

Where do we want to go?

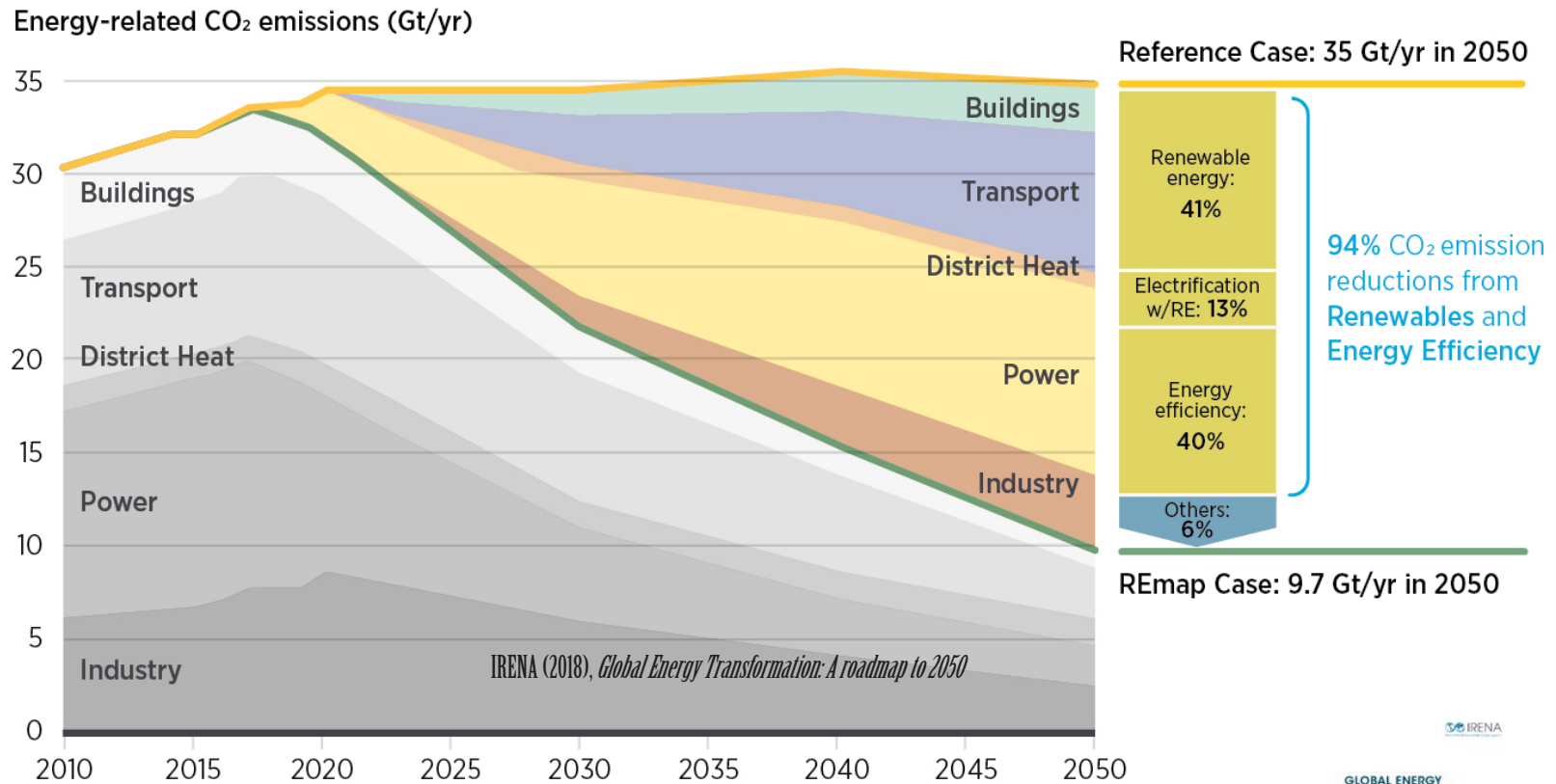
What do we want to achieve with the development of integrated National Energy and Climate Plans (NECPs) up to 2030?

Why NECPs up to 2030 should be accompanied by targets for renewables, energy efficiency and GHG emission reduction?

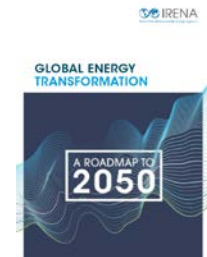
How can we increase the ambition of the plans in the long-term (2050)?

