

**ELECTROMOBILITY
SIMULATOR**

SYSTRA

Your decision-making solution to plan
the electrification of your fleet



tess

TESS, YOUR ALL-IN-ONE SOLUTION

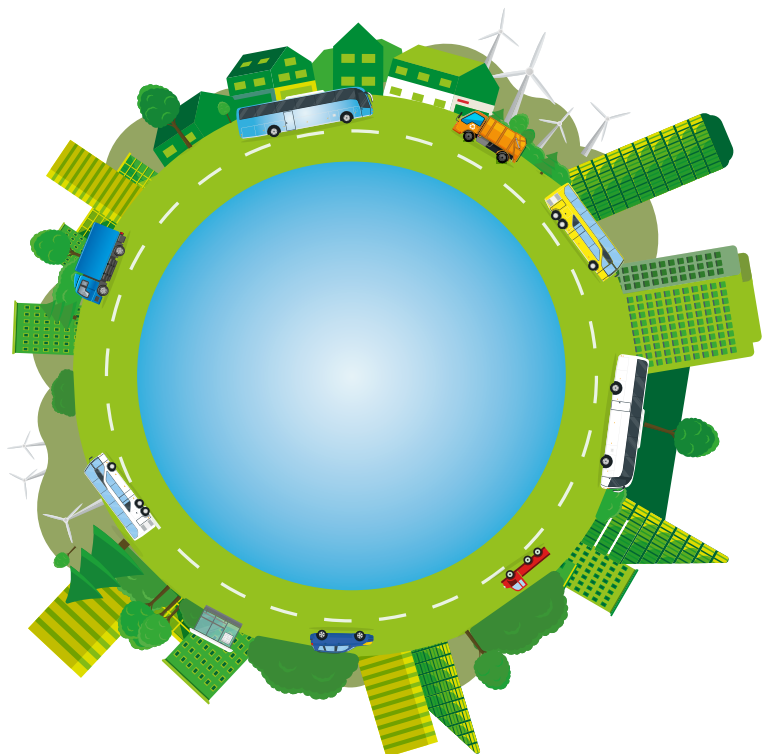
Reduce your peak power demand by 60% and optimize your energy consumption.

TESS models and simulates ultra-realistic operating scenarios. More specifically, the application allows to take into account the operational constraints of a depot in order to determine the optimal operating strategy.

The vehicles and electrical equipment displayed in the simulator are based on the latest technologies available on the market and validated by real-life data collected in the field. TESS supports the user in the optimization of scenarios.

Users can dynamically visualize the operations they are simulating, access error and warning logs, and examine detailed simulation results.

The application can be made available directly to clients who wish to run the simulations themselves. In this case, in addition to the license, we offer training, support and guidance to help make the most of TESS and find the best electrification strategy.

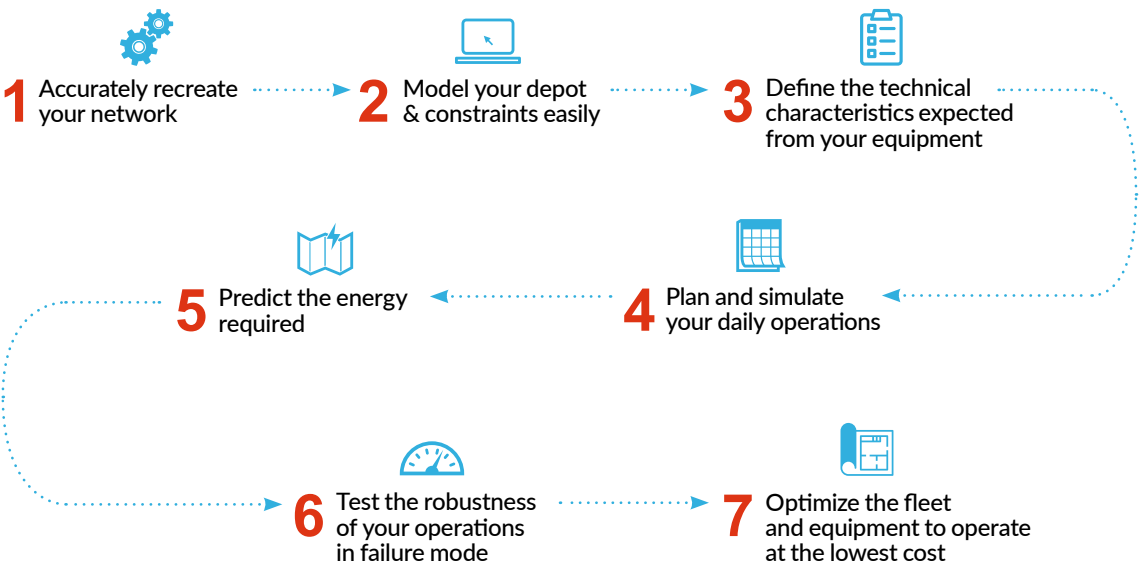


PUTTING OPERATIONS AT THE FOREFRONT OF ELECTRIC TRANSITION

As key players of low-carbon mobility, transport operators are being urged to improve their infrastructures and fleets, and to build electromobility solutions, in order to reduce their environmental footprint. As a long-standing planning partner, SYSTRA supports you to drive your electromobility roadmap.

