

Awareness of Energy Efficiency Report - 2016

Prepared for:

**Authority for Electricity Regulation,
Oman**

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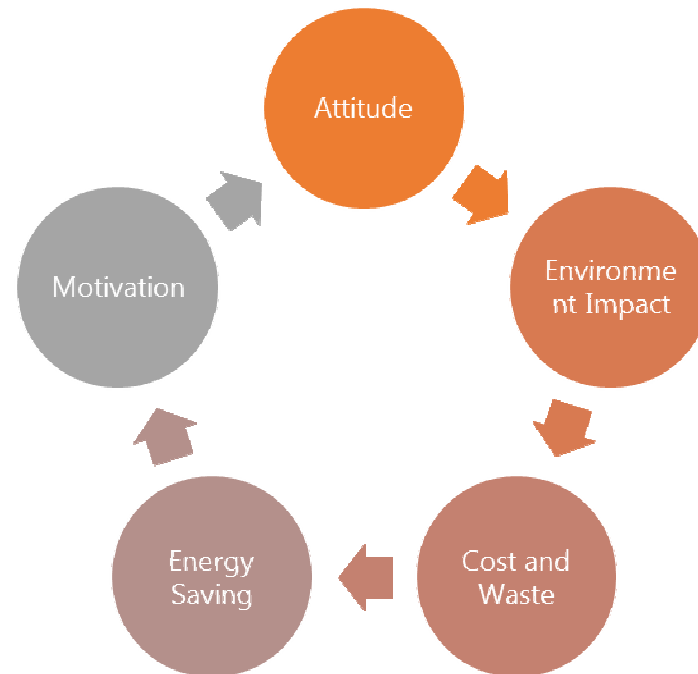
18

30

44

Survey Objectives

The primary research objective of this study was to conduct surveys with the general public to understand their awareness on energy efficiency in Oman. The following aspects were tested as part of the survey:



Research Methodology

Interviews were conducted via Face-to-Face and Telephonic mediums. Each interview lasted 10-15 minutes in duration. A total of 320 F2F interviews were conducted as follows.

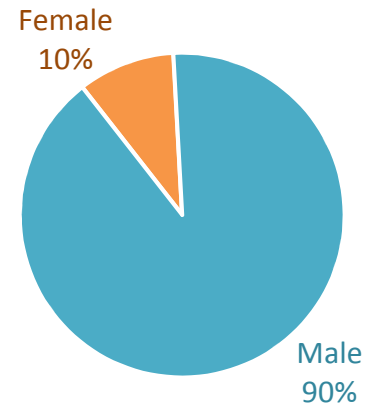
Regions	Omani Sample	Expat Sample	Total Sample
Muscat	56	24	80
Batinah	72	8	80
Dakhliya	36	4	40
Dhahirah	36	4	40
Sharqiyah	36	4	40
Dhofar	36	4	40
Total	272	48	320

The sample of 320 contains a $\pm 5.4\%$ margin of error. This is in comparison to the overall population.

320 was calculated as a representative sample of residents in Oman with 95% confidence level.

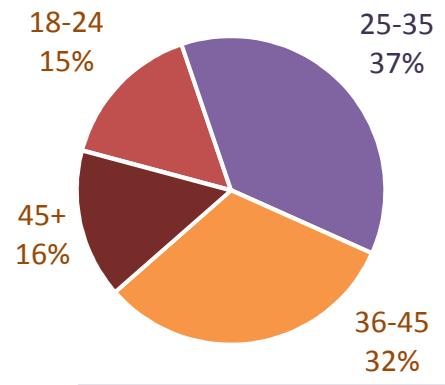
Demographics

Gender



Males are 90% whereas females are 10% of the total sample.

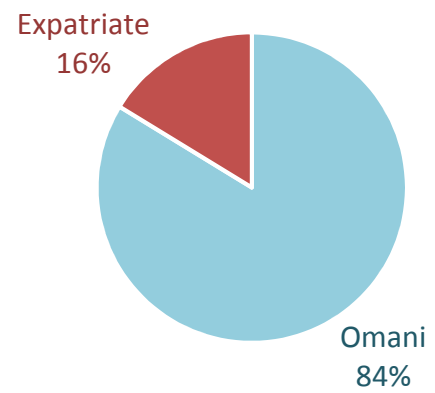
Age Group



Average age = 34.9 years

Most of the respondents are in 25-35 age group followed by 36-45 age group.

