



MINISTRY OF
FOREIGN AFFAIRS AND TRADE
OF HUNGARY

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REKK

NECPS OF DANUBE REGION COUNTRIES – ELECTRICITY MARKETS

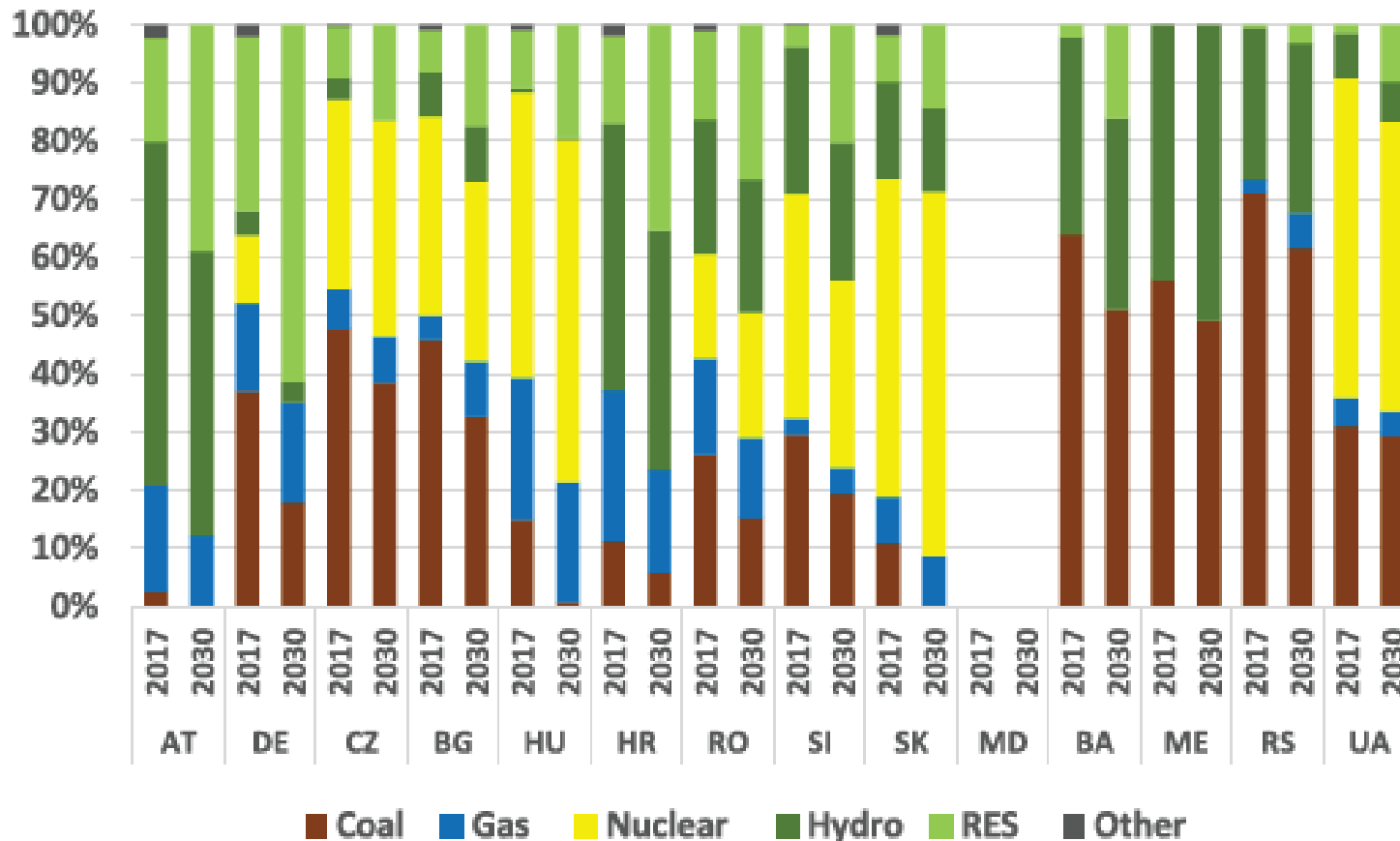
*National Energy and Climate Plans in
the Danube Region*

Online workshop

May 6, 2021 10:00 - 12:00 a.m.

