

Preventing stranded assets in energy generation: The new EU BAT BREF and CO₂ pricing



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BAT BREF 2017

Existing BREF for large combustion plants from 2006, new stricter one to be adopted 2017

Recommendation by HLRG for EnCom to adopt IED Chapters II and IV also for existing plants

Several Energy Community countries already use the EU BREF as permitting basis

Investment decisions are being taken now



Requirements – emissions to air

Example, Stanari, 300 MWe, CFB, existing plant in new BREF

	Draft BAT emissions limit values (CFB)		Stanari environmental permit limit values
	Existing plant – yearly average	Existing plant – daily average	LCPD new plant
NOx	<85–150 mg/Nm³	<86-165 mg/Nm³	200 mg/Nm³
SO₂	20-180 mg/Nm³	50-220 mg/Nm³	200 mg/Nm³
HCl	1-20 mg/Nm³	-	Not specified
HF	1-7 mg/Nm³	-	Not specified
Dust 300-1000 MWth	2-10 mg/Nm³	3-11 mg/Nm³	30 mg/Nm³
Mercury	<1-7 µg/Nm³	-	Not specified

New BAT standards not being taken into account so far

Plant/Unit	
Ugljevik III, RS, BIH	IED Annex V II
Banovići, FBiH	Unclear permit conditions
Tuzla 7, FBiH	LCPD
Kakanj 8, FBiH	Not yet permitted
Kosova e Re, KOS	Not yet permitted
Pljevlja II, MON	Not yet permitted
Kostolac B3, SRB	Not yet permitted
Oslomej recon., MK	IED Annex V II

Recommendations on BREF

Most Energy Community countries will have to apply the new BREF as soon as it comes into force in the EU due to IPPC transposition

Other countries need to define or update BAT according to the new BREF

Energy Community to adopt IED Chapter II to bring unified approach

Align new permits with BREF 2017 already to prevent expensive changes later

Warn investors about upcoming changes

CO₂ costs and new coal projects

ETS not in force in the Energy Community countries yet, but need to take it into account in investment decisions

Plant/Unit	Annual CO2 emissions	Annual CO2 costs 5 EUR/t	Annual CO2 costs 15 EUR/t	Annual CO2 costs 25 EUR/t	Annual CO2 costs 35 EUR/t
Stanari	2 310 092	11 550 461	34 651 383	57 752 305	80 853 227
Ugljevik III	4 185 515	20 927 575	62 782 724	104 637 874	146 493 024
Banovići	2 010 939	10 054 697	30 164 090	50 273 483	70 382 877
Tuzla 7	2 454 300	12 271 500	36 814 500	61 357 500	85 900 500
Kakanj 8	1 813 882	9 069 411	27 208 233	45 347 056	63 485 878
Kosova e Re 600 MW	<4 248 955	<21 244 774	<63 734 323	<106 223 872	148 713 421
Oslomej	919 100	4 595 500	13 786 500	22 977 500	32 168 500
Pljevlja II	1 588 028	7 940 140	23 820 421	39 700 701	55 580 982
Kostolac B3	2 203 262	11 016 312	33 048 937	55 081 562	77 114 187

CO₂ costs and new coal projects

Plant/Unit	
Ugljevik III, RS, BIH	No information available
Banovići, FBiH	No information available
Tuzla 7, FBiH	No information available
Kakanj 8, FBiH	No information available
Kosova e Re, KOS	Will be taken into account in alternatives assessment
Pljevlja II, MON	Taken into account but with delay until 2026
Kostolac B3, SRB	State expected to pay, even low carbon price derails project economics
Oslomej recon., MK	No information available

Recommendations on CO₂ costs

Companies need to revise investment assumptions for projects and governments need to make sure they do it

Governments need to apply a shadow carbon price in decision-making in order to make appropriate long-term decisions, eg. in energy and low-carbon strategies

Strengthen the climate aspects of the Energy Community

Put energy efficiency first to minimise need for carbon-intensive energy infrastructure

Adopt 2030 targets in the Energy Community to provide investor certainty beyond 2020 and diversify renewables

Thank you for your attention



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