Ethnicity



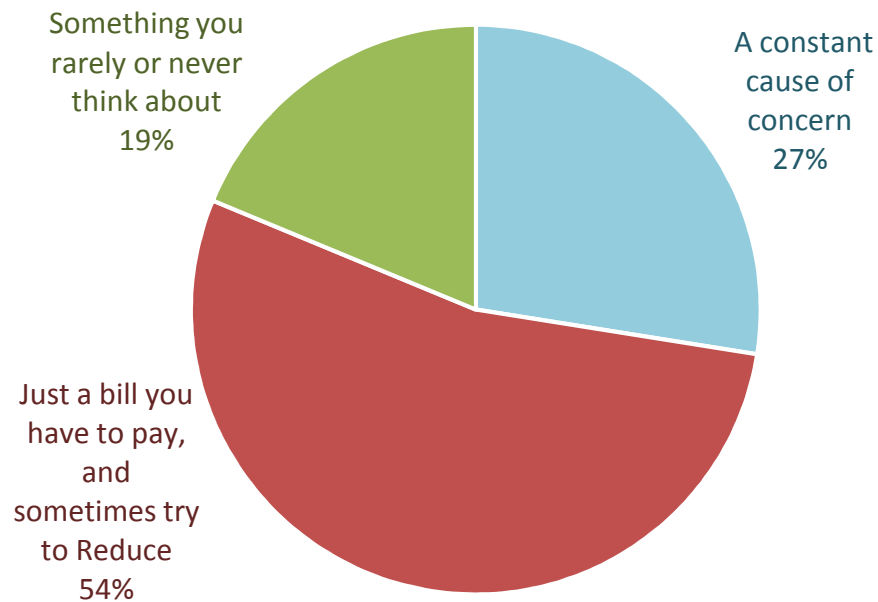
Omanis are 84% whereas Expatriates are 16% of the total sample.

n=320



Research Findings

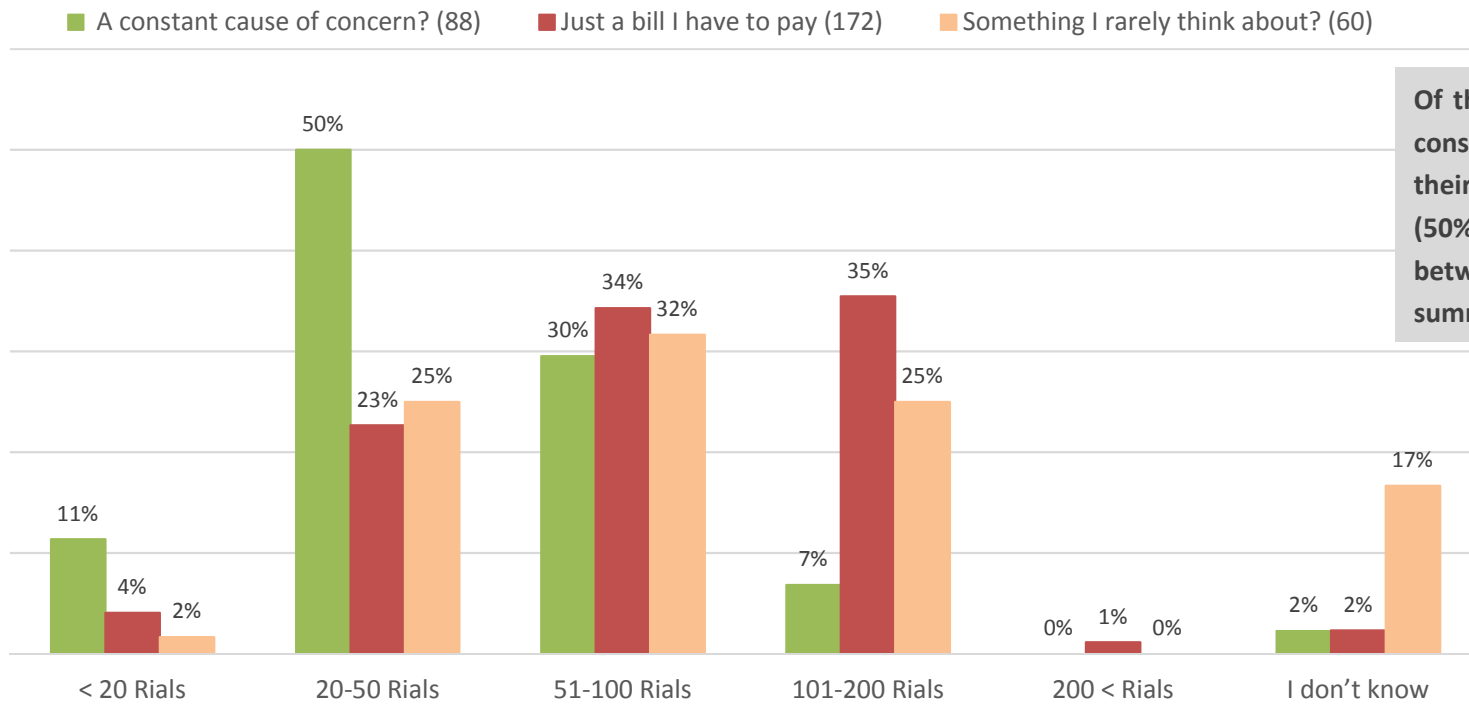
Perception of Electricity Bill



n=320

- Only 27% of the respondents said that the Electricity Bill is a constant cause of concern for them.
- An overwhelming majority of respondents (54%) said that the electricity bill is just a bill that they have to pay and sometimes aim to reduce it.

