

Consat Telematics Electromobility



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Introducing electromobility into public transportation involves more than simply replacing traditional buses with electric ones. It requires managing range limitations, optimising routes, and integrating charging infrastructure. Consat Telematics' solution simplifies these challenges with smart charging and real-time fleet monitoring. Offering seamless integration into existing operations, our unified system manages fleets across all fuel types, ensuring a smooth, efficient transition to electromobility while optimising energy use and operational efficiency.



Key functions

- **Electric Bus Monitoring:** Provides continuous updates on the battery and energy levels of each bus, allowing traffic controllers to ensure buses have sufficient charge to complete their assignments. Notifications about charging requirements within an assignment further enhance control.
- **Charging Station Management:** Delivers real-time status updates on charging stations, including availability and charger health. Supports remote control of charging operations, including start, stop, and reset functions.
- **Smart Charging:** Enhances energy management and operational efficiency across electric bus fleets. The system generates alerts if a bus is at risk of not completing its assignment due to insufficient charge, enabling proactive adjustments to journeys and charging.

Our solutions go beyond the standard Open Charge Point Protocol (OCPP)-based smart charging and leverage advanced technologies to optimise charging practices, such as:

- **Load Balancing:** Distributes power efficiently across multiple chargers to ensure optimal energy use.
- **Peak Shaving:** Reduces costs by managing demand charges during peak times and scheduling charging during off-peak hours to take advantage of lower tariffs.
- **Adaptive Charging:** Dynamically adjusts charging based on vehicle type, route requirements, and timetable priorities.
- **Customised Charging:** Supports rapid charging when necessary without disrupting the overall charging schedule and is tailored for both overnight and opportunity charging.



The benefits for public transport operators and authorities

- **Effective electric bus monitoring:** Our solution provides traffic controllers with continuous, real-time updates on key parameters like the State of Charge (SOC) and remaining range. This ensures buses have the charge they need to complete routes, improving service reliability and keeping your fleet running smoothly.
- **Reduced operating costs:** Smartly timing charging sessions to align with off-peak energy rates can significantly reduce electricity costs. Optimising charging not only saves energy—it directly impacts your bottom line, lowering daily operational costs for your electric bus fleet.
- **Enhanced fleet availability:** With efficient energy management and optimised charging schedules, your buses will always be fully charged and ready when needed. This increased availability helps you stay on schedule and meet service commitments without disruption.
- **Maintenance savings:** By gathering data for battery monitoring, valuable insights into usage and preventive maintenance can be gained, leading to significant savings on maintenance and replacement costs.
- **Data-driven decision making:** Access detailed data on energy usage and efficiency, empowering your team to make informed decisions about public transportation planning, fleet expansion, and energy management. With insights based on actual performance, your operations become more effective.





Traffic Control and Monitoring

Manage daily operations with real-time information and data insights.

Vehicle and Fleet Management

Vehicle telematics integrated into public transportation for complete control.

Passenger Information

Enhance the travel experience for all public transportation users.

Driver Assistance

Enhance hiring appeal while supporting the driver in their daily work.

Electromobility

Seamless integration with existing public transportation operations, providing a unified view of the entire fleet.

Data Insights

Offering valuable insights for continuous improvement in public transportation operations.

Bringing intelligent public transportation to life

Consat Telematics is dedicated to reducing the environmental impact of public transportation through cutting-edge innovation and widespread implementation. Aspiring to global leadership in executing electrification and digitalization within public transportation, we serve diverse markets and organizations.

Our promise is a user centric, modular, and adaptable intelligent public transportation solution that never compromises on quality, reliability, and security. By placing our customers at the core, we ensure that more organisations can receive better data to monitor, manage, and improve their operations.

Contact for more information or a demo:

www.consat.com/telematics/



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