

An Examination of Domestic Appliance Curtailment Contracts

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Curtailment contracts are demand side flexibility measures designed to allow the curtailment or deferral of domestic appliance electrical loads during periods of peak demand electricity demand. To enable such contracts to be acceptable from a user perspective, utilities need to provide both financial compensation, and a degree of user side agency. This paper provides an examination of a number of potential product attributes such as the appliance to be curtailed, frequency of curtailments, advanced notice, and the ability for consumers to opt out of such events.

This paper presents the results of a discrete choice experiment undertaken in Ireland in 2018 utilising a latent class modelling approach to assess heterogeneity with regard to attribute tastes. For the purposes of this analysis, a nationally representative sample of Irish households is utilised.

Results from the latent class choice model highlight the presence of distinct consumer subgroupings within the population, however socio-economic factors are not found to be significant class predictors. While results indicate the potential for significant levels of engagement with domestic curtailment contracts when financial compensation is provided, the need for tailored contracts specifically in terms of appliances to be curtailed and the inclusion of user side controls, emerge as being important factors in the potential adoption of such demand management measures.