

Costs and Benefits of Accelerating the Rollout of Smart Meters: Sensitivity Analysis of Higher Meter, Installation and Other Costs

AEMC Review of the Regulatory Framework for Metering Services
August 2023

Background to the sensitivity analysis

- The cost information used in the CBA that was conducted in the third quarter 2022 was robust: it was based on actual revealed costs in the Victorian AMI rollout, adjusted for inflation.
- However, anecdotal information available to the AEMC suggests that the costs associated with the installation and operation of smart meters (SMs) may be higher than those used in the original CBA. Therefore, at the AEMC's request we have undertaken a sensitivity analysis based on these higher costs, which are shown in the table below.

	Costs used in original CBA	Higher costs for sensitivity analysis
BaU rollout	Meter capital costs = \$230 Meter installation costs = \$247	Meter capital costs = \$200 Meter installation costs = \$300 Meter back-office costs = \$100 Meter opex = \$10/meter/yr
Accelerated rollout	Meter capital costs = \$230 Meter installation costs = \$168	Meter capital costs = \$200 Meter installation costs = \$221 Meter back-office costs = \$100 Meter opex = \$10/meter/yr

Some comments on the costs included in the sensitivity analysis

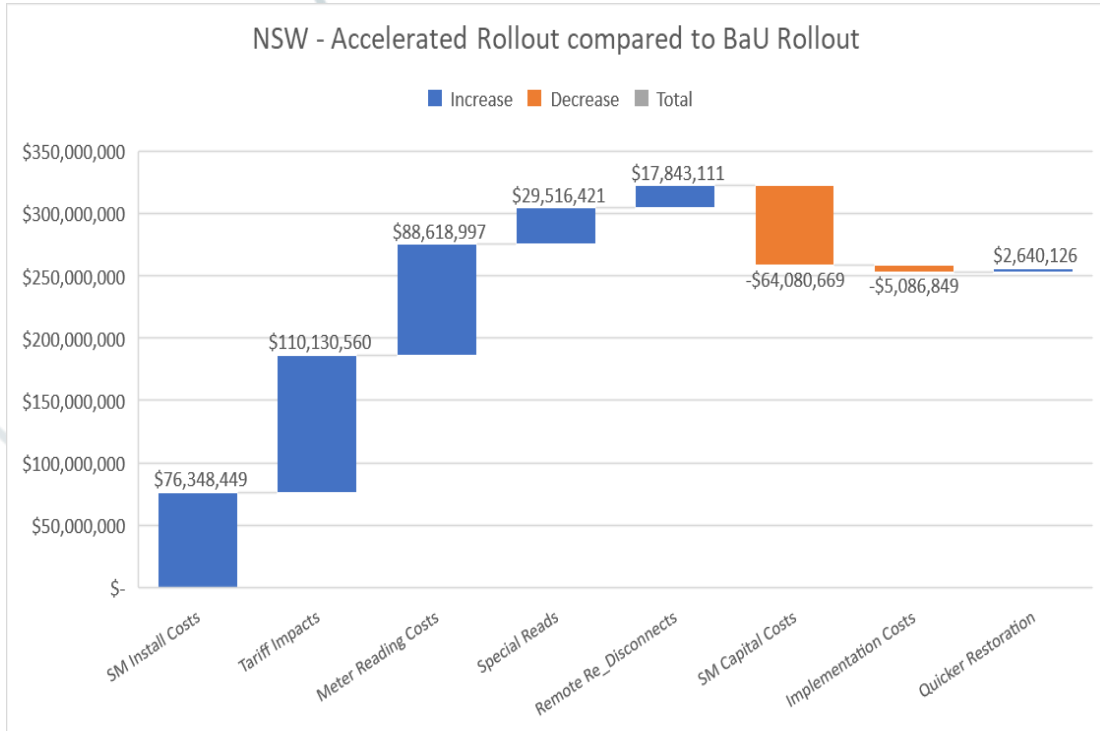
- Whilst we are not privy to how these costs have been derived - nor is the AEMC to our understanding - it appears that:
 - The meter capital costs broadly align with our initial assumption,
 - Meter installation costs are higher than what we assumed in the original CBA. Given that our original costs were based on the actual costs (adjusted for inflation) incurred by a Victorian DNSP at the backend of its rollout program (i.e., to 'mop up' the final remaining sites), this information could indicate that either actual costs have increased by more than inflation over this period, or that the current approach to rolling out SMs is even *less* efficient than what we implicitly assumed in our original CBA.
 - In this regard it is worth noting that the efficiency gain in meter installation costs from a geographically based rollout original CBA (which was based on the revealed costs in the Victorian rollout) was \$78 (i.e., \$168 in the accelerated rollout as compared to \$247 in the BaU case).
 - We simply assumed that same efficiency gain - in absolute dollar terms - would be experienced in the sensitivity analysis.
 - The alternative would have been to assume the same proportional efficiency gain, which would have resulted in a significantly higher absolute dollar efficiency gain. This is likely to mean that the net benefits shown in the sensitivity analysis are conservative.
- The inclusion of back-office costs on a \$/meter basis may, if anything, overestimate the economic costs of accelerating the rollout of SMs in the sensitivity analysis.
 - This will be the case if a portion of these costs are either fixed or sunk in nature (e.g., if they involve the recovery of IT infrastructure).
 - Our original CBA assumed most of these costs were IT-related, and hence were sunk meaning they would not be affected by the accelerated program.
- Meter opex costs are presumably related to communications costs. We cannot comment on the magnitude of these costs.

