RAIL ELECTRIFICATION 2017: ADDRESSING THE CHALLENGES AND DESIGNING FOR THE FUTURE

Institution of Mechanical Engineers

Railway Division Seminar

6 June 2017
One Birdcage Walk, London

KEY SPEAKERS INCLUDE:

Nick Woodbridge, Principal Programme Client (GWML) Department for Transport
Phil Doughty, Professional Head of Contact Systems Network Rail
Gerry McFadden, Engineering Director Govia Thameslink Railway
Rishi Ravindran, Depot Engineering Manager Great Western Railway
Steve Cox, Engineering and Technical Director Alstom Transport UK & Ireland, SS&I

SUPPORTING ORGANISATION: EVENT PARTNERS:

Railway Division

Save 10% before 5 May 2017 www.imeche.org/railelectrification
WITH RAIL ELECTRIFICATION PROJECTS RECOMMENCING, HEAR ABOUT THEIR CURRENT STATUS, THE LATEST TECHNOLOGIES AND THE OPPORTUNITIES AVAILABLE IN THE SECTOR.

Gain insight into the cost and engineering issues being faced by the industry, and how these are being managed by operators and contractors alike. Hear lessons learned from implementation projects to take back to your organisation, including an exclusive update on the Great Western Railway Electrification project. Benefit from the opportunity to meet with key leaders in electrification from operators, contractors and government.

NEW FOR 2017:

Take the opportunity to be part of the discussion on the future of electrification in our “Ask the Experts” panel.

KEY PROGRAMME HIGHLIGHTS:

- **Network Rail** reveal the latest developments for their contact system design
- The **Department for Transport** present a case study on electrifying Brunel’s Railway complete with lessons learned
- Receive an exclusive update on the **Great Western Railway** electrification project
- Gain insight into energy management and modern rolling stock from **Govia Thameslink Railway**
- **TSO Caténaires** share an international perspective on High Speed Line Electrification and Strategic OLE Renewal Projects
- Hear from **Bechtel** on the status of current and future electrification projects

ORGANISING COMMITTEE:

Railway Division
Institution of Mechanical Engineers

MEMBERS CREDITS:

Peter Stanton
Independent Railway Engineering Consultant
Stuart Hillmansen, Senior Lecturer, Electrical Energy Systems, University of Birmingham
Graham Neil, Head of Rolling Stock London Underground
Mark Proctor, Head of Electrification Office of Rail & Road

FEEDBACK FROM THE LAST EVENT:

"A fantastic seminar, providing an industry update on electrification programmes and technology. A must for those wanting to deepen understanding and stay up-to-date with industry practice."

Balfour Beatty

"I learnt more about state of the art UK railway electrification here in one day than I could in a year of research."

Atkins
# Programme

**Tuesday, 6 June 2017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:30</td>
<td>Registration and Refreshments</td>
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<tr>
<td>09:00</td>
<td><strong>Morning Chair’s Opening Remarks</strong>&lt;br&gt;Stuart Hillmansen, Senior Lecturer, Electrical Energy Systems&lt;br&gt;University of Birmingham</td>
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<tr>
<td>09:10</td>
<td><strong>Keynote</strong>&lt;br&gt;Status Update on Electrification in the UK After the Pause&lt;br&gt;Peter Dearman, Electrification Advisor, Bechtel</td>
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<tr>
<td>09:35</td>
<td><strong>The Legacy of Electrifying Brunel’s Railway</strong>&lt;br&gt;Nick Woodbridge, Principal Programme Client (GWML), Department for Transport</td>
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<td>10:00</td>
<td><strong>Energy Management and Modern Rolling Stock: An Operator’s View</strong>&lt;br&gt;Gerry McFadden, Engineering Director, Govia Thameslink Railway</td>
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<td>10:25</td>
<td><strong>Question and Answer Session</strong></td>
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<tr>
<td>10:40</td>
<td>Networking Refreshment Break</td>
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<tr>
<td>11:00</td>
<td><strong>Innovative Systems to Complement Electrification</strong>&lt;br&gt;Development of Overhead Contact System Design and the Application for Future Projects&lt;br&gt;Phil Doughty, Professional Head of Contact Systems, Network Rail</td>
</tr>
<tr>
<td>11:35</td>
<td><strong>The Need for Innovation in Electrification</strong>&lt;br&gt;Steve Cox, Engineering and Technical Director, Alstom Transport UK &amp; Ireland, SS&amp;I</td>
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<tr>
<td>12:00</td>
<td><strong>Designing an OLE System for High Output Construction</strong>&lt;br&gt;Rob Daffern, Principal Engineer, Furrer+Frey GB</td>
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<td>12:25</td>
<td><strong>Question and Answer Session</strong></td>
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<tr>
<td>12:40</td>
<td>Networking Lunch</td>
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<tr>
<td>13:00</td>
<td><strong>Afternoon Chair</strong>&lt;br&gt;Peter Stanton, Independent Railway Engineering Consultant</td>
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<tr>
<td>13:40</td>
<td><strong>Case Studies on Electrification Implementation</strong>&lt;br&gt;An Operator’s View on Electrification: Great Western Railway&lt;br&gt;Rishi Ravindran, Depot Engineering Manager, Great Western Railway</td>
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<tr>
<td>14:05</td>
<td><strong>Design and Construction for Great Western Railway</strong>&lt;br&gt;Garry Keenor, Group Engineer &amp; CRE Overhead Line for Lead Design Organisation (Atkins), GW Electrification</td>
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<td>14:30</td>
<td><strong>Delivering and Progressing High Speed Line Electrification and Strategic OLE Renewal Projects</strong>&lt;br&gt;Sebastien Lustro, Rail Electrification Director, TSO Caténaires</td>
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<tr>
<td>14:55</td>
<td><strong>Question and Answer Session</strong></td>
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<td>15:10</td>
<td>Networking Refreshment Break</td>
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<tr>
<td>15:40</td>
<td><strong>Crossrail: Power for the Trains</strong>&lt;br&gt;Phil Hinde, Principal Engineer, Rolling Stock and Depots, Crossrail</td>
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<td>16:05</td>
<td><strong>Electrification: Scottish Success</strong>&lt;br&gt;Bill Reeve, Director of Rail, Transport Scotland</td>
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<tr>
<td>16:30</td>
<td><strong>Question and Answer Session</strong></td>
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<tr>
<td>16:40</td>
<td><strong>Panel Discussion</strong>&lt;br&gt;Ask The Experts: The Future of Electrification&lt;br&gt;Peter Dearman, Electrification Advisor, Bechtel&lt;br&gt;Phil Doughty, Professional Head of Contact Systems, Network Rail&lt;br&gt;Nick Woodbridge, Principal Programme Client (GWML), Department for Transport&lt;br&gt;Delegates will have the opportunity to ask industry experts about what would be needed in terms of projects and technology to move the implementation of rail electrification forward.</td>
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<tr>
<td>17:20</td>
<td>Chair’s Closing Remarks</td>
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<td>17:30</td>
<td>End of Seminar</td>
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For the most up-to-date and detailed programme for the event, please visit [www.imeche.org/railelectrification](http://www.imeche.org/railelectrification)

