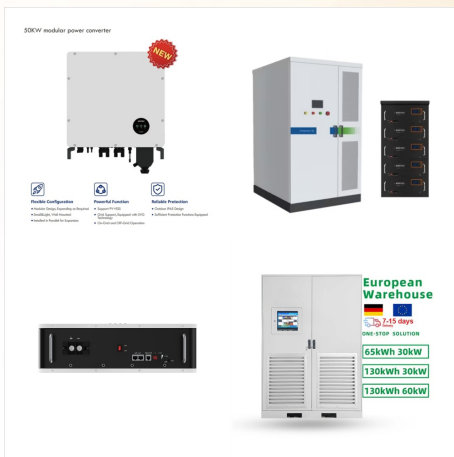


electricity by 2024. The 10% target was set in 2008 by the Non-Conventional Renewable Energy Law (Law 20257) and reaffirmed, as a minimum, in 2012 by the National Strategy for the Energy Sector. The 2014-2018 Energy Programme aims at achieving a 45% renewable energy share for new electric capacity installed between 2014 and 2025.



The use of solar energy can partly replace electricity generation in conventional power plants, which contributes to achieving the goals of reducing emissions and energy dependence in Chile. A more sustainable and secure energy mix ???



Latin America's first concentrated solar power plant, Cerro Dominador, is located in Antofagasta in the north of the country, with 210 MW of electricity, 17.7 hours of electricity storage and an investment of USD 1.4 billion. A number of new hydropower, wind power and solar power plants are under construction in Chile.



Chile, whose energy mix has one of the region's highest shares of wind and solar power, offers a clear example of the challenges these dips can create. The country benefits from a unique geography and climate: in the north, the Atacama Desert boasts the highest levels of solar irradiance on Earth and, in the far south in Patagonia, Chile is buffeted by some of the ???



In particular, wind and solar power have made a massive entry into Chile's electricity system since 2013, "completely transforming the country's energy matrix," says Camilo Charme, general manager of Generadoras de Chile, adding that in 10 years alone, installed solar capacity has grown from eight megawatts (MW) to more than 9,000.



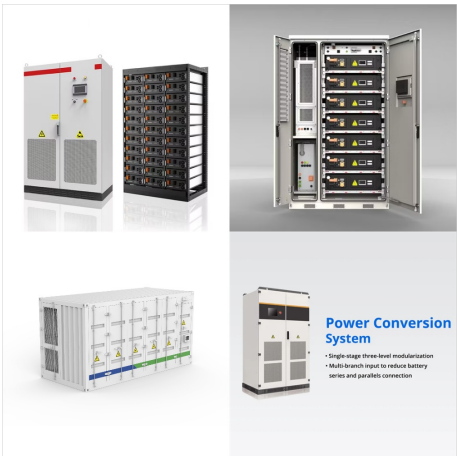
Chile has set an ambitious goal of converting 70% of its total energy consumption to renewables by 2030 and pledged to become carbon neutral by 2050. The country's energy transition strategy has evolved in recent ???



According to the Energy Institute's Statistical Review of World Energy, in 2023, Chile produced 9.4% of its primary energy from solar sources, the highest share in any country. When we look at electricity alone, solar produced 20% of the total.



SANTIAGO, Nov 20 (IPS) - Chile, a country rich in solar and wind energy and with huge photovoltaic power stations and wind turbines in its elongated territory, managed to change its grid by incorporating renewable energies, which account for an installed capacity equivalent to 43.8 % of its electricity production.



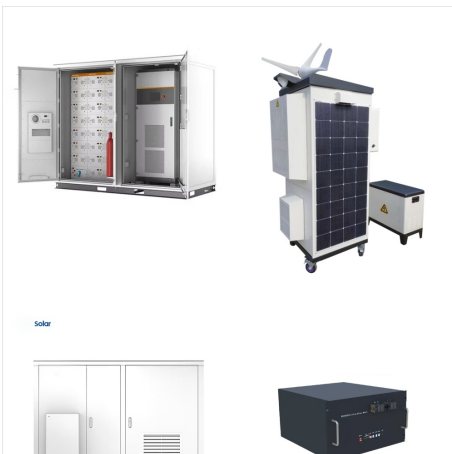
Energy self-sufficiency (%) 33 34 Chile COUNTRY INDICATORS AND SDGS TOTAL ENERGY SUPPLY (TES) Total energy supply in 2021 Renewable energy supply in 2021 40% 13% 16% 31% Oil Gas Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity



Chile is set to build its longest power transmission line, as it looks to support its transition to clean energy. Stretching over 1,342 kilometres between the northern province of Antofagasta and the capital city Santiago, ???



