



Study on 2030 overall targets for the Energy Community

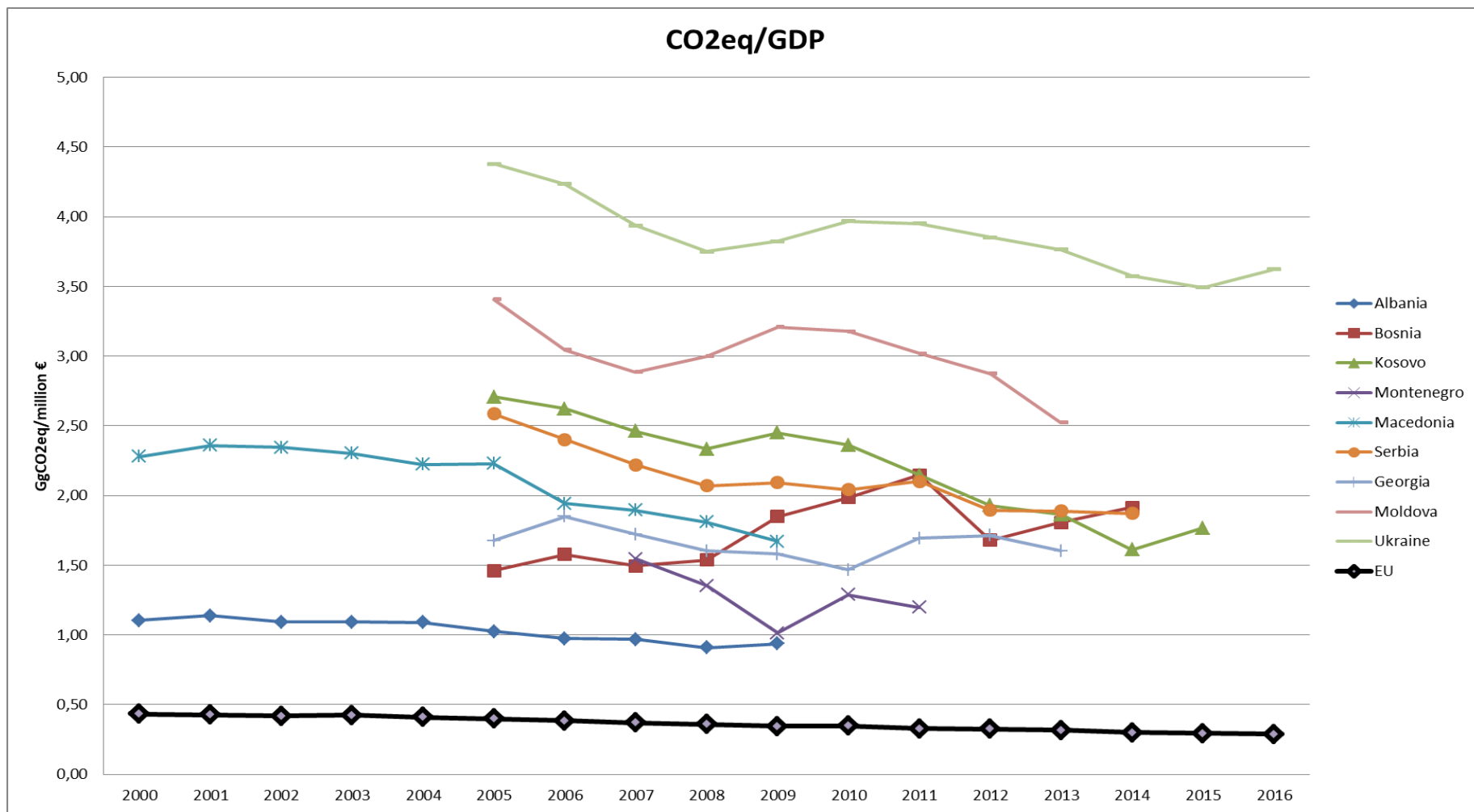
Setting GHG targets: Example Serbia

Andreas Türk* Camilla Neumann*

*** Joanneum Research, Austria**

Trends: CO₂eq/GDP

EnC 2030 Targets



Elements of GHG target setting

- Selection of the base year, consideration of GDP/capita
- Possible split between ETS and non-ETS sectors
 - methodology
 - feasibility, in particular regarding the absence of an ETS
- Potential national pathways to be followed, flexibilities
- List of potential gases (e.g. regarding data availability)
- Consistency between RES, EE, and GHG targets
- Convergence to EU carbon intensities
- Consistency with other ENC legislations in particular the *Large combustion plant directive*