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.
**Group booking discounts are available. Contact us for more information.**

**BENEFITS OF SPONSORING**

display your solutions, services and products or sponsor will give you the opportunity to attending this event as either an exhibitor

**GET INVOLVED**

BenEFITS of SPONSORING

- Showcase new products
- Raise awareness of your operation
- Improve perception of your brand
- Influence other organisations’ spending plans

**THREE WAYS TO BOOK**

1. Online: www.imeche.org/railelectrification
2. Email: eventenquiries@imeche.org
3. Phone: +44 (0)20 7973 1251

Please read the information listed below as each booking is subject to the Institution’s standard terms and conditions.

**CONDITIONS OF BOOKING**

Completed application forms should be returned to the address above, along with the correct payment. Confirmation of receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

**SPECIAL REQUIREMENTS**

Please inform us of any special requirements, ie dietary or access, on the relevant section of the booking form or email eventenquiries@imeche.org

**CANCELLATION**

For a refund (minus £25+VAT admin charge), cancellations must be received at least 30 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend on the rescheduled date, they will receive a full refund of the fee paid. The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event. Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For the purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency. Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. The Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event’s webpage as soon as possible.

**LIABILITY**

The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

**CONFERENCE VENUE**

Institution of Mechanical Engineers
One Birdcage Walk
Westminster
London
SW1H 9JJ

**FEES AND CHARGES**

<table>
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<tr>
<th>Seminar and Workshop</th>
<th>Early Bird Rate Until 5 May 2017</th>
<th>Standard Rate</th>
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<tbody>
<tr>
<td>Member, Institution of Mechanical Engineers / Supporting Organisation</td>
<td>£260 + VAT = £312</td>
<td>£290 + VAT = £348</td>
</tr>
<tr>
<td>Non-member</td>
<td>£360 + VAT = £420</td>
<td>£390 + VAT = £468</td>
</tr>
<tr>
<td>Student/Retired</td>
<td>£90 + VAT = £108</td>
<td>£100 + VAT = £120</td>
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We are the market leader among professional engineering bodies. We’ve been supporting engineers since 1847 and have 115,000 members in over 140 countries, working in the world’s most dynamic and important industries. Our comprehensive events programme brings you the latest research and best practice from industry and academia.

**OTHER EVENTS TO LOOK FOR**

**SIMULATION AND MODELLING 2017**

12–13 September 2017, Birmingham

Take away cross-industry insights from the aerospace and automotive industries who are utilising simulation and modelling to drive down costs, reduce inefficiencies and eradicate costly prototypes.

www.imeche.org/simulationandmodelling

**CAPACITY OR PERFORMANCE – EITHER OR BOTH?**

14 November 2017, London

This seminar will feature key industry leaders share solutions to rising capacity and deteriorating performance on the rail network.

www.imeche.org/capacityorperformance

The Institution of Mechanical Engineers organises over 120 events a year, including lectures as well as conferences, seminars, annual luncheons and dinners. Please visit www.imeche.org/events for the complete list of events.

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