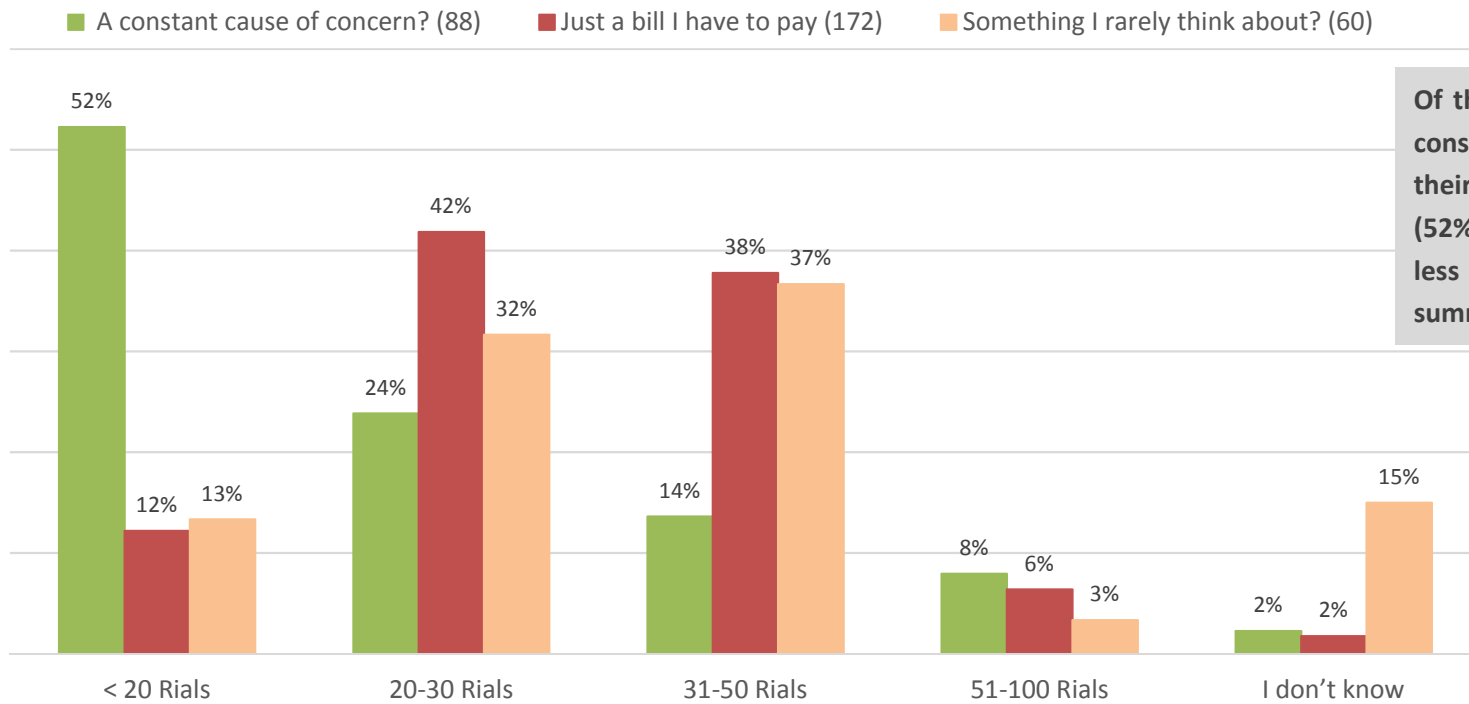
Perception of Electricity Bill - by Monthly Electricity Bill in Summer



Of the respondents who are constantly worried about their bill, most of them (50%) have an electricity bill between 20-50 Rials in the summer.

n=display()

