

AFRICA ELECTRICITY SYMPOSIUM 2025

Patterns, Purchases, and Policy: Understanding Domestic Electricity Use in Rural and Peri-Urban Uganda

Presented By
Joel Mugenyi



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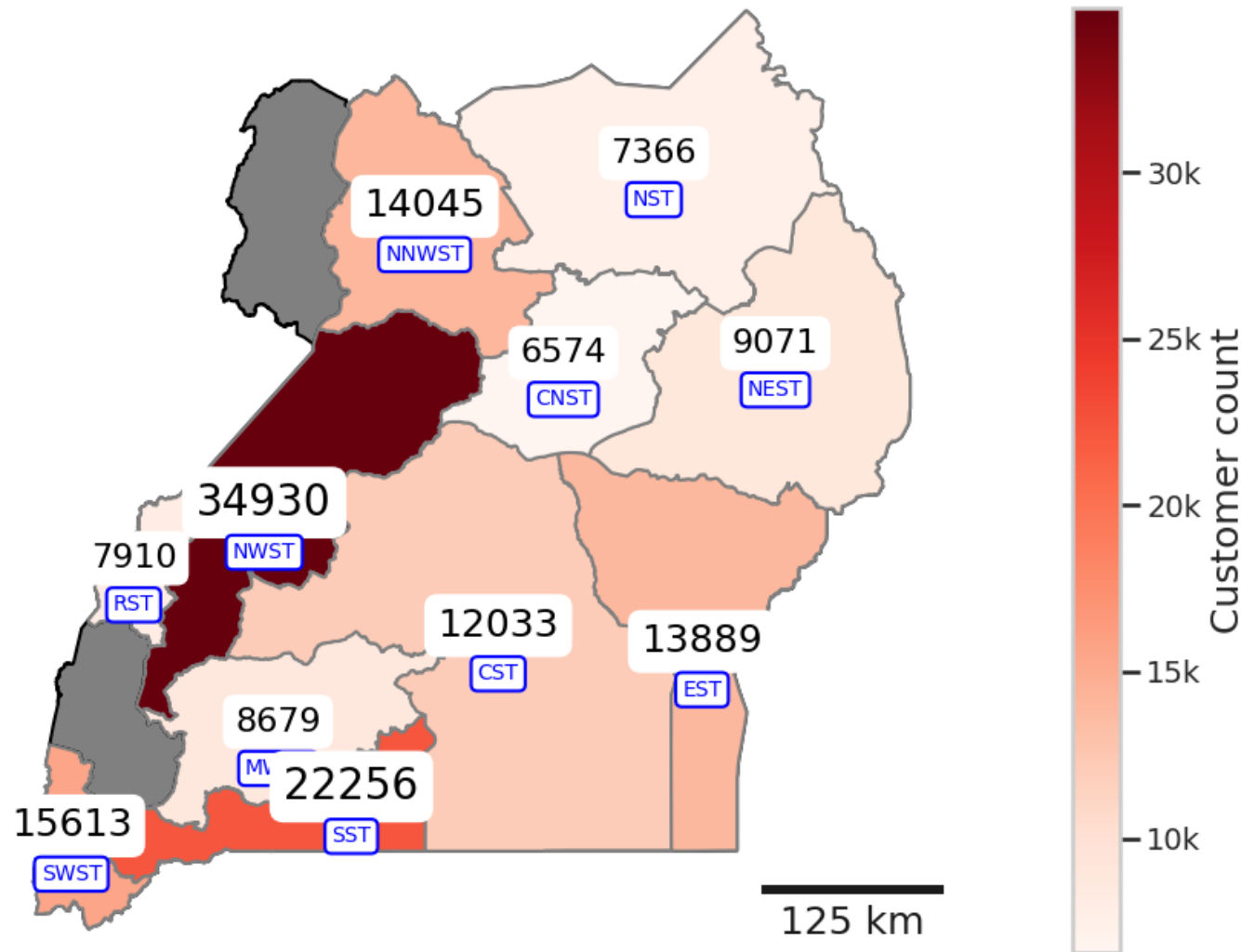