GHG target setting for the CPs

- Completely analogous method to EU not applicable
 - no ETS in the CPs
 - high ambition level f 2030 framework
 - effort sharing of an overall target part of a common economic area
- Current target setting (e.g. INDCs) often disconnected from the EU approach
- **Which elements of the EU target setting approach can we apply?**

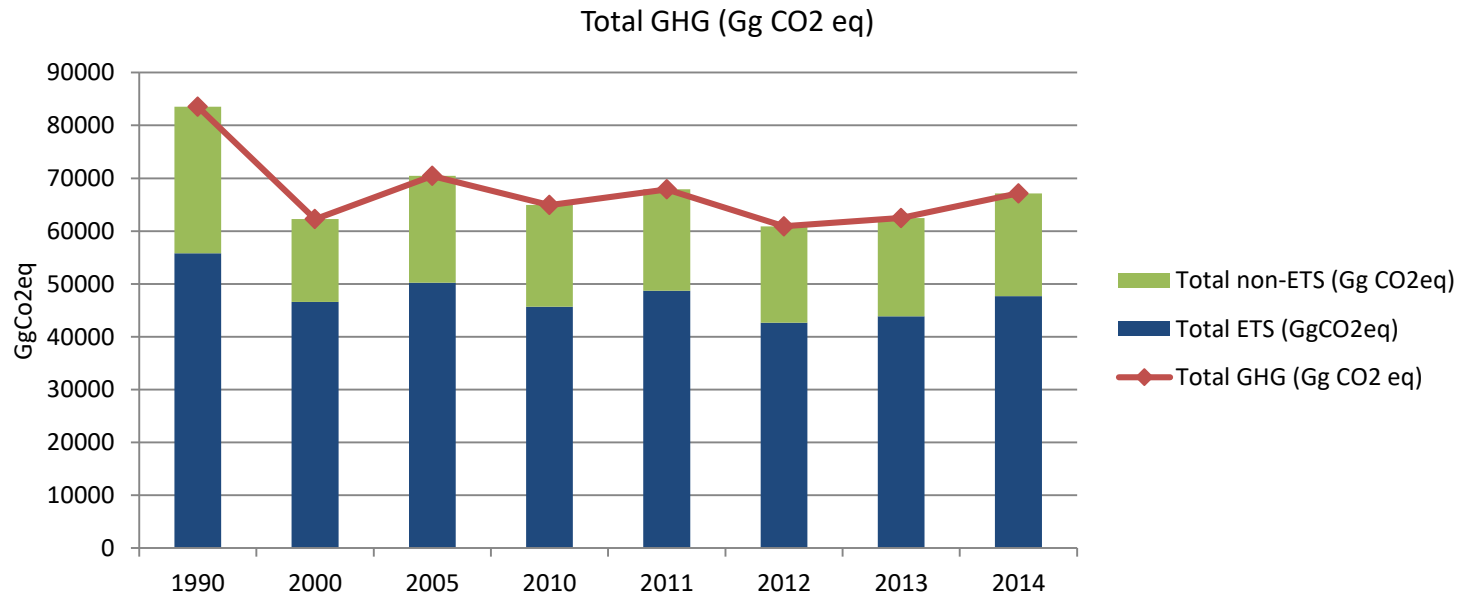
Methodological approach for the CPs

Ideally split EU-ETS and non-ETS sectors

- For the non-ETS sectors application of a GDP related target setting
- For the ETS sectors
 - National projections
 - Modelling results from Green-X and EEMM
 - Consider reduction of carbon intensity
- Montenegro's INDC a good practice example: It explicitly took convergence with EU-ETS benchmarks into account

