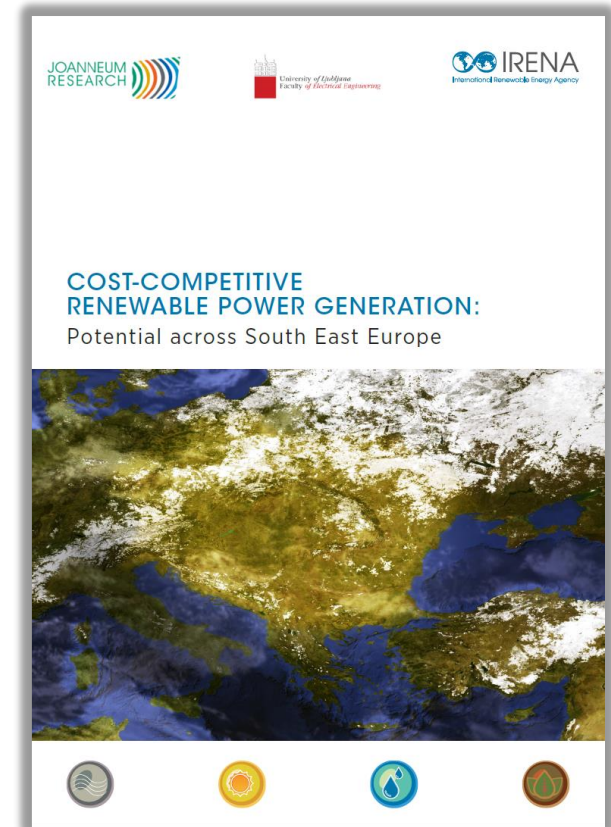


Cost-Competitive Renewable Power Generation: Potential across South East Europe

A Snapshot of Findings



Geographic scope

Contracting Parties of the Energy Community

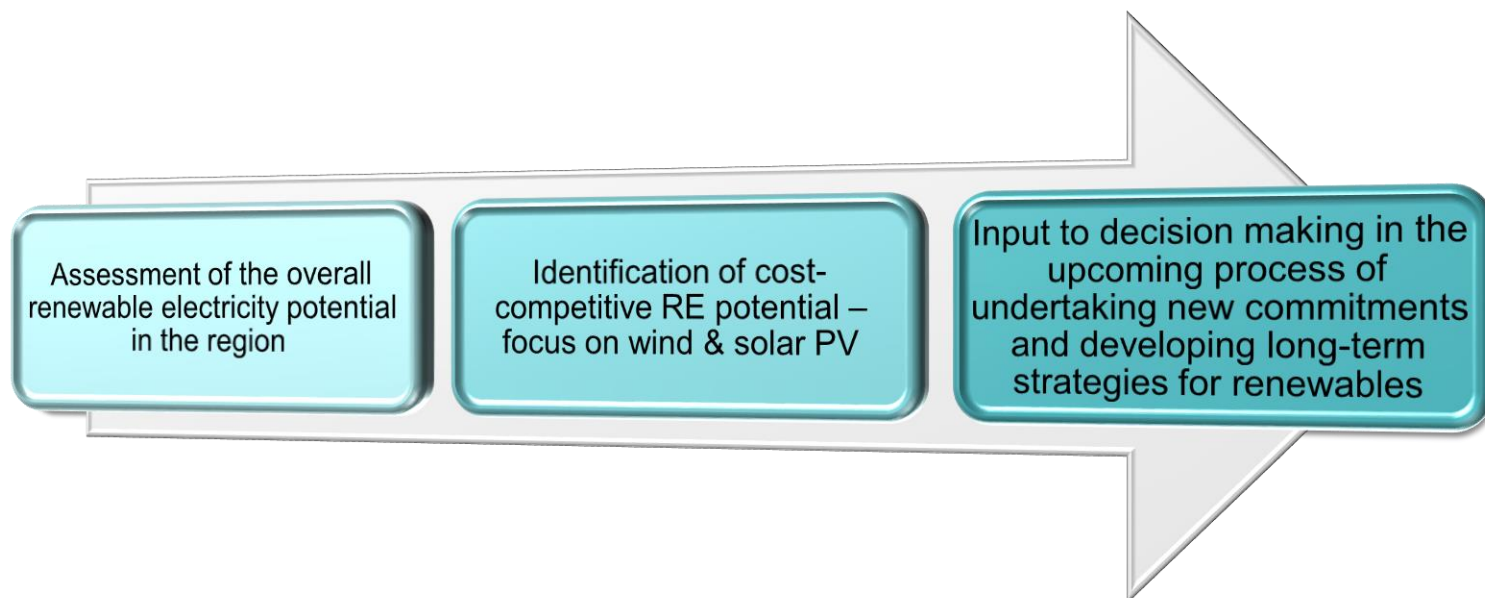
- Albania
- Bosnia and Herzegovina
- FYR of Macedonia
- Kosovo
- Moldova
- Montenegro
- Serbia
- Ukraine



