

# Zero Emission bus conference Oslo, August 28th-29th

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 way forward for large scale implementation of electric buses
- Electric buses in field operations, possibilities for extra field excursions



## Welcome!

**Time:** 28.august kl. 10.00 to 29.august kl. 13.00 (ca kl. 15 for extra excursions)  
**Location:** **Start: Alnabru busdepo 28th aug kl.10.00** (by Strømsveien 181) Transport: [Route 100](#) (electric buss) from [Oslo Bussterminal](#) to [Fjellhus](#) (12 min.) at 9.30 (each 10. min).  
**Conference:** [Oslo Kongressenter. Youngs gate 21](#). Lunch from 12.15. Program 13.00  
[Program and registration \(link\)](#)  
**Contact** [marius.gjerset@zero.no](mailto:marius.gjerset@zero.no), 926 56 010  
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The conference is organized in collaboration with:

- [ZERO](#) - an environmental organisation 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.



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# Program Wednesday, August 28th

Drive electric bus in ordinary traffic in morning rush (see overview of lines with electric buses)

## 10.00 Launch of the largest zero emission bus fleet in the Nordics. At Alnabru busdepo.

- Arrangement Ruter.
- Visit e-buses and charging infrastructure at the busdepo Alnabru. By Ruter. 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

#### Overview zero emission buses in the Nordics

#### Status Copenhagen and Denmark

#### Status Sweden

Skånetrafiken

#### Status Helsinki and Finland

#### Status Island

#### Status Norway

Oslo-Akershus

Drammen

Trondheim

Rogaland

Bergen

Hamar

Oslo Airport

#### Break

### Status technology

#### Bus suppliers

Volvo

Solaris

VDL

BYD

Mercedes-Benz/Daimler

MAN

Yutong

#### Q&A

### Charging infrastructure, batteries and Hydrogen

ABB

More charging infrastructure suppliers

Battery overview, technology, marked and emissions

Status H2BusEurope program - large scale H2 bus deployment

#### Q&A

#### Break

### Bus operators

Nobina

Boreal

Unibuss

Norgesbuss

Vy

Tide

Keolis

Transdev

#### Q&A

How can the Nordic countries lead Europe to a fossilfree and zero emission bus sector? Panel discussion

#### Final remarks

Tom Terjesen, President Bus & Coach of the Year jury and editor Bussmagasinet  
Joachim Danchell, Movia.

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Mattias Adell, Svensk Kollektivtrafik

Leif Olsson, Skånetrafiken

Reijo Mäkinen, Project Director HSL Helsinki Region Transport

Jóhannes Svavar Rúnarsson, CEO Straeto

Jon Stenslet, project manager electric buses Ruter

Terje Sundfjord, Managing Director Brakar

Andreas K. Enge, Director strategy and development AtB

Rolf Michael Odland, SmartCity Advisor Kolumbus

Einar Aalen Hunsager, spesialrådgiver Skyss

Arne Fredheim, Managing Director Hedmark Trafikk

Finn Arve Guttormsen, head of department Construction and infrastructure, AVINOR

Moderator: Tom Terjesen, President Bus & Coach of the Year jury

Marie Carlsson, Director Citymobility Business Development Volvo

Sverre Skaar, Managing Director, Solaris Norge

Sami Ojamo, Business Development Manager Public Transport Nordics VDL

Edison YIN, Regional Manager Nordic BYD Europe B.V.

Tammo Voigt, Head of eMobility Consulting Daimler Buses

(speaker tbk)

Benedikt Gudmundsson, Yutong Eurobus Scandinavia/CEO GT Group

Arne Sigbjørnsen, Manager EV Charging Infrastructure ABB

Heliox, siemens, MEDCOM, Ekoenergytyka (tbk)

Egil Mollestad, CTO ZEM

Lars Jakobsen, Project Manager H2BusEurope, NEL

### Status and experience with purchasing and operating of electric buses

Jan Volsdal, CEO Nobina

Kjetil Førsvoll, CEO Boreal

Øystein Svendsen, CEO Unibuss

Atle Rønning, CEO Norgesbuss

Hans Petter Sundberg, CTO Vy bus

Roger Harketstad, CEO Tide

(Tbk)

(Tbk)



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## Kl. 19 End of program day 1

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

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

## Thursday, August 29th

8.00 Welcome

### 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
  - Planning authorities. Process and permissions for charging infrastructure in time.
- Lessons learned tender processes, implementation and operation. Panel bus operators.

### How to do 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 fossil-free and zero emission public transport

#### 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 needed for framework for large scale deployment of zero emission buses?

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

Program end (approx. 13:00)

Lunch

Driving electric bus and charging in ordinary traffic (extra)

## Study-tour

### Information for the zero emission buses in operation in Oslo in 2019.

- In May-June, 70 new electric buses in operation in Oslo. (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 operating 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).
- Total 121 Zero emission buses in operation in 2019 of a total of about 1200 buses.
- Ruter has decided to change to fossilfree 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 \(in Norwegian\)](#)



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