Significant change in DR countries' electricity generation mixes

Electricity generation mix 2017-2030 (%)



- Change in fuel-mix
 - Coal: eroding dominance in EU countries, lasting reliance in WB6
 - Nuclear: increasing share in power generation of CEE countries
 - Gas: moderate growth of gas fired capacities
 - Hydro: lasting element of power systems
- Decarbonising the electricity sector: marked differences
 - Aggressive expansion of RES (AT, DE)
 - Continued emphasis on nuclear (CEE)
 - Preserving coal and lignite capacities (WB)

Coal fired generation: eroding dominance but lasting presence

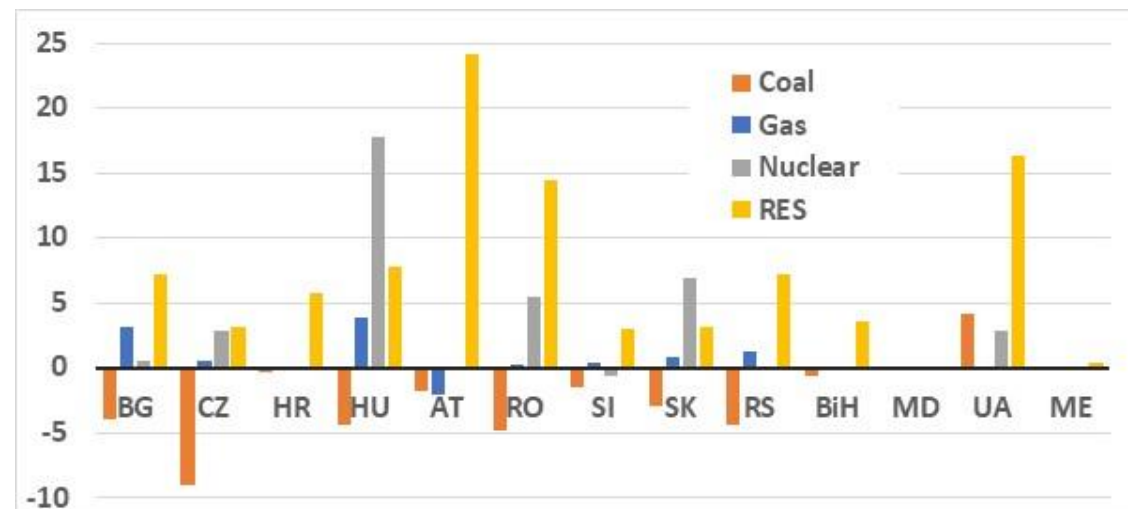
- EU member states: significant (50%) contraction (reflecting increasing carbon prices)
 - Phasing out in SK and HU: economic considerations & individual transformation plans
 - Total phase out in DE (2038) and partial phase out in CZ (2040): strategic considerations
- Balkan countries: ambitious plans for refurbishment and new build
 - Ensuring security of supply
 - Comply with strict emission limits
 - Dangers: carbon pricing or EU carbon border tax

*"[Planned 450MW unit at Tuzla thermal plant] will be an economic disaster for not even in the medium, but in the short term (...)
Carbon pricing is around the corner, and the cost of CO2 emissions will kill the project (Janez Kopač, director of the Energy Community
Secretariat, Energy Sector Transition panel held as part of Trebinje Energy Summit – SET 2020)*

Natural gas as „transition fuel“?

