Aguascalientes has an Integrated Multimodal Transport System Project. It currently operates with the “Colectivo Urbano” mode, that provides service in the Metropolitan Zone (MZ) of Aguascalientes. However, other modes of transport are used in the inland municipalities that connect with the MZ. The trunk, auxiliary and feeder corridors and routes include 5 interconnected multimodal terminals at strategic points in the MZ, with 3 preferential lanes at the trunk corridors.

Efforts have been made to introduce equitable and accessible urban modes in the form of active mobility. The use of bicycles as a mode of transport has been regulated, in addition to planning exercises to introduce clean mobility projects to counteract environmental risks in the state.

1 Own elaboration based on information from Accidentes de tránsito terrestre en zonas urbanas y suburbanas 1997-2018, INEGI
2 Programa Cielo Claro para la Mejora en la Calidad del Aire del Estado de Aguascalientes 2018-2028
BUS SYSTEMS OUTLOOK

Bus Trips Features

- Number of bus trips: 260,000 (2019), 160,000 (2020)
- Average time: 36 min
- Average distance: 10 km

As a user, the first step is to find out which bus route reaches the destination in the shortest possible time. There are many options, as sometimes routes can pass through the same places, so one can get the information from online sources (apps, websites, etc.) or through word of mouth. Waiting time is between 5 to 40 minutes, depending on the expected route. Fares can be collected in cash or by card through electronic payment.

Fleet and Infrastructure

- Number of buses: 415
- Number of routes: 46 (non-BRT)
- 1,670 bus stops
- 5 bus depots

Quality of Service

In Aguascalientes, there is a large coverage of public transport services in the Metropolitan Area. Currently, the routes are in the process of re-engineering to make them more efficient in the transfers. The transfers were not possible previously due to the payments in cash, but now with the help of e-payments the transfers are enabled and accessible. In a poll made last year, the users gave the public transport service a grade of 7.9 out of 10.

Trips by purpose:
- Work: 57%
- Recreation: 11%
- Return home: 8%
- Shopping: 8%
- Study: 6%
- Others: 11%

Trips by gender:
- Men: 52%
- Women: 48%

3 CMOV
A single concessionaire is responsible for an entire urban public transport system, on the basis of per kilometer pricing in which a fare is collected and deposited in an operating trust. The payment reconciliation are made weekly, and the operator is paid for the services.

Existing Business Model

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

Model B: Divided responsibilities in BRT/integrated system

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

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

Model E: Government-run system

4 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 greatest opportunity is in the continuity of developing a better public transport system. In 2017, the Integral Transport System Metropolitan Area of Aguascalientes, built 2 Trunk Corridors of 25.0 km with centralized traffic lights (Av. Independencia – Gandhi and Av. López Mateos – Tecnológico – Hidalgo).

• 37 stations and 5 terminals (3 with patios and workshops) were developed in view of the transport improvement.

• In 2019, operators acquired 55 buses from Gas Natural. At present, the operators are seeking to improve the current system by switching it to the electric bus system.

Challenges

• The main challenge is economic and road infrastructure, as the new low-floor electric buses require roads in very good condition, which are not available throughout the city.

• The proposals are needed for the restructuring of the public transport system, roads infrastructure and urban development.

• The study needs to be conducted to find out a technical feasibility (functional and operational design) which helps in choosing the best option by taking a cost-benefit analysis into account, and highlighting the social and environmental impact.

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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/