

TSÉVIÉ

TOGO



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Tsévié, a small town 35 kilometres north of Togo's capital Lomé, had a population of around 103,000 in 2017, growing at a rate of 2.8% annually. The town has minimal industrial activity, and its economy is built largely on agricultural activities centred on crop production and livestock farming, generating a low annual economic output of USD 519 per capita.

Togo's electricity infrastructure development plan, as outlined in the national Electricity Sub-Sector Strategic Plan of 2010, is based on a least-cost electricity supply and demand balance, taking into account security of supply and the environment. This led to the development of the Togo National Action Plan for Energy Efficiency (PANEE) and the Togo National Renewable Energy Action Plan (PANER), which respectively define the country's objectives for energy efficiency and renewable energy deployment by 2030. The national objective for renewables is to increase the share of solar PV in total final energy consumption to 10% in 2030, including both on- and off-grid PV.

Due to Tsévié's low levels of industrialisation and electricity access (estimated at 24% in 2017), traditional biomass in the form of wood and charcoal is the single most important fuel in the peri-urban settlement. Traditional biomass accounts for 64% of total final energy consumption and is used to meet household cooking and water heating needs. The residential sector is responsible for 73% of total final energy consumption, followed by the transport sector (25%) and the town's few commercial facilities (2%). Because of the low levels of electrification, the town's street network is largely unilluminated, limiting potential economic activity in the evenings.

To boost local energy access and development, Tsévié implemented a three-year municipal energy programme (2017-2020) under

the Covenant of Mayors in Sub-Saharan Africa, with the goal of developing a community-wide energy and climate action plan (the Plan d'Action en faveur d'un Accès à l'Energie Durable et du Climat (PAAEDC) de la commune de Tsévié). Under this flagship programme, the municipality aims to achieve its sustainability ambitions in four strategic areas: 1) sustainable biomass use, 2) deployment of distributed rooftop solar PV, 3) increased adoption of electric motorcycles and 4) a modal shift to public transport.

Under the PAAEDC framework and with funding from the European Union, Tsévié led a series of pilot projects in 2018-2020 to boost energy access and development and increase the share of renewables in energy consumption. To improve access to clean cooking facilities, the municipality distributed 8,200 improved and efficient cook stoves in the town and its environs as a means to limit the prolific household use of traditional biomass for cooking and water heating (and thus improve indoor air quality and human well-being). The city also sought to bridge the electricity access gap and to improve lighting solutions by installing 75 solar street lamps for public lighting, distributing 95 solar home systems to the most vulnerable households and installing five community solar kits in schools.

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VANCOUVER

CANADA

Land area
(km²)

115

Population size
(2017)

675,000

Greenhouse gas emissions
(CO₂ equivalent)

GHG

2,440,000 tonnes

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The City of Vancouver has gained global attention for its sustainable urban development strategies in recent decades. Many cities have attempted to transfer the “Vancouver model” – comprising an integrated policy approach to sustainable urban development – to their local contexts. Vancouver aims to generate 55% of its total energy from renewables by 2030 and 100% by 2050. Currently, the share is 31%, primarily from hydropower and a small percentage of biomass, biofuels, wind and solar energy.

Vancouver’s integrated policy approach links energy use and improved infrastructure with sustainable urban development. The Renewable City Strategy, published in 2015, addresses the energy question in the context of environmental, economic and social sustainability. The urban development goal of the City of Vancouver is to plan a liveable and sustainable city, and energy use is an integral part of it. To achieve this, the City has implemented complementary strategies such as the Neighbourhood Energy Strategy (2012) and the Climate Emergency Response (2019).

The Neighbourhood Energy Strategy aims to accelerate several measures, including: reducing the number of trips via single-occupancy vehicles and shifting to more sustainable modes of travel; building public EV charging infrastructure; and improving energy efficiency in buildings through green building policies, bylaws, plans and design standards. The Neighbourhood Energy Strategy is aligned with the city’s

overall plan for 100% renewable energy by 2050, which calls for all district energy systems to run on 100% renewables by 2050. The Strategy has helped develop additional neighbourhood energy systems supplying centralised heating, hot water and cooling for multiple buildings throughout Vancouver. Vancouver’s climate work also relies on a Climate and Equity Working Group to ensure that new policies strive to support the local economy and improve equityⁱ.

As part of its Climate Emergency Response, the city also adapted a long-term climate target of being carbon neutral before 2050, complementing its 100% renewable energy target. In 2020, the city council approved a ban on fossil fuel appliances for all residential buildings. The bylaw requires zero-emission space and water heating for all residential buildings of three storeys or less as of January 2022.

Also in Vancouver, the Sewage Heat Recovery Expansion Project will increase the capacity of the Neighbourhood Energy Utilityⁱⁱ to provide buildings in the False Creek area with low-carbon heat and hot water using waste thermal energy captured from sewage. The project recycles waste heat and uses a mix of renewable and conventional natural gas to reduce emissionsⁱⁱⁱ. Expansion plans approved in 2018 would result in 2.1 million square metres of city building space being served, with an expected reduction of 14,000 tonnes of CO₂ equivalent per year by 2021.

Source: See endnote 184 in the *Urban Policy Landscape* chapter.

ⁱ To support the city’s climate targets, in 2020 the Vancouver City Council approved an ambitious CAD 500 million (USD 383 million) climate action plan that aims to reduce natural gas heating in existing buildings, discourage vehicle use and explore less-polluting ways to produce and transport construction materials.

ⁱⁱ The utility is self-funded, simultaneously providing a return on investment to city taxpayers and affordable rates to customers. The utility began operations in 2010 and as of 2019 had served 534,000 square metres of building space.

ⁱⁱⁱ This mix eliminates more than 60% of the greenhouse gas pollution associated with heating buildings in the city.