



BETTER Roadmap for enhanced cooperation between EU and third countries – Policy Recommendations

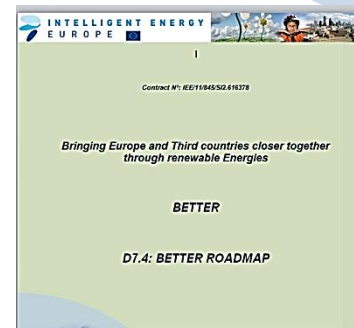
Ayla Uslu, Karina Veum, Carolien Kraan
Energy Research Centre of the Netherlands (ECN)

EU Parliament workshop on 'EU-Third Country Cooperation on Renewable
Energy'
Brussels, 3 March 2015

ECN-L—15-014



Roadmap Approach



Present how cooperation can take place in 2020–2030 and 2030–2050 time frames

Include detailed policy measures and implementation guidelines on cooperation mechanisms with neighbouring countries

→ **Synthesis report of all the work in the BETTER project**

Roadmap Vision, Mission and Goals



VISION

Enhanced renewable electricity (RES-E) cooperation between Europe and neighbouring regions (North Africa, Turkey and Western Balkans) in the time frame to 2030 (2050)

MISSION

*To facilitate
(1) RES-E expansion in the neighbouring regions, and
(2) a framework that ensures the implementation of mutually beneficial joint projects, which result in RES-E import to the EU*

GOALS

3-4% share of EU RES-E demand by 2030 through import from neighbouring regions

33 -38 % less support expenditures in EU per year (2021-2030 average) to reach the 27% target

Yearly revenues for neighboring countries sum up to over 1 billion € (average 2021-2030)

Many new jobs created in the neighbouring/exporting countries



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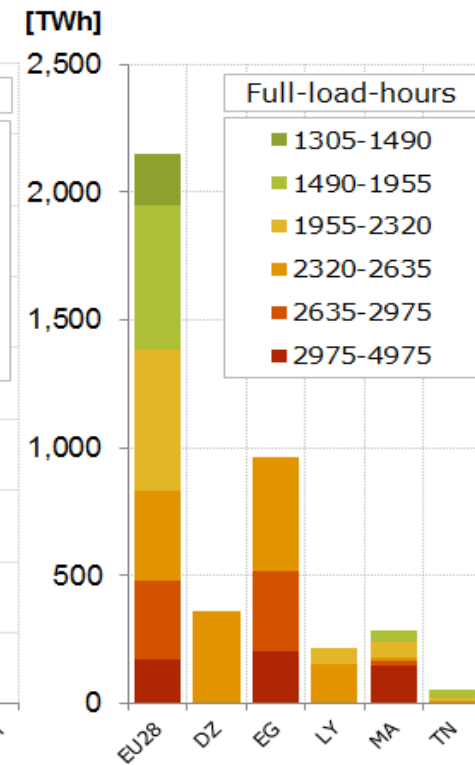
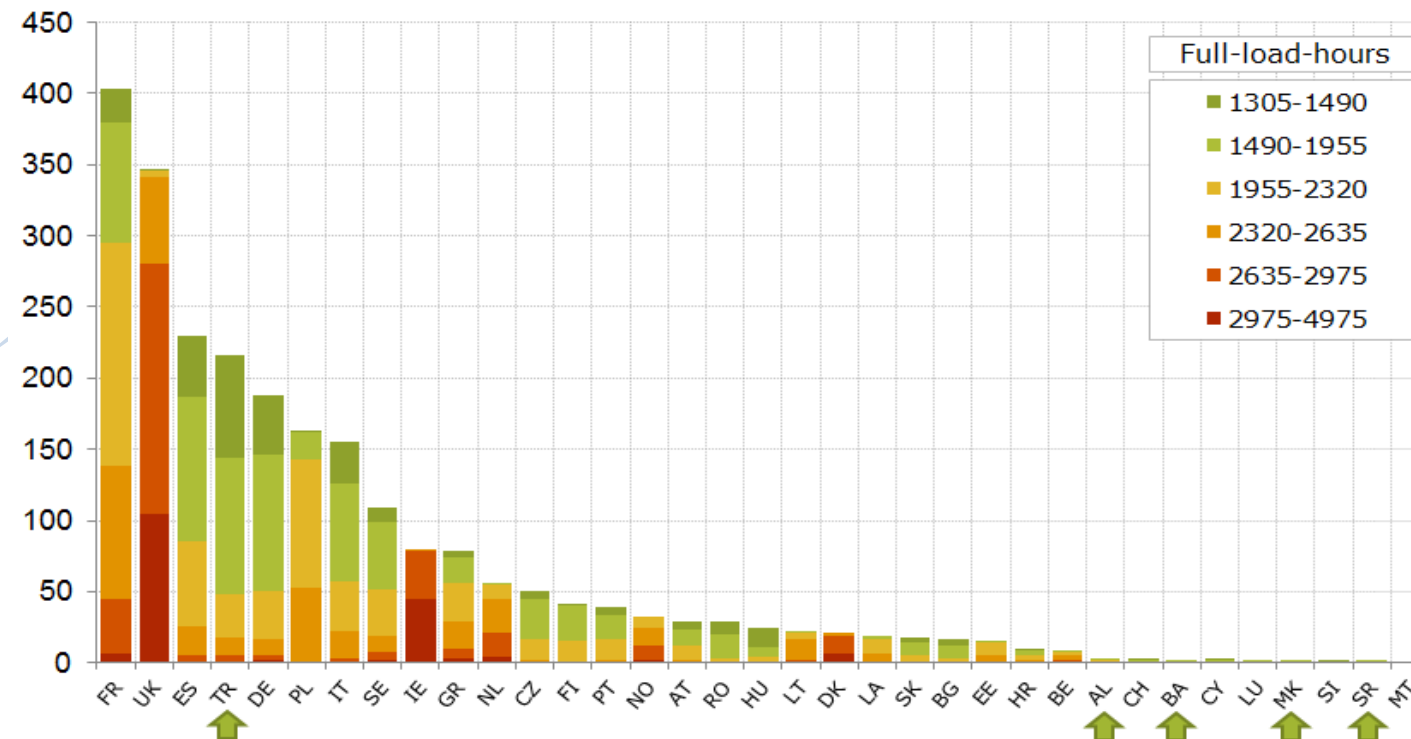
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Point of Departure: Different RES potentials