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Research Questions

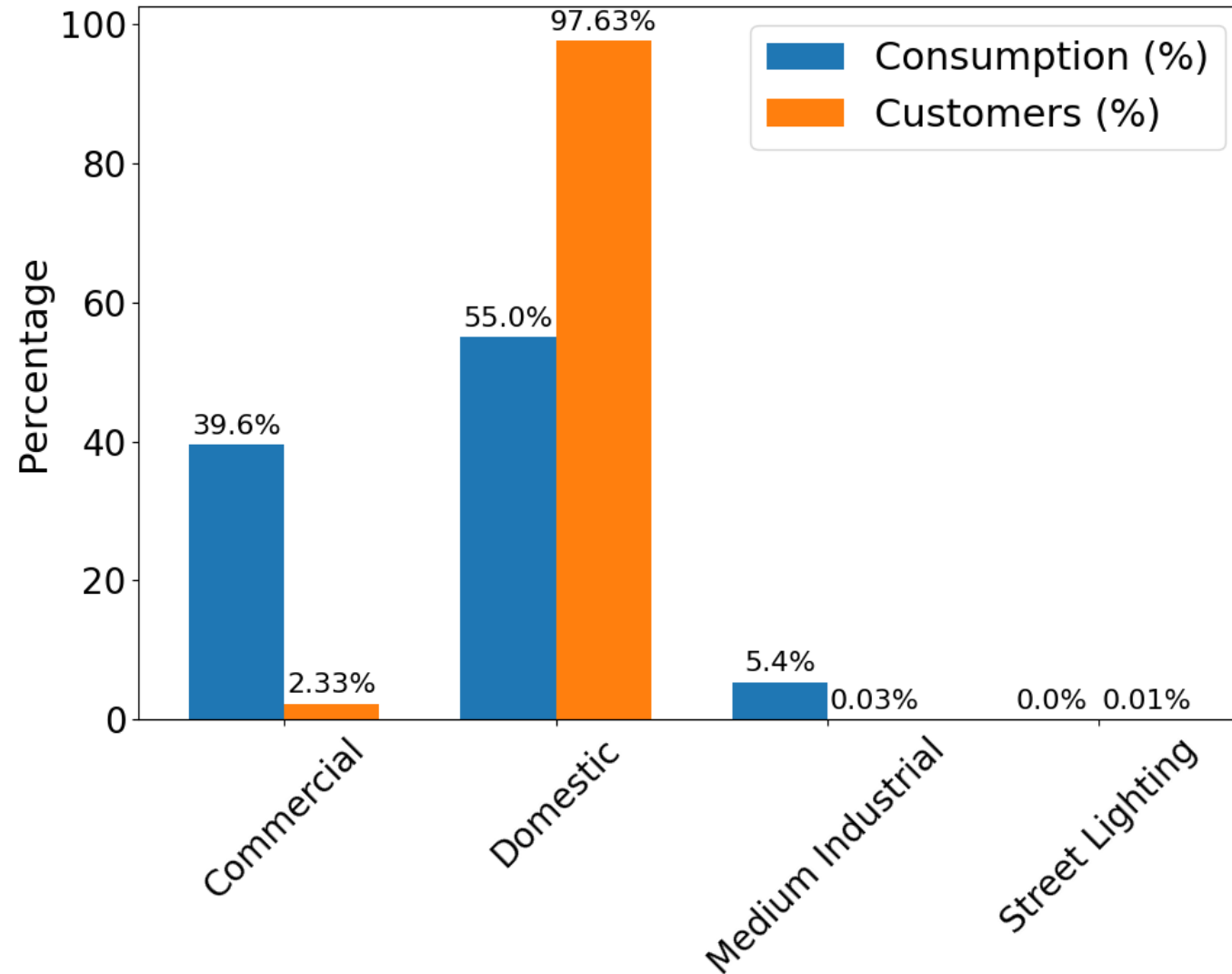
- How do rural and peri-urban households engage with grid electricity after connection?
- What are the patterns of electricity purchases and consumption?
- How do these patterns vary across household types?
- What are the implications for subsidy targeting and tariff design?