Global: Renewable energy and energy efficiency - over 90% of the reduction in energy-related CO₂

Annual energy-related CO₂ emissions and reductions, 2015-2050

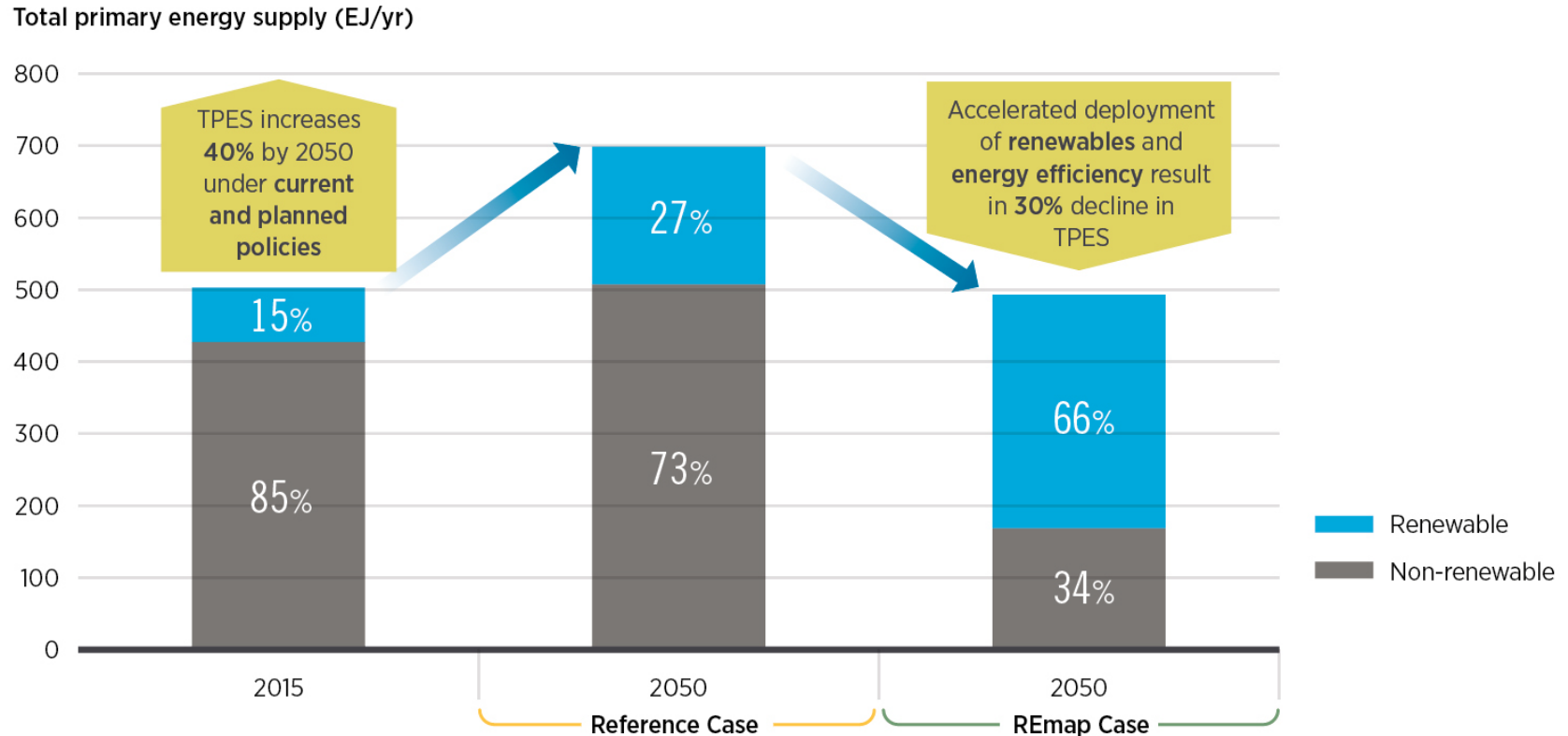


Annual energy-related emissions: remain flat under current policies but must be reduced by over 70% to bring temperature rise to below the 2°C goal.