EXAMPLE: ONSHORE WIND

Technical potential of wind onshore [TWh]



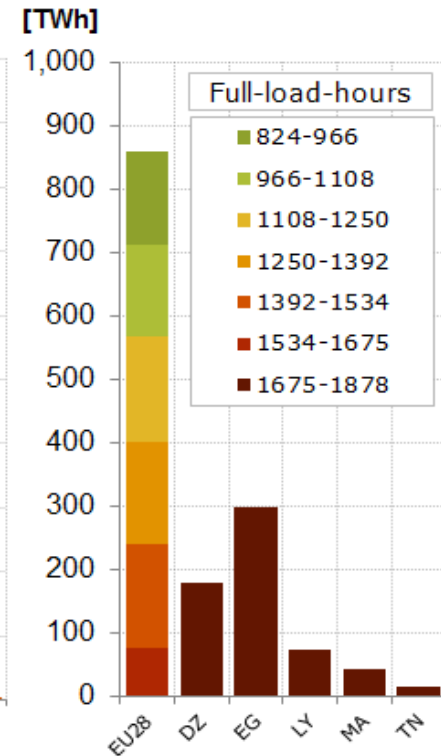
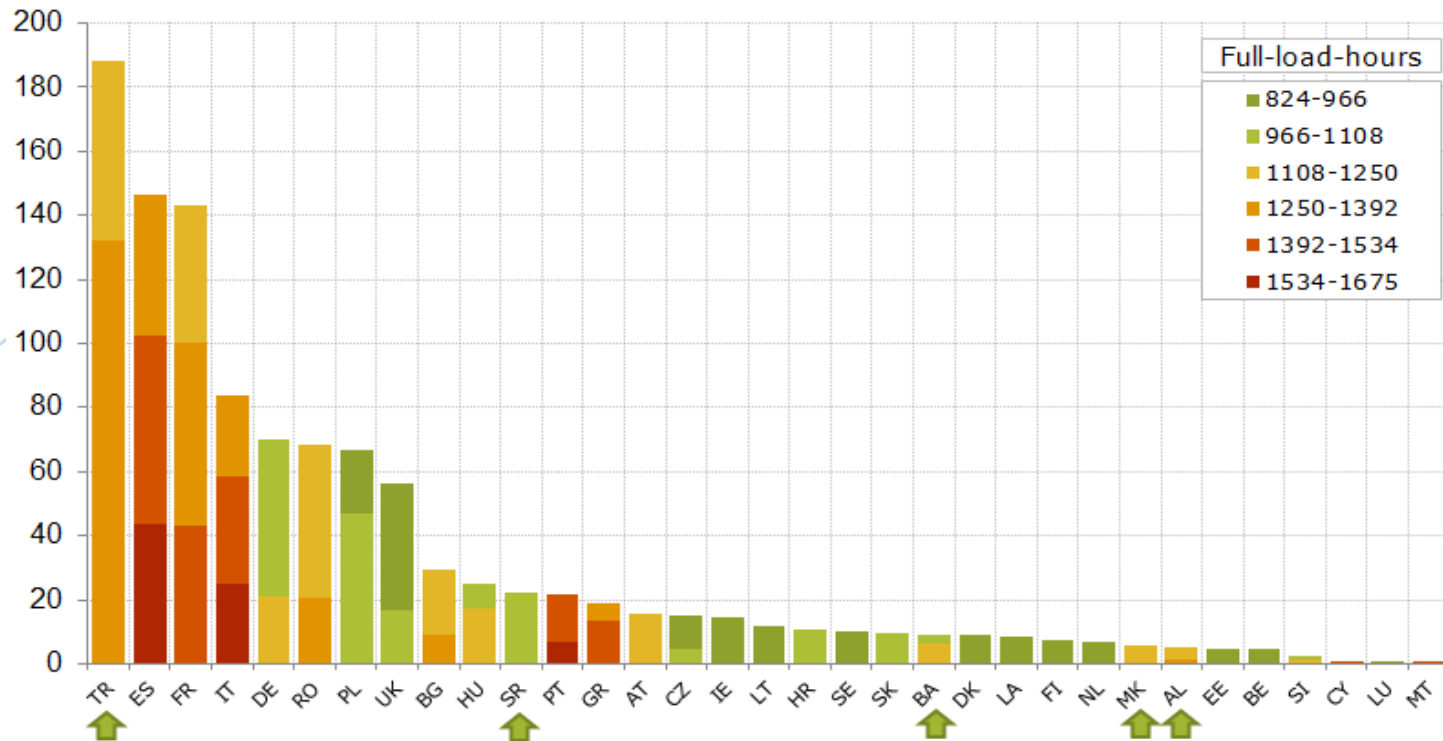
excellent wind conditions in Egypt are in the size of