Data

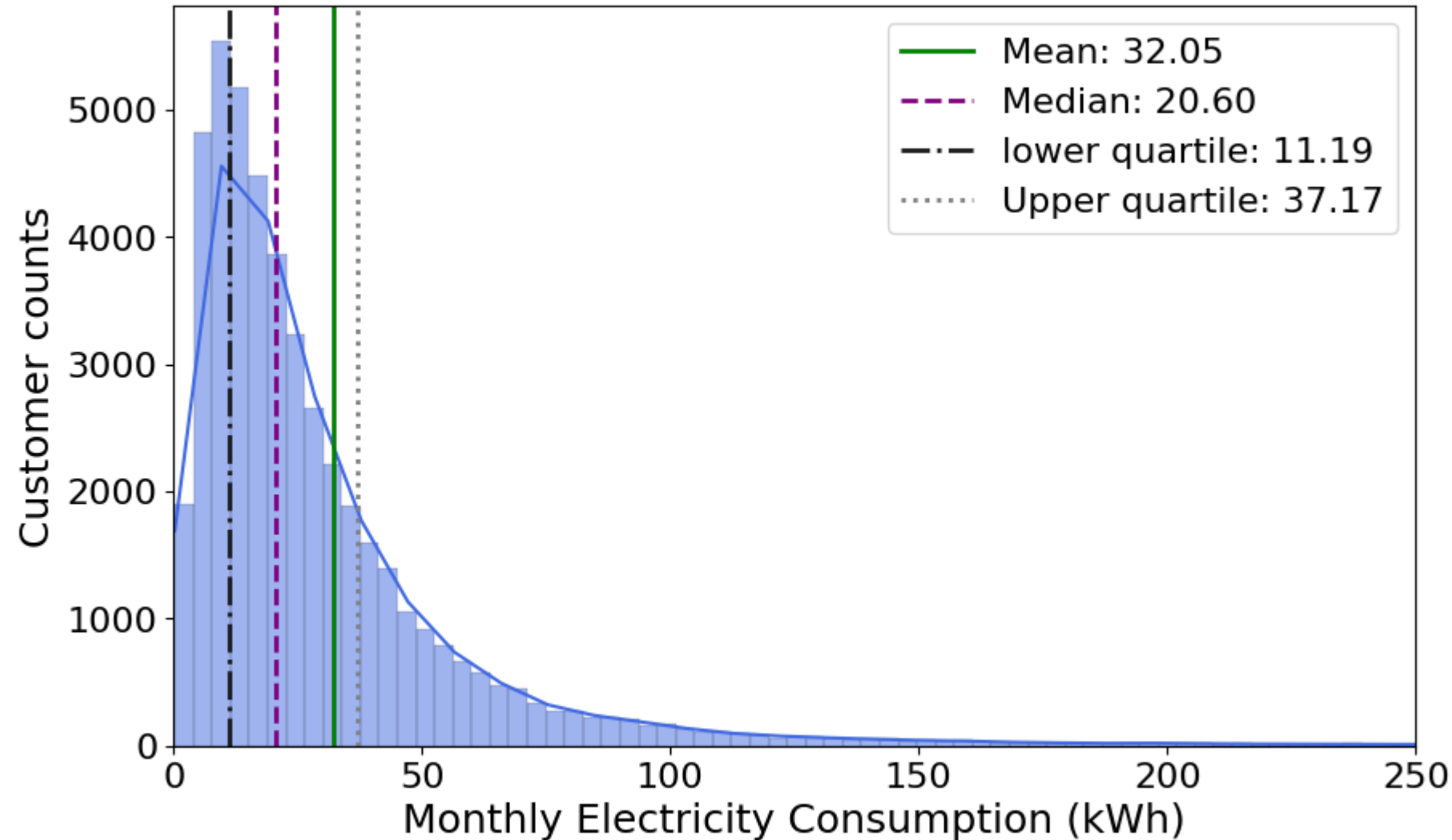


- ❑ Source: UEDCL customer data prior to UMEME takeover
- ❑ Coverage: ~150,000 customers, 2019–2023

