

CITY FEATURES



Praia Grande is a municipality in the Metropolitan Region of Baixada Santista, located on the southern coast of São Paulo state. It is the third most populous city on the São Paulo coast. It covers an area of 147 km² and has a demographic density of 2,288.8 inhabitants/km² (2021). The city of Praia Grande has one of the busiest beaches in Brazil, having been elected by the Ministry of Tourism as the fourth city that receives the most tourists in the country during the summer season, reaching about 1.86 million tourists (more than five times its population) during peak season. The city's economy runs on services, commerce and tourism. It has started to explore industrial activities with the implementation works of the Andaraguá Business Complex, which intends to complement the activities of the Cubatão Industrial Complex and the Santos Port, the largest port complex in Latin America.

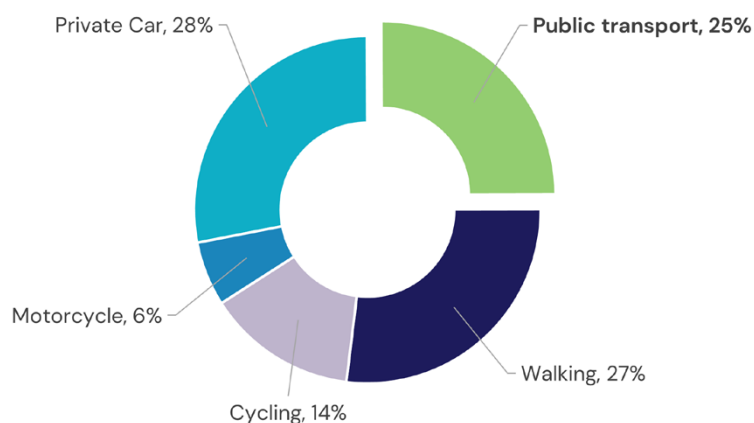
Population
336,454
 (2021)

Land area
147 km²

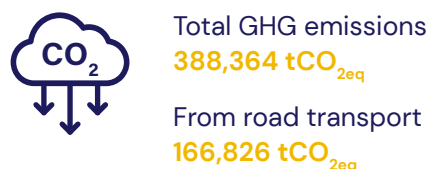
Average temperature
22°C

TRANSPORT FEATURES

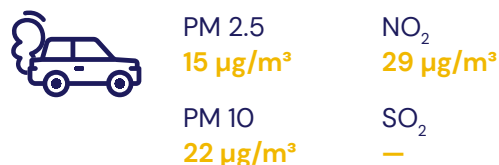
Modal Split¹



GHG Emission Levels²



Air Pollutant Levels³



The land use planning policies are in line with the Urban Mobility Plan, especially in relation to the development of a compact city and encouraging travel by active and collective modes. The public transport systems are currently facing financial difficulties due to the drop in use in recent years that was aggravated by the pandemic. Therefore, to increase the attractiveness of public transport and reduce the environmental impacts generated by fossil fuels, the city is planning to invest in the electrification of the fleet and the acquisition of articulated light rail vehicles. The new operating model is to be tendered, which will take place after the end of the current contract in the year 2025.

1 PEMOB 2021

2 SEEG Municípios, 2019

3 Monthly Air Quality Bulletin for the State of São Paulo – Nº 8. CETESB, August 2021

BUS SYSTEMS OUTLOOK

Bus Trips Features



Number of trips⁴
52,190 (2019)
30,129 (2020)



Average distance
12.4 km



Average time
35 min



Trips by purpose

- Work **49%**
- Health **15%**
- Study **13%**
- Recreation **7%**
- Shopping **7%**
- Others **9%**



Trips by gender⁵

- Men **42%**
- Women **58%**

The buses are used mostly by workers, students and the elderly. The percentage of women bus users is on the higher side, accounting for 58% of the total trips. The most common origins are the neighborhoods Samambaia, Vila Sonia and Orla da Praia. The main destination is inter-municipal transportation to the neighboring cities of Santos and São Vicente, where part of the population works or studies. The trips in Praia Grande take an average of 35 minutes and cover an average distance of 12.4 km.