all available locations of same quality within the EU28

Point of Departure: Different RES potentials



EXAMPLE: SOLAR PV

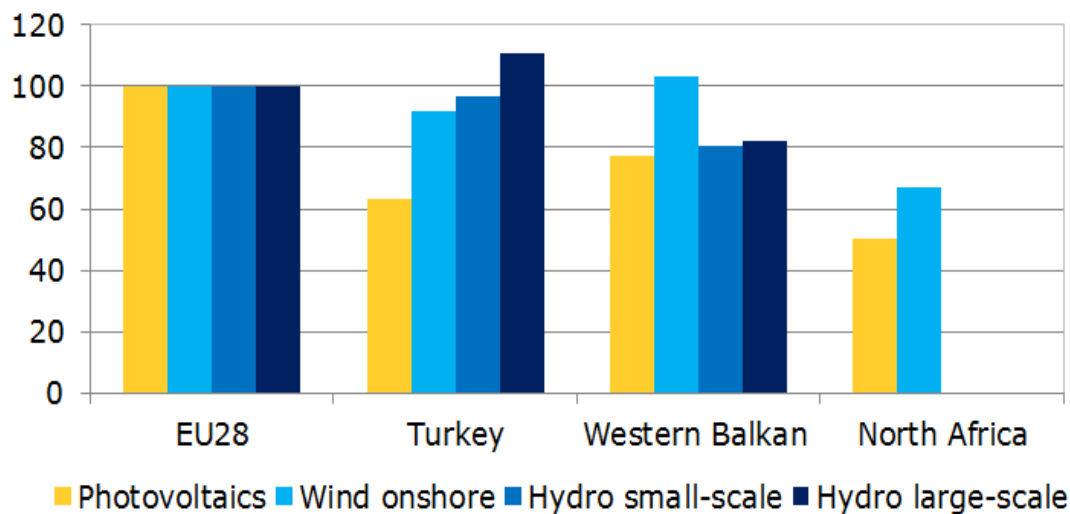
Technical potential of solar PV [TWh]