Summary Statistics

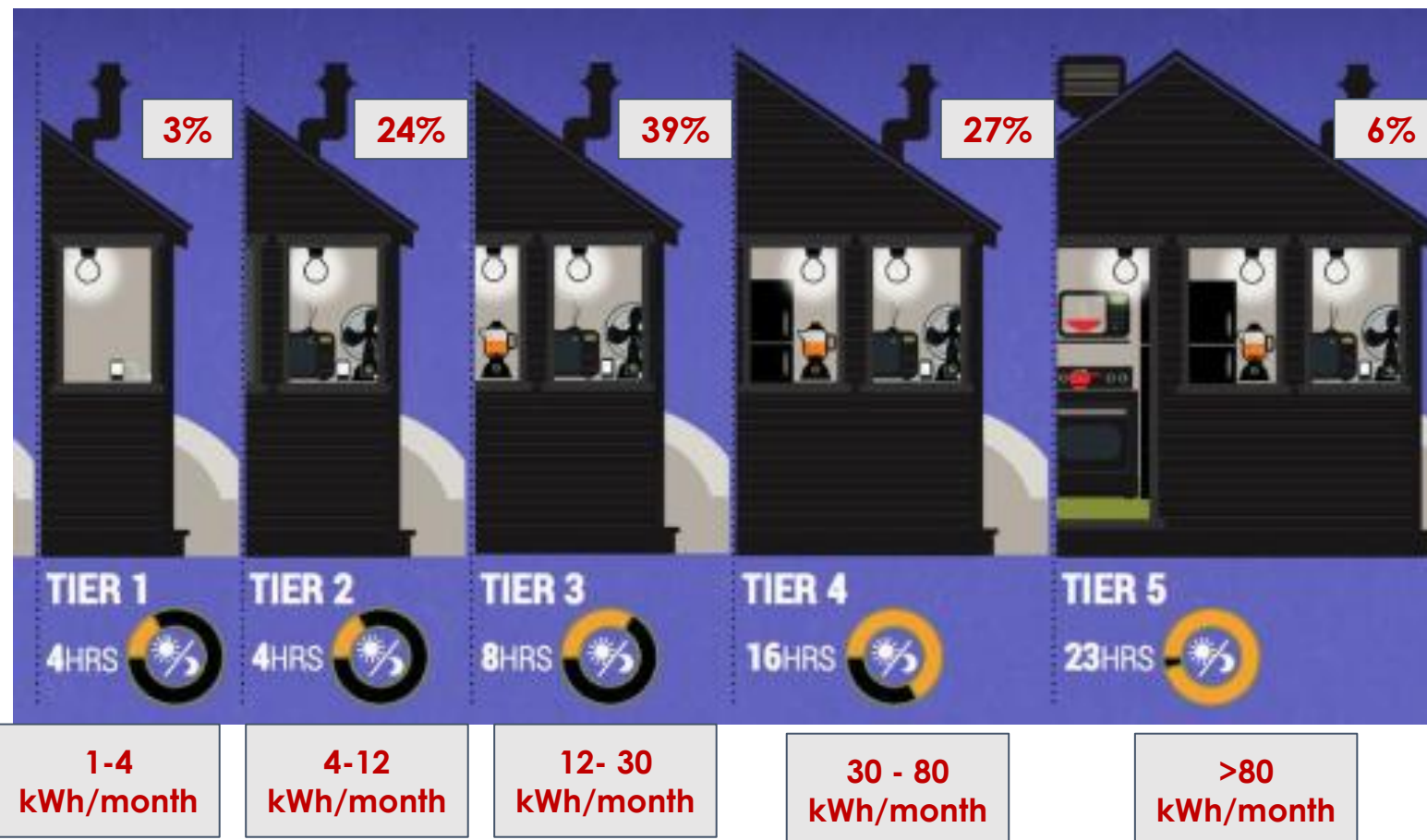


Summary Statistics



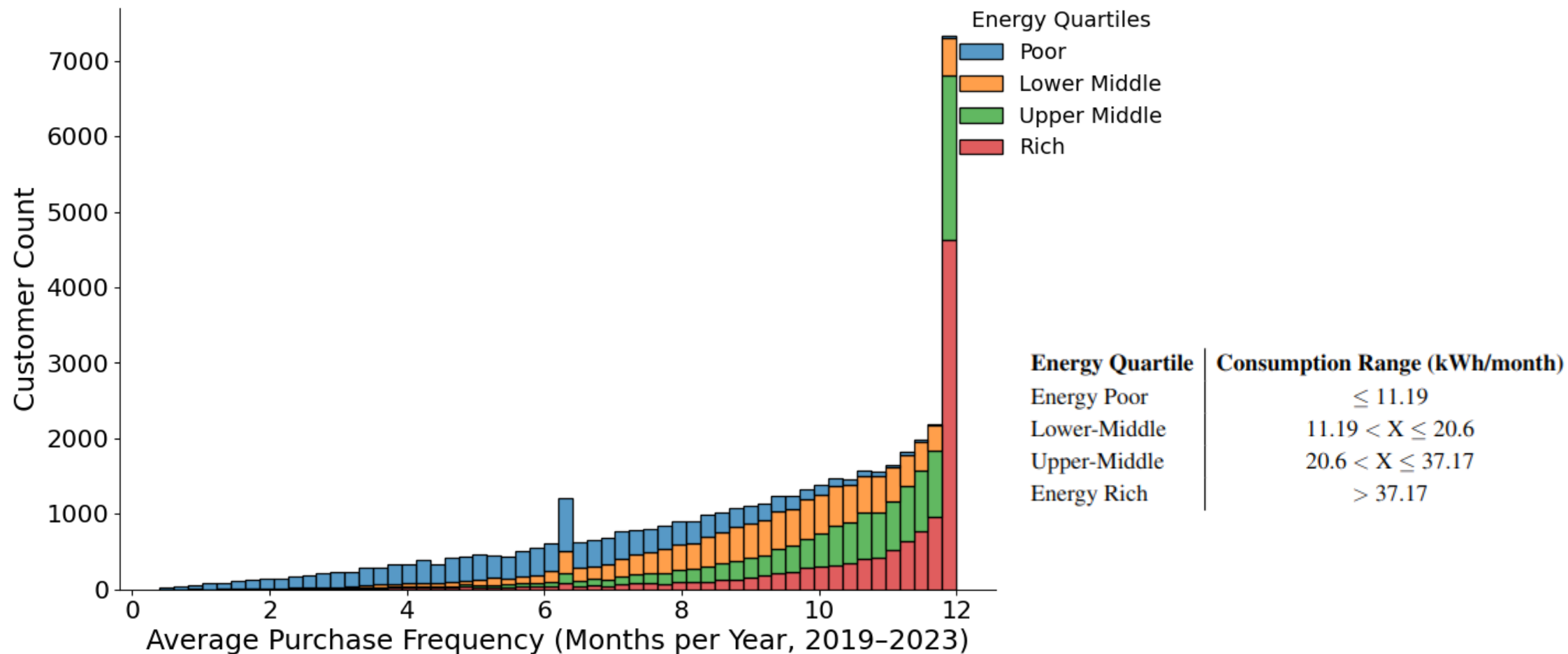
