**EV adoption model re-development plan**

**Some goals:**

-Expands knowledge on how to do this beyond PG

-More automation and simplification

-Less reliance on payback calculation as driver given it has less relevance over time and is data intensive

- Separate steps into different modules or sub-processes that could potentially be developed and maintained by different team members

Suggested order of modules / sub-process / steps

|  |  |  |
| --- | --- | --- |
| Steps | Approaches/sources | Responsible |
| Collect base year sales data | VFACT EV sales |  |
| Collect postcode vehicle ownership and demographic census data | ABS TableBuilder |  |
| Calculate a demographic score for each postcode which indicates propensity for leading or lagging behaviour relative to the average | Use existing approach or design new scoring system |  |
| Forecast base year data one year ahead | Use best practice short term forecasting techniques |  |
| Design key scenario assumptions on 2030 sales target and end date for internal combustion engine (ICE) vehicle sales | Taken from AEMO scenarios |  |
| Calibrate three point logistic curve of sales for each postcode share versus time down to the postcode level  First two points adjusted by the postcode score | Three time and share points are:   1. 2024 and one year projected current share of sales 2. 2030 and 2030 target sales 3. 99% of sales and date from 2035 to 2060 when ICE sales rate reaches 1% |  |
| Apply the sales timeline to a vehicle stock model | Require data on current stock and scrapping rate. An innovation could be to use vintaged rather than average scrapping rates |  |
| Demand projection model\* | Provides vehicle demand to the vehicle stock model | Done |
| Send the results to code that sorts the results into the required reporting templates | AEMO has strict reporting templates. Code for writing these exists but there may be work to ensure that code receives the right input | Mostly done |

\*K(vehicletype,t)=K(vehicletype,t-1)\*depreciation+sales(vehicletype,t-1)