As of August 2020 Chile had diverse sources of electric power: for the National Electric System, providing over 99% of the country's electric power, hydropower represented around 26.7% of its installed capacity, biomass 1.8%, wind power 8.8%, solar 12.1%, geothermal 0.2%, natural gas 18.9%, coal 20.3%, and petroleum-based capacity 11.3%. [4] Prior to that time, faced with ???



As of 2022, renewable sources accounted for 56% of total electricity generation, with half of this generation coming from solar power and wind energy. Chile has seen an accelerated growth of solar energy, with a current installed base of 6.1GW, nearly three times the capacity in 2017.



The Atacama Desert, one of the sunniest and driest deserts in the world, has not only the highest average surface solar radiation worldwide (Rondanelli et al., 2015) but also the highest solar power potential g. 1 shows Chile's photovoltaic (PV) power potential ??? a solar energy system's maximum productivity over time ??? relative to the rest of the world.



In particular, Chile has one of the largest solar potentials in the world. With almost 356 days of clear skies, high solar radiation and low humidity, the Atacama Desert in northern Chile offers excellent conditions for generating ???



Chile has set itself to achieve Greenhouse Gas emission neutrality, with at least 70% of electricity coming from renewable energy sources by 2050. To this end, institutional and regulatory frameworks have been improved, resulting in significant progress in medium and large-scale projects. However, solar energy production at residential level and its surplus injection to ???





The Latin America Energy Outlook, the International Energy Agency's first in-depth and comprehensive assessment of Latin America and the Caribbean, builds on decades of collaboration with partners support of the ???



The Chile Solar Energy Market is expected to reach 8.40 gigawatt in 2024 and grow at a CAGR of 20.80% to reach 21.61 gigawatt by 2029. Acciona, S.A, JinkoSolar Holding Co., Ltd, Trina Solar Limited, Enel Green Power S.p.A and First Solar, Inc. ???



Chile has ambitious climate change and renewable energy policies: it aims for carbon neutrality by 2050, by phasing out coal power by 2040 and targeting 70% renewable energy electricity by 2030. Renewable energy ???



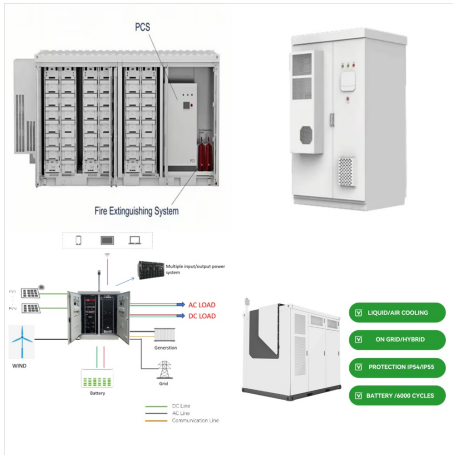
Chile is a country with a huge potential for solar energy. This paper presents an analyses of the global situation of solar energy, identifying the geographical regions with the maximum potential source of solar energy. These areas tend to be in desert locations, since this is where the greatest irradiance is concentrated. A prediction of the potential situation in 2030 is considered. The



Perhaps the most telling statistic in the transition to renewable energy in Chile is that for the first time in its history, Chile is generating more of its electricity from solar and wind than from coal. From October 2021 to October 2022, Chile produced 27.5% of its electricity from solar and wind, whereas coal produced 26.5% of the electricity.



According to a study presented by electric power generators" association Generadoras de Chile, during the first half of 2023 renewable energy became the country's main source of electricity generation, with solar power at the forefront ???



Chile's solar and battery expansion is poised to revolutionize the country's power market. Solar will dominate the energy mix, while batteries will ensure that renewable energy can be stored and dispatched when needed, ???



Renewables will supply 93% of electricity in Chile in 2050, and up to 98% if the country goes through its planned coal phase-out, according to a new joint report prepared by Bloomberg New Energy Finance (BNEF) and Spanish renewables and infrastructure group Acciona SA (BME:ANA).



The projected decline in precipitation is likely to have impacts on the energy system of Chile. For instance, hydropower, one of the largest electricity sources in Chile (accounting for 23.2% of electricity generation in 2022), is sensitive to changes in precipitation. A decline in precipitation can reduce the capacity factor of hydropower





Chile's regulatory framework and government intentions relating to solar are generally regarded as favourable, with energy auctions being held last year by Chile's National Energy Commission