Consumption Patterns

Customer
percentages

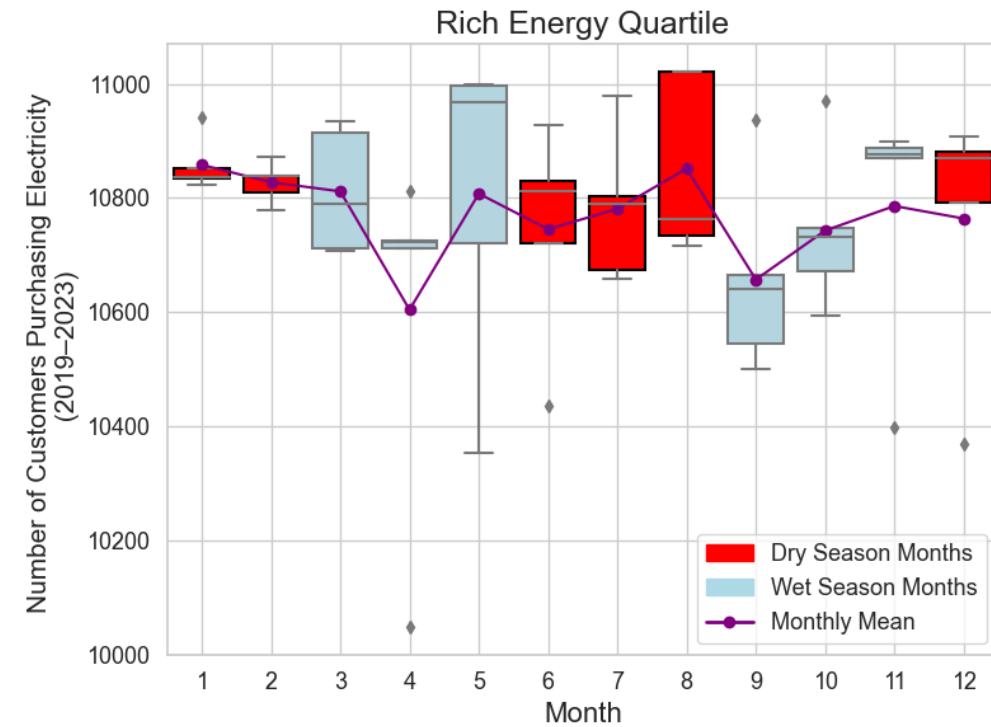
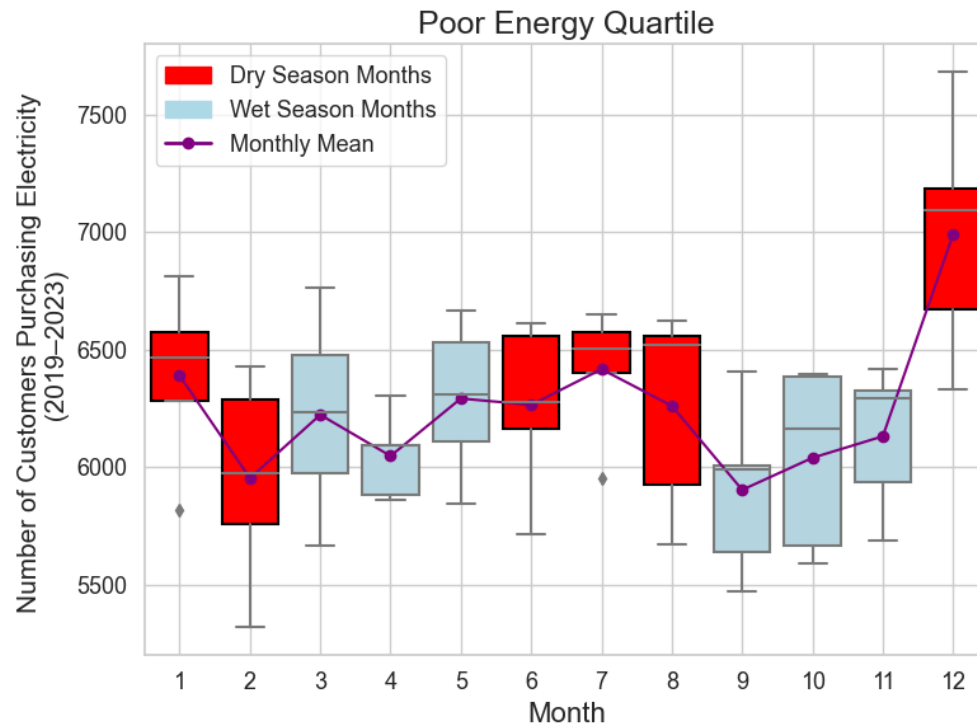


