HUNOSA: AN EXAMPLE OF DEVELOPMENT OF POST-MINING AREAS IN ASTURIAS (SPAIN).

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• HUNOSA. Founded in 1967
• Integration of coal mining private companies
• Coal extraction: underground and open pit
• More than 70 collieries and more than 2,000 mountain mines
• 26,590 employees (1969)
HUNOSA: DIVERSIFICATION ACTIVITIES

- Biomass
- Research and Development
- Photovoltaic
- Commitment to Mining Districts
- Renewable Energies
- Green Hydrogen
- CO₂ Capture
- Water

TFKCS AS PROJECT
ENERGETIC USE OF MINE WATER

≈ 30 hm³/year
Annual volume of water pumped from HUNOSA mines

SMALL HYDRO PLANTS
ENERGY STORAGE
GEOTHERMAL ENERGY
TRANSFORMATION OF LA PEREDA POWER PLANT

- Example of diversification and ecological transition.
- Revival of the industrial sector and specially it will boost the forestry.
- Impact on the development of other renewable projects and will contribute to the conservation and employment generation.
- Promotion of future research projects.

CO$_2$ capture plant (in operation since 2011)
HARNESSING THE SUN AS AN ENERGY RESOURCE

Asturias:
- 1200 sun hours per year
- Irradiance: 1300 Kwh·m⁻²·y⁻¹

Waste Heaps: Pumardongo (≈ 12 MWp)
Former Open-Pit Mines: San Víctor (≈ 50 MWp), El Cantil (≈ 3 MWp)
HUNOSA: GREEN HYDROGEN

POZO FONDÓN (Langreo)

- Hydrogen generation plant (2.5 MW)
- Production of 270 000 kg/year (6 000 hours load factor)
- Water from an adit (former mountain mine)
- Photovoltaic plant (between 2 and 5 MWp) supplemented with grid connection (through renewable PPA)
- Gas blending (5%)
- Heat recovery from electrolyser reused to supply heat to Fondón District Heating network
- Green mobility applications: bus

Replicable project
Thank you very much for your attention