Point of Departure: Comparative advantage



Fixed costs per unit relative to EU28 average in [%]



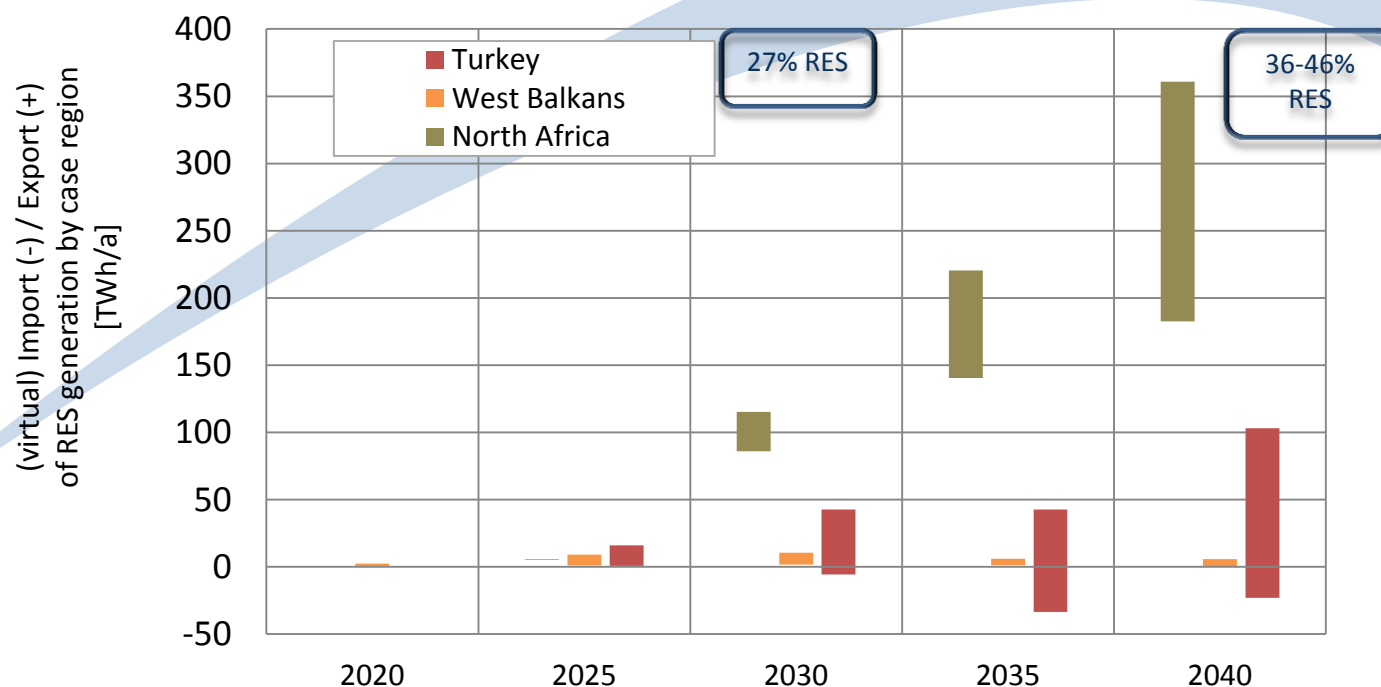
- The costs of installing PV panels are on average around 20 to 50% lower than within the EU28.
- Cost comparison is mainly based on differences in resource qualities.



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Looking ahead: Opportunities