Consumption
Ranges

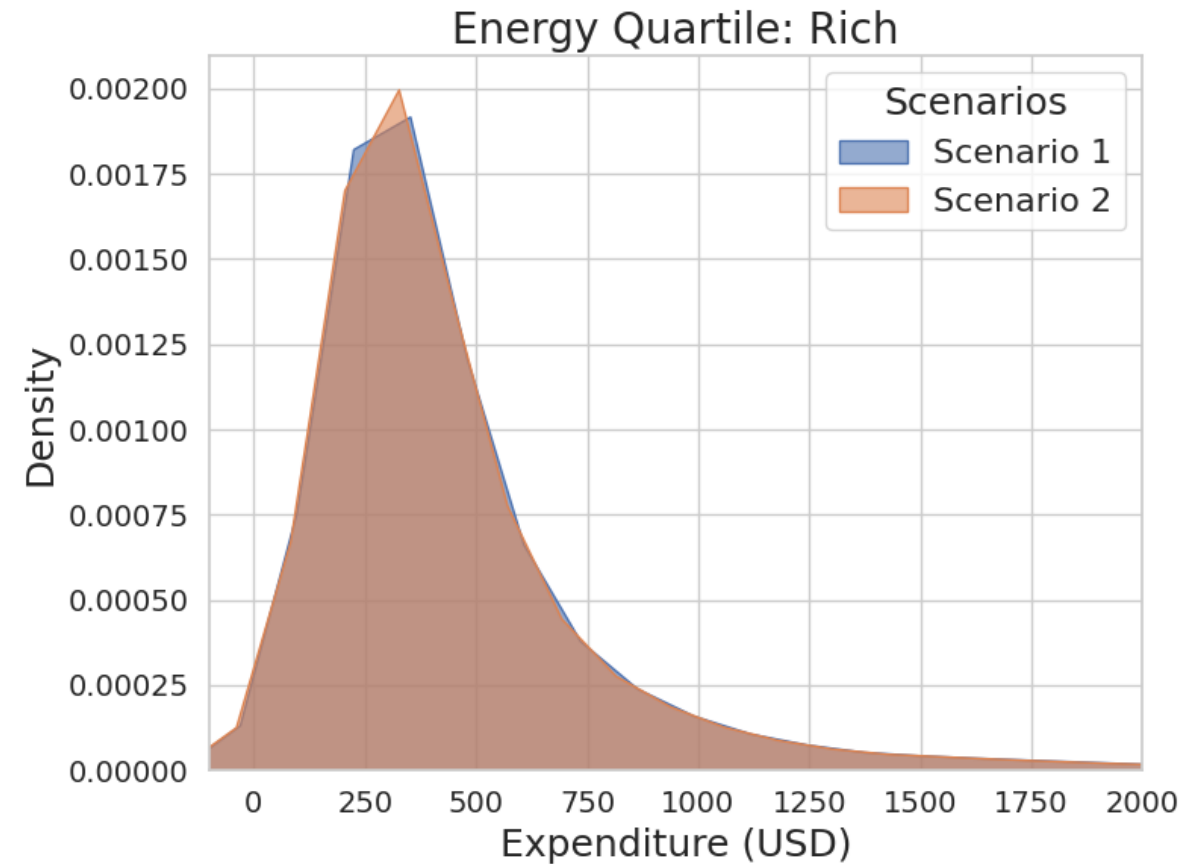
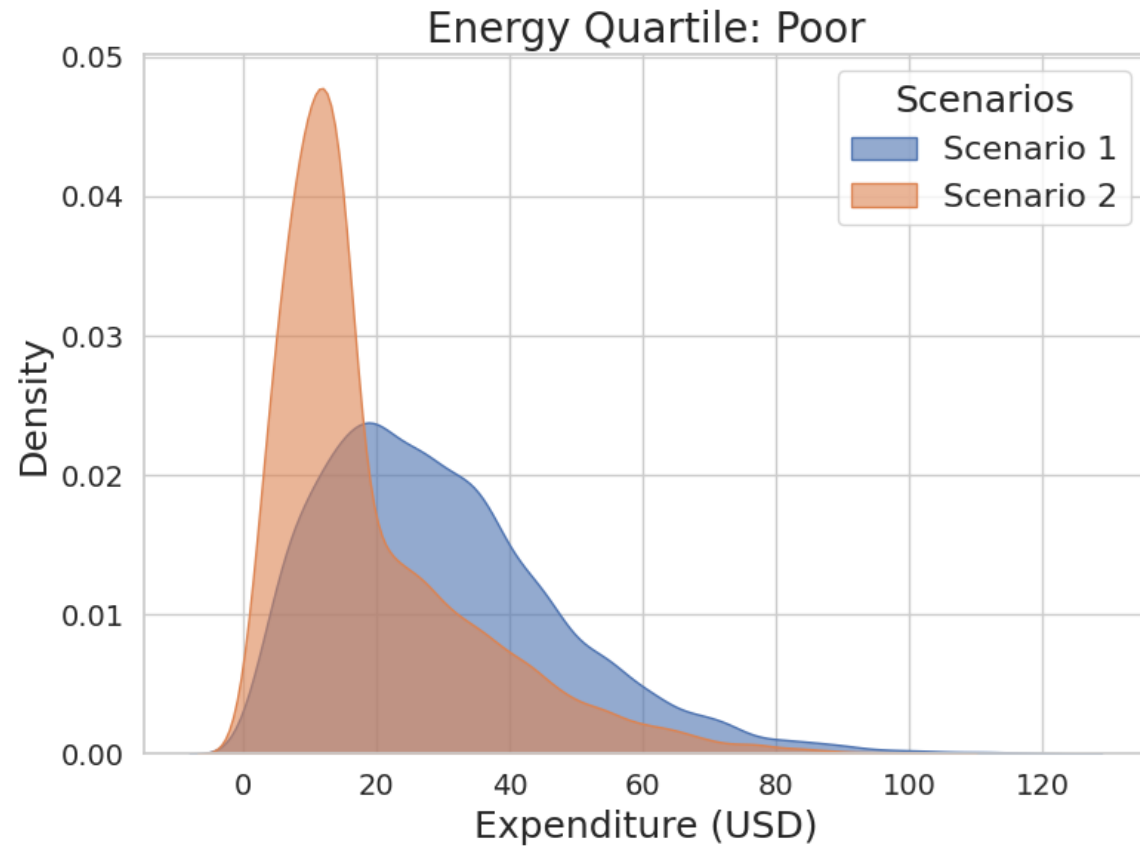
Purchasing Behavior