Members of the European Union

- Bulgaria
- Croatia
- Romania
- Slovenia

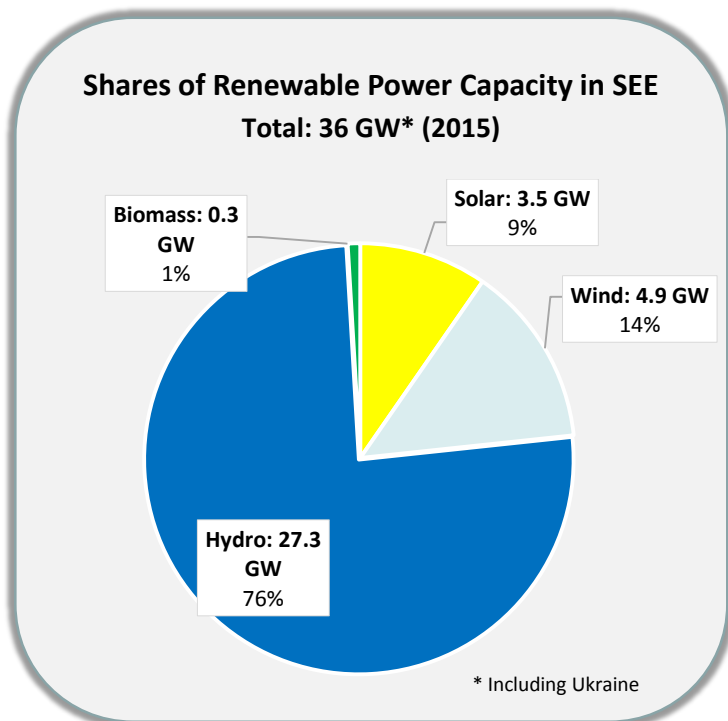




Cost-Competitive Potential

- LCOE within the ranges of the fossil-fuel supply options
- Level of cost-competitive potential today, 2030 and 2050
- Sensitivity analysis for cost of capital (WACC)

- ❑ Energy Community Renewable Energy targets for 2020 → NREAPs
- ❑ Alignment with 2030 Energy and Climate framework of the EU

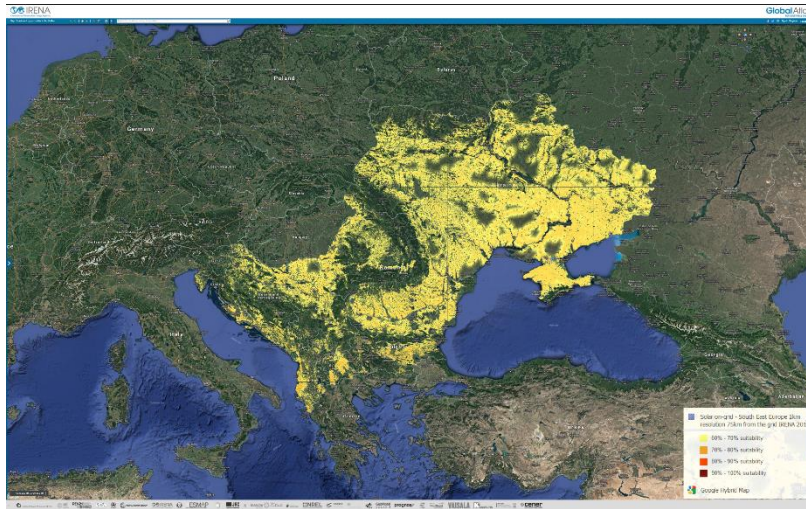


- ❑ 30% RE share in regional electricity mix
- ❑ Large hydropower capacity (76% of all RE), mostly installed decades ago
- ❑ Limited share of solar PV and wind despite the dramatic cost decline
- ❑ Ongoing discussions on the future electricity mix