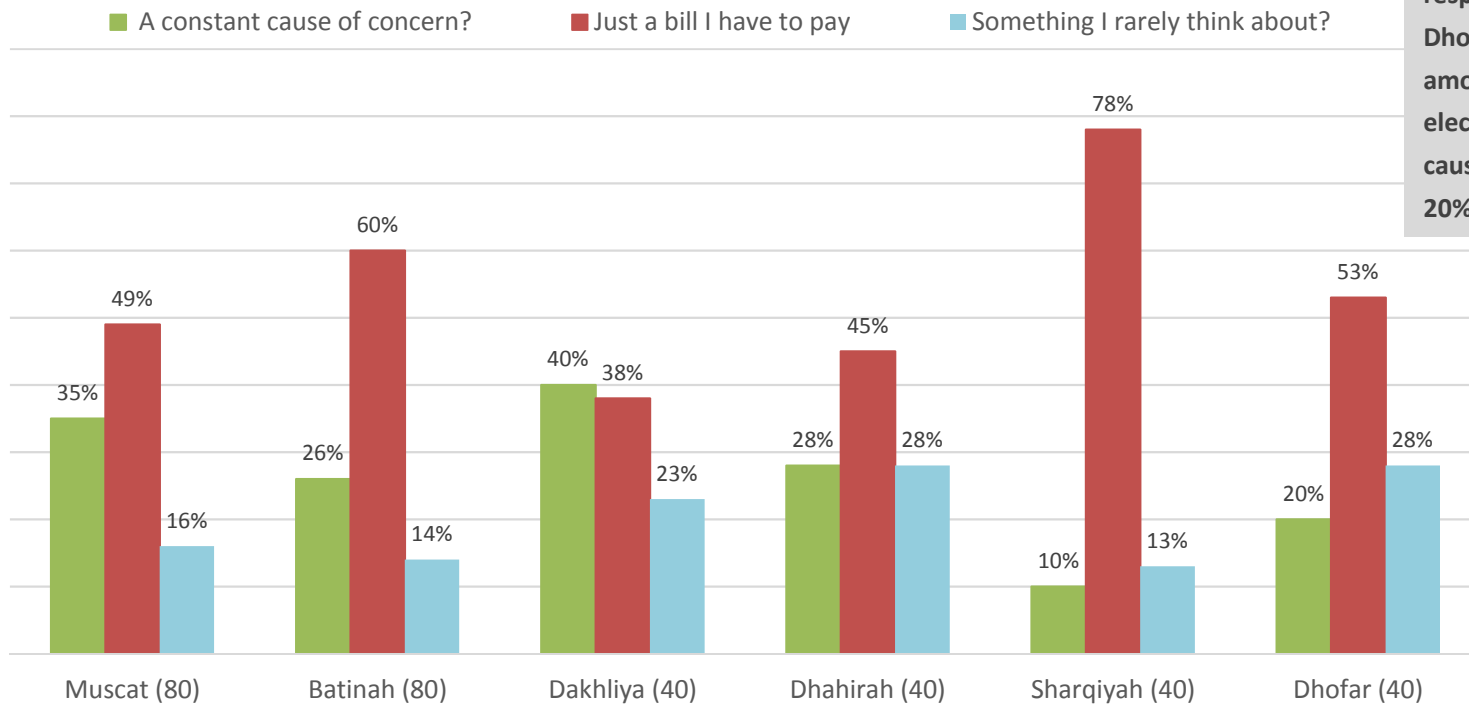
Perception of Electricity Bill - by Monthly Electricity Bill in Winter



Of the respondents who are constantly worried about their bill, most of them (52%) have an electricity bill less than 20 Rials in the summer.

n=display()

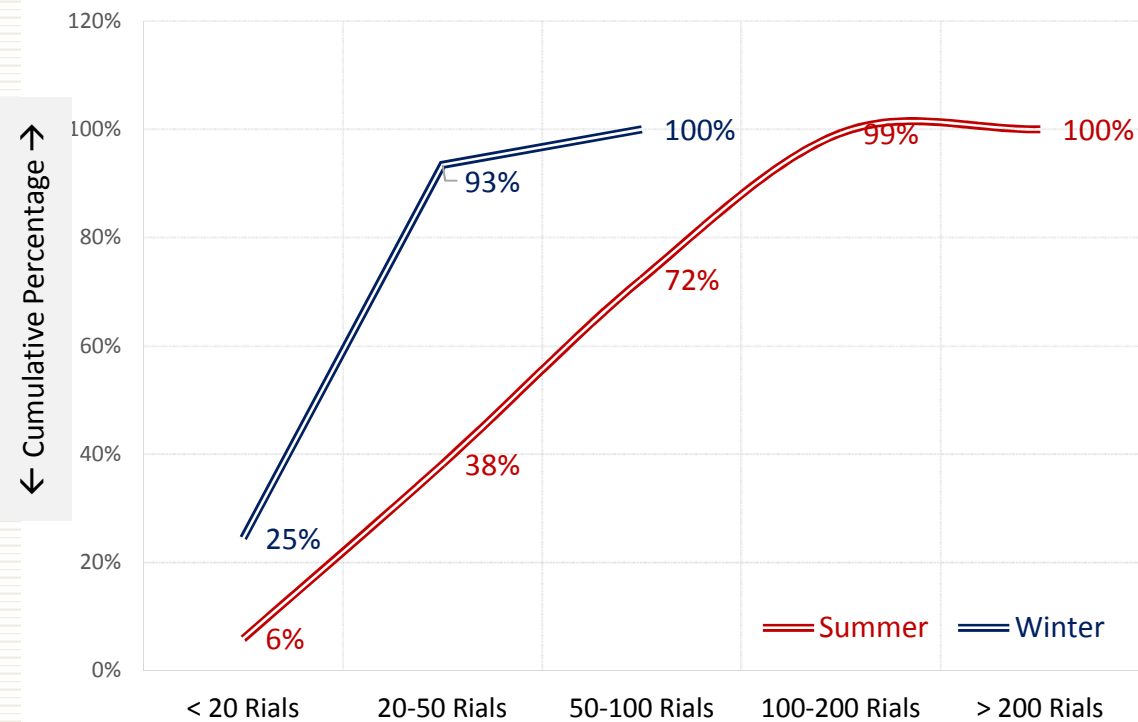
Perception of Electricity Bill by Region



Respondents in Dakhliya have given the most – 40% – and respondents in Sharqiyah and Dhofar have given the least amount of responses for their electricity bill being a constant cause of concern. (10% and 20% respectively)

n=display()

Approximately how much is your monthly electricity bill in Summer & Winter? – Cumulative Response Analysis