The *global share* of renewable energy in energy supply would need to increase to two-thirds

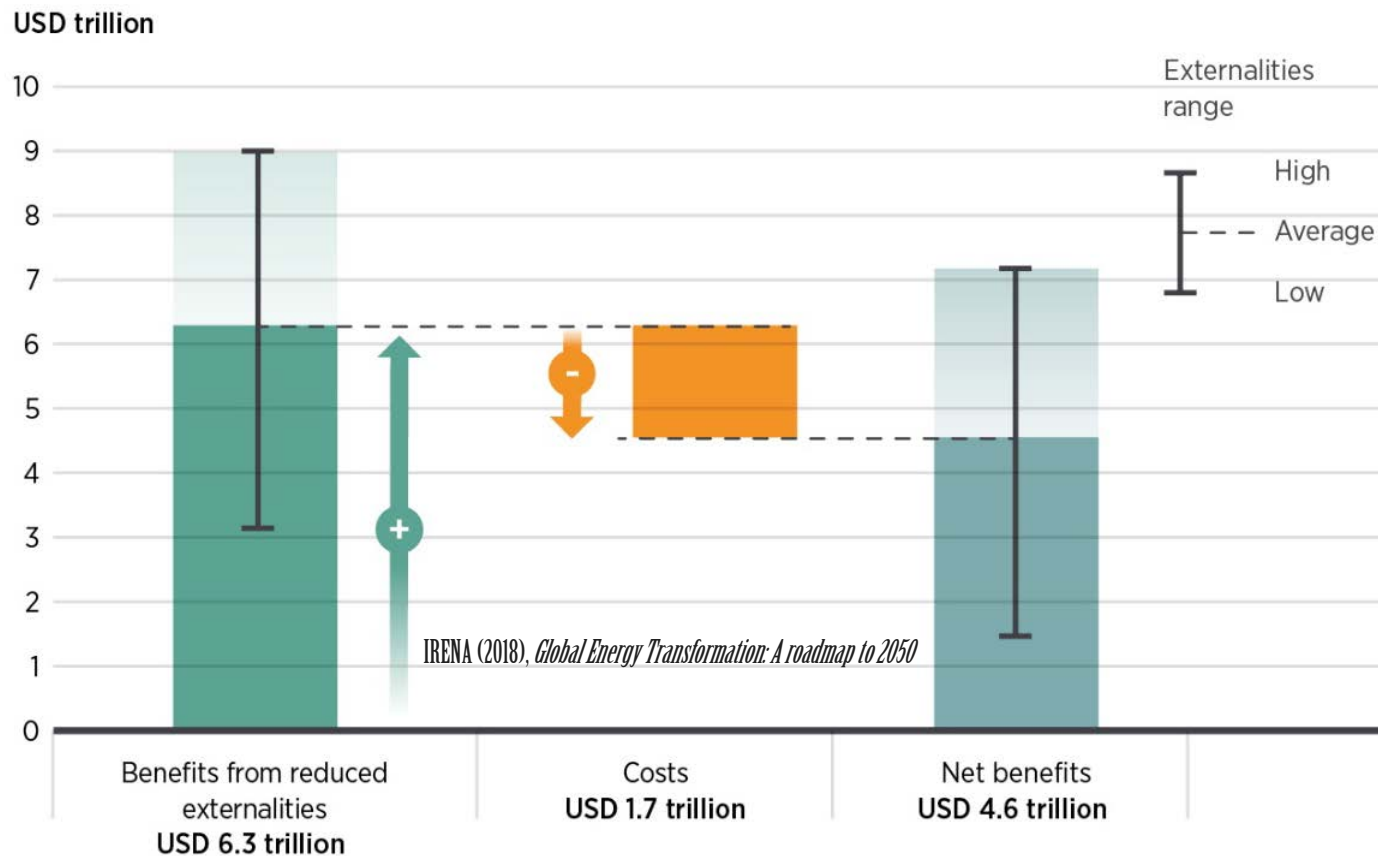
TPES and the share of renewable and non-renewable energy under the Reference and REmap cases



IRENA (2018), *Global Energy Transformation: A roadmap to 2050*

To achieve a pathway to energy transition (REmap Case), energy efficiency would need to reduce TPES slightly below 2015 levels, and renewable energy would need to provide two-thirds of the energy supply.

