

Low Carbon Transport – How are we Going to Get There?

Andrew Campbell

CRL Energy

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Drivers to Change

**Global Communities
& Governments**
are balancing

- Energy Security
- Air Quality
- GHGs
- Water?
- Food?
- Population?
- Health
- Wealth



Individuals
are balancing

- Cost
- Quality of Life
(including social
acceptability/responsibility)



Possible Actions – Reactions (Rebound)

Incentive Schemes:

- **EECA insulated homes programme** – power bill reduced → household went out and bought a plasma TV.
- **Vehicle programmes** – more energy/cost efficient vehicles → increase in distance travelled.

“Hard” Regulation:

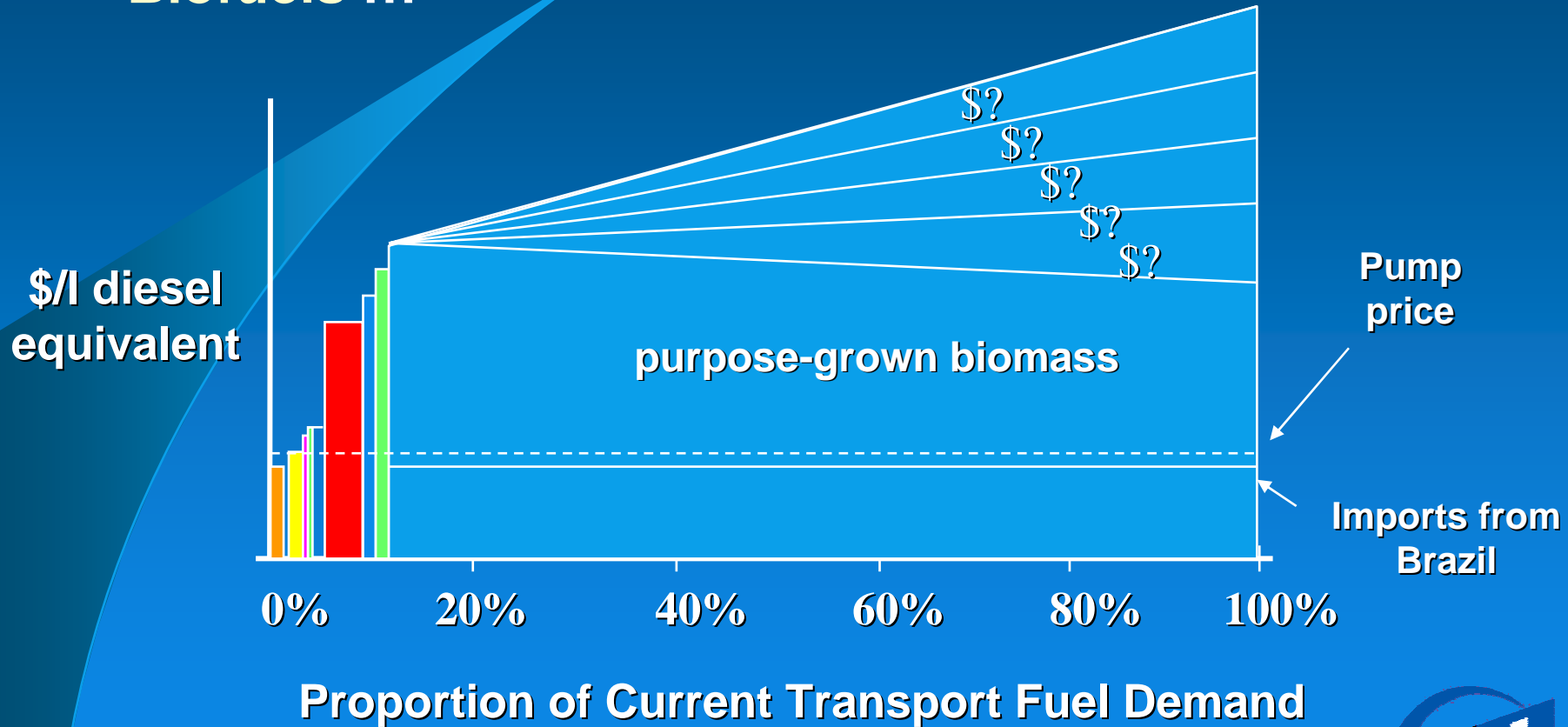
- **C-Tax** – require high rates for significant change → competitiveness of NZ goods overseas?
- **Max distances (~300km, say) for road freight** → rail and sea ... and a change in government next election?

Social Responsibility/Acceptability:

- **Sole occupancy driving to work** – will it be socially acceptable in 10 years time? ... but then again, if EV from renewable ...