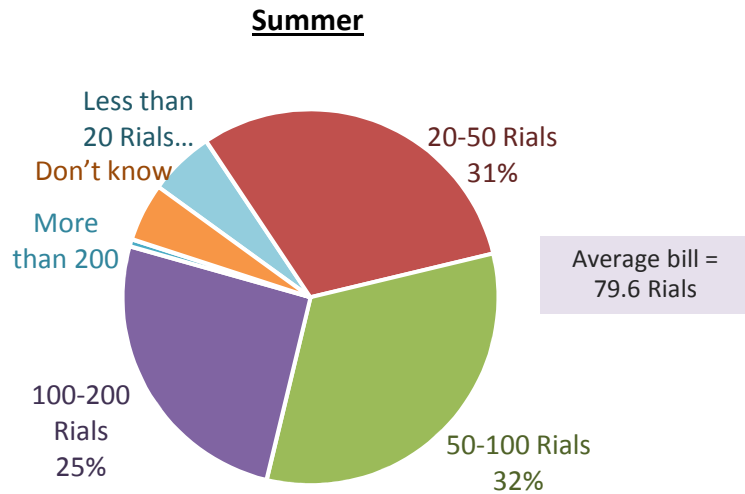


- Electricity bills in the summer are understandably higher than those in the winter,
- In summer highest proportion of bills is in the 50-100 Rials range.
- In winter highest proportion of bill is in the 20-50 Rials range.

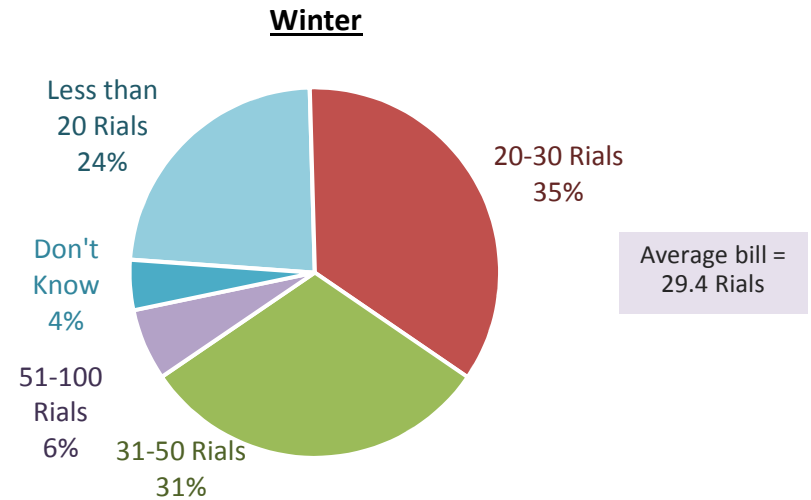
n=320

Approximately how much is your monthly electricity bill?

- According to Season



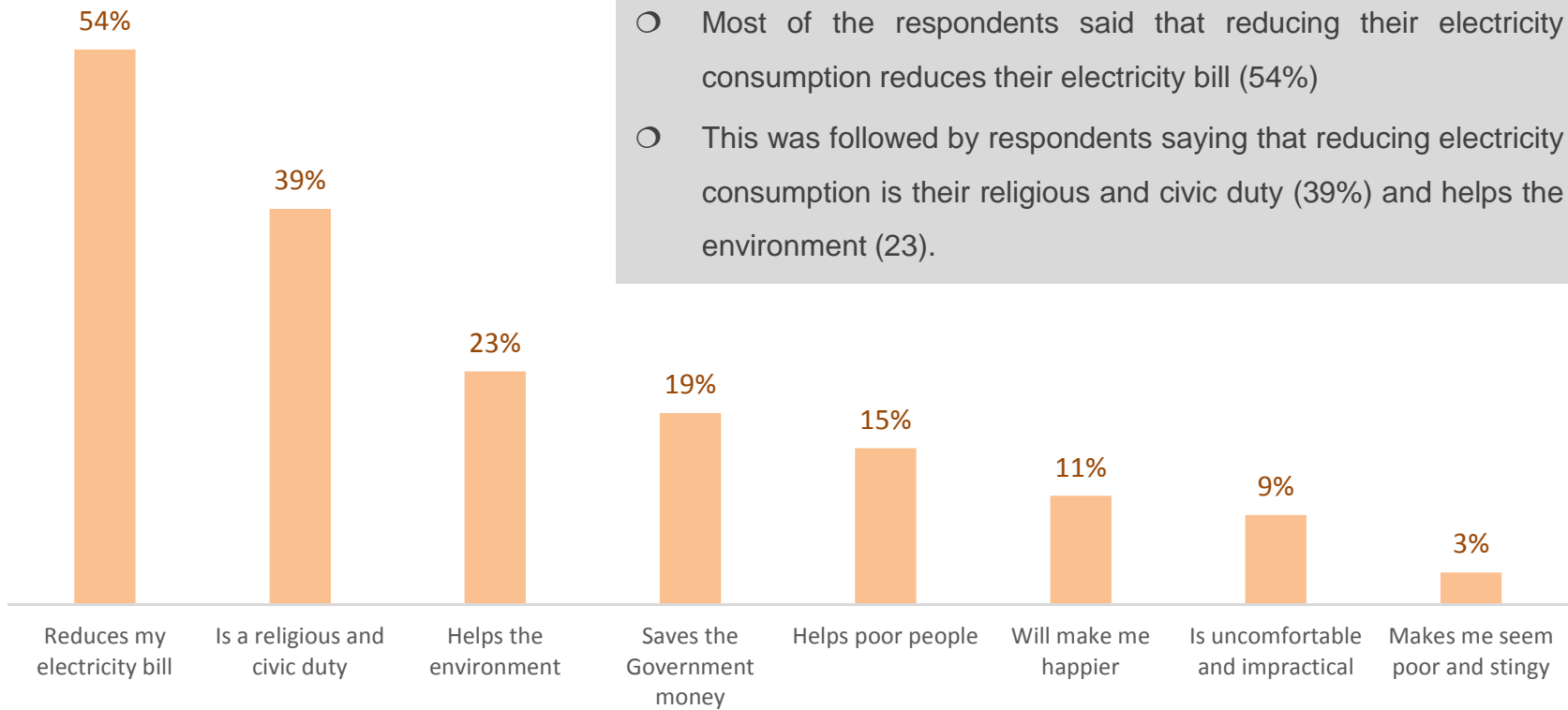
- Most of the respondents said that they receive an electricity bill between 50-100 Rials in the summer (32%).
- This is followed by respondents receiving a bill between 20-50 Rials (31%) and respondents receiving a bill between 100-200 Rials (25%).