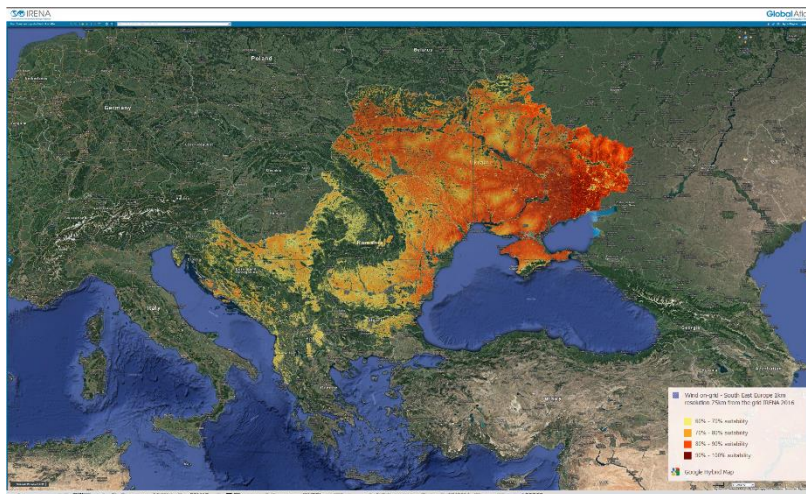
Resource assessment

Solar PV and Wind suitability analysis

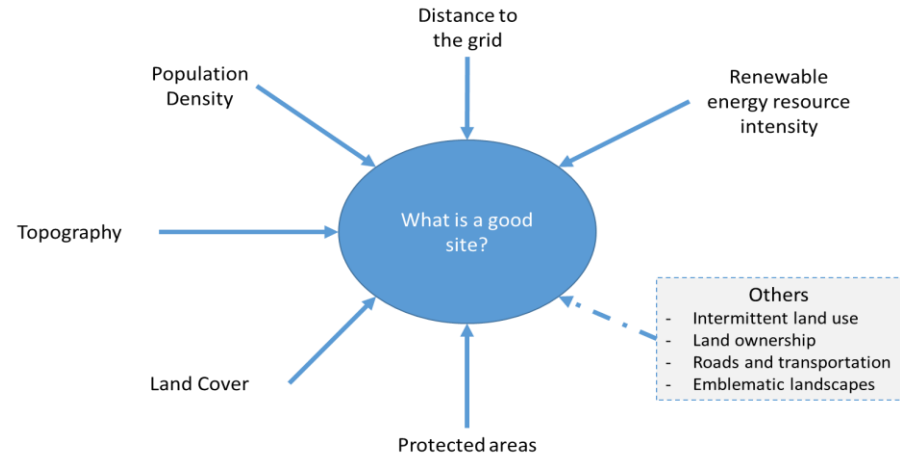
Suitable locations for **Solar PV** investments in SEE



Suitable locations for **Wind** investments in SEE



Global Atlas FOR RENEWABLE ENERGY



Assess this map at: <http://irena.masdar.ac.ae?map=2411>

Biomass, Hydro, Geothermal

National energy strategies, NREAPs,
Academic studies – validation by the
energy experts from the respective
countries

Cost analysis

Dramatic decline in Solar PV & Wind costs

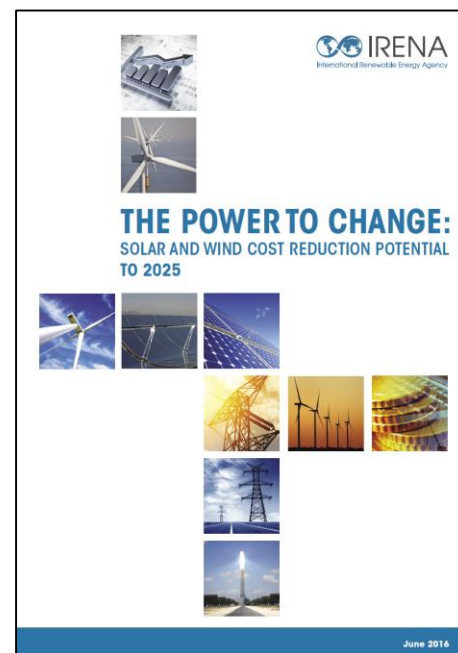


Significant cost reductions since 2009:

