IN FEBRUARY 2019, COSTA RICA LAUNCHED ONE OF THE MOST AMBITIOUS DECARBONIZATION PLANS IN THE WORLD: AIMING TO REACH NET-ZERO EMISSIONS BY MID-CENTURY AND RUN ON 100% RENEWABLE ELECTRICITY BY 2030. WHILE THE LATIN AMERICAN COUNTRY IS ALREADY A PIONEER IN RENEWABLE ELECTRICITY, A NEW STUDY BY LA RUTA DEL CLIMA, THE WORLD FUTURE COUNCIL AND THE UNIVERSITY OF TECHNOLOGY SYDNEY DEMONSTRATES HOW IT CAN ALSO CUT ITS DEPENDENCY FROM OIL AND GAS IN THE OTHER SECTORS. THE STUDY PROVES THAT LEVERAGING COSTA RICA’S MASSIVE UNTAPPED RENEWABLE ENERGY POTENTIAL CAN HELP TO ACHIEVE ITS GOALS AND BE AN EXAMPLE FOR OTHER COUNTRIES TO FOLLOW.

COSTA RICA’S UNTAPPED POTENTIAL*
*excluding housing areas, protected areas, slopes higher than 30 degrees, excluding rooftop potential

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<th>More than 15 GW of on-shore wind potential</th>
<th>more than 196 GW potential for utility-scale solar</th>
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HIGHEST concentration of solar and wind potential in north-western region of Guanacaste

SAN JOSÉ has significant potential for roof-top and utility-scale solar PV

100%RE with high penetration of e-transport and electrification of industrial heating can be realised by utilising only 6% of the utility-scale solar power potential by 2050

Costa Rica has abundant renewable energy resources, which can supply, all required energy across all sectors, including the increased electricity demand for electric vehicles.

CO-BENEFITS OF 100% RENEWABLE ENERGY IN COSTA RICA

Ambitious RE targets in the power and industry sector will reduce energy-related CO2 emissions by 38 million tons of CO2 between 2020 and 2030.

Electrification of the transport sector can save up to 15 million tons CO2 emissions by 2030.

100%RE can save US$0.01/kWh in power generation costs, as well as 25Mln barrels of oil which can save up to US$5.9Bln by 2050, financing more than 70% of additional investments needed for higher RE integration.

To find out more, visit www.worldfuturecouncil.org/100-renewable-energy-costa-rica/
CRUCIAL EFFORTS IN ORDER TO ACHIEVE 100%RE & FULL DECARBONIZATION

- Prioritize deployment of renewable energies across all sectors as part of the decarbonisation plan
- Increase transmission and distribution networks between load centres and RE generation hubs, such as Guanacaste (which will serve as the primary location for onshore wind)
- Install the required storage capacities of around 719GWh/a (up to 3.5% of total variable generation in 2050)
- Keep storage needs to 30% by 2030 in all regions except Guanacaste (80%)
- Prioritize energy efficiency, particularly in the heating/cooling sector
- Introduce dedicated support instruments are required to ensure the dynamic development of renewables, particularly for the transport sector and renewable process heat production in the industry sector.

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