- Most of the respondents said that they receive an electricity bill between 20-30 Rials in the winter (35%).
- This is followed by respondents receiving a bill between 31-50 Rials (31%) and respondents receiving a bill (25%) are less than 20 Rials.

n=320

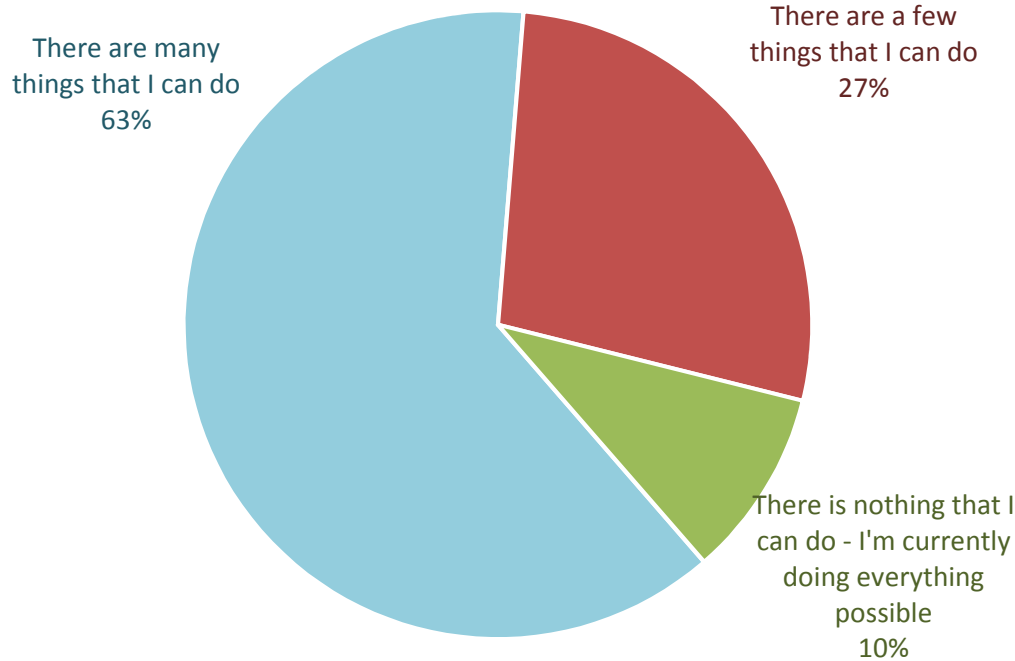
Reducing my electricity consumption....



- Most of the respondents said that reducing their electricity consumption reduces their electricity bill (54%)
- This was followed by respondents saying that reducing electricity consumption is their religious and civic duty (39%) and helps the environment (23).