- Solar PV module costs by 80%
- Wind turbine prices by a third

Potential for further reduction by 2025:

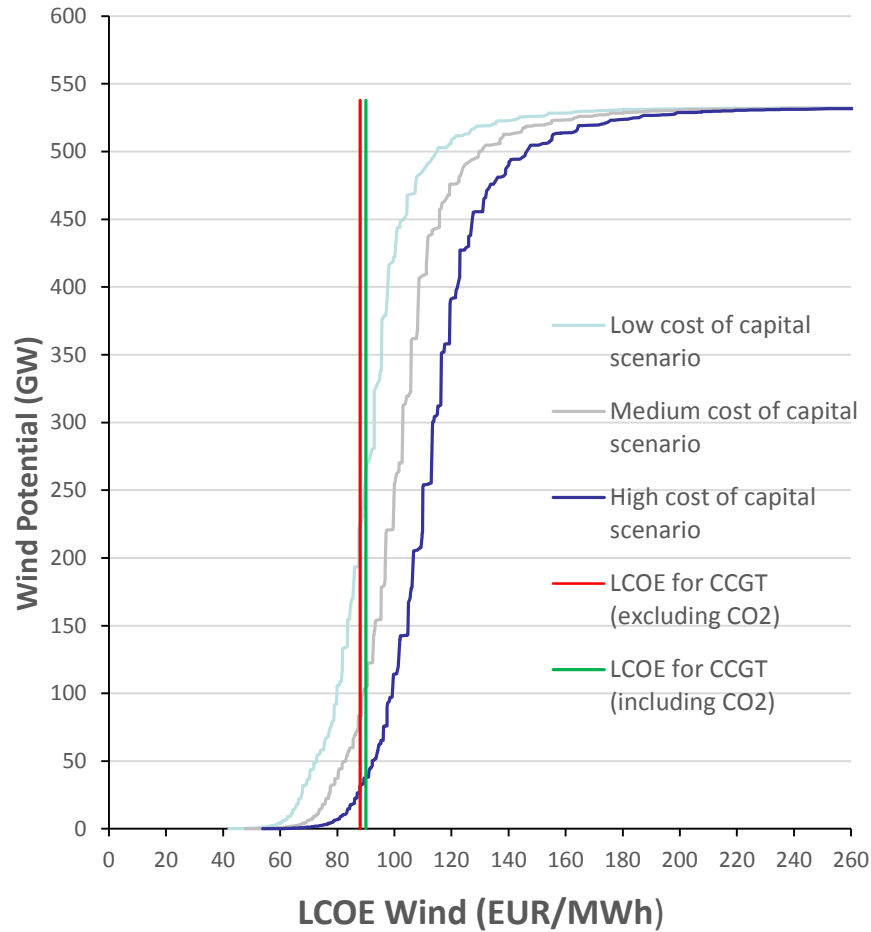
- Solar PV - 59%
- Onshore wind - 26%
- Offshore wind - 35%