SYSTRA developed a unique interactive, digital tool called TESS (Transit & Electromobility Smart Simulator) to help you meet the challenges of energy transition.

OUR APPROACH



SYSTRA ADDED VALUE

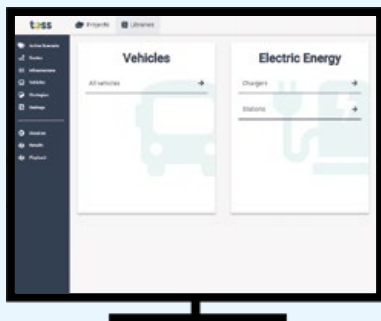
SYSTRA's 65 years of mobility experience provides a system-wide vision supporting mobility performance

Our interdisciplinary expertise includes: transportation planning, electrical engineering, operation and maintenance engineering, battery technologies and charging device technologies.

SYSTRA's proven TESS software brings reliable accuracy to modelling with multiple variables, achieving optimized design.

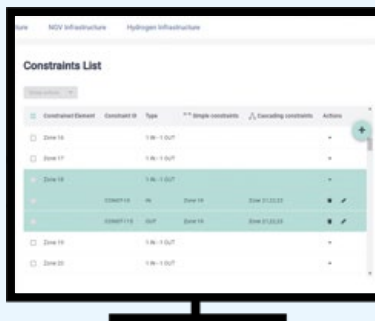
AS A LEVER FOR SUSTAINABLE MOBILITY, TESS PAVES THE WAY FOR ZERO EMISSIONS

All over the world, SYSTRA helps its clients build tailor-made solutions tackling the mobility challenges they are exposed to every day.



OBJECT LIBRARY

Object libraries allow access and selection of vehicles and electrical equipment. Users can also create and save their own objects.



VEHICLE-CHARGER ASSOCIATION

The user can digitally configure his depot by recreating the configuration of parking spaces, the number of chargers and their associations with vehicles.



OPERATIONAL CONSTRAINTS

The user can specify the rules for positioning, movement and selection of vehicles in order to simulate the operation as it will actually be performed in the operational phase.



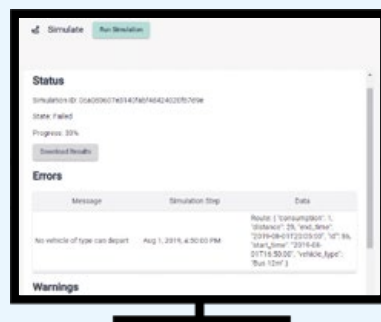
DYNAMIC SIMULATION

All simulations can be viewed in a dynamic way in order to validate the correct operation and help the user identify potential optimizations. The user can play, stop, slow down and speed up the animation.



DETAILED RESULTS

The application provides a series of visual KPIs and warnings to guide the user in defining the best functional electrification strategy for their needs.



USER SUPPORT

TESS offers a series of analyses and various indicators to guide the user to the optimal scenario. Simulation results are fully downloadable in .csv format for more complex analyses.