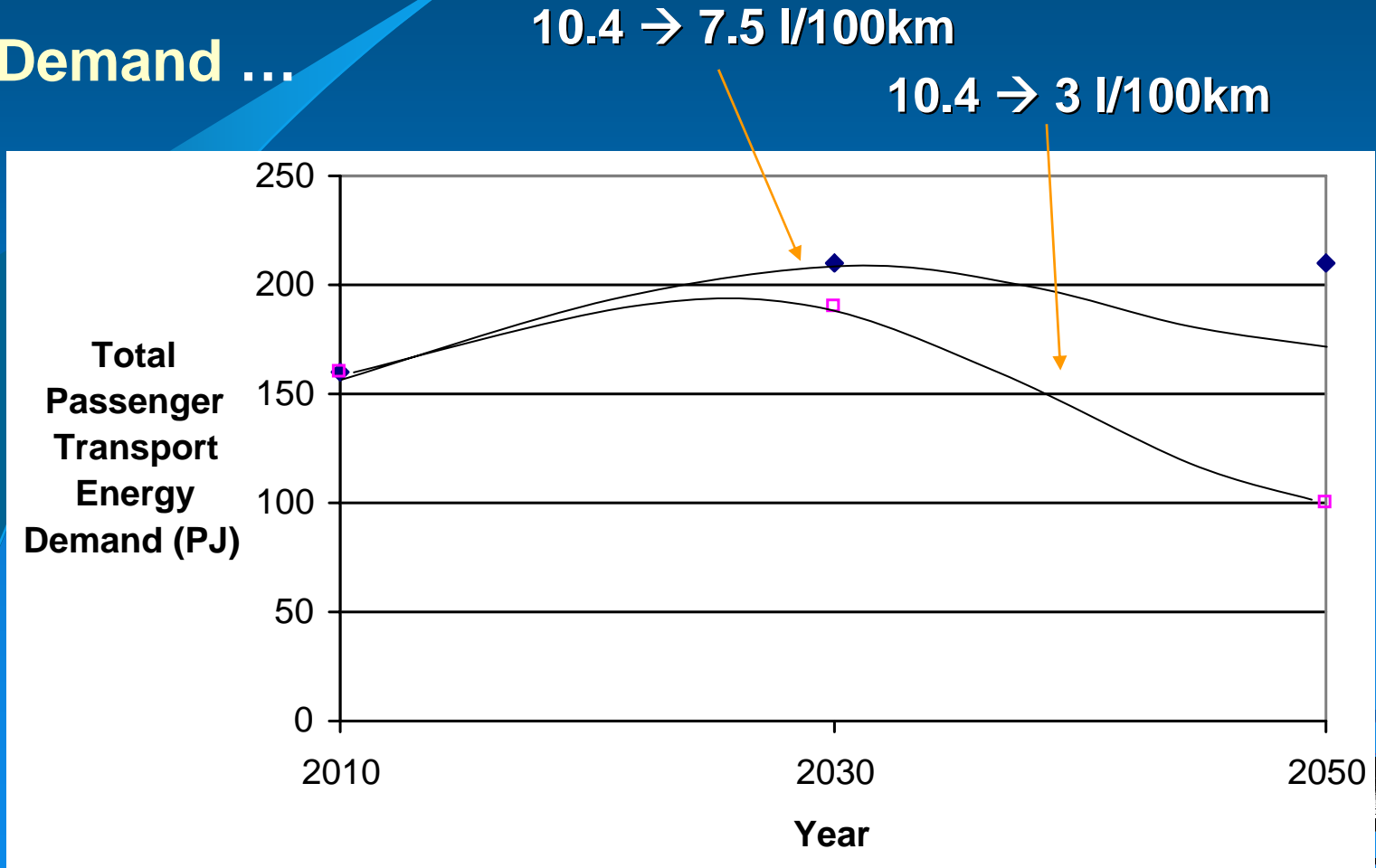
Lets Look at Some of the Transport-Related Practicalities

- **Biofuels ...**



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Lets Look at Some of the Transport-Related Practicalities

- **Biofuels ...**
- **Demand ...**
- **Vehicle Technology ...**



- **ICE, EV or H₂ vehicles may not look any different by 2030.**
- **Lighter vehicles** – brought about by acceptance of safety performance:
 - anti-collision systems
 - vehicle-to-vehicle communication
 - road zoning ... restricting to new tech.
- **Advanced ICEs** – D-Benz has announced a petrol-diesel engine on the production line by 2010.

The Strategy and a Solution for Moving Forward

- The Strategy has provided us a vision.
- Need to be mindful that drivers may change.
- Now need some significant gap filling
 - Energyscape
 - “Policyscape”

Are we serious about climate change?

→ Hard Regulation

... 10-year election cycles

Thank you