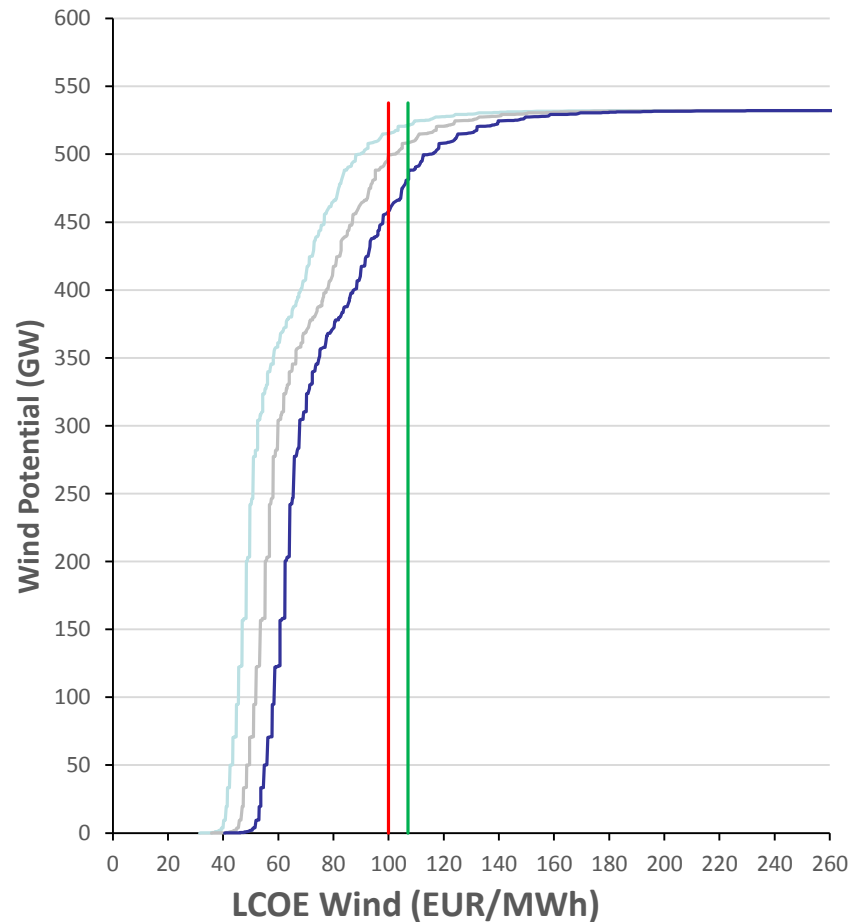
IRENA Renewable Costing Alliance
IRENA Renewable Cost Database
based on data from over
9,000 utility-scale RE projects

