



AGENDA

November 30th - ZERO EMISSION BUS CONFERENCE

LONDON CITY HALL - THE CHAMBER

08:00-09:00 Coffee & Registration

09:00-09:05	Welcome	Dan Raudebaugh, CTE
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09:05-09:10	Opening Address	Mike Brown London Transport Commissioner
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09:10-09:45	Statements from Cities	Senior Cities' Representatives
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09:45-9:55	Mayor Address & Announcements	Sadiq Khan, Mayor of London
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9:55-10:10	Why Invest in Zero Emission?	David Warren, New Flyer
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10:10-10:20 Break

10:20-11:45	Immediate Horizon Driving Programs for Zero Emission Transit The Growing US Electric Bus Market EU Fuel Cell Electric Bus Expansion Fuel Cell Bus Development Status in Korea Chinese Outlook	Moderator: Andy Eastlake, LowCVP Umberto Guida, UITP Jack Kitowski, CARB Bart Biebuyck, EU FCH JU Soonil Jeon, Hyundai Chen Xiaodong, Rugao, China
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11:45-12:55	Large-Scale Deployment of Alternatively Fuelled Buses: Support Action at European Level	Violeta Bulc European Commissioner of Transport
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11:55-13:30	Lunch & Exhibition	
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13:30-15:40 Technology Readiness: Where Will the Sector be by 2020?

Moderator: Carlos Navas, EU FCH JU

The Future of Electric Drive
FCBs - An Uphill Road to Success
Investing Now for the Future
Electric Drive for Different Applications
Global BEB Market
Business Case for Zero Emission
Clean Electric Drive In Transit

Gustav Tuschen , Daimler
Paul Jenne, Van Hool
Dale Hill, Proterra
Dariusz Michalak, Solaris
Frank Thorpe, BYD
David Warren, New Flyer
David Barnett, Wrightbus

Panel: Sharing the Operator Experience:

Ian Foster, Metroline
Kevin McDonald, Foothill Transit
Salvador Llamas, AC Transit
Jens Conrad, RVK

15:40-16:10 Coffee Break

16:10-16:20 Keynote

Reuben Sarkar, US Department of Energy

16:20-17:30 Preparing for Large-Scale Deployments: Zero Emission Buses by 2030

Policies to Implement Zero Emission Solutions
Scaling Up Hydrogen Infrastructure
Standardized Bus Charging
Smart Deployments
Incentivizing US Investment
Financing Advanced Clean Technology

Moderator: Ben Madden, Element Energy

Elliot Treharne, London Mayor Office
Markus Bachmeier, Linde
Leah, O'Dwyer, Siemens
Jason Hanlin, CTE
Jack Kitowski, CARB
Neil Valentine, European Investment Bank

DRINKS RECEPTION HOSTED by TOWER TRANSIT
The London Transport Museum
18:30 - 22:00

Shuttle service will be provided to the museum.
(No shuttle following reception)



December 1st - 10th INTERNATIONAL FUEL CELL BUS WORKSHOP

LONDON CITY HALL - COMMITTEE ROOMS 4&5

08:00-09:00	Coffee & Registration	
09:00-09:05	Welcome	Leon Daniels, Transport for London
09:05-09:15	Keynote	Alan Lloyd, International Council on Clean Transportation
09:15-09:25	U.S. Hydrogen and Fuel Cell Overview: Status and Next Steps	Sunita Satyapal, US Department of Energy
09:25-10:15	Exchange of Experience CHIC Final Results US FCB Technical Achievements NewBusFuel Results Results from Europe's Largest FCB Fleet	Moderator: Klaus Bonhoff, NOW Kerstin K. Müller, CHIC Coordinator Leslie Eudy, NREL Michael Faltenbacher, thinkstep Amy Perry, Aberdeen City Council
10:15-10:30	Break	
10:30-11:45	Pioneers in the Industry London, UK Thousand Palms, USA Cologne, Germany Oakland, USA Orange County, USA	Moderator: Ben Madden, Element Energy David Yorke, Tower Transit Lauren Skiver, SunLine Transit Jens Conrad, RVK Salvador Llamas, AC Transit Sue Zuhlke, OCTA
11:45-13:15	Lunch & Exhibition	
13:15-15:15	WORKSHOPS: Three parallel working groups will investigate primary opportunities and challenges related to fuel cell bus commercialization	
	Workshop A: Bus Operation Considerations for this Group: <ul style="list-style-type: none">• Technical readiness level for widespread rollout• Status of reliability issues• What is the target efficiency?• On road total bus efficiency vs. expected component level efficiencies• Where will cost improvements come from?• Ways to improve maintenance• Next steps to bring volume up and price down	Moderator: Heinrich Klingenberg, hySOLUTIONS Bob Devine, BAE Systems Marlene Rinner, STA Romuald Witkowski, Solaris Kirt Conrad, SARTA Salvador Llamas, AC Transit David Yorke, Tower Transit

December 1st - 10th INTERNATIONAL FUEL CELL BUS WORKSHOP

13:15 – 15:15 WORKSHOPS CONTINUED

Workshop B: H2 Infrastructure

Considerations for this Group:

- Ensuring infrastructure reliability
- Can hydrogen equal cost of diesel?
- What are strategies for addressing cost?
- Mechanisms to ensure hydrogen decarbonisation
- Passenger vehicle and bus station rollout synergies

Moderator: Alastair Hope-Morley,
Element Energy

Markus Bachmeier, Linde
Frank Schnitzeler, Air Products
Graham Cooley, ITM Power
Mark Kammerer, Hydrogenics
Bruno Forget, Air Liquide
Uffe Borup, Nel Hydrogen

Workshop C: Commercialisation Strategy

Considerations for this Group:

- Real cost trajectory for FCB ownership
- What is the interplay of bus volume, passenger car volume, and technology development?
- How should national and international policymakers affect commercialization?
- Use of local regulations in zero emissions
- Convincing politicians of value of regulations

Moderator: Nicolas Brahy, Hydrogen Europe

Thorsten Herbert, NOW
Nico Bouwkamp, CaFCP
Nicolas Pocard, Ballard
Rob Del Core, Hydrogenics

15:15 - 15:45

Break

15:45 - 16:15

Workshop Summaries

Heinrich Klingenberg, hySOLUTIONS
Alastair Hope-Morley, Element Energy
Nicolas Brahy, Hydrogen Europe

16:15-17:15

“Future Vision” – Where Do We Go From Here, and How?

Bernard Frois, IPHE
Alan Lloyd, ICCP
Carlos Navas, EU FCH JU
Jack Kitowski, CARB

Moderator: Jaimie Levin, CTE

Closing Reception Provided by Ballard and Anglo American
London City Hall, 17:15-20:00



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MAYOR OF LONDON



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Driving Innovation for Hamburg

Transport for London