Fleet and Infrastructure



Number of buses
89

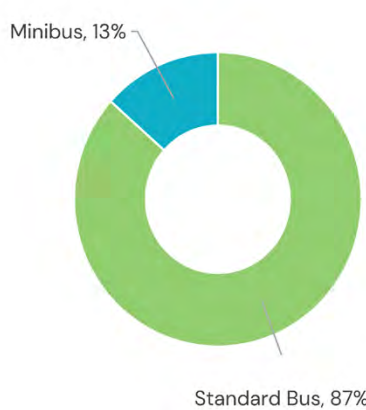


Number of routes
14

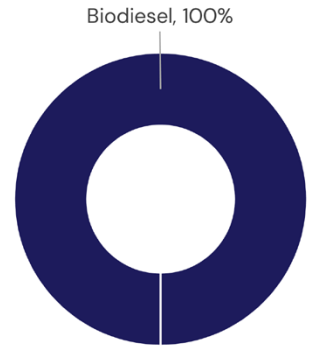


600 bus stops
2 bus depots

Buses by fleet type



Buses by fuel type



Quality of Service

The municipal bus transportation network covers the entire city, including outlying areas. The frequency of buses is highest during peak hours, making travel convenient for bus users. The municipal fare in Praia Grande is R\$ 4.80. Intercity lines to the neighboring cities of Santos and São Vicente, where part of the population commutes daily for work and study, have fares of R\$ 4.90 and R\$ 5.50. There is electronic ticketing and fare integration. Due to the past efforts of the city administration and the addition of new fleets, most of the buses are in new condition, resulting to city's fleet having an average age of 2.7 years. The buses are considered safe and have reserved seats for the elderly, disabled, pregnant women and mothers with infants.



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4 SETRANSP Praia Grande

5 EMTU 2012 (data for the Metropolitan Region of Baixada Santista)

Existing Business Model⁶

A

Model A: Vertically integrated, private operator in BRT/integrated system

B

Model B: Divided responsibilities in BRT/integrated system

C

Model C: Large, more formal, private operator in traditional service

D

Model D: Small, informal, private operator in traditional service

E

Model E: Government-run system

C

The operation of the bus fleet is a function of the concessionary company, Viação Piracicabana. There is electronic ticketing and the company collects the fare. The supervision and control of routes, schedules and specifications are the responsibility of the Transportation Secretary of Praia Grande, and is defined through a service order to the company. The City Hall is currently responsible for the maintenance of the bus shelters. The fare is charged by the operating company, and was readjusted to R\$ 5.35 in February 2022. However, the municipal decree 7500/2022 defined that the public fare passed on to the population would remain at R\$ 4.80. Thus, due to the Covid-19 pandemic, the Municipal Attorney's Office prepared an opinion authorizing the City Hall to pay this difference in value.



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6 Based on Accelerating a market transition in Latin America: New business models for electric bus deployment, P4G, Zebra and Dalberg, 2020

OPPORTUNITIES AND CHALLENGES FOR ADOPTION OF E-BUS FLEETS



Opportunities

- The Mobility Plan (PlanmobPG) prepared under the Municipal Mobility Policy has provided guidelines and proposals for reducing the environmental impacts of urban mobility. It emphasizes the renewal of the vehicle fleet of public transport with the use of clean and sustainable fuels and technologies.
- The renewal of the service concession is scheduled for 2025, so the city can make provisions in the new contract about commitments for electrification in the bus transport system.
- The Regional Plan for Sustainable Mobility is in preparation for Baixada Santista and will provide general guidelines and proposals for integrated transport solutions for the region. It is an opportunity to include electromobility using electric bus fleets.



Challenges

- The city's main challenge will be to incorporate electric buses in the new concession contract, given the high cost of electric vehicles and infrastructure and the current system's financial difficulties.
- Another challenge is incorporating this change of adding electric buses in bus fleets without increasing the fare for the user.
- Lastly, to convince the operators and eliminate their resistance to adoption of this new technology.



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About the TUMI E-Bus Mission

Funded by the German Ministry for Economic Cooperation and Development (BMZ), a core group of organizations supports cities in their transition toward electric bus deployment. For more information please contact: tumi-network@iclei.org or visit <https://sustainablemobility.iclei.org/tumi/>