



ELQUI GLOBAL ENERGY

TABLE 2: COMPARATIVE NOPAL, WIND AND PHOTOVOLTAIC ENERGY

Ítem	Nopal energy	Wind energy	Photovoltaic energy
Availability	Continuous 24 X 365 days	Irregular depending on the time of the day.	Irregular depending on the time of the day.
Maintenance	Under the conditions of operation, every two years painting. Shortage of personnel	Bass, very few staff in normal conditions	Bass, very few staff in normal conditions
Fault maintenance	Fast, low -cost. Average staff	Highly qualified with major failures, slow and costly repairs.	Highly qualified with major failures, slow and costly repairs.
Type of generated energy	Electric, biogas, thermal (hot water)	Electric	Electric
Power generation efficiency	80-90 %	30% of the installed capacity in land.	10-20% depending on the cost of cell
Duration of equipment and installations	15-20 years	20 years	10 years
Environmental benefit	It generates soil, organic fertilizers. Change the microclimate to retain water the soil. Remove carbon dioxide from the atmosphere. It allows the sale of carbon credits. Completely organic process	It does not emit carbon dioxide. Neutral effect on the environment.	It does not generate carbon dioxide.
Environmental damage	Unknown	High-impact on migratory routes of birds, noisy energy production because of the blades to the rotal.	Construction of cells and batteries is highly polluting
Availability of spare parts	Available in domestic market immediately.	They must be imported	They must be imported with the importer and distributor unit.
Time of study and implementation of project	Short, 1 year	Long, 8 years minimum to study winds	Short 1 year.
Social benefit	Generates permanent jobs for planting, harvest and process plants.	It generates jobs in the mounting of equipment.	It requires little maintenance and personnel. Applicable to small scale in marginal sectors.
Positive externalities	Culturally the cultivation of the nopal is accepted and promoted by institutions of the State. Allow the opening of new markets being considered to be a green company that cares for the environment.	Known and implemented on a global basis technology	Attractive and widely known technology, widely positive image for their implementation.
Negative externalities	Few built plants in the world, unknown.	The money comes from the country to the factories in Europe mainly. The money is not invested in local human and technological resources	The batteries generate polluting toxic. The teams are fragile to impacts and damage. The money is not invested in local human and technological resources.
Installation installed KWh cost	US1400 / KW not include income for by-products	US2.500/KW	US2.500 /KW
Return on investment	1 to 2 years	5-8 years	12-15 years