n=320

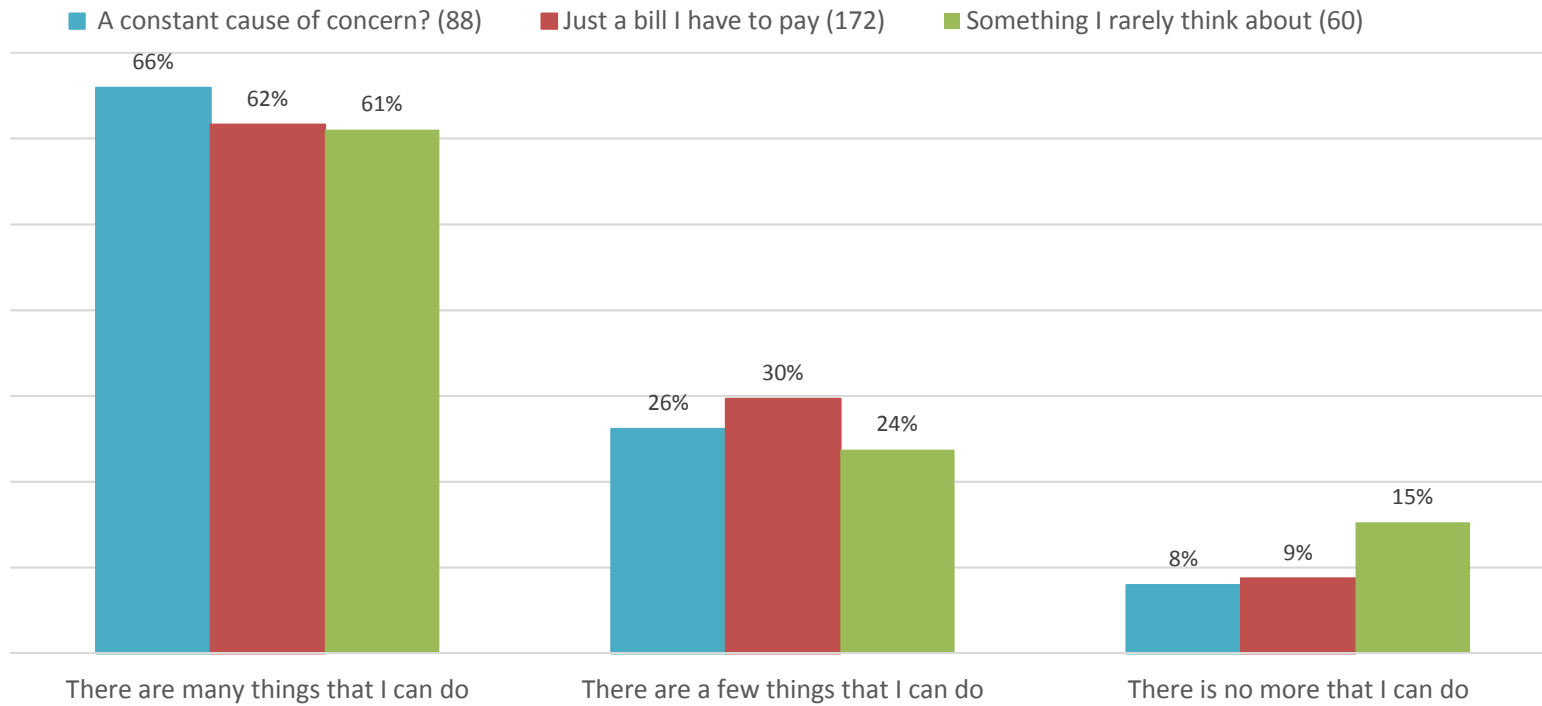
To reduce my electricity consumption ...



- Most of the respondents agreed that there is more that they can contribute to reduce their electricity consumption. 63% respondents agreed with this.
- Only 10% of the respondents said that they cannot possibly do any more to reduce their electricity consumption.