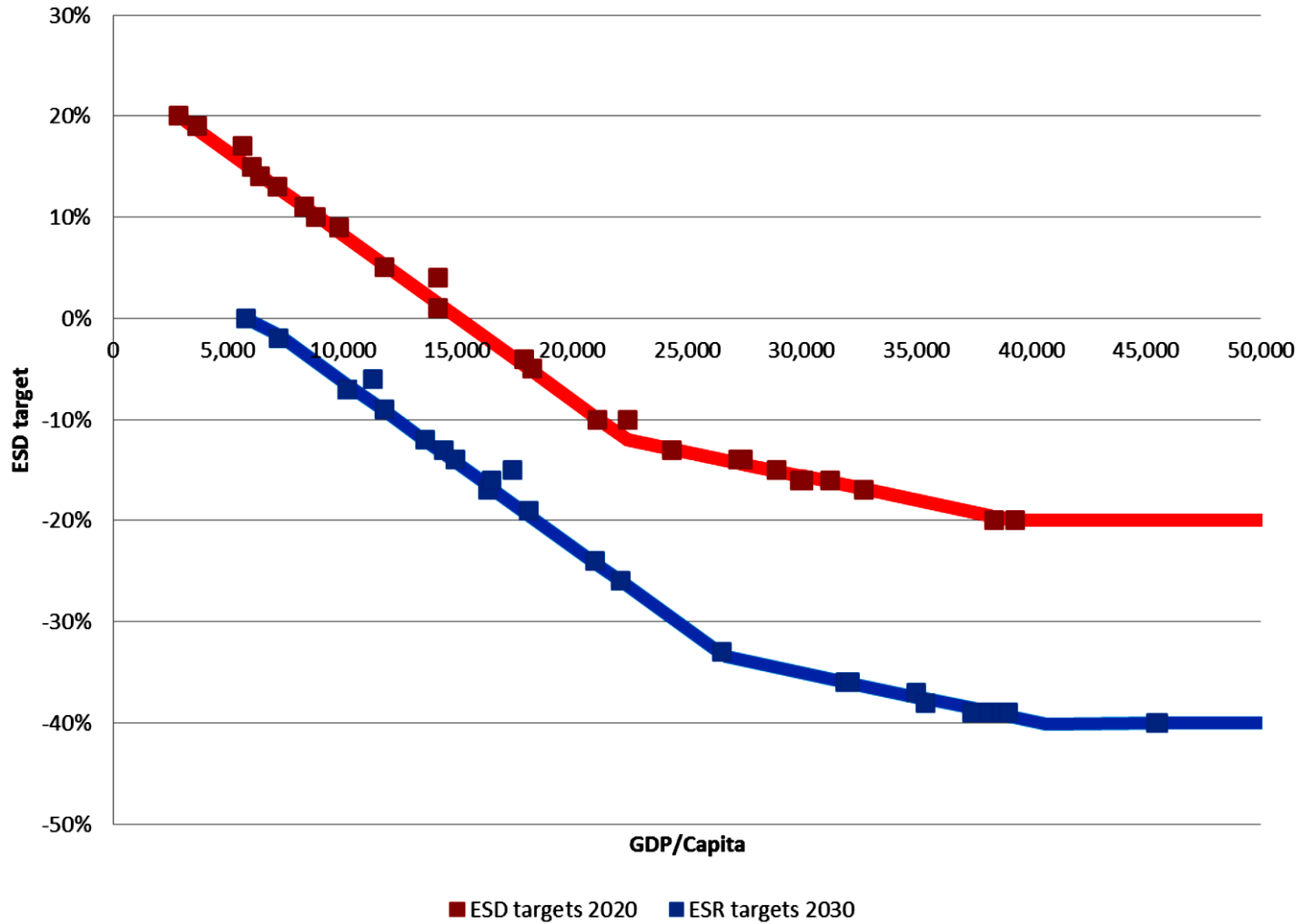
ETS/non-ETS split

- As a first step for target setting, a split into ETS/non-ETS sectors is carried out. Detailed and reliable data on ETS and non-ETS installation is lacking for Serbia.

