

TIDAL TURBINE DESIGN MATRIX

ATTRIBUTE	WEIGHT	FIXED BLADE PROP	DUCTED FRANCIS TURBINE	VERTICAL AXIS TURBINE	ADJUSTABLE BLADE PROP
ESTIMATED EFFICIENCY	10	8	8	5	8
REVERSIBILITY	9	6	2	10	7
SENSITIVITY TO FLOW ANGLE	6	5	2	10	6
MAINTAINABILITY/LONGEVITY	8	9	4	7	7
EASE OF MANUFACTURE	7	8	2	7	5
ADJUSTABILITY	4	6	5	6	9
AFFORDABILITY	10	7	2	6	5
MOUNTABILITY	2	10	2	6	10
SCALABILITY	2	8	2	8	4
MINIMIZE ENVIRONMENTAL IMPACT	3	6	4	8	6
FLOW VELOCITY VARIATION ALLOWANCE	8	4	8	3	8

ATTRIBUTE	FIXED BLADE PROP WEIGHTED	DUCTED FRANCIS TURBINE WEIGHTED	VERTICAL AXIS TURBINE WEIGHTED	ADJUSTABLE BLADE PROP WEIGHTED
ESTIMATED EFFICIENCY	80	80	50	80
REVERSIBILITY	54	18	90	63
SENSITIVITY TO FLOW ANGLE	30	12	60	36
MAINTAINABILITY/LONGEVITY	72	32	56	56
EASE OF MANUFACTURE	56	14	49	35
ADJUSTABILITY	24	20	24	36
AFFORDABILITY	70	20	60	50
MOUNTABILITY	20	4	12	20
SCALABILITY	16	4	16	8
MINIMIZE ENVIRONMENTAL IMPACT	18	12	24	18
FLOW VELOCITY VARIATION ALLOWANCE	32	64	24	64

TOTAL	472	280	465	466
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