

Welcome to Zero Emission bus conference Oslo 28th - 29th of August 2019

The large breakthrough for zero emission buses in the Nordic countries are happening now in 2019. In Norway more than 170 zero emission buses will be in operation this year in Drammen, Kristiansand, Stavanger, Lillehammer, Trondheim, Oslo and Akershus. In the Oslo-region there will be in total 120 in operation by August.

In collaboration with the Public Transport Norway, Ruter - the public transport authority of the Oslo region, Nordic Energy Research, ZERO invite to a Zero emission bus conference 28-29 August, in the mobility week in Oslo.

The aim of the conference is to learn from the experiences so far from planning and implementation of tenders, start-up and operation. To share knowledge needed for the large shift to zero emission buses. There will be field trip to see and learn from the electric buses and charging solutions in Oslo.

August 28th, 10:00 – 19:00

- Launch of the largest zero emission bus fleet in the Nordics. Visit bus depot with charging infrastructure and electric buses.
- Nordic status for zero emission buses from important Public Transport Authorities
- Bus operators experience with purchasing and operating
- Latest news from bus- and charging infrastructure and Hydrogen suppliers.
- Conference dinner

August 29th, 08:00 – 13:00 (Program this day in Norwegian/Nordic language)

- Policy framework and incentives
- Tender- and planning processes
- The road ahead for large scale implementation of electric buses
- Electric buses in field operations, possibilities for extra field excursions



Time: 28th of August 10.00 until 29th of August 13.00 (approx. 15.00 inkl. extra excursions)

Location: **Start: Alnabru bus depot 28th of August at 10.00** (by Strømsveien 189)
Transport: [Route 100](#) (electric buss) from [Oslo Bussterminal](#) to [Fjellhus](#) (12 min) at 9.30 (the bus runs every 10.min). From airport bus: to Ulvenkrysset ~7min to walk.

Conference: [Oslo Kongressenter. Youngs gate 21](#). Lunch from 12.15. Program start at 13.00

[Program and registration \(link\)](#)

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The conference is organized in collaboration with:

- [ZERO](#) - an environmental organization focusing on renewable and zero emission solutions.
- [Ruter AS](#) is the public transport authority in Oslo and Akershus – the largest PTA in Norway.
- [Public Transport Norway](#) is the is a national organization for PTAs in Norway.
- [Nordic Energy Research](#) is the platform for cooperative energy research and policy development under the auspices of the Nordic Council of Ministers.



Support from:

ENOVA

Program

Wednesday, 28th of August

Ride electric bus in ordinary morning rush traffic (Overview of lines with electric buses below)

9.30 Bus transport to Alnabru bussdepot Bus line 100 with destination Fjellhus
(Departure from Oslo Bus terminal every 10. min)

10.00 Launch of the largest zero emission bus fleet in the Nordics at Alnabru bus depot

- Arrangement launch by Ruter. Short speeches in Norwegian, including Vice Mayor for Environment and Transport Lan Marie Berg.
- Visit e-buses and charging infrastructure at the bus depot Alnabru with operators and suppliers.
- Electric bus transport to Oslo Kongressenter

12.15 Lunch at Oslo Kongressenter

13.00 Conference start (Program this day in English)

Status for zero emission buses globally. Tom Terjesen, President Bus & Coach of the Year jury and editor Bussmagasinet

Overview zero emission buses in the Nordics. Joachim Danchell, Movia.

Status Copenhagen and Denmark. Joachim Danchell, Movia

Status Sweden:

- Mattias Adell, Svensk Kollektivtrafik
- Skånetrafiken. Leif Olsson, Skånetrafiken

Status Helsinki and Finland. Reijo Mäkinen, Project Director Helsinki Region Transport (HSL)

Status Island. Ingvar H. Johannesson, Manager operations Straeto

Status Norway:

- Oslo-Akershus. Jon Stenslet, Manager Vehicles, Depots and energy infrastructure Ruter
- Drammen. Terje Sundfjord, Managing Director Brakar
- Trondheim. Andreas K. Enge, Director strategy and development AtB
- Rogaland. Rolf Michael Odland, SmartCity Advisor Kolumbus
- Bergen. Einar Aalen Hunsager, Spesial advisor Skyss
- Hamar. Arne Fredheim, Managing Director Hedmark Trafikk
- Oslo Airport. Finn Arve Guttormsen, Head of department infrastructure, AVINOR