- Some NECPs referring to gas as „transition fuel“
- Data don't confirm „coal to gas“ switch
- Explanation for discrepancy
 - Replacement of old gas fired capacities
 - Switch to gas in the heat sector (BG: household gasification, SR: replacing coal in DH)
 - Ensuring flexibility (ancillary) services: gas capacities with low capacity factor
- Uncertain future: failure of nuclear expansion may give rise to gas fired power generation

Change in the power mix of Danube Countries 2017-2030 (TWh)



Nuclear ambitions and security of supply

- CEE region: lifetime extension and new builds
 - Lifetime extension of existing reactors up to 2035-2045: very likely
 - New build up to 2040: full of uncertainties
- CEE strategy: nuclear replacing fossil fuels
- Expected measures to promote low-carbon nuclear
 - Romania: Contract for Differences (CfDs)
 - Czechia: interest-free loan + buy-out price

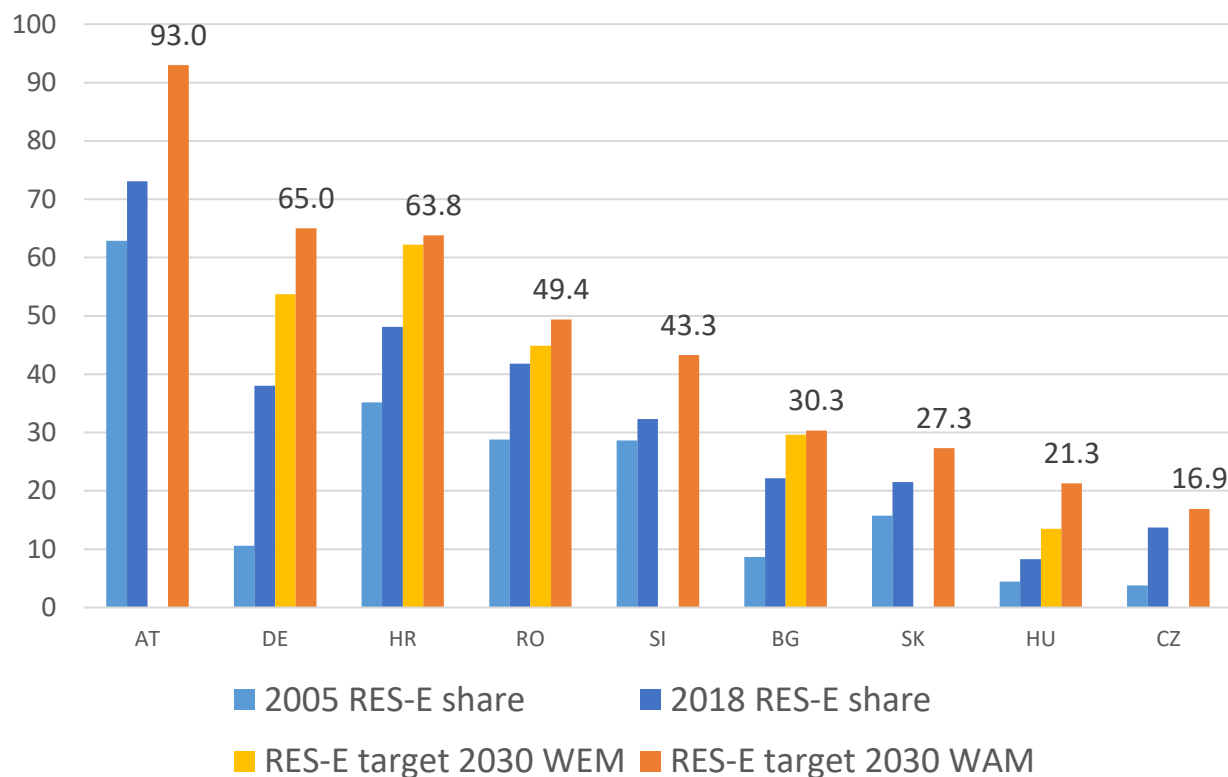
Existing and expected nuclear capacities (MW)

	Operational reactors (MW)	Lifetime extension & refurbishment (MW)	Expected new build (by 2040) (MW)
Bulgaria	2 006	2 006	2 000
Czechia	3 932	3 932	4 800
Hungary	2 000	2 000	2 400
Slovakia	1 837	892	800 (+ 1200)
Romania	1 300	1 300	1 440

