



Ministry of Foreign Affairs

Sustainable transportation opportunities in Costa Rica

Commissioned by the Netherlands Enterprise Agency

*>> Sustainable. Agricultural. Innovative.
International.*

Facts and figures: Costa Rica



Costa Rica consists of population of 5,1 million people and Usd. \$63,4 billion in GDP, economic growth forecast for the country is 3,9% in 2022 after a COVID-19 rebound of 7,6% in 2021.

The major economic pillars are medical instruments, agriculture, computer chips and tourism, although the service sector and industrial sector are growing in Costa Rica.

Costa Rica is one of the world's oldest and most stable democracies with no armed forces. Costa Rica's location, democratic stability, good infrastructure, high standard of living, educated workforce makes it a preferred near shoring destination for Foreign Direct Investments.

United States and European Union are the main commercial partners and both have bilateral free trade agreement (FTA) with the US known as CAFTA-DR and Association Agreement with Europe.

Embassy of the Kingdom of the Netherlands:
<https://www.nederlandwereldwijd.nl/landen/costa-rica>
www.facebook.com/embajada.holanda.cr

Costa Rica's Sustainable transportation transition; electric public transportation, infrastructure for electric vehicles, promotion of non-motorized transportation, and eco-friendly vehicle incentives

Costa Rica potential world leader:

Costa Rica aspires to be a laboratory for the world's economy process of de-carbonization. Costa Rica's continuous promotes the de-carbonization of its economy, the largest bottleneck being transportation, responsible for 60% of CO2 emissions.

Costa Rica already has a clean electricity matrix, with 100 percent coming from renewable sources (hydro, wind, geothermal, biomass), which will facilitate the transition to a emission-free transportation model. During non-peak demand hours, Costa Rica even generates an excess of electricity supply. The main government policy maker and generator, I.C.E. (Costa Rican Institute of Electricity) has changed part of its own fleet (100 vehicles) to EV's and electric buses are being introduced.

National Decarbonization Plan

In 2019, Costa Rica launched its National Decarbonization Plan (NDP) which set out the ambitious goal for the country to become carbon-neutral by 2050 and laid out a wide range of policy and institutional reforms to achieve this goal. Currently, its electricity is emissions-free due to its renewable energy generation and in the transport sector, significant emissions reductions are envisioned through electrification of transport and shifting to electric public transportation.

An important aspect of Costa Rica's ambitious plan to decarbonize its economy until 2050 includes the electrification of public transport: until 2035, 30% of public buses and taxis are to emit zero emissions. Until 2050, 85% public transport fleet is supposed to operate free of fossil fuels. Furthermore, a hydrogen promotion plan is also a key activity contemplated in the National Decarbonization Plan with focus on bus- and truck transportation as well for heavy industries.

Emission-free transportation model

In Costa Rica, the transport sector is responsible for 70% of hydrocarbon consumption and 60% of CO2 emissions. Within the transport sector, the main contribution of CO2 comes from private vehicles, followed by cargo transportation, motorcycles, and buses. The Costa Rica government in order to promote environmentally sustainable transport has taken several initiatives starting with stricter regulation of hydrocarbon and promotion of liquid biofuels to promotion of (hybrid)-electric vehicles and hydrogen fuel cell technology. By the year 2035, 30% of public transport will be 0 emissions.

Electrifying the taxi transport, a highly visible public transport sub-sector will mean replacing more than 13,000 units across the country. In case of buses, the country counts around 3,500 buses.

Electric Mobility Law 9518

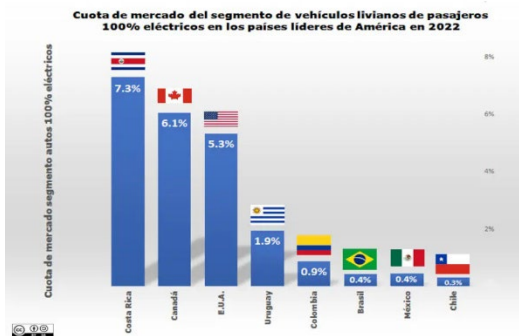
The Promotion and Development of Electric Transportation law includes policies to encourage people to replace combustion engine vehicles with electric cars, such as exemption import tariffs till 2035, exemption road taxes, no circulation restrictions, preferred parking spaces, free public charging units.

Currently, there were 6,600 units circulating throughout the country, while in 2018, when the Electric Mobility Law was signed, there were just 398 vehicles of this technology, according to data from the Ministry of Environment and Energy.

Infrastructure and incentives for EV transportation

Costa Rica gives many advantages to people who are going to acquire or currently own an electric vehicle. Some of the advantages are the following:

- **Tax incentives:** selective consumption and customs value tariffs are 100% exonerated until 2035. The value added tax is 1% for all electric vehicles imported in 2023 and will increase by 1% over the next 12 years.
- **Circulation permit:** All electric vehicles are exempted from 80% of the payment of the assessed value of the property that must be paid yearly in the marchamo (road tax).
- **Get free parking:** People who own or own an electric vehicle have free parking in most public places, including airports, shopping centers, among others.
- **Access to restricted areas:** Vehicles may use bus lanes and other routes to reduce driving time.
- **Charging stations infrastructure:** Costa Rica has installed over close to 200 semi-rapid and rapid charging stations, but the majority of them are in and around the capital San Jose. Another roughly 85 charging points, most of them simple 120v plug points, called L1 stations, have grown out of Ruta Eléctrica.



