

# **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).
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## 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)
  - ▶ 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**