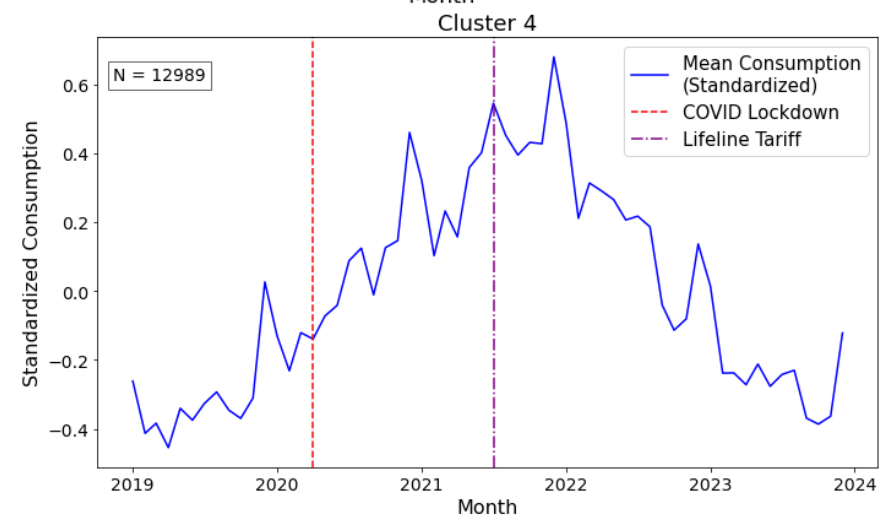
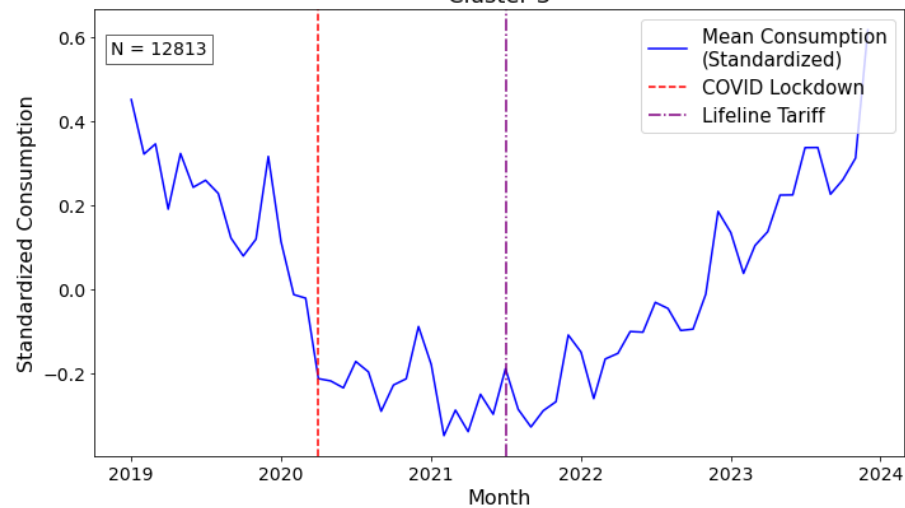
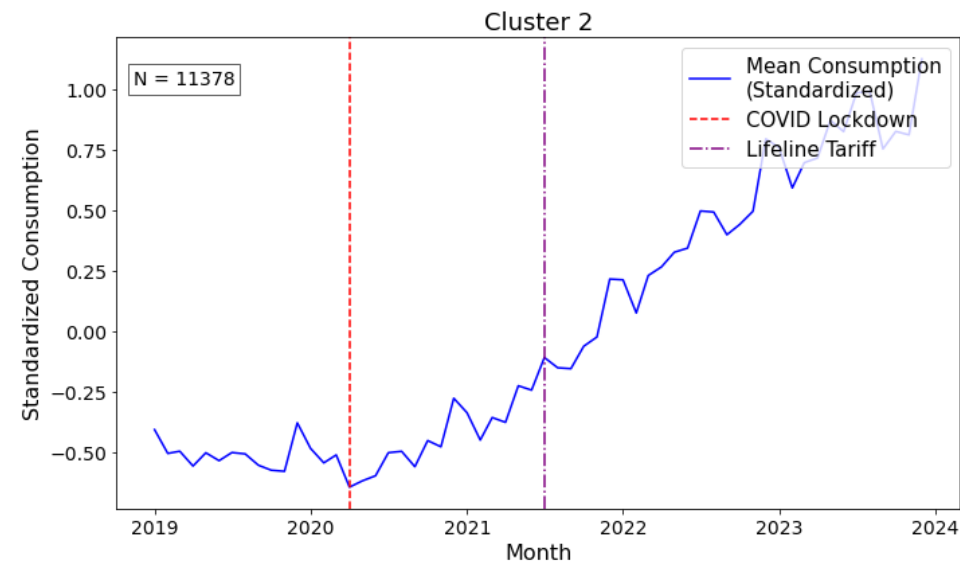
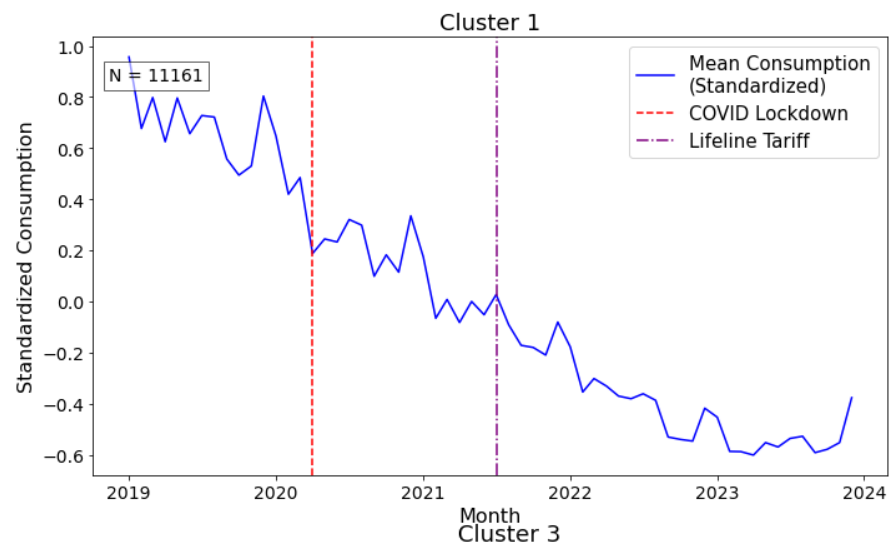
Seasonality in Purchases