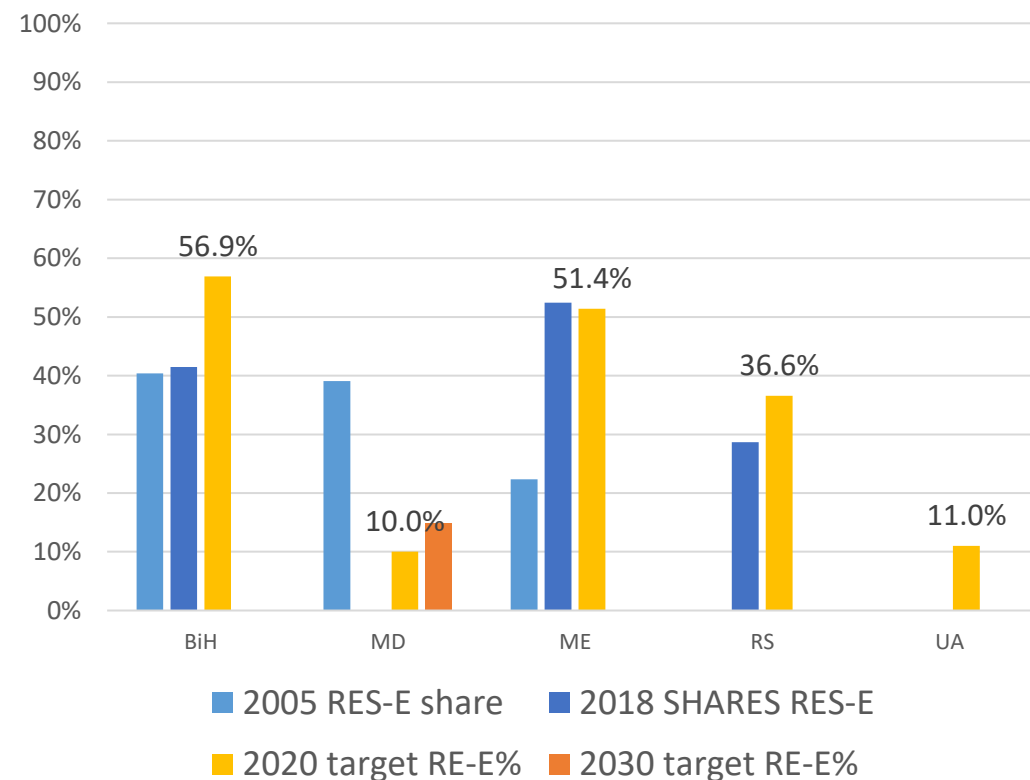
Renewable electricity

Renewable electricity shares to rise in almost all DR countries

RES-E share in 2018, RES-E targets for 2020 and 2030 in EU MS Danube Region countries (%)