Annual costs of the energy transition set against reduced externalities (air pollution and CO₂ damages)
REmap Case compared to the Reference Case in 2050

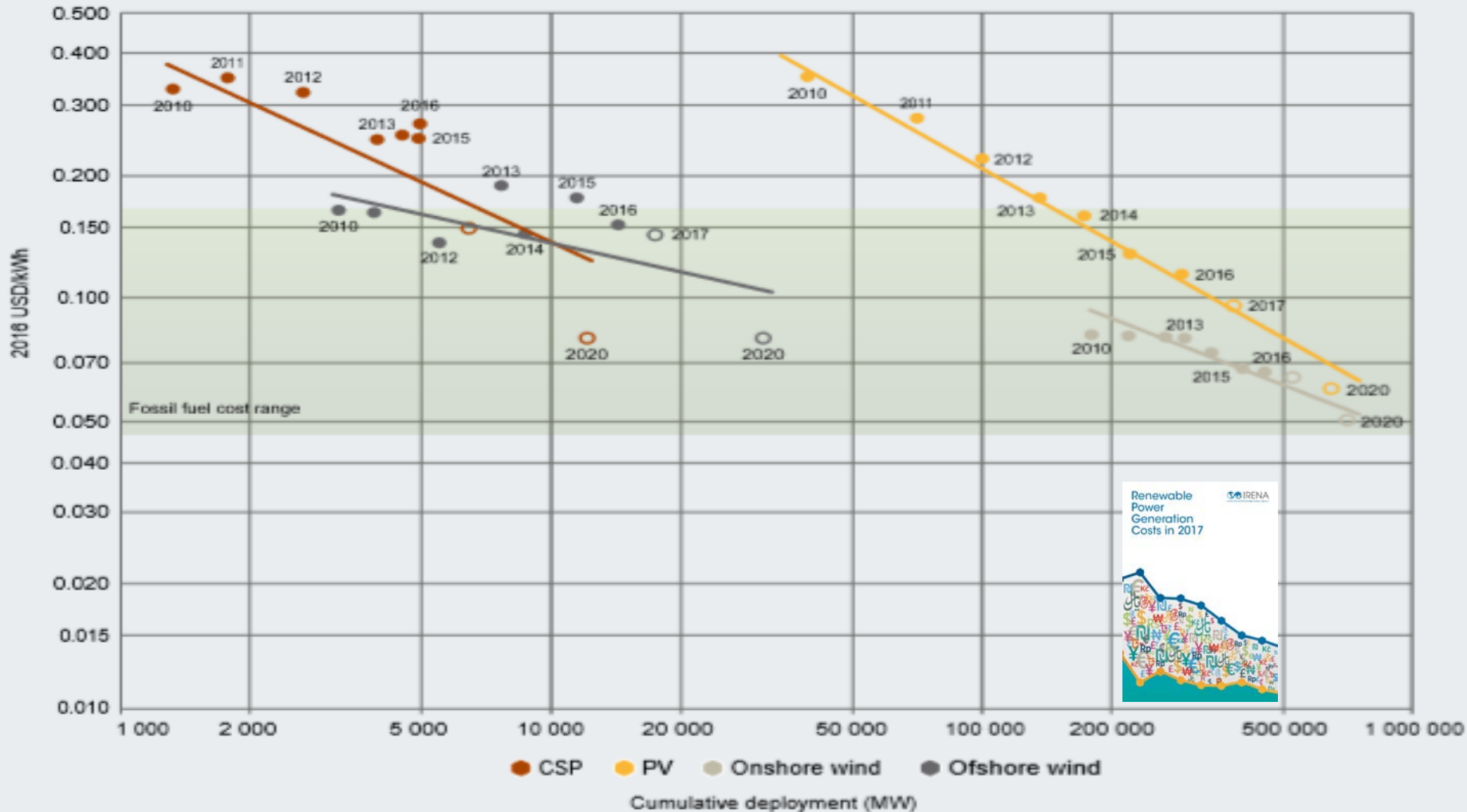


Under the REmap Case, annual health and CO₂ benefits associated with the energy transition outweigh incremental costs by a factor of 2 to 5 in 2050.