Summary of results

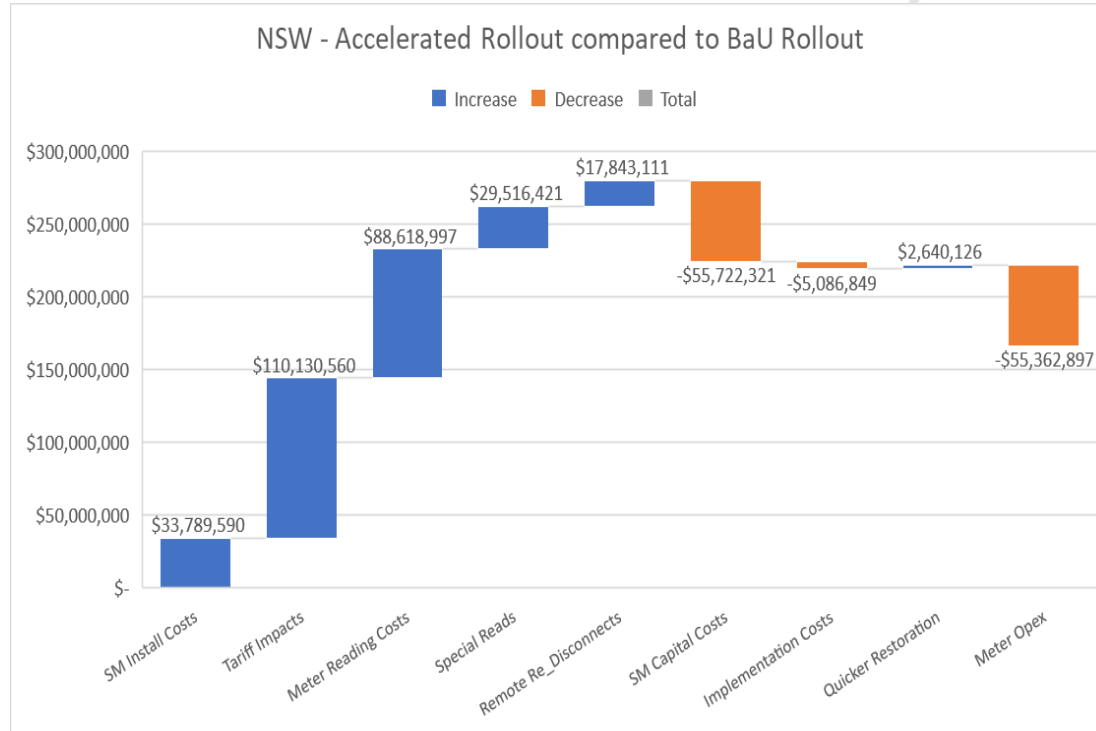
- The three slides that follow three slides show the impact the adoption of the new assumptions have on the results for each state.
- It should be noted that the bar titled “Installation costs” includes the \$100/meter back-office cost
- The results of the sensitivity analysis show that each of the three States (NSW, SA and QLD) still has a positive NPV, and NSW and QLD still have a positive NPV, even removing contingent benefits such as tariff impacts and quicker restoration times, with:
 - NSW = \$166.4m (c.f to ~\$255.9m originally, of which \$112.7m were contingent benefits)
 - QLD = \$160m (c.f to ~\$196.7m originally, of which \$127.5m were contingent benefits)
 - SA = \$26.9m (c.f to ~\$53.7m originally, of which \$28.5m were contingent benefits)
- The two key factors driving the change in the results (compared to the original CBA) are the inclusion of the Meter Opex amount of \$10/meter/pa and the higher installation costs associated with the inclusion of the back-office costs.