Break



Support from:

ENOVA

Status technology

- **Bus suppliers**
- Volvo. Marie Carlsson, Director Citymobility Business Development Volvo
- Solaris. Mateusz Figaszewski, PR Director, e-mobility Solaris Bus&Coach
- VDL. Sami Ojamo, Business Development Manager Public Transport Nordics VDL
- BYD. Edison YIN, Regional Manager Nordic BYD Europe B.V.
- Mercedes-Benz/Daimler. Tammo Voigt, Head of eMobility Consulting Daimler Buses
- Elinta Motors. Laurynas Jokuzis, CEO at Elinta Motors (minibus)
- MAN. Torsten Rosenthal, Country Manager, MAN Truck & Bus
- Yutong. Benedikt Gudmundsson, Yutong Eurobus Scandinavia/CEO GT Group
- Q&A

Charging infrastruktur, batteries and hydrogen

- ABB. Arne Sigbjørnsen, Manager EV Charging Infrastructure
- Heliox. Joep Smits, Business Development Manager
- **Battery overview, technology, marked and emissions.** Egil Mollestad, CTO ZEM
- **Hydrogen.** Status H2BusEurope program for large scale H2 bus deployment. Lars Jakobsen, Project Manager H2BusEurope, NEL
- Q&A

Break

Bus operators. Status

- Jan Volsdal, CEO Nobina
- Kjetil Førsvoll, CEO Boreal
- Øystein Svendsen, CEO Unibuss
- Atle Rønning, CEO Norgesbuss
- Hans Petter Sundberg, CTO Vy bus
- Roger Harkestad, CEO Tide
- Q&A

Summery and closing remarks day 1

Kl. 19 (latest) End program day 1

Kl. 19.30 Visit: Pantograph charger and self-driving electric bus at Vippetangen (right by Vippra)

Kl. 19.40 -> **Conference dinner at Vippra** (Akershusstranda 25)

Thursday, 29th of August

8.00 Welcome

(program this day in Norwegian/Nordic language)

Planning process and tenders

The new players in the bus value chain for zero emission solutions:

- Electricity companies and grid operators. How to get electricity and grid upgrades in time?
- Charging infrastructure deployment experience
- Process and permissions for charging infrastructure in time

Lessons learned tender processes, implementation and operation. Panel with bus operators

Break

How to ensure good planning, tenders and implementation zero emission buses

- Presentation of a new report to the Swedish Energy Agency. Maria Xylia, Sweco Energy
- Reduced emissions in production and the life cycle
- Lessons learned from the planning and tenders so far and how to improve. Panel PTAs

Framework for zero emission busses

- Financing
- National framework for zero emission public transport
- How do the regional counties implement zero emission public transport?
- Discussion: What's required in the shift to large scale deployment of zero emission buses?

The way forward in the large shift to zero emission buses. Panel conversation

Program end (approx. 13:00)

Lunch

Driving electric bus and charging in ordinary traffic (extra)

Zero emission buses in operation in Oslo

- Total 120 Zero emission buses in operation in 2019 in Oslo-Akershus, approx. 10% of all buses
- 70 new electric buses in operation in Oslo summer 2019. (Unibuss with 40 electric buses from VDL (30 articulated buses), Norgesbuss with 10 electric buses from Solaris and Mercedes-Benz, Nobina with 20 articulated buses from BYD)
- 39 electric buses in operation in summer/early fall in Akershus with buslines to Oslo and at Lørenskog (Norgesbuss with 17 electric buses from Volvo and Nobina with 22 electric buses from BYD)
- 6 electric buses in pilot project in operation since 2018 (4 Solaris and 2 articulated BYD)
- 5 hydrogen buses have been operating in pilot projects since 2012 (VanHoel)
- Ruter has decided to change to fossil free public transport within end of 2020. And zero emissions within 2028, with a rapid transition to ZEV through renewal of contracts and availability in the market. More in the strategy report from Ruter march 2019: [Zero emission public transport in Oslo and Akershus \(in Norwegian\)](#)