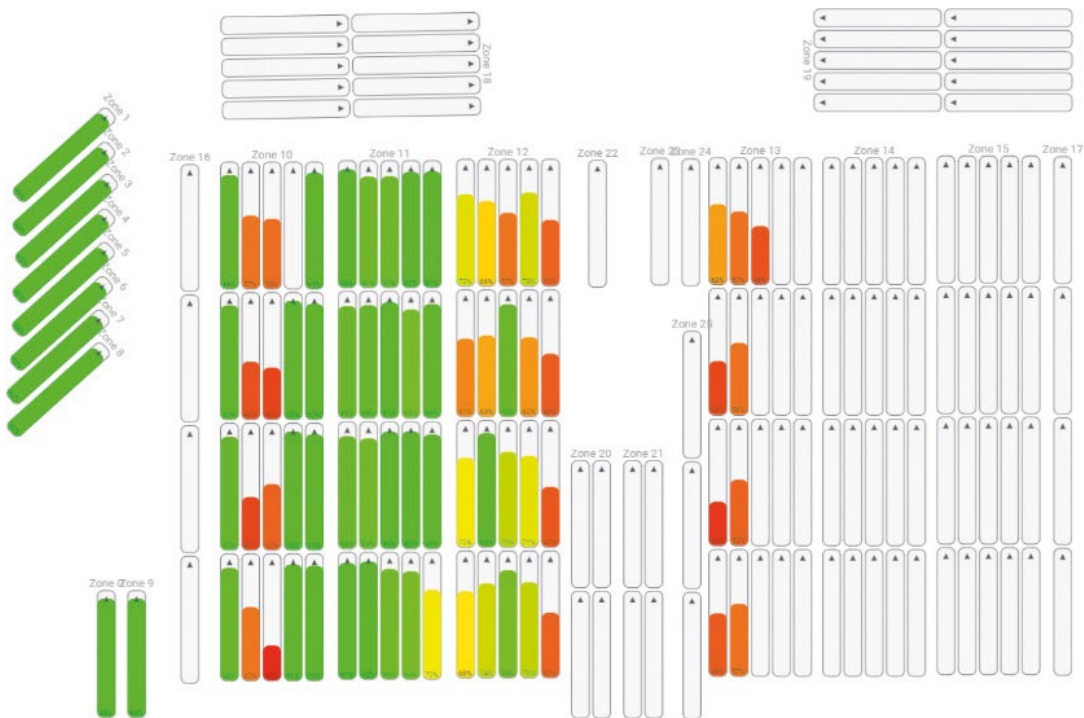


198
NUMBER
OF BUSES

-75 %
PEAK
POWER

-63 %
CHARGING
INFRASTRUCTURE

\$65M
DEPOT CONVERSION
PROJECT



RTC / QUÉBEC METROBUS CENTRE

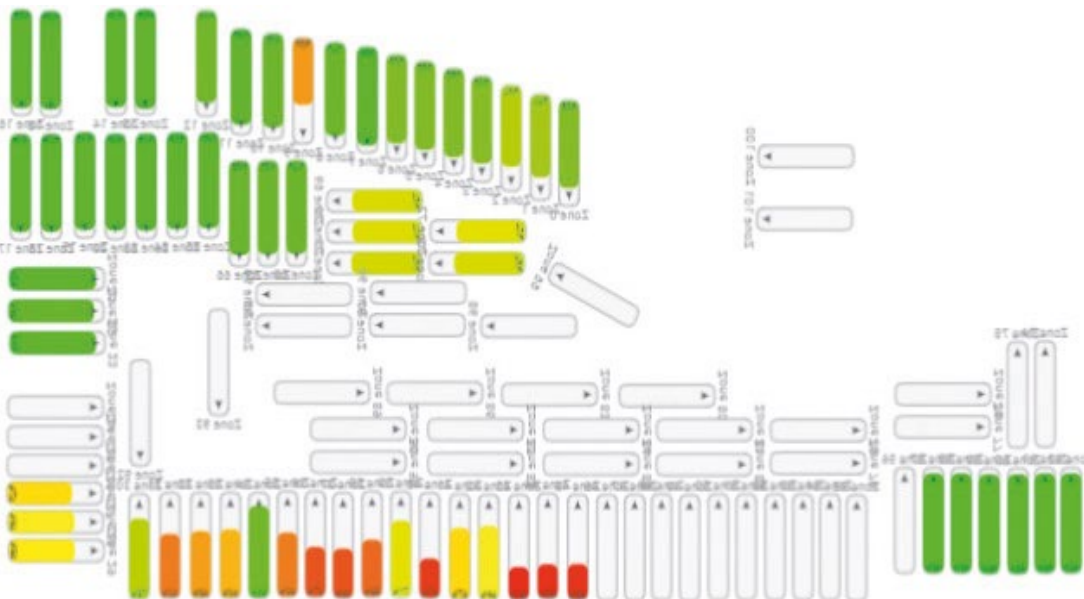


102
NUMBER
OF BUSES

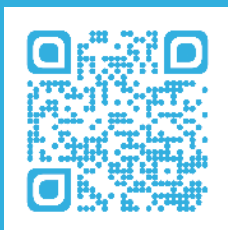
-28 %
PEAK
POWER

-67 %
CHARGING
INFRASTRUCTURE

€20-25M
DEPOT CONVERSION
PROJECT



RATP / PARIS LEBRUN CENTRE



SYSTRA

SYSTRA Scott Lister – Australia
Level 15, Chifley Tower,
2 Chifley Square,
Sydney NSW 2000 – AUSTRALIA

SYSTRA France
72-76, rue Henry Farman
75015 Paris – FRANCE

SYSTRA Singapore
333 North Bridge Road
#05-01 KH KEA
Singapore 188721 – SINGAPORE

SYSTRA Brazil
R. Gomes de Carvalho,
1510 - Vila Olímpia, São Paulo - SP,
04547-005 – BRAZIL

SYSTRA India
Vatika Mindscapes,
Mathura Road,
Faridabad – INDIA

SYSTRA UK
3rd Floor, 1 Carey Lane, London,
England EC2V 8AE – ENGLAND

SYSTRA Canada
1100 René-Lévesque Blvd. W.,
10th Floor, Montreal, Quebec
H3B 4N4 – CANADA

SYSTRA Ireland
2nd Floor, Riverview House,
21-23 City Quay, Republic
of Ireland, Dublin 2 – IRELAND

SYSTRA USA
New York Headquarters
520 Eighth Avenue, Suite 2100
New York, NY 10018 – USA

contact.tess@systra.com
www.systra.com