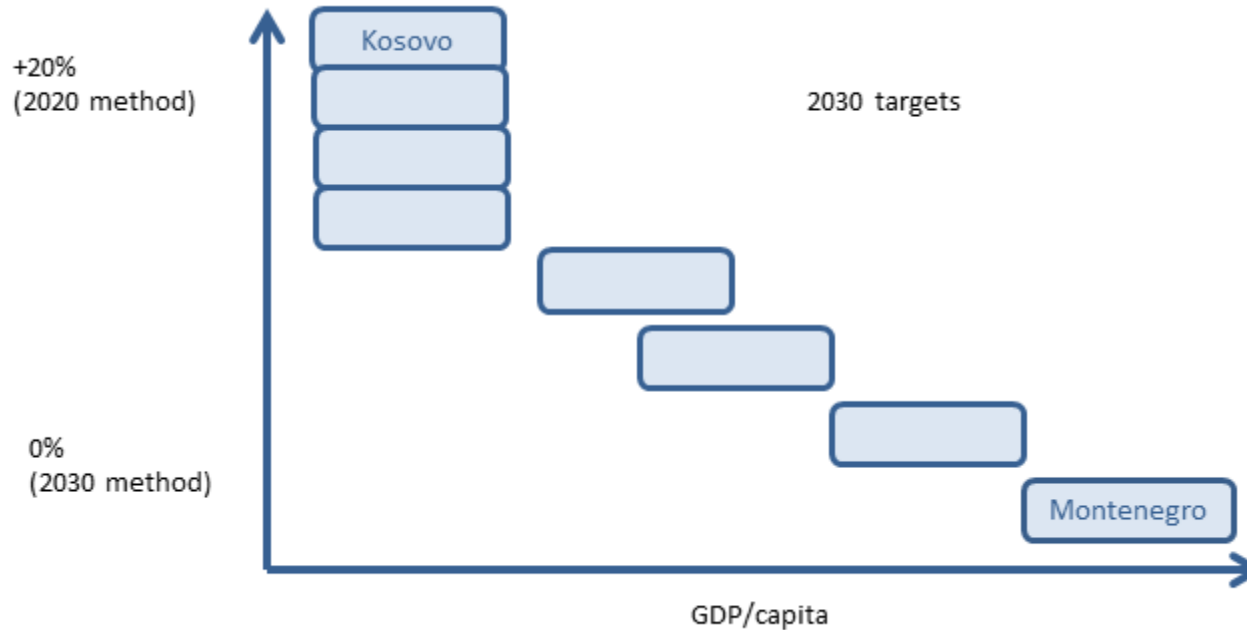


EU non-ETS method

EnC 2030 Targets



Non-ETS method for CPs



- Gradient in national ambition levels moving from the more strict 2030 methodology based targets to the less ambitious 2020 methodology based targets
- Similar ambition as for EU members that entered the EU 12 years ago

Electricity and Heat

- Electricity well covered by models e.g. SEERMAP

Industry

- Need for sectoral emissions data in order to apply trends/make projections
- Trends: e.g. PRIMES or convergence to EU benchmarks

The information provided is not necessarily complete. The evaluation whether an installation is covered by the ETS is an obligation of the substitute to this evaluation by the operator.

PRELIMINARY LIST ON ETS INSTALLATIONS IN SERBIA

This preliminary ETS list has been prepared within the missions of 28.9. to 3.10.2014 and 24.11. to 29.11.2014 of the EU Twinning Creation of a monitoring, reporting and verification system for the sub Emissions Trading System, Activity 2.5 (Preparation of List of installations that are subject to the ETS). The information provided and therefore the ETS list is not necessarily complete, and therefore the evaluation by the operator, whether his installation is within the scope of the ETS. With this regard it has to be noted that in any case the evaluation whether an installation is covered by the ETS is an obligation of the substitute to this evaluation by the operator.

ID (ETS)	company	installation	Address	ETS (YES/NO)	Capacity	ETS activity 1	ETS activity 2
101217456/01	PD Termoelektrane Nikola Tesla	PD Termoelektrane Nikola Tesla, TENT A	Bogoljub Uroševića Crnog 44, 11500 Obrenovac	YES	4 716 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
101217456/02	PD Termoelektrane Nikola Tesla	PD Termoelektrane Nikola Tesla, TENT B	Ušće, 11500 Obrenovac	YES	3 624 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
101217456/03	PD Termoelektrane Nikola Tesla	PD Termoelektrane Nikola Tesla, ogranak TE Kolubara	3. oktobra 146, 11563 Veliki Crljeni	YES	870 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
101217456/04	PD Termoelektrane Nikola Tesla	PD Termoelektrane Nikola Tesla, TE Morava	Djure Džakovića 63, 35210 Švrljinec	YES	400 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
104199176/01	PD Termoelektrane i kopovi Kostolac	PD Termoelektrane i kopovi Kostolac, Termoelektrana Kostolac A	Nikole Tesle 5-7, 12208 Kostolac	YES	310 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
104199176/02	PD Termoelektrane i kopovi Kostolac	PD Termoelektrane i kopovi Kostolac, Termoelektrana Kostolac B	Nikole Tesle 5-7, 12208 Kostolac	YES	697 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	
100187552/01	PRIVREDNO DRUŠTVO PANONSKO TERMOELEKTRANOPLANE DOO NOVI SAD	PD Panonske TE-TO, TE-TO Novi Sad	Ulica VII 102, 21000 Novi Sad	YES	940 MW	Combustion of fuels in installations with a total rated thermal input >20 MW (except incineration of hazardous or municipal waste)	

Sensitivity of the analysis

➤ Sensitivity of the selected base year on the results

	Kt	Used indicators
Our current approach GHG 2030 scenario	21.256	GDP/cap. 2013, GHG 2005
Alternative base year	19.228	GDP/cap. 2013, GHG 2012
Alternative base year/GDP	19.565	GDP/cap. 2017 , GHG 2012

➤ Percentage change of the target compared to 2005 and 2014 GHG

	2030 target (Mt)	Change% /2005	Change% /2014
ETS	39,8	-21%	-16,5%
Non-ETS	21,3	+5,2%	+9,1%
Total	60,1	-9,95%	-9,9%

Data needs

- Precise data is needed on the ETS/non-ETS split
- GHG emissions of ETS installations are needed at least on a sectoral level
 - per different industries,
 - for the energy production split into electricity and heat)
- Reliable land use emission data missing