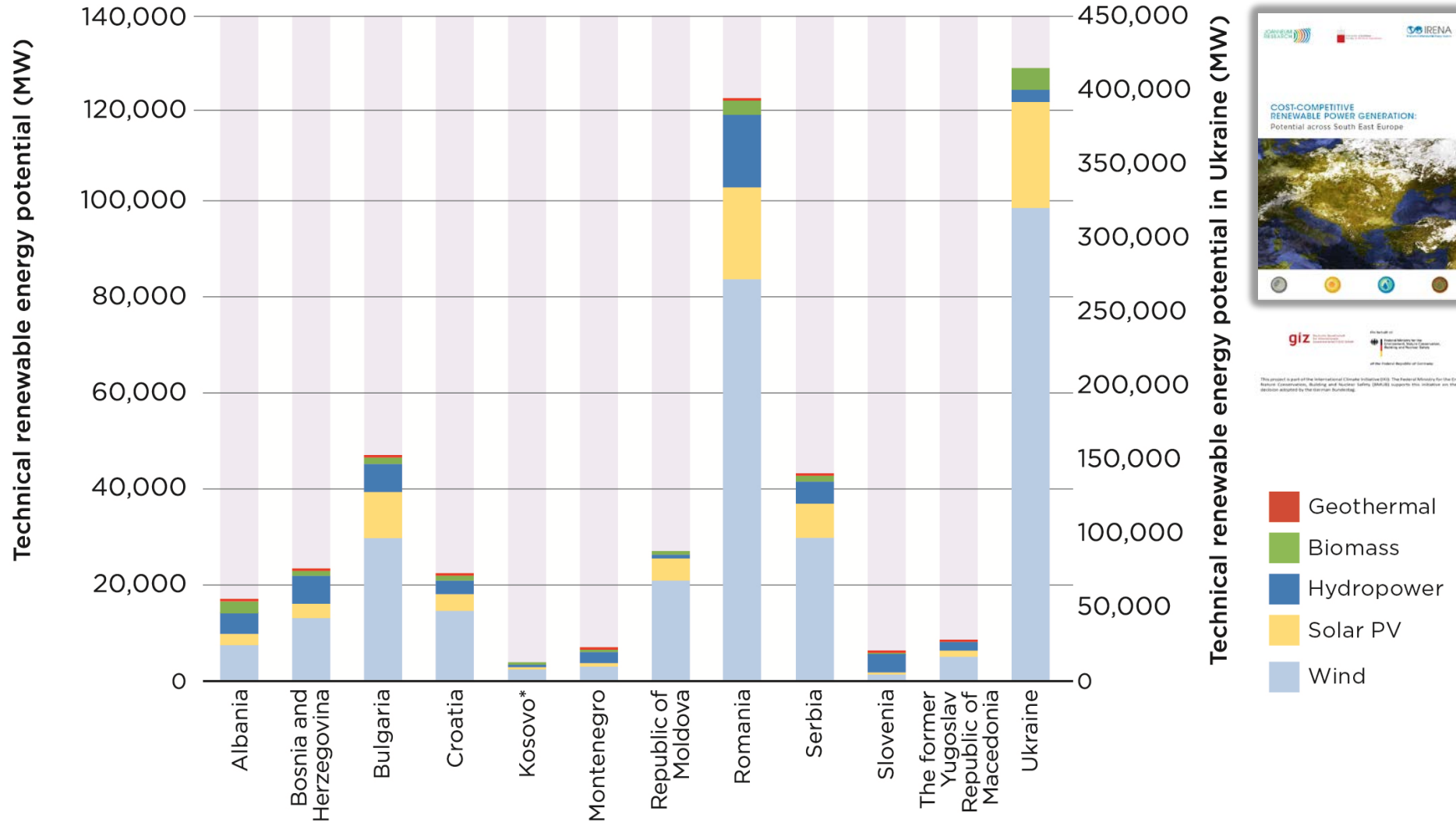
New era of Renewable Competitiveness

The tipping point

Figure ES.3 Learning curves for the global weighted average levelized cost of electricity from CSP, solar PV and onshore and offshore wind, 2010-2020