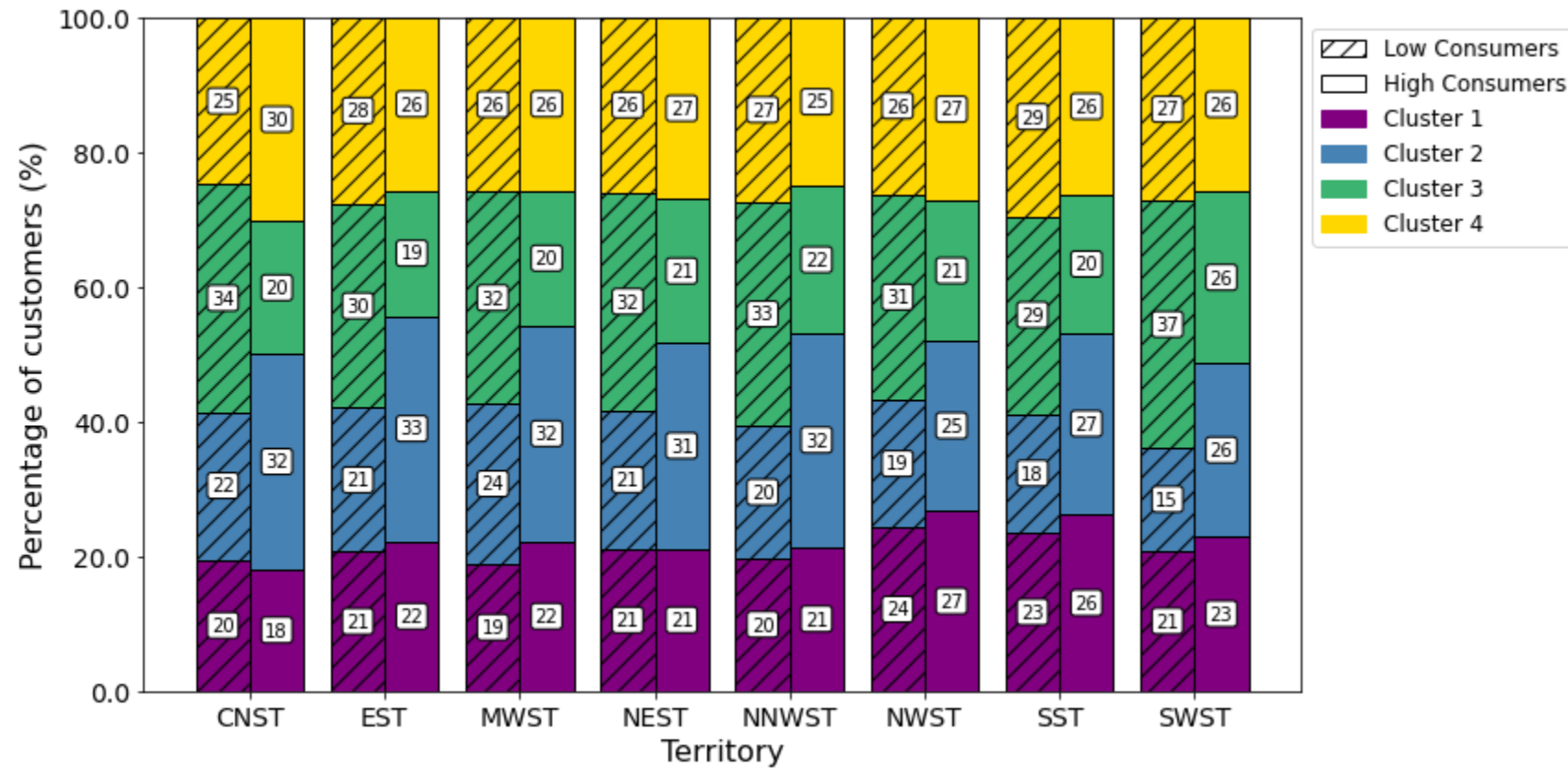
Lifeline Tariff



Customer Clusters



Customer Clusters



Key Insights

- Low consumption; need for policies encouraging high consumption appliances
- Infrequent purchases linked to income cycles and liquidity constraints
- Lifeline tariffs disproportionately benefit higher-frequency purchasers
- Potential misalignment between tariff design and actual usage patterns



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Thank You!



www.aes.era.go.ug



symposium@era.go.ug



+256 393 260166