SEE cost-competitive Wind potential

2016

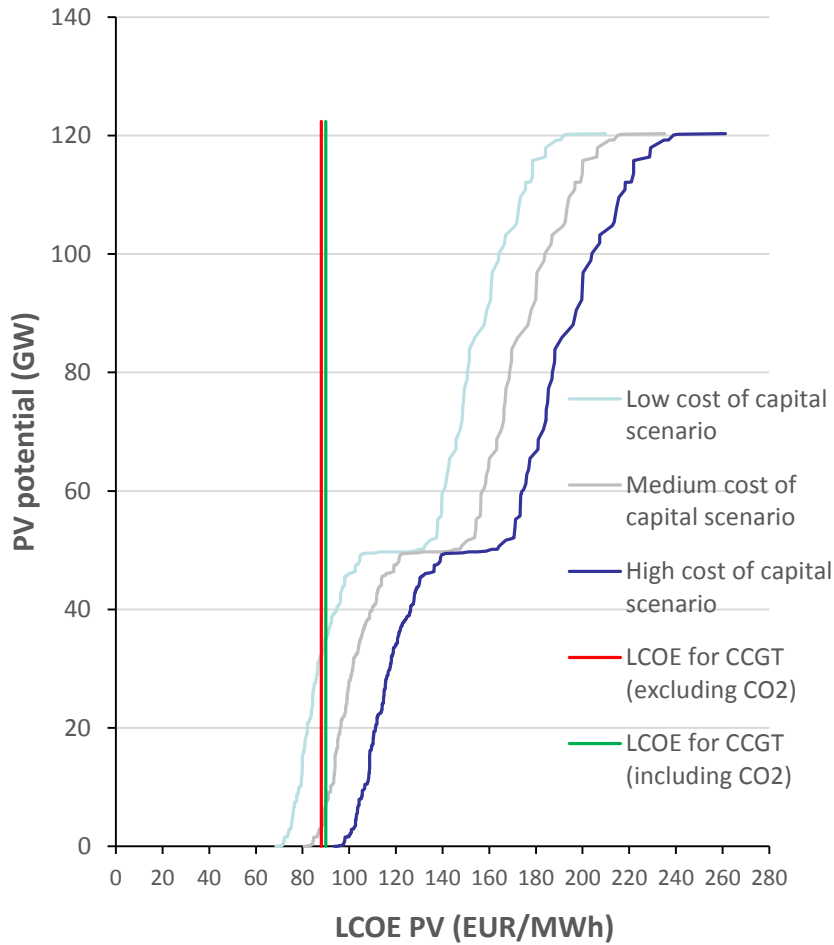


2030

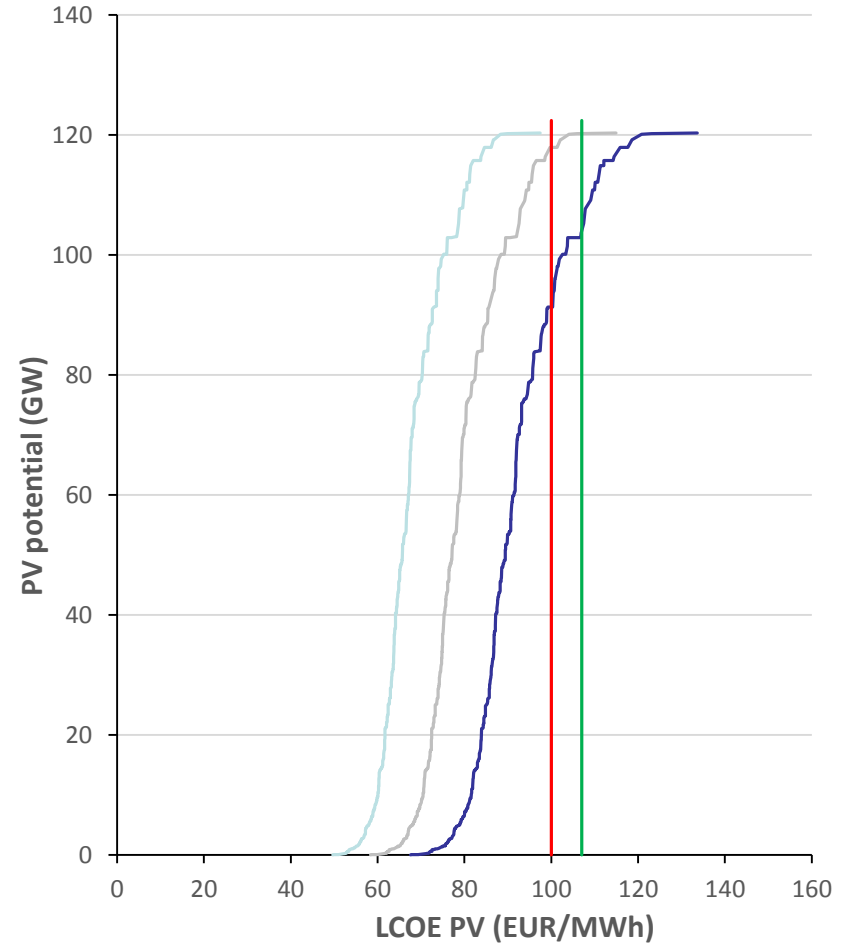


