THE FUTURE OF TRUCKING

ITF Summit 2015 – Electric Roads

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European Commission reference scenario for 2050 (2013)
THE ROAD FREIGHT CONUNDRUM

ITF transport outlook (2015):

- Global surface freight CO2 emissions to increase 136% to 347%
- EU Surface freight CO2 to increase 28% to 55% by 205
- Freight will replace passenger traffic as main source of CO2 emissions from surface transport

Source: AEA Ricardo 2011
CHALLENGES AND SOLUTIONS

What progress?
Lorry fuel consumption in the UK since 1993

- Increasing freight mileages
  - road charging

- Lack of fuel economy progress despite potential (35-50%)
  - standards

- Limit to diesel engine improvements
  - Electrify (road) freight

Source: Continuing Survey of Road Goods Transport (Great Britain)
WHY ELECTRIFICATION?

- Potentially zero-carbon
- 70% of new capacity is renewable
- Energy secure
- Unmatched potential for domestic production
- Economic benefits
  - Shift spending from imported oil/gas to homegrown technology & energy
- What’s the alternative?
  - Biodiesel/gas are not credible/scaleable

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**Sunny outlook**

New investment in renewable energy, $bn

Cost of power generation, $ per MWh

Sources: UNEP, Bloomberg New Energy Finance; IHS Energy

*Long-term contract price
†To November

Economist.com
60% of HDV emissions come from regional/long haul operations
DIFFERENT OPTIONS

Slide-in

Overhead catenary

Induction (wireless)
CHALLENGES

- Technology
- Infrastructure
- Business case
CLIMATE IMPACT OF ELECTRIFYING ROAD FREIGHT

With electrified roads decarbonising road freight becomes realistic

GREAT CHALLENGES
GREAT OPPORTUNITIES

1. Road freight emission growth must be tackled

2. Need to improve conventional vehicles and freight efficiency *but* not enough for decarbonisation

3. Electric road could be a great opportunity, but the challenges are equally great

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