Results - NSW

BASE CBA RESULTS

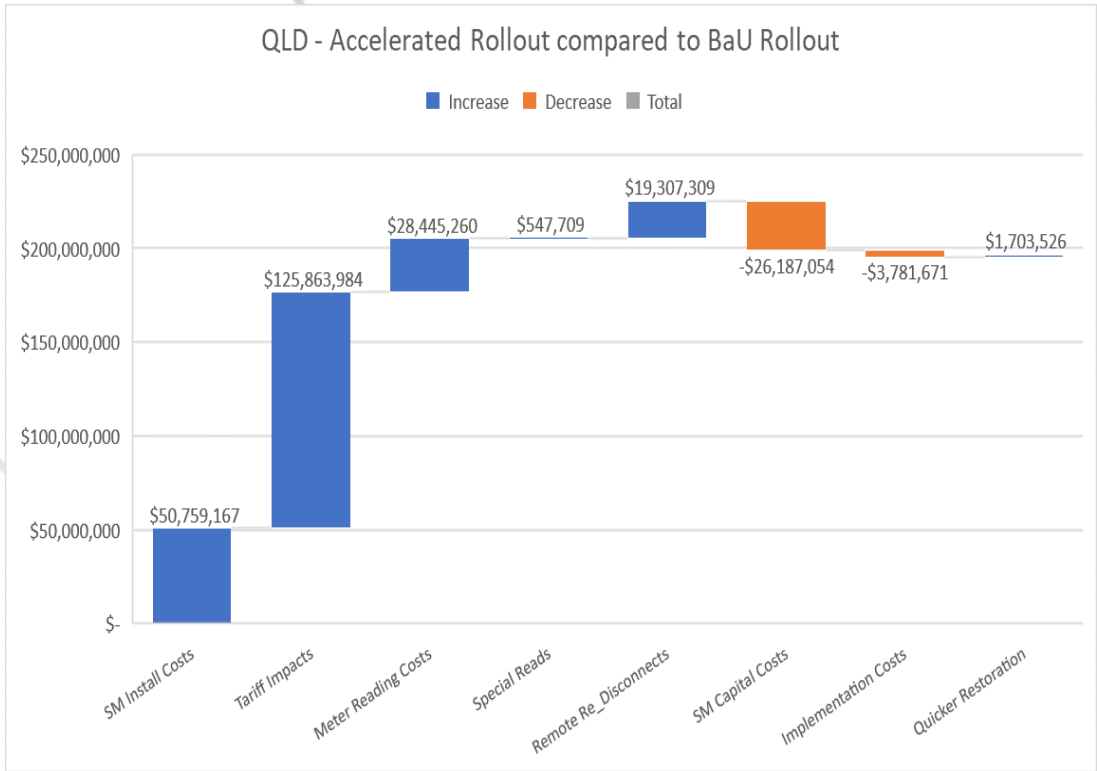


RESULTS OF SENSITIVITY ANALYSIS

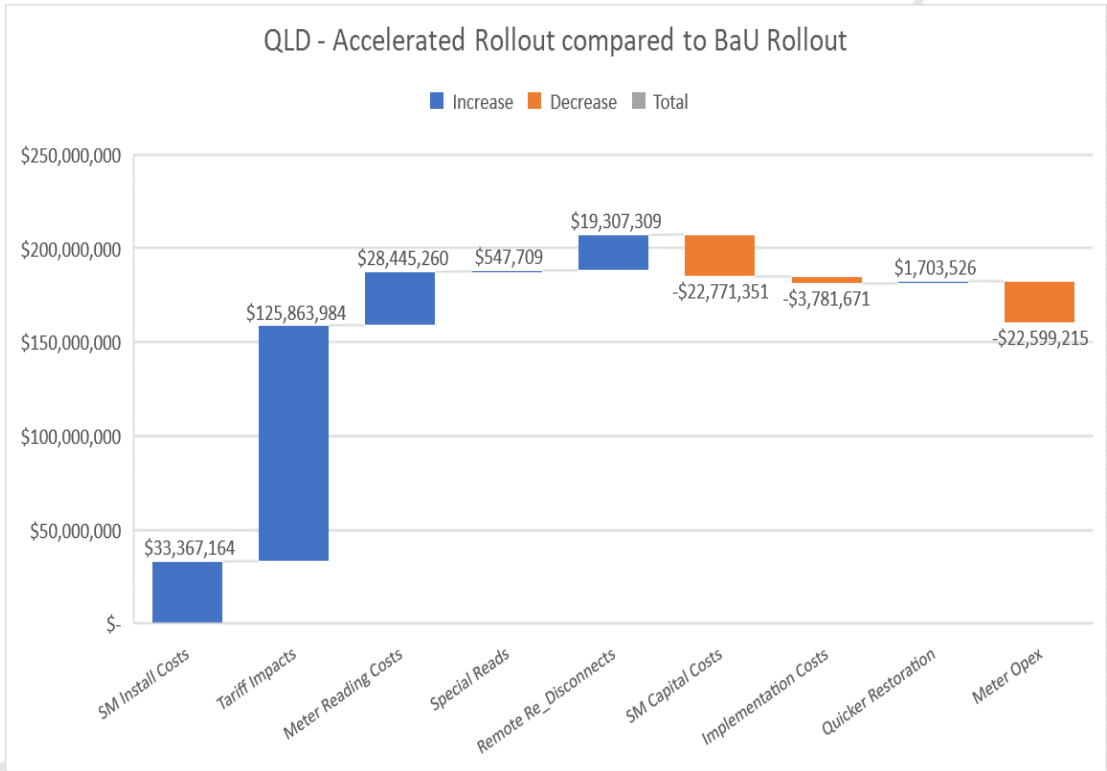


Results - QLD

BASE CBA RESULTS

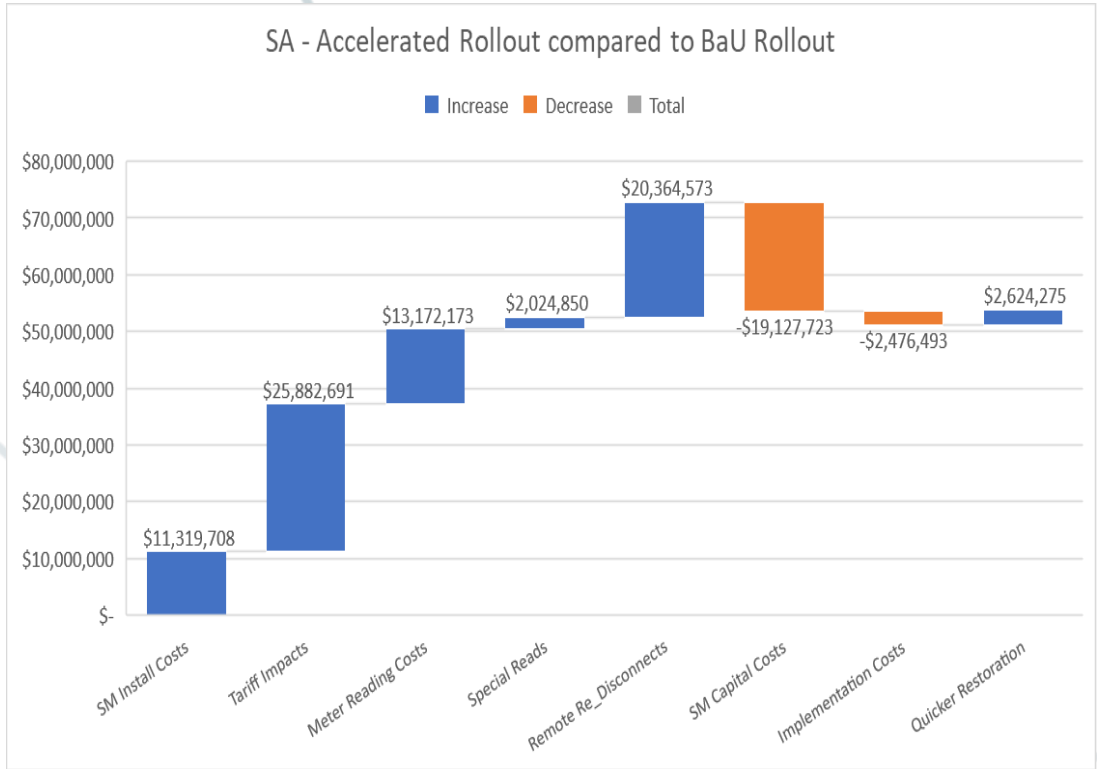