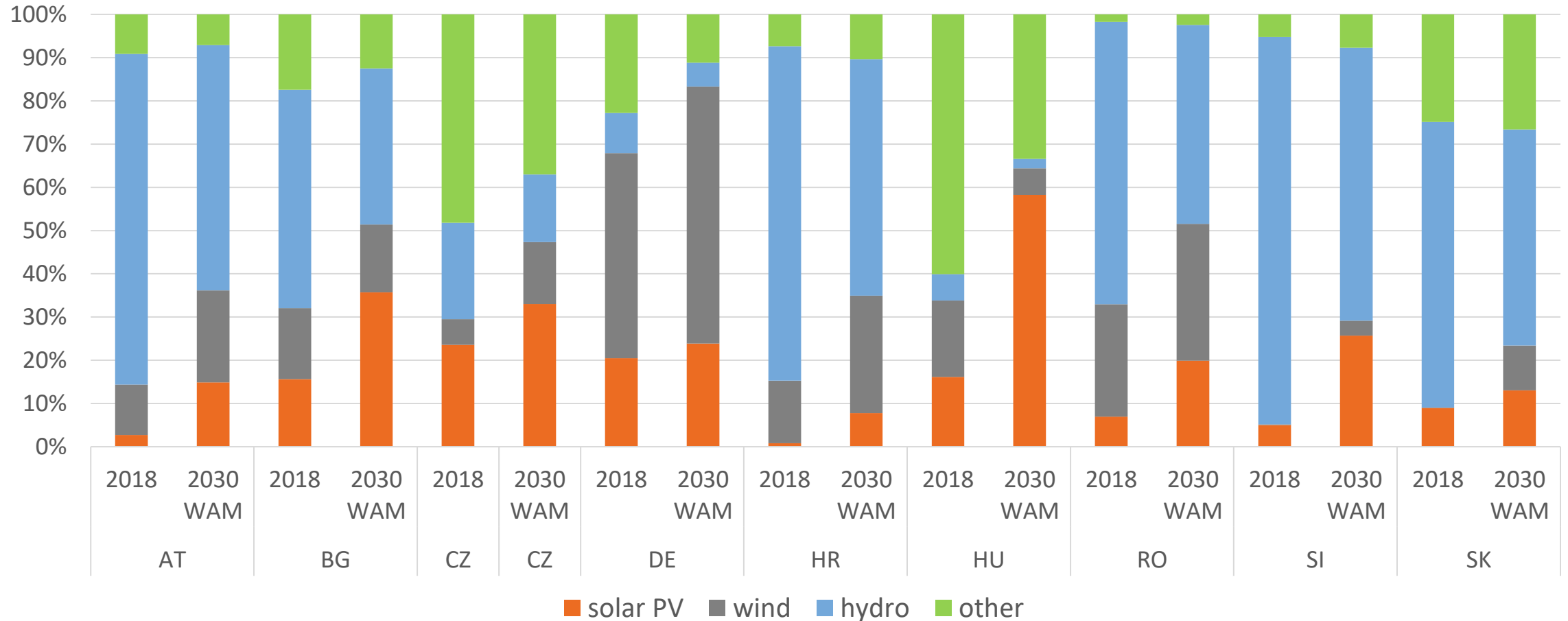


RES-E share in 2018, RES-E targets for 2020 and 2030 in non-EU Danube Region countries (%)



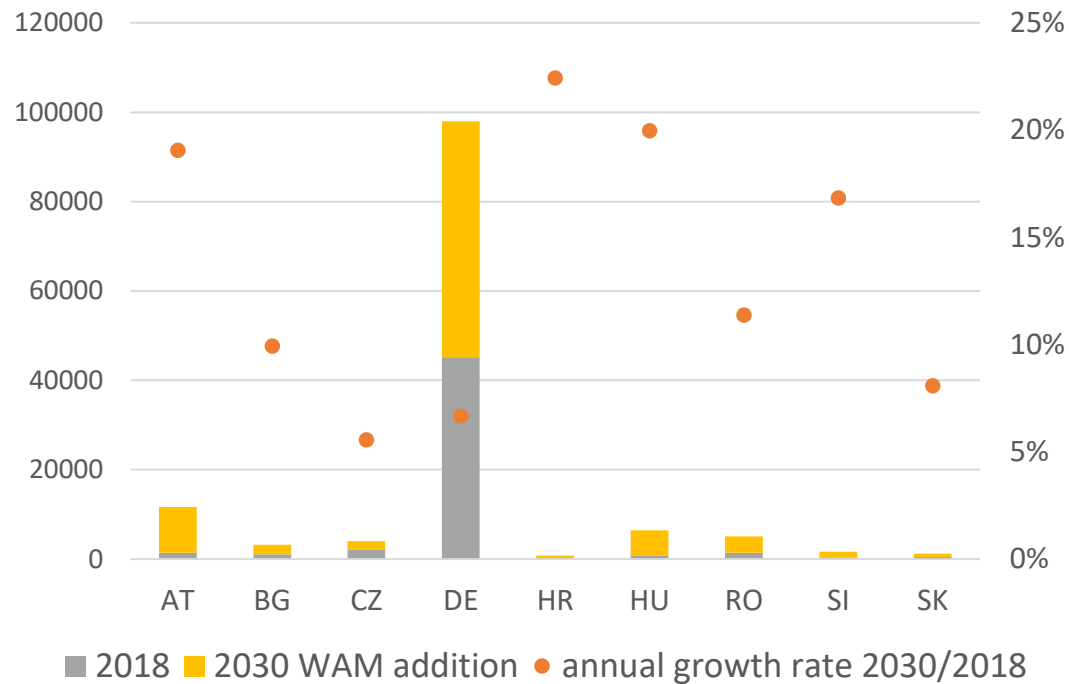
Significant change in DR countries' renewable electricity generation mixes

