



Motoring Towards Sustainability

**Driving innovation and
long term investment in low
carbon vehicles**

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Policies for the longer term

"The trouble with long-term issues is that they seldom fit political time-scales. The impact of some of the measures we announce today will not be felt under this Government, or even this generation. We have to do what is right for the long-term. The truth is investment now to meet the challenge of these issues is worth every penny in the long-term."

Tony Blair's 2003 speech on sustainable development



The shift towards lower carbon vehicles

- Tax reforms mean vehicles with lower CO2 emissions pay less tax
- Powering Future Vehicles Strategy sets 2012 targets for low carbon vehicles
- But has enough support been given to longer term low carbon options?



Why is innovation important?

- Innovation is by definition uncertain
- The process of research, development and ‘learning by doing’ yields options whose costs and environmental benefits are unknown
- Without innovation the potential for new transport fuels, like hydrogen, will not be realised



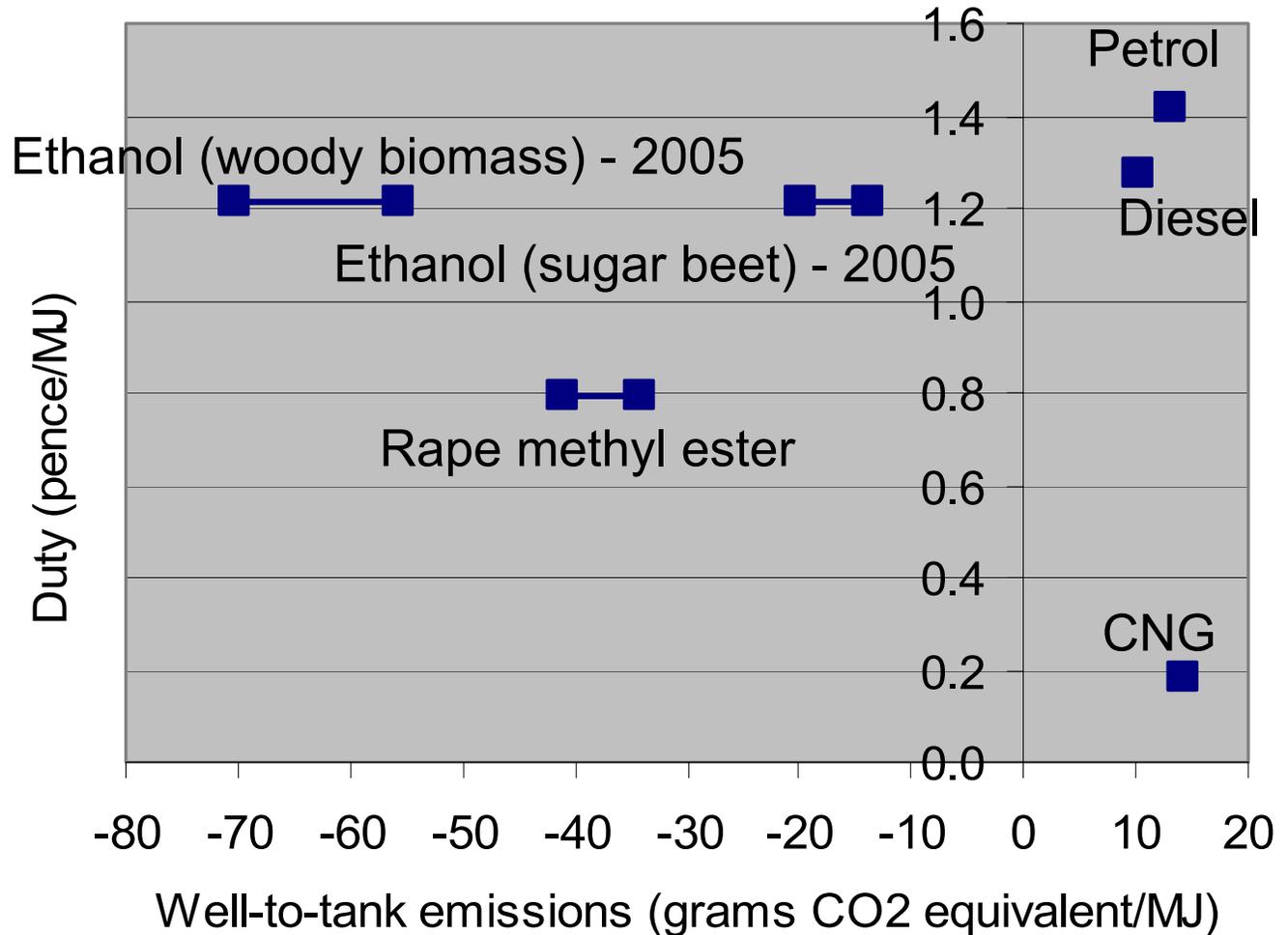
The role for environmental taxation

- Fuel duty is a useful tool for helping to create a market for a new fuel
- The current tax structure is not well equipped to deal with tomorrow's low carbon fuels
- Fuel duty does not distinguish fuels by their method of production



Relationship between duty & CO2

Source: GM/LBST study (2002)





The role for environmental taxation

- Differential rates of duty based on the *carbon* content of the fuel would distinguish and reward lower carbon forms of fuels
- But there are limits to taxes
- The tax system is unlikely to be a major driver for long term business investments



Why bother with hydrogen now?

- Renewable hydrogen is decades away from being a mass market option
- In the coming years, improvements in the fuel efficiency of vehicles will deliver high carbon savings
- Hybrids are not a barrier to fuel cells but a useful intermediate step



Building a UK supply chain for fuel cell research & development

- Developing the UK as a hub for fuel cell R&D could boost the UK's competitiveness
- Most fuel cell developments are located in the US and Germany
- The UK is not currently viewed as an attractive market for fuel cell investments



Is regulation the key to innovation?

- Powering Future Vehicles Strategy commits to setting ultra low carbon vehicle targets for 2020
- 2020 targets are unlikely to give business the confidence to invest in hydrogen research and infrastructure
- Regulation would provide assurance of a future hydrogen vehicle market and encourage innovation



What kinds of regulation could work?

- There are lessons from California's experience with Zero Emission Vehicle Mandates
- Regulation doesn't have to mean 'picking winners'
- Government could introduce 'zero exhaust emission' mandates for city centres by 2020