RESULTS OF SENSITIVITY ANALYSIS

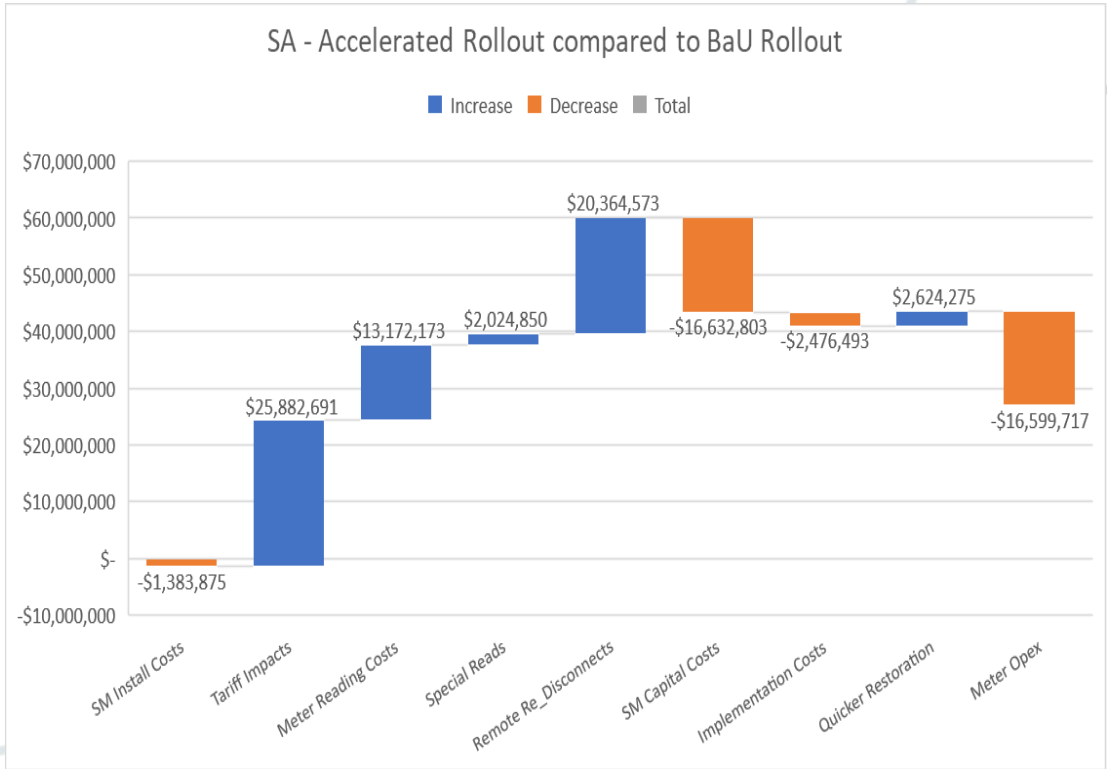


Results - SA

BASE CBA RESULTS



RESULTS OF SENSITIVITY ANALYSIS



Oakley Greenwood Pty Ltd
GPO Box 4345
Melbourne VIC 3001

Rohan Harris
0422 969 300
rharris@oakleygreenwood.com.au

Lance Hoch
0411 721 386
lhoch@oakleygreenwood.com.au

Alex Cruickshank
0402 060 881
acruickshank@oakleygreenwood.com.au



Oakley Greenwood