I have just gone through the excel file. Below are some of the quick observations made and things we can do with the data.

* Respondents seem to believe in climate change and agreed with climate-related questions
* Yet a number of them (about 90%) have not purchased solar rooftop and are strongly not interested in purchasing one in the next 10 years
* Respondents were also not interested in buying electric vehicles
* **However, they were more motivated by financial incentives to achieve efficiency and environmental goals**.

**Hypotheses**

﻿H1. Households with existing energy saving technologies or renewable energy technologies like solar rooftops are more likely to agree with shifting energy related (specifically cooling) practices to off-peak hours

H2. Households with children and the elderly are less likely to shift their heating and cooking practices to off-peak hours even when offered a 40% lower electricity price

H3. If electricity prices are increased by 40% for peak-hours, households with willingness to implement energy saving behaviour, yet with higher income are less likely to reduce or move electricity consumption for cooling.

**Things we can do with the data**  
Use the theory of planned behaviour (TPB) to measure **attitudes, intentions and perceived behavioural control**. We can also combine the TPB with sociology theories like **gains, manipulation and penalisation** to better understand responses observed in the survey  
  
**Methodology**

Step 1

* General descriptive(s) around gender, age, number of children, employment, average number in a household, income distribution, building type, electric vehicle ownership, solar rooftop ownership, geyser ownership, solar water heater ownership, washing machine ownership.
* Descriptive data on air heater ownership, months when heating starts, ends and average temperature setting
* Descriptive data on AC ownership and type, respondent’s ability to control air conditioning system, average temperature setting
* Descriptive data on air-cooler ownership and type, respondent’s ability to control air conditioning system, average temperature setting

Step 2

* Cluster groups based on their willingness to implement energy saving measures. e.g.,
  + Increase my AC temperature settings during Summer evenings to consume less energy
  + Turn off my AC during Summer evenings
  + Turn off my water heater during winter mornings
  + Stop doing laundry during evening hours
  + Change to energy efficient lightbulbs
* Cluster groups based on those who identify with environmental saving measures (e.g. I think that by reducing my energy consumption and using more green energy I can help reduce air pollution)
* Cluster groups based on those who prefer to reduce energy for financial gains (e.g., I am interested in using less electricity consumption to reduce my bill and save money)

Step 3

* Do a comparison of groups of households by (family, pensioner low-income, higher income and high energy saving potential).
* Structural equation analysis to assess the relationships among latent variables
* We can then use a one-way MANO-VA to explore the effects of variables from step 1 (homeownership, gender, age, income, educational attainment, house size and belief in climate change) to analyse price tariff interventions choices made by respondents.
* We can also use Pairwise comparison. Where further comparison is needed between groups, a one-way ANOVA or an independent sample t-test can be used.