

TABLE A5.2 | PARAMETERS FOR THE CBA DISCUSSED AT WORKSHOPS AND MEETINGS

Class	Parameters	Workshop Attendee Rating	Interpreted Rating of 20 Engineering Students	Industrial Consumer's Rating	Academic's Rating	World Bank Economist's Rating	Average Scores	Rank in Class	Parameter Adopted in Analysis	Comment/ Rationale for Monetization
Environmental	Value of water	3	3	2.5	1	1.5	2.2	2nd	Yes	This parameter is recognized as being very complex, as there are many 'goods and services' provided by water (e.g. ecosystem support, irrigation, human consumption, recreation). Detailed analysis of this parameter is beyond the scope of this study and therefore 'proxy' values are needed to capture this important aspect. The unit 'price' of water has been taken as the Albanian cost to consumer and sensitivity.
	Carbon dioxide and other GHG	3	1		2	3	2.3	1st	Yes	EU trading price and industry norms for operational emissions.
	Particulate matter	2	1		2	3	2	3rd	Yes	There are no significant emissions from any of the analyzed technologies so PM has not been explicitly included in the analysis.
	Nox, Sox	3	1		2	1	1.8	5th	Yes	Operational Nox incorporated in the analysis using industry norms and international market values.
	Value of ecosystems	1.5	1.5		2	3	2	3rd	Yes	Footprint of power plant and associated land take (e.g. estimate of reservoir land area). Assumptions made that mountainous terrain is principal forest ecosystem and lowland terrain is coastal (as per examples such as Vlore and Porto Romano).
	Non-use values	1	0.5			1	0.8	6th	No	This parameter is difficult to monetize without in depth study that is beyond the scope of this study.
Social	Recreation benefits	1	0			1	0.7	6th	No	Low priority and complex to analyze. Assessment considered to be beyond the scope of this study.

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	Impacts on tourism	2	2				2	2nd	No	Although this was seen as a priority by stakeholders, there is insufficient information regarding the likely impacts of energy generation on tourism in Albania to enable meaningful analysis in this study. Further study could be undertaken to quantify and monetize this parameter.
	Disturbance of people and property	3	1	3		1	2	2nd	Yes	It is clear that there are other disturbances such as community relocation. The necessary data to make a detailed assessment is lacking at this stage so a proxy has been used to approximate part of this aspect.
	Overall number of employees per MW generated/ job creation		1		1.5		1.3	5th	No	Low priority and partially accounted for in OPEX and GDP parameters.
	GDP/ economic development	2	1			3	2	2nd	Yes	It is recognized that energy supply to consumers enables them to generate wealth in excess of the cost of electricity. An 'electricity benefit' factor has been incorporated in the analysis. However this is a constant factor for all approaches (as users would get the same benefit where ever the electricity was generated and thus the marginal difference between options is zero.
	Politics			2.5	3		2.8	1st	No	It is considered that the political process would utilize the output from the study to inform and support future decisions that are made. Therefore it is not appropriate to incorporate political views in the cost benefit analysis.
Financial	Cost per MW produced - CAPEX, OPEX	3	2	2	2.5	3	2.5	3rd	Yes	Industry norms and Albanian data.
	Efficiency (for every dollar in how much do you get out?)		1				1	6th	No	Efficiency is reflected in the CAPEX and OPEX to meet the required energy production (GWh).

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	Land Value				3		3	1st	Yes	Land usage is reflected in the representation of loss of ecosystem/ 'goods and services' that the land would otherwise provide.
	Reduction of liabilities (e.g. not paying penalties for turning off electricity)	3	1				2	4th	No	This parameter is captured in the assumption that all options being assessed would meet demand, and that the 'electricity benefit' factor captures this element to some extent.
	Investor/ funding agency confidence	3	1.5			1.5	2	4th	No	Considered by stakeholders as a low priority.
	Improved reputation	1	1				1	6th	No	Considered by stakeholders as a low priority.
	Loss in production	3	2			3	2.7	2nd	Yes	This is reflected in the 'electricity benefit' parameter.
	Vulnerability to natural disasters/ climatic vulnerabilities (e.g. landslide, seismic)							Not scored	Yes	This parameter has been captured by a sensitivity scenario within the analysis. This factor aims to represent the fact that large hydroelectric power generation is often in remote areas with long transmission lines to supply consumers in southern Albania.