Capex/MWh - Renewable Energy v Nuclear Energy

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	Renewable Energy	Renewable Energy	Nuclear Energy
Description	Wind Turbines	PV Solar Panels	Small Modular Nuclear Reactors
Source	https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp/current-inputs-assumptions-and-scenarios	https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp/current-inputs-assumptions-and-scenarios	Gencost 2021-2022 lower rate for SMRS
Cost per watt	$2.10	$1.45	$7.90
Cost per Mw	$2,100,000	$1,450,000	$7,900,000
Installation MW	924	924	924
Net Output MW			884
CAPEX	$1,940,400,000	$1,339,800,000	$7,299,600,000
Operational Hours per day	24	8	24
Operation Days	365	365	365
Operation Years	20	25	60
Capacity Factor	30%	30%	88%
Energy Produced MWh	41,778,219	18,088,387	408,874,752
Generator Capital Cost to produce the same MWh output as an equivalent SMR Module - (Capex x (SMR MWh Energy Produced/Wind Turbine or PV Solar Energy Produced))	$18,990,291,620	$30,285,198,756	$7,299,600,000
Capex / MWh	$46.45	$74.07	$17.85
Land Use	203 sq kilometres	27 sq kilometres	18 hectares
Land Required for same MWh production as the SMR module	1702 square kilometres	183 square kilometres	0.18 square kilometres
Land Use Source	Barneys Reef - 340 MW covers 75 sq kilometres	25 sq klms for 850 MW - Longyangxia Dam Solar Park, China.	Nuscale SMR Technology Report