Change in generation mixes of the EU MS Danube Region countries 2018-2030 (%)

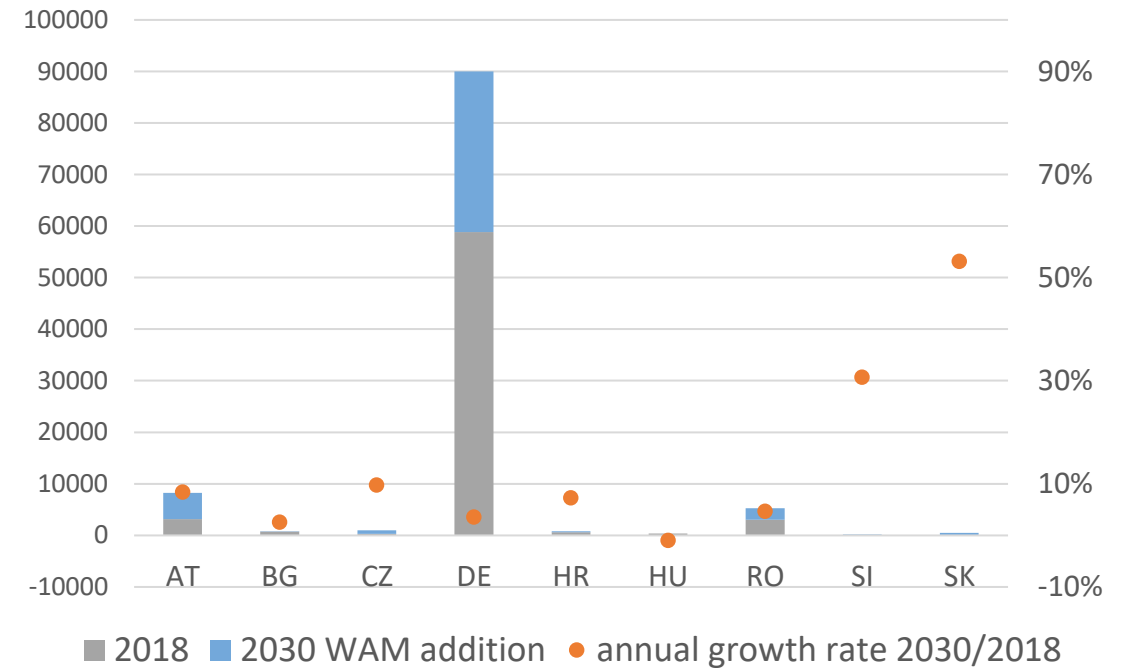


New investments target mainly solar PV and wind

Solar PV capacities in 2018 and 2030, annual growth rates (MW, %)



Wind energy installed capacities in 2018 and 2030, annual growth rates (MW, %)



The main policies for RES-E

Operating support	AT	BiH	BG	CZ	DE	HR	HU	MD	MN	RO	RS	SI	SK	UA
1. Feed-in tariff support			*	*			*							*
2. Feed-in tariff support for small-scale/household RE-E														
3. Quota support										*				
4. Market premium support														
5. Tendering scheme for operating support														
* support scheme not available for new entrants														
Administrative policies	AT	BiH	BG	CZ	DE	HR	HU	MD	MN	RO	RS	SI	SK	UA
1. Framework for self-consumption / prosumers														
2. Framework for renewable energy communities														
3. Framework for PPAs														
4. Framework for site selection and spatial planning														
5. Framework for streamlining administrative procedures														

not in target/no information	proposed but no targets or measures
policy formulation / decision making	Implementation

Summary? (policy briefböll)

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- What are the key policies to make the planned solar PV and wind capacity increase happen?
- What will be the role of prosumers in the DR?
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Thank you for your attention!

Disclaimer: Opinions expressed in this presentation are those of the authors. They do not necessarily represent REKK's or the Danube Region Strategy's views.

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