In 2023, Costa Rica managed to maintain its leadership in the Latin American region in terms of penetration of the 100% electric light passenger vehicle segment (cars, sport utility vehicles and pickups), reaching a record market share of 10% after reached a high in 2022 of 7.3% of all passenger car sales imported into the country. In terms of sales volume of 100% electric cars in 2023, a total of 1311 new 100% electric cars have been imported in the first 3 months, representing a year-on-year growth of 166% with respect to 2022 (492 cars). Costa Rica is only surpassed in this segment by Brazil. Costa Rica also maintains its leadership in Latin America in terms of sales of plug-in

hybrid vehicles (PHEVs). Currently there are over 50 models of electric cars available.

In percentage terms, new electric vehicles accounted for 97%, while used vehicles accounted for only 3% of total imports of EVs. In Costa Rica, thanks to the reform of law 10209 signed in 2022, used electric vehicles have the same fiscal and parafiscal benefits as new electric cars.

Hydrogen storage & bus transportation

Costa Rica started in 2017 test driving its first hydrogen fuel cell bus as the country moves towards using 100 per cent renewable energy. Ad Astra developed the first green hydrogen ecosystem in Latin America, with project partners such as Toyota Mobility Foundation, IDBLab, Cummings and Caterpillar. The country has announced a special tariff regime for hydro surpluses (3.9 ¢/US\$ for night periods and 5.5 ¢/US\$ for peak periods for each kWh of energy consumed) effective 01 April 2022. At these prices, making hydrogen through the electrolysis of water, becomes very cost-competitive.

Ad Astra Rocket Company, owned by former Costa Rican astronaut Franklin Chang, looks for agreements to continue the development of a hydrogen production plant that aims in the future to generate alternative fuels. Recently Dr. Franklin Chang published an article regarding his research to process, generate, compress and store hydrogen to generate alternative fuels.

Law no 9366 on Railroad electrification

This law modernised the Costa Rican Railroad Institute (INCOFER) and allowed it to take on debt up to a maximum equivalent to 40% of its assets, in order to build an electric train network, with the objective of reducing greenhouse gas emissions in the transport sector.

Electric passenger train

Furthermore President Chaves announced last year the start of studies by the Costa Rican Railway Institute (INCOFER) for the development of a Fast Passenger Train. INCOFER with the support of the Municipality of Alajuela has authorized also the company Movilisa Holdings to carry out a feasibility study to materialize the first monorail in

Costa Rica that would connect the air terminal with the multimodal station, or the new bus terminal, located in INVU-Las Cañas of Alajuela city.

Promotion and development of urban cycling

Four years ago, municipalities and the Ministry of Transportation started with urban cycling pilots. Foreseen to use the Dutch CROW methodology, however this established methodology had to be tropicalized as characteristics of the neighbourhoods and local planning policies had to be incorporated in order to account for the specific needs of the vicinities and populations. The pilots showcased that change on a local scale can be reached with limited resources and capacities and demonstrated that the bicycle is a convenient, safe and efficient means of transport.

Public Private Partnerships

The Costa Rica government hopes to form more alliances with private companies to continue with sustainable transportation projects in order to meet the country's environmental objectives.

Opportunities for Dutch companies:

- Electric and hydrogen buses & trucks
- Electric urban cars
- Electric charging stations
- Smart-card ticketing and future public transport ticketing systems (e-ticketing)
- Public transport planning apps & websites
- Expertise in cycling infrastructure
- Green lending & Carbon Credits financing

Economic diplomacy

Our Dutch embassy in San José, together with our consulates in the rest of Central America, would like to support you. We have broad knowledge and networks, both in politics and in business. We know the market, bridge language and culture barriers and have access to local authorities and companies.

I hope that the above information may be of service to you. If you have any questions or would like advice, let us know. We are happy to help you!

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Informative links:

- <https://energia.minae.go.cr/> Dirección de Energía (DE) - MINAE
- <https://ticotimes.net/2021/02/23/costa-rica-launches-first-electric-bus-route-in-san-jose-2>
- <https://www.crie.cr/electric-vehicle-in-costa-rica/>
- <https://osatropicalproperties.com/electric-cars-in-costa-rica/>
- <https://wheelscr.com/electric-vehicles-in-costa-rica/electric-transportation-promotion-and-development-law-9518/>
- <https://changing-transport.org/costa-rica-urban-mobility/>
- <https://www.electromaps.com/es/puntos-carga/costa-rica>

Costa Rican Legal Information System:

- Executive Decree 43366 Use of Surplus Resources in the National Electric System for the Development of a Green Hydrogen Economy.
- Executive Decree 39114 Makes official Action Plan of the National Climate Change Strategy.
- Executive Decree 39219 Approves the VII National Energy Plan 2015-2030.
- Executive Decree 40050 Regulation of Liquid Biofuels and their Blends.
- Executive Decree 33096 Encourages the use of hybrid-electric vehicles as part of the use of clean technologies.
- Law N. 19744 Law of Incentives and Promotion for Electric Vehicles
- Law N. 22392 Law for the promotion and implementation of a Green Hydrogen economy (in Congress for approval)

References and contact information that can be provided:

Luis Amador, Minister of Public Works and Transportation

Marco Acuña, President of Grupo ICE

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Costa Rican Institute of Electricity (ICE)

Costa Rican Railway Institute (INCOFER)

Costa Rican Electric Mobility Association (ASOMOVE)

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