SEE cost-competitive Solar PV potential

2016



2030

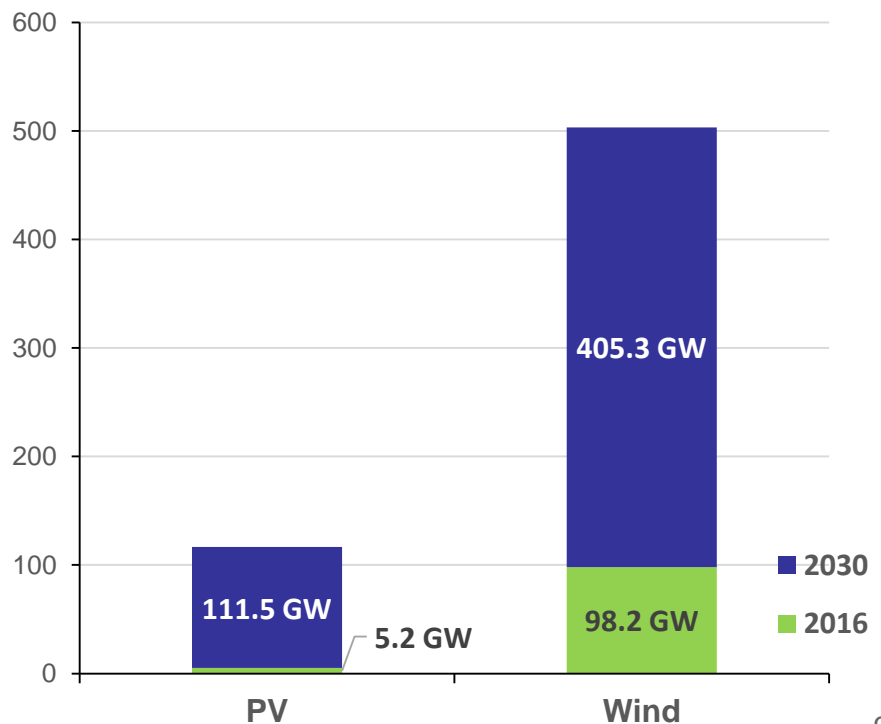
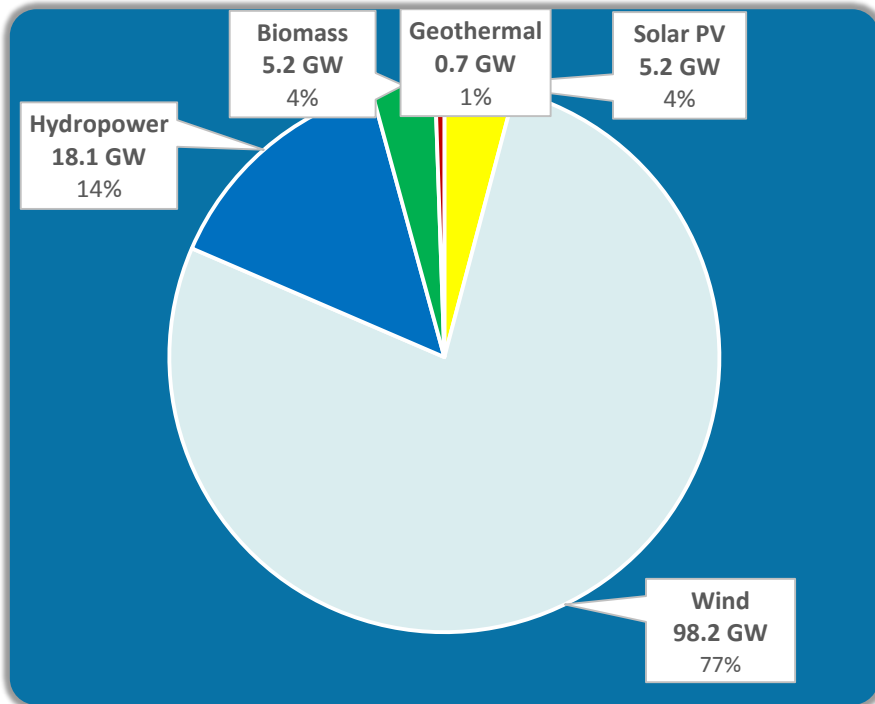


