



On behalf of:



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

of the Federal Republic of Germany

Cost-benefit assessment of different GHG mitigation scenarios in Albania

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Tirana, Albania, 14th August 2015

This project is part of the International Climate Initiative (ICI). The German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) supports this initiative on the basis of a decision adopted by the German Bundestag.

RICARDO-AEA



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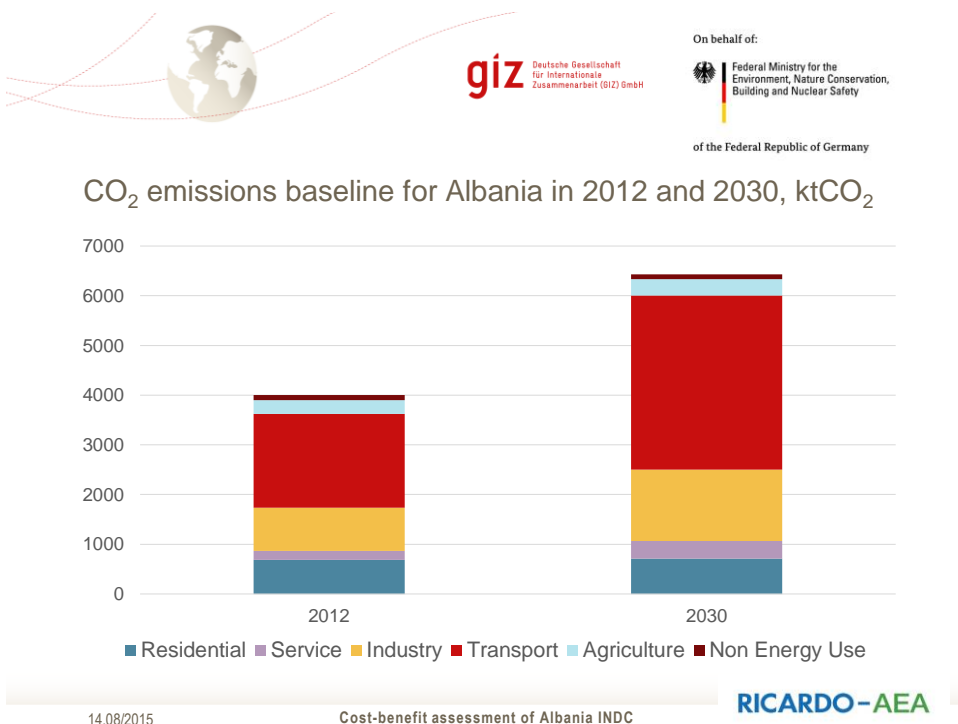
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Objectives of the project

- To conduct a cost-benefit assessment of different GHG mitigation scenarios using Marginal Abatement Cost Curves (MACCs)
- To suggest optimal mitigation scenario(s) to be used for submission as Albania's economy-wide mitigation contribution in its Intended Nationally Determined Contribution (INDC)
- To support with drafting Albania's INDC on mitigation

Project start date: 12th July 2015



Selected mitigation measures for the buildings sector

Source	Measure	Cost eff. \$/tCO ₂	Potential ktCO ₂
NC3/NEEAP	Thermal insulation	-68	50
NC3/NEEAP	District heating	-77	38
NC3/NEEAP	Central heating	-65	26
CPEC report [#]	Building retrofits	All measures cost effective	203
SLED modelling ^{##}	Building retrofits - standard	-189	539
SLED modelling ^{##}	Building retrofits - ambitious	-154	640

[#] Energy Efficiency in Buildings in the Contracting Parties of the Energy Community
^{##} SLED model baseline much higher; yet to be calibrated

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Selected mitigation measures for the industry sector

Source	Measure	Cost eff. \$/tCO ₂	Potential ktCO ₂
NC3/NEEAP	More efficient boilers – oil	-86	128
NC3/NEEAP	More efficient boilers - coal	-68	97
- #	5% fuel switching to NG and renewables	If scheduled replacement	72 ##

Estimated from projected fuel use in different industry sectors, likely replacement rates and differential emission factors

61 mtCO₂ potential if combined with more efficient boilers

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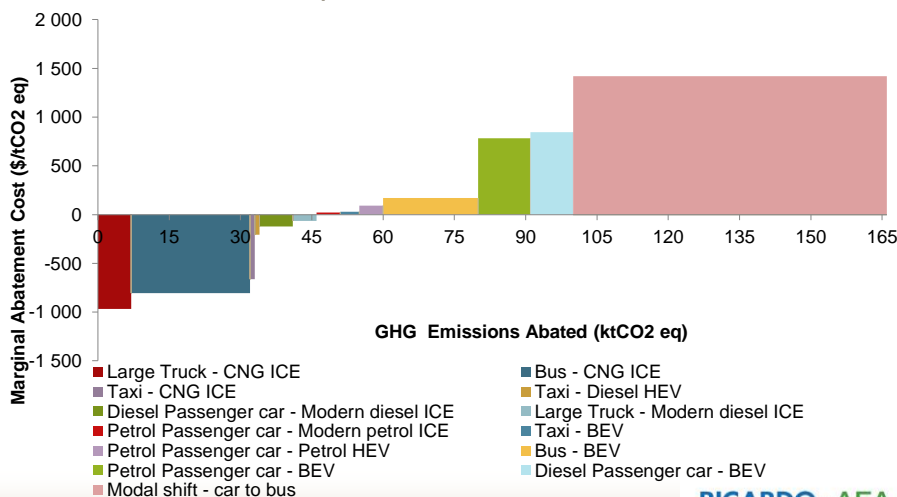
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MACC for the transport sector in Albania, 2030



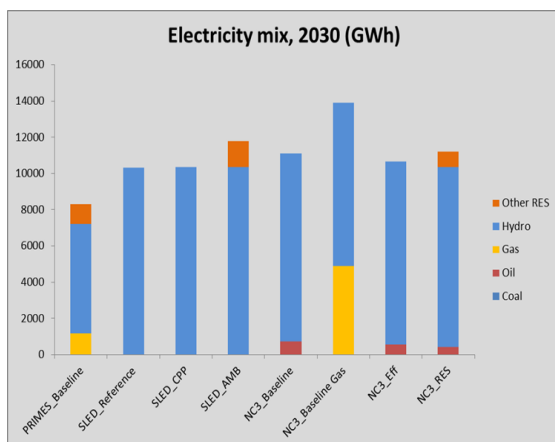
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Mitigation measures for the power sector in 2030?



Electricity mix dominated by hydro, with NG and other RES in some scenarios

Very limited potential for CO₂ savings from the power sector in Albania (except in neighbouring countries)

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Summary of cost-effective measures for Albania in 2030

Sector	Baseline ktCO ₂	Measure	Potential ktCO ₂	% of baseline
Buildings	1065	CPEC - retrofits	203	-
		All buildings measures	203	19%
Industry	1438	NC2 – efficient boilers	225	-
		Fuel switching (5%)	61	-
		All industry measures	286	20%
Transport	3502	CE measures from MACC	46	-
		All transport measures	46	1%
Total all sectors	6005	All selected measures	535	9%

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