Impacts to EU

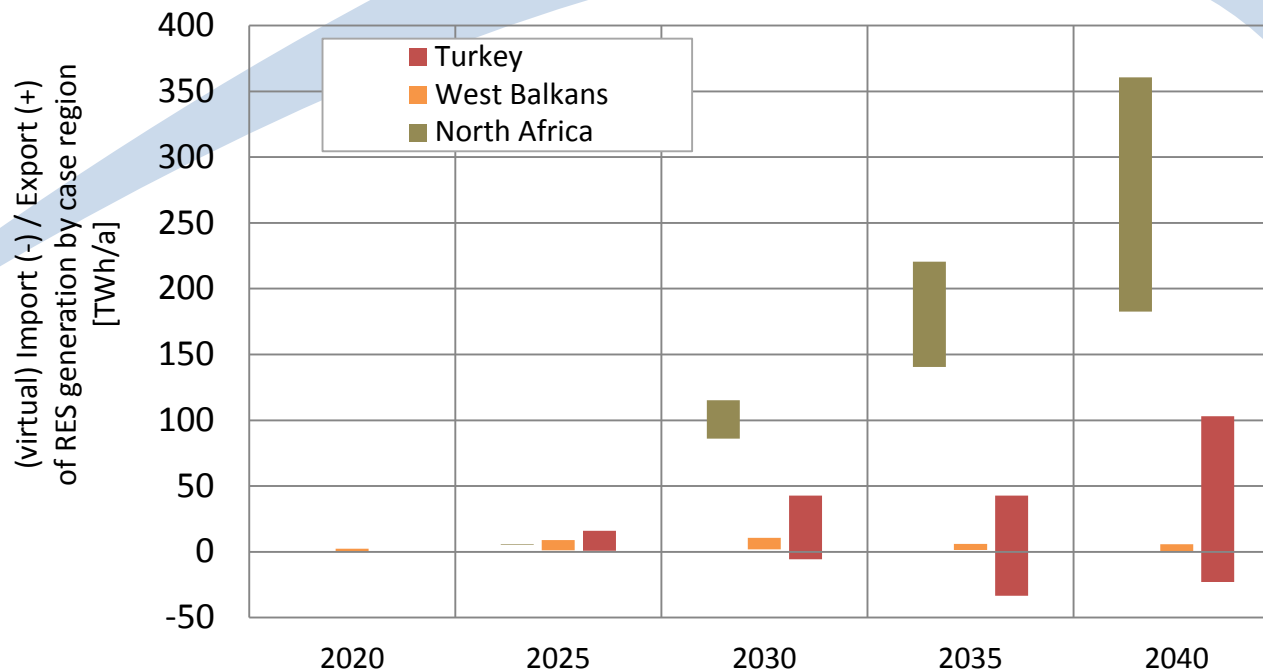
- RE-E imports are 3-4% of EU28 RES-E demand in 2030
- This contributes to support expenditure savings of 3.8 – 4.4 billion €/year for 2021-2030 average (33 -38 % less than the reference)
- **Share of imports could increase to 18% of 2040 RES-E demand and save around 30 billion €/year (2031-2040)**



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Looking ahead: Opportunities



Economic benefits at Neighbouring region level

(revenues on average per year)

	N. Africa	Turkey	W. Balkans
Average per year (2021-2030)	750-1000	5-350	90-120
Million €			

Prerequisites for enhanced RES cooperation (1)



Generic:

- **Political willingness and commitment**, including clear and transparent strategies in both EU/EU MS (off-take countries) and neighbour countries (host countries)
- Democratic and participatory processes: **Creating public acceptance** (including communication strategy)
- **Legal and regulatory frameworks**, which are attractive for investors
- Appropriate **cost/benefit sharing arrangement**
- Ensuring necessary **grid (interconnector) infrastructure**

EU specific:

- More **certainty on the post 2020 framework**, including role of cooperation mechanisms, i.e. governance structure for achieving RES target
- Clear and transparent **strategy for RES imports** from neighbouring regions/countries

Prerequisites for enhanced RES cooperation (2)



Neighbouring country specific:

- Appropriate **(energy system) planning**
- Establishing robust **regional electricity market/system** to allow for balancing of generation and load
- **Strategies** in neighbouring countries to capitalize on expansion of indigenous RES-E for export to EU
- Addressing and ensuring **social and environmental safeguards** related to RES expansion and cooperation

Key Policy Recommendations for EU

[NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

2030-2050

2020-2030

Now - 2020

- Transparent & robust governance structure for reaching 2030 EU RES target
- Political commitment for enhanced RES cooperation
- EU-neighbour dialogue platform to identify interests, opportunities
- Strategy for RES cooperation between EU and neighbours, which identifies possible RES-E import contributions to 2030 EU RES target (e.g. TWh and/or %)
- Review current Article 9, and extract lessons learned



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Key Policy Recommendations for EU

[NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

2030-2050

2020-2030

Now - 2020

- Ensure transparent & robust governance structure for reaching 2030 EU RES target
 - Ensure political commitment for enhanced RES cooperation
 - Create EU-neighbour dialogue platform to identify interests, opportunities (strategy input)
 - Develop (long-term) strategy for RES cooperation between EU and neighbours
 - Define RES-E import contributions to 2030
- Implement RES cooperation strategy
 - Introduce suitable cooperation mechanism
 - Put in place formal cooperation agreements
 - Collaborate with neighbours on financing new grid interconnectors and start constructing
 - Initiate post 2030 (RES) energy framework, which includes RES cooperation commitments/efforts with neighbours



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Key Policy Recommendations for EU

[NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

2030-2050

2020-2030

Now - 2020

- Ensure transparent & robust governance structure for reaching 2030 EU RES target
- Ensure political commitment for enhanced RES cooperation
- Create EU-neighbour dialogue platform to identify interests, opportunities (strategy input)
- Develop (long-term) strategy for RES cooperation between EU

- Implement RES cooperation strategy/ies, including short term pilot projects and long term planning activities
- Introduce revised (Art. 9) cooperation mechanism, or alternative instrument
- Collaborate with neighbours on establishing required formal agreements
- Collaborate with neighbours on establishing/financing new grid interconnectors
- Initiate post 2030 (RES) energy framework, which includes RES cooperation commitments/ efforts with

- Implementation and review with view to improving relevant framework for RES cooperation
-
- ...



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and neighbours
Define RES-E import
commitments to 2030 EU

Key Policy Recommendations for Third Countries [NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

2030-2050

2020-2030

Now – 2020

- Energy planning to ensure future energy demand needs are met
- Establish robust regional and (RES) markets (particularly in NA and WB)
- Ensure political commitment and strategy for (long term) RES-E exports to the EU
- Investigate and suggest policy coordination (RES, industry, education, etc)
- Initiate relevant pre-feasibility studies



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Key Policy Recommendations for Third Countries [NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

2030-2050

2020-2030

Now - 2020

- Improved (energy) planning to ensure future energy demand needs are met
- Establish robust regional and (RES) markets (particularly in NA and WB)
- Ensure political commitment and vision for (long term) RES-E exports to the EU
- Develop (long-term) strategy for RES cooperation with EU
- Investigate and suggest policy coordination (RES, industry, education, etc)
- Initiate relevant pre-feasibility studies
- Feasibility studies, addressing mutual benefit as well as social and environmental issues
- Select and build specific interconnections (joint efforts with EU/EU MS)
- Set up coherent regulatory framework for RES-E exchange in collaboration with EU/EU MS
- Collaborate with EU/EU MS and with financing institutes (e.g. multilateral banks) to secure necessary financing



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Key Policy Recommendations for Third Countries [NB! PRELIMINARY RECOMMENDATIONS]



Actions and Milestones.....

Now - 2020

- Improved (energy) planning to ensure future energy demand needs are met
- Establish robust regional and (RES) markets (particularly in NA and WB)
- Ensure political commitment and vision for (long term) RES-E exports to the EU
- Develop (long-term) strategy for RES cooperation with EU
- Investigate and suggest policy coordination (RES, industry, education, etc)
- Initiate relevant pre-feasibility studies

2020-2030 2030-2050

- Continued feasibility studies, addressing mutual benefit requirements/needs as well as social and environmental issues
 - Select and build specific interconnections (joint efforts with EU/EU MS)
 - Set up coherent regulatory framework for RES-E exchange in collaboration with EU/EU MS
 - Collaborate with EU/EU MS and with financing institutes (e.g. multilateral banks) to secure necessary financing
- Implementation and review with view to improving relevant framework for RES cooperation**



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Concluding remarks



1. Three distinct timeframes, with different focus and attention:
 - **Now - 2020: Preparation & planning**
 - **2020 - 2030: Implementation**
 - **2030 - 2050: Adaptation & scaling up**
2. EU has three distinctively different 'neighbours', different approaches are needed as well as different timing
3. Common denominator for EU-Third country RES cooperation: Future cooperation must be based on mutual benefits (and these have yet to be fully understood) and not solely on cost effectiveness in the EU

BRINGING EUROPE AND THIRD COUNTRIES CLOSER
TOGETHER THROUGH RENEWABLE ENERGIES



**Thank you
for your attention!**

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