NREAP targets vs. Cost-competitive additional potential

8.2 GW Gap to achieve cumulative RE deployment target for 2020 (based on NREAPs)

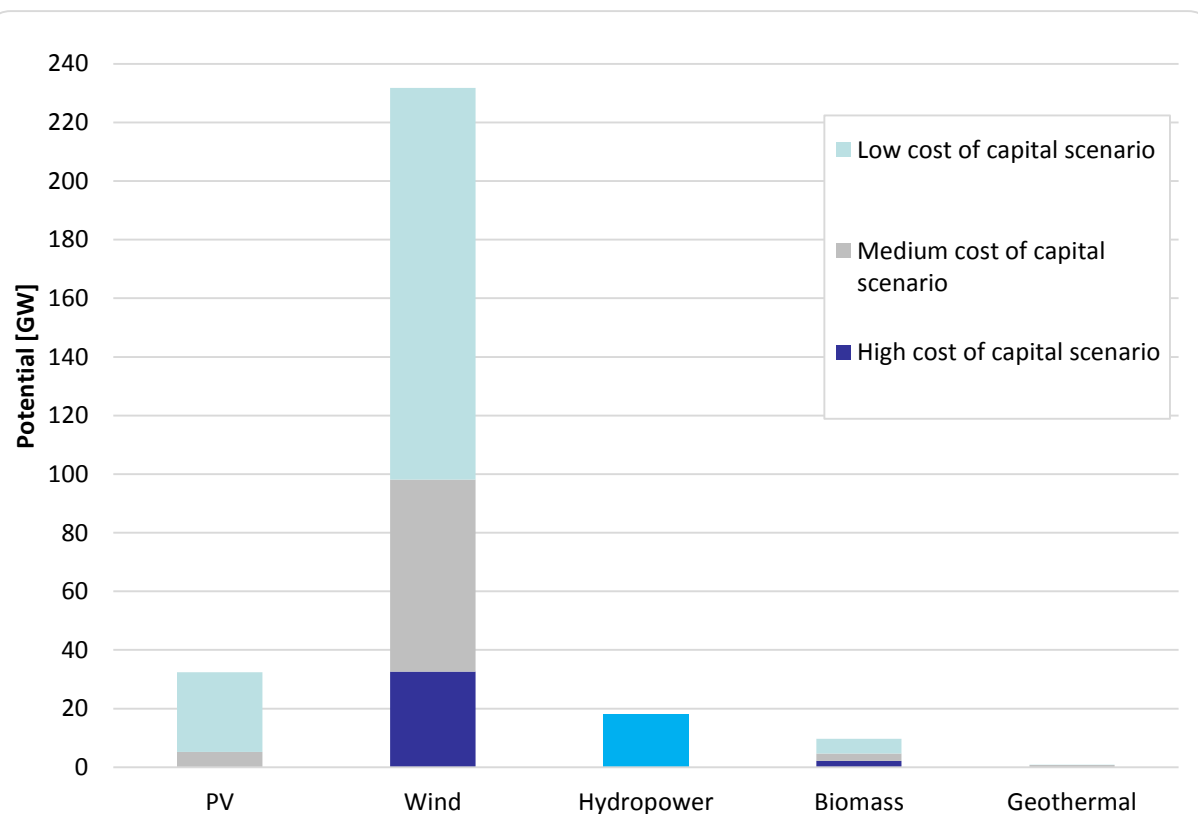
127 GW of Renewable Energy today

620 GW of Wind and Solar PV by 2030



Impact of cost of capital

Cumulative additional cost-competitive renewable RE potential for SEE - 2016

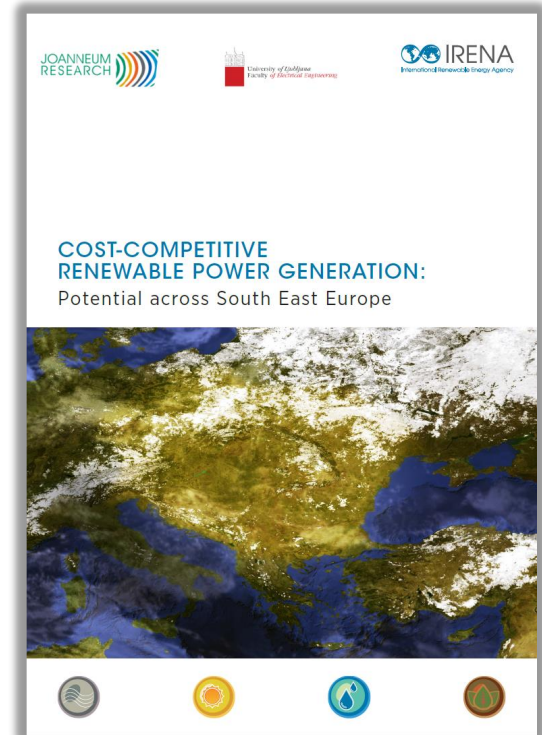


- Eliminate administrative barriers and improve market access
- Create attractive and consistent RE support schemes
- Improve PPA structure
- Address grid integration challenges
- Enhance skills and capacities
- Facilitate access to finance

Thank you for your attention




Thank you.



giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

On behalf of:

 Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

of the Federal Republic of Germany

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