

Distance-based road user charging in Australasia

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Overview

- ▶ Both Australia & New Zealand have functioning distance-based charging systems in place
 - In both countries, the charges apply to all km travelled
 - But they apply to only a subset of the light vehicle market
- ► NZ's is long established, while the Australian systems are all new.
- ► Few, if any, other distance based charges appear currently to exist
- ► Hence, a review of the operation of these schemes may offer insights to assist the future adoption of more ambitious variants.



New Zealand's Road User Charge (RUC)

- ► In place since 1978
- Applies to all vehicles using fuels "not taxed at source"
 - In practice, this means diesel vehicles.
- Originally designed to recover the cost of road damage by HGVs
 - Few light vehicles used diesel at the time
 - ▶ But 20% of now use diesel (12% in 2000). (Charge is no disincentive?)
 - ► EVs are notionally included, but currently exempt until 2024, to avoid disincentives to EV adoption (currently at quite low levels).



New Zealand's Road User Charge

- For HGVs, charging bands based on mass & axle numbers (thus, load)
- For light vehicles, a single, distance based charge
 - NZD 76 (€46.6) per 1,000km (temporarily reduced due to energy crisis)
 - Licences bought in 1,000km units, displayed on windscreens
- ► Charges set to achieve goal of recovering road infrastructure expenditure
- ▶ RUC, fuel tax, vehicle reg. & some other charges **all hypothecated** to NLTF
- RUC is set to achieve broad parity with fuel tax, avoid "fuel incentives"



Distance-based charging in Australia

- ► Applies only to ZLEVs (i.e. BEVs and PHEVs)
 - Same rationale of taxing users of untaxed fuels
- ► A very recent policy
 - Announced in South Australia & Victoria in mid-2020
 - Adopted as policy in NSW in 2021 and WA in 2022
- ► Only Victoria has implemented the charge (from July 2021)
 - 2027 implementation scheduled in the other jurisdictions



Programme design

- ► A high level of commonality between jurisdictions
- Undifferentiated charge: 2.5c/km (BEV), 2c/km (PHEV), in all states
- ► Low-tech implementation model, integrated with registration system
 - ▶ Send photo of odometer on registration renewal, vehicle purchase & sale
 - ► Invoice issued and paid through registration authority website
- Expected revenue approximately half of average fuel excise per km
 - ▶ But critics note BEVs may pay more than traditional hybrids



Implementation dynamics

- Strong initial opposition
 - Industry groups, manufacturers, other govts ("world's worst EV policy")
 - But followed by the rapid adoption of similarly designed schemes
- Despite rapid take-up, significant shifts in policy in short periods
 - NSW was strongly critical of Victorian policy in late 2020, but adopted a similar policy 10 months later
 - ► SA initially proposed 2021 adoption, delayed to 2027 (or 30% ZLEV)
 - ► SA subsequently announced repeal following a change of government



Acceptability issues

- ▶ Very low EV take up in Australia (< 2% of light vehicle sales)</p>
 - Opposition to the policy was expected to be limited as a result (few payers)
 - Support expected from ICE drivers concerned at "free-riding" EVs?
- But significant opposition due to very limited incentives for EV take-up
 - ► Seen as providing a strong disincentive for shift to EVs in this context
 - ▶ Delayed commencement in 3 states promoted as minimising disincentive effect



Balancing the policy with new incentives?

- New incentives announced in parallel with distance charging policy
 - Purchase price rebates in all four states (AUD 3,000, limited numbers, price limits)
 - Co-funding of charging infrastructure (all states)
 - Purchase tax exemptions (NSW & some non-charging states only)
 - Registration fee discount (Victoria & South Australia)
- ▶ But the size of the incentives remains modest (e.g. Victoria AUD 100m total)



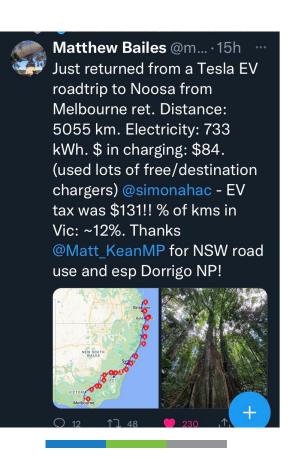
...Or a broader imperative to act on decarbonisation?

- Contemporaneous adoption of "EV Strategies" in all four states suggests a move to enhance acceptability
 - ▶ But non-charging states all adopted their own strategies around the same time
 - Overall, incentives seem to be no larger in states adopting the distance charge
 - Hence, wider political dynamics seem to be responsible



User responses

- ► Tax looms large in relation to effective "fuel" cost
 - Despite being set at a level well below average fuel tax/km
 - Partly due to unpriced charging
- State-based nature of charge has been an issue
 - ► Applies to all km travelled, regardless of jurisdiction
 - Perceived fairness issue
- Legal challenge may mean the issue is ultimately addressed by the Federal government





Strategic considerations

- Simple, low tech design enabled immediate implementation
 - Also reduced risk of implementation failure, avoided privacy concerns
- Revenue equivalent to fuel excise in NZ (room to increase in Aust?)
- Possible efficiency improvements within this design?
 - ► Mass-linked charging bands (to address accident & road damage cost differences)?
 - Urban vs rural differentiation of charging rates (accident, noise, air pollution diffs)?
- Congestion element can't be added without changing charging mechanism



Strategic considerations (2)

- Implications for ability to adopt a differentiated charging system
 - Does embedding the principle of distance charging smooth the way?
 - Or does existence of a scheme encourage stasis & makes reform difficult?
- Implications for congestion charging
 - Will the existence of an explicit road-user charge help acceptability?
 - ► Is a stand-alone scheme more, or less, acceptable?
 - ► Implications of Stef Proost's argument that the revenue cannot be used as a replacement for fuel taxation?



Thank you