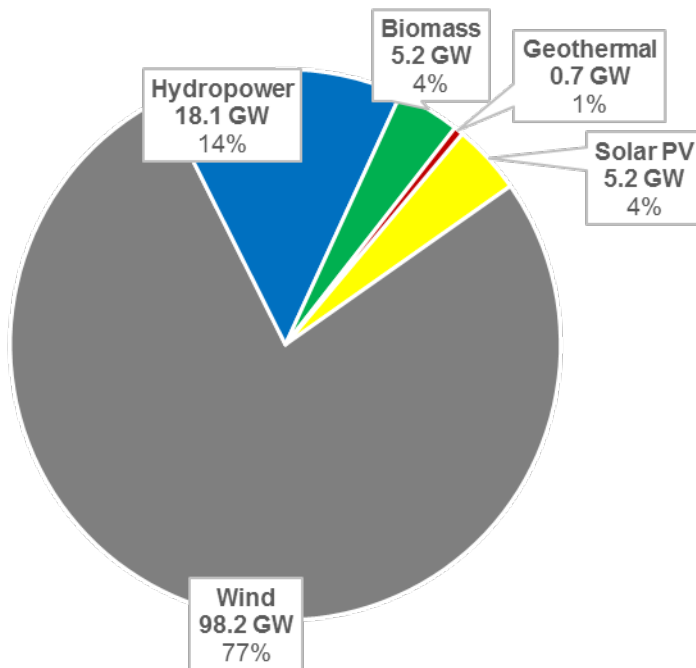


740 GW: Technical renewable energy potential in South East Europe

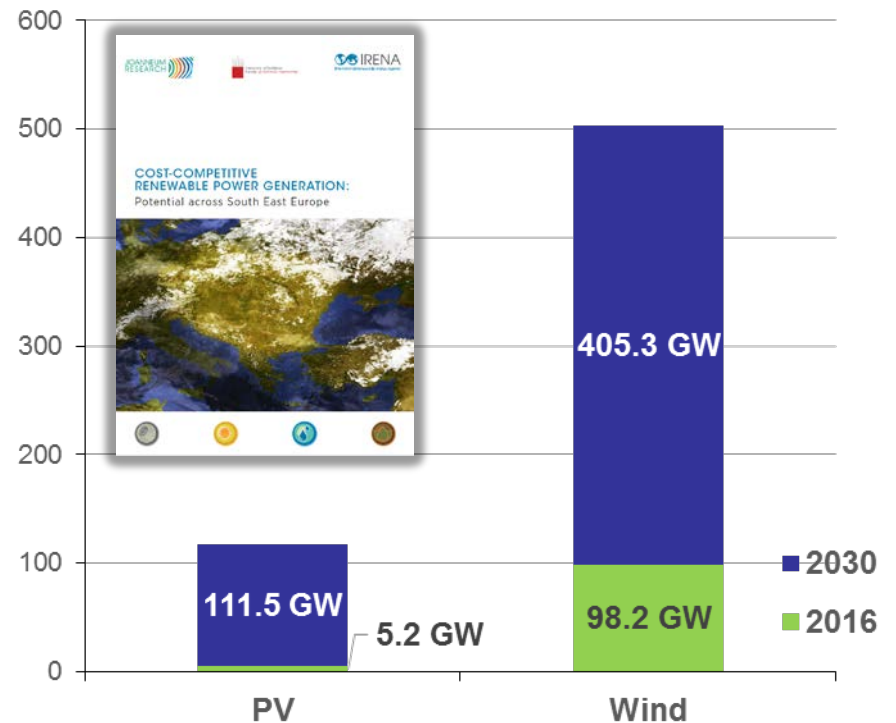


Cost-competitive Additional potential

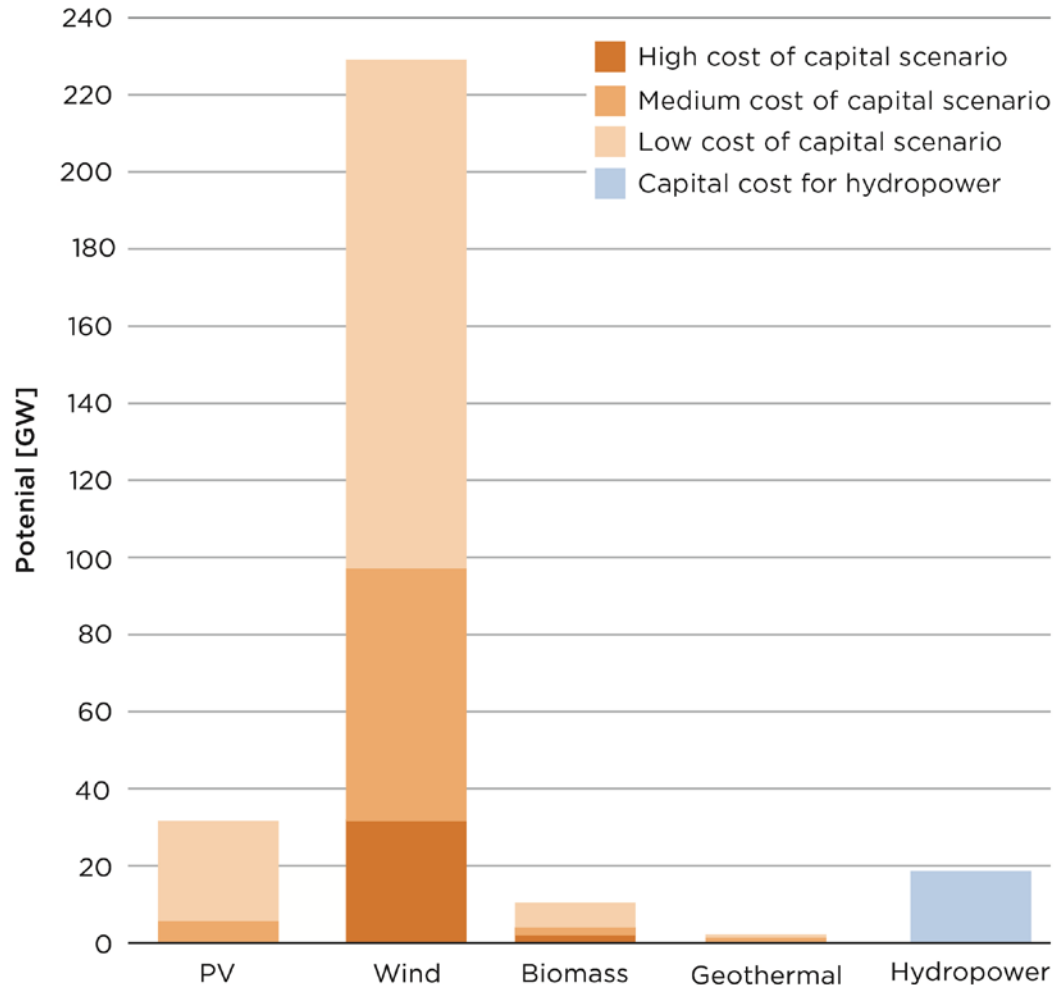
127 GW
Renewable Energy today



620 GW
Wind and Solar PV by 2030



Additional cost-competitive renewable energy potential in 2016

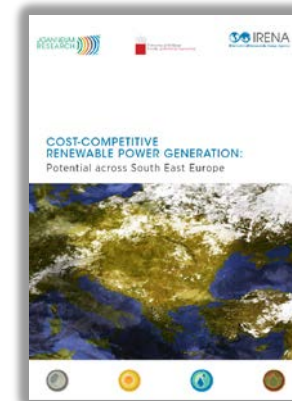
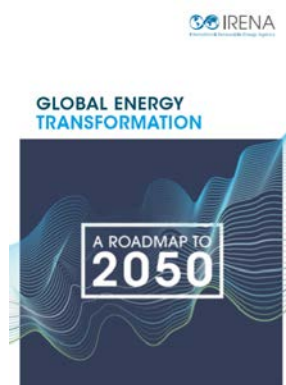
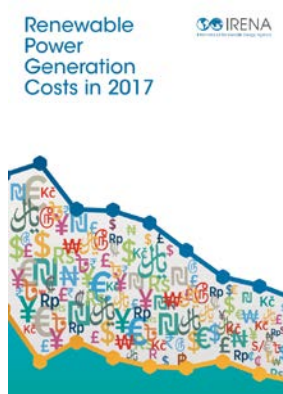


How to improve the risk perception of the region?

- Eliminate administrative barriers and improve market access
- Create attractive and consistent RE support schemes
- Improve PPA structure
- Address grid integration challenges
- Enhance skills and capacities
- Facilitate access to finance

- **Portfolio of technology options to accelerate renewables by 2030**
 - Across all sectors
 - Technology and country-specific
- **Benefits/costs and economic impact of accelerated renewables**
 - Energy system costs compared to reference case
 - Investment needs and direct impact on GDP
- **Other impacts**
 - Impact on fossil fuel imports / energy security
 - Operation of power sector – integration of renewables
 - GHG emission reductions
 - Avoided health damages
- **Opportunities for energy sector integration**
 - Across sectors → sector coupling
 - Across countries → power interconnections, biomass trade
- **Policy recommendations to unleash the potential**





Thank you.