Sizing of an island standalone hybrid system considering economic and environmental parameters: A case study

Supplementary file:

Table S1: Evaluation and preference of the expert 1

Criteria	COE	NPC	CO_2 emission (kg/year)
COE	1	7	5
NPC	1/7	1	3
CO_2 emission (kg/year)	1/5	1/3	1

Table S2: Evaluation and preference of the expert 2

Criteria	COE	NPC	CO_2 emission (kg/year)
COE	1	5	1/7
NPC	1/5	1	3
CO_2 emission (kg/year)	7	1/3	1

Saaty the nine-point scale:

9-extremely favor

7- very strong favor

5-strong favor

3-slightly favor

1-equal

Table S3: AHP processing matrix to compute the weights of criteria based on expert 1 and 2.

Evaluator	Criteria	Original Matrix			Normalized Matrix			Aggregation	Weight
1		COE	NPC	CO_2 emissions	COE	NPC	CO_2 emissions		
	COE	1	7	5	0.75	0.84	0.56	1.34	0.716
	NPC	0.14	1	3	0.11	0.12	0.33	8.33	0.183
	CO_2 emissions	0.2	0.33	1	0.15	0.04	0.11	9	0.1
2									
	COE	1	5	0.14	0.12	0.79	0.034	8.2	0.32
	NPC	0.2	1	3	0.024	0.16	0.73	6.33	0.31
	CO_2 emissions	7	0.33	1	0.85	0.052	0.24	4.14	0.38