

The untapped potential of washing machines


How can washing machines support carbon neutral goals of water utilities, reduce water consumption and benefit consumers?




Washing machine rebate incentives during the Millennium Drought prompted substantial and rapid market shifts to more efficient machines. After many of these programs ended, market uptake of these efficient machines was not sustained, even though washing machine technology continued to improve by using less energy and water.


We seek to investigate ways utilities and customers can tap into the opportunities presented by a new generation of efficient washing machines.

Current challenges for utilities and water efficiency:

 Some customers are facing financial hardship

 There has been a slow uptake of new efficient washing machine models

 Utilities are seeking to meet water efficiency objectives





 Lockdowns limited the potential for water efficiency programs that require onsite services

Research approach explained





To better understand the benefits and limitations of introducing washing machine rebates for utilities and customers, the Institute for Sustainable Futures (ISF) examined a range of data sources including the WELS database, sales data from CHOICE and price data from online retailers.

What we discovered was:


Benefits

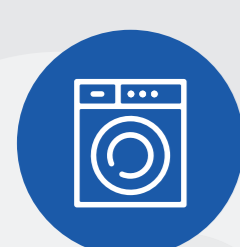
-  **Carbon neutral goals:** Water and energy efficiency are highly linked. By promoting more water-efficient machines, it is likely customers will also get more energy efficient-machines that can contribute to utility carbon neutral goals.
-  **Reduce water consumption:** Washing machine rebates can provide significant water consumption savings at around 8kL per four person household per year.
-  **Benefit customers:** Efficient machines can provide substantial cost savings for customer's bills of around \$50 per four person household per year by reducing water, energy and detergent use.
-  **Health and safety:**
 - rebates are a low-contact way to support the challenges of minimised onsite services
 - improved machines can even perform high-temperature cycles (which are increasingly common due to their ability to eliminate bacteria and viruses) with minimal energy impact.


Limitations

-  **Stock options:** There is a lack of smaller-sized efficient machines on the market. Larger machines have more and better-performing models on offer to suit larger families.
-  **Customer loyalty:** There is a distinct loyalty to either front- or top-loading machines. Even at the same star rating, top-loading machines use more water per kilo of washing than front-loading machines.
-  **Identifying the appropriate rebate level:** While the pricing of washing machines is not straightforward, the estimated price premium between a 3 and 4.5 star machine is \$275.
-  **Accessibility:** Past programs have not always been structured to be accessible to lower socio-economic groups.


Recommendations for utilities


 **Target larger households**, to see larger savings, as more loads per weeks increase program savings


 **Encourage front-loading machines** to take advantage of current stock efficiencies

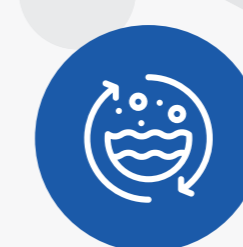
 **Identify and target financially vulnerable customers** experiencing water and energy bill stress by partnering with energy suppliers



 **Collaborate with machine retailers** and wholesalers to provide extra cost savings to justify programs

 Target machine eligibility towards **machines that provide value for money** and are both water and energy efficient

 Consider options for **means testing to provide support and equity** for the lowest-income households, while reducing overall expenditure and limiting free-riders

 Adopt lessons learnt from the NSW Government Energy Saver appliance replacement scheme to **overcome common issues and maximise program value**

“There is great potential for utilities to support the shift towards more efficient machines by rolling out washing machine rebates in residential and commercial markets.”

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More information

Find out more about the work our team does at:
www.uts.edu.au/isf/explore-research/water

