

Tide Buss AS:

A smooth transition to
electromobility with
Consat Telematics

Project at a glance:

Partners: Tide Buss AS and Consat Telematics

Location: Norway

Completion date: January 2024

Objective: Seamless integration of electric buses into Tide's operations, focusing on managing battery status, predicting remaining range, optimising charging processes, and enhancing efficiency through eco-driving coaching.

Functionality:

- Integration of electromobility operations with existing systems.
- Monitoring battery charge status in real-time.
- Predicting remaining range based on historical data and route information.
- Remote control of charging stations for efficient management.
- Implementation of eco-driving coaching to improve energy efficiency and driver comfort.
- Automatic pre-heating of buses during cold weather for passenger comfort and energy optimisation.

Benefits

- Enhanced visibility into bus operations
- Improved safety and reduced disruptions
- Optimised schedules and cost savings
- Efficient charging management
- Lower carbon dioxide emissions.

Tide Buss AS is the second-largest mobility company in Norway and a significant player in Denmark. Operating under public contracts in both countries, Tide offers a diverse array of services, including public transportation, bus tours, Airport Express Coach, sightseeing, coach routes, and light rail. Central to its operations is an extensive network of public transportation options, boasting numerous routes.

With an annual revenue of 5,5 billion NOK, Tide employs over 5,600 people. Its modern fleet surpasses 2,300 buses, facilitating over 20,000 bus and light rail departures daily. Currently, around a quarter of the bus fleet is electric, with plans for further expansion in the future. The company's headquarters are situated in Bergen.

Consat Telematics is helping Tide Buss with the smooth transition to electromobility. In January 2024 the service with Consat Telematics Solution went live in Norway.



The situation

Tide is committed to providing sustainable travel experiences and is at the forefront of adopting new environmentally-friendly technologies in the transport industry.

Tide's aim is to transition to electromobility, which requires focus on managing battery status, predicting range and optimising charging. Among other regions, they provide public transportation service to the northernmost parts of Finnmark in Norway, where they face additional challenges such as temperatures dropping to minus 30 degrees Celsius for extended periods. While buses are equipped with heaters, manually starting them at the right time is both costly and challenging.

The solution

Eletra leverages Consat Telematics' data to enhance product features, including tools for system analysis, OTA updates, battery range optimisation for OEM success. Remote diagnostics result in fewer unplanned bus stops, as all buses are constantly connected. Upon detecting an anomaly in the system, we promptly identify the problematic signal and take corrective action to mitigate any potential impact on traffic, resolving issues before they escalate.

“Monitoring operations and traffic is where Consat’s functionality benefits us most. Our main goal is to provide a constant data stream showing the bus’s location and automatic passenger counting.”

– Geir Vikane, Head of Business Development, Tide AS

Electromobility

Consat Telematics currently supports Tide Buss in transitioning smoothly to electromobility, seamlessly integrating it into their overall operations.

- State of charge: providing connection to the bus's powertrain the traffic controllers can always see the status of the battery charge
- Remaining range: based on historical data and knowledge of the buses' planned route you get clear information about how much energy is needed to complete the planned route. If the charging level falls below the level needed, the traffic controller and driver get a warning in advance to act in time.
- Charging station integration: this allows charging to be started, stopped and monitored remotely.

Preparing buses for cold climates

Tide faces the challenge of preparing buses for extreme cold climates, where manually starting heaters at the right time is costly and challenging. The process typically starts early in the morning to allow for adequate heating time. Moreover, simultaneously starting all heaters results in excessive energy consumption and risks buses becoming overheated without supervision. Forgetting to activate heaters can also leave buses uncomfortably cold, for drivers and passengers.

Consat's vehicle computer, integrated with the software applications for traffic management, enables Tide to automatically and remotely start heaters, ensuring a comfortable temperature inside buses. This streamlined approach enhances comfort for both drivers and passengers while optimising energy usage, reducing costs and prolonging battery life. The solution also contributes to lower carbon dioxide emissions, reducing the reliance on diesel for heating purposes.

“While there are other solutions out there, we ultimately chose Consat for its functionality, price and reputation.”

– Geir Vikane, Head of Business Development, Tide AS

Summary

Through collaboration with Consat Telematics, Tide Buss AS successfully transitions to electromobility, enhancing its sustainability profile and paving the way for a greener future in public transportation. By integrating electric buses into their operations, they have not only achieved significant cost savings and efficiency gains but also reduced their environmental footprint.

Value for the customer

The solutions provided by Consat Telematics are providing significant value to Tide and its customers:

- Enhanced visibility into bus status and energy consumption across different routes.
- Improved safety with reduced disruptions due to insufficient charge.
- Optimisation of bus schedules based on consumption, leading to cost and labor savings.
- Efficient charging management, leveraging cheaper electricity rates and reducing power peaks.
- Remote control of chargers, minimising manual labor and streamlining operations



Traffic Management

Plan, dispatch and locate to secure public transportation service quality.

Fleet Management

Monitoring and control for preventive maintenance.

Passenger Information

Real-time information on-board, at stops and online

Driver Assistance

Support for a secure, comfortable, and energy efficient journey

Electromobility

Smart charging for sustainable electric vehicle operations

Bringing 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/