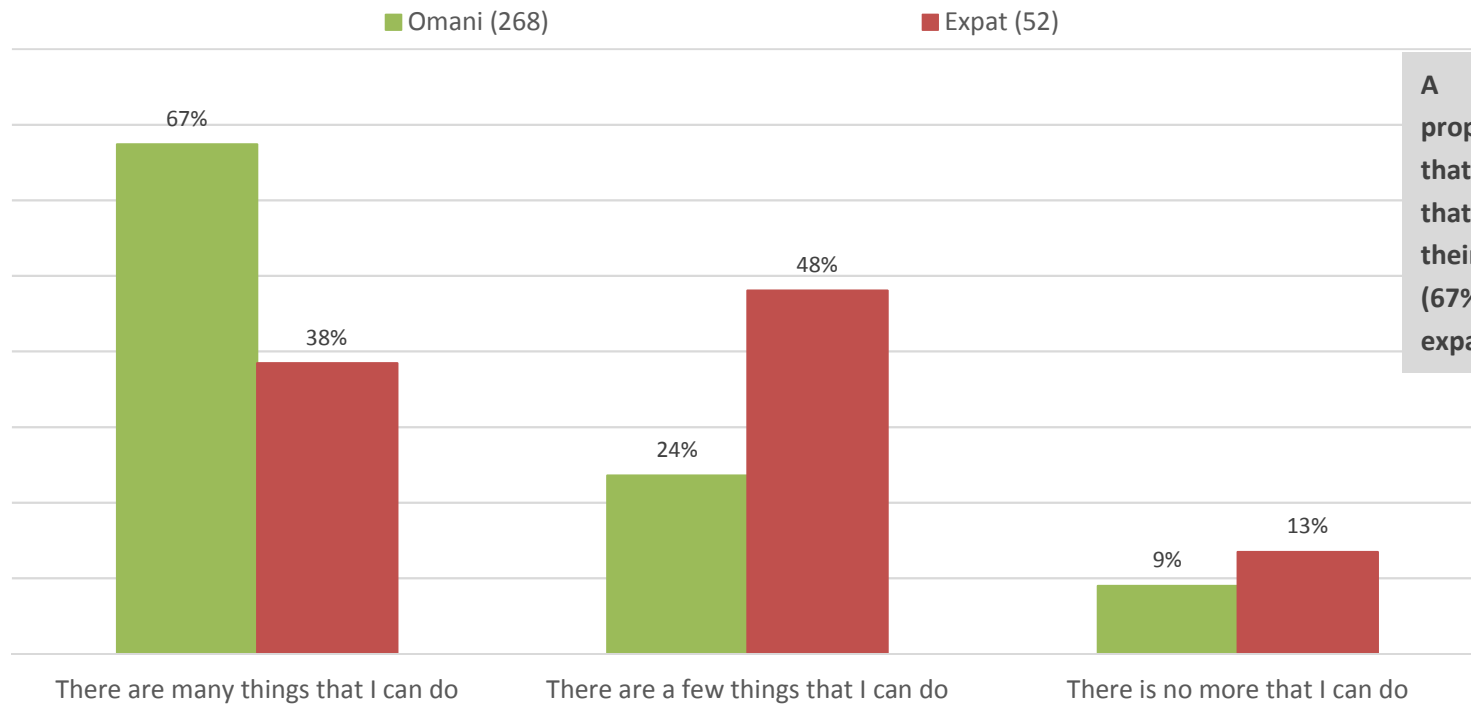
n=320

To reduce my electricity consumption - by Concern of Electricity bill



n=display()

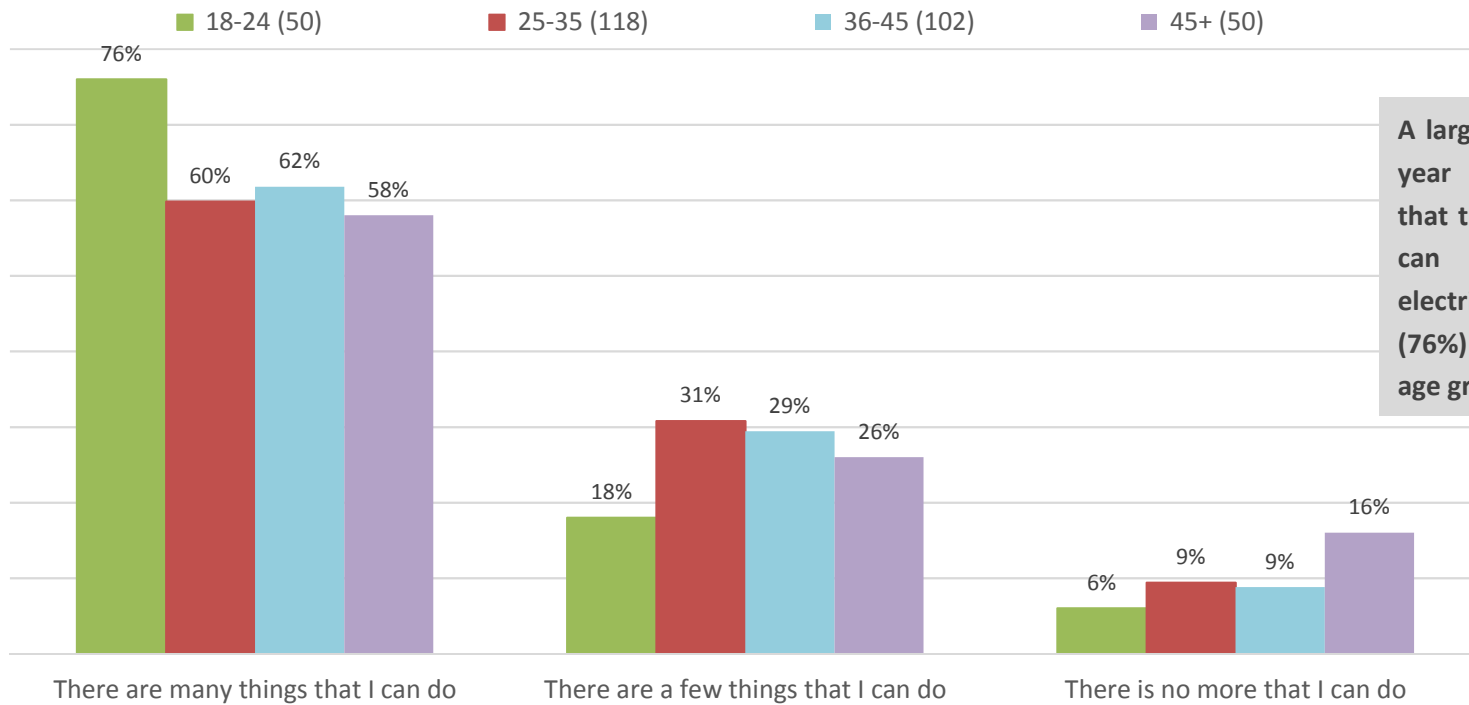
To reduce my electricity consumption - by Nationality



A significantly larger proportion of Omanis say that there are many things that they can do to reduce their electricity consumption (67%) in comparison to expatriates (38%).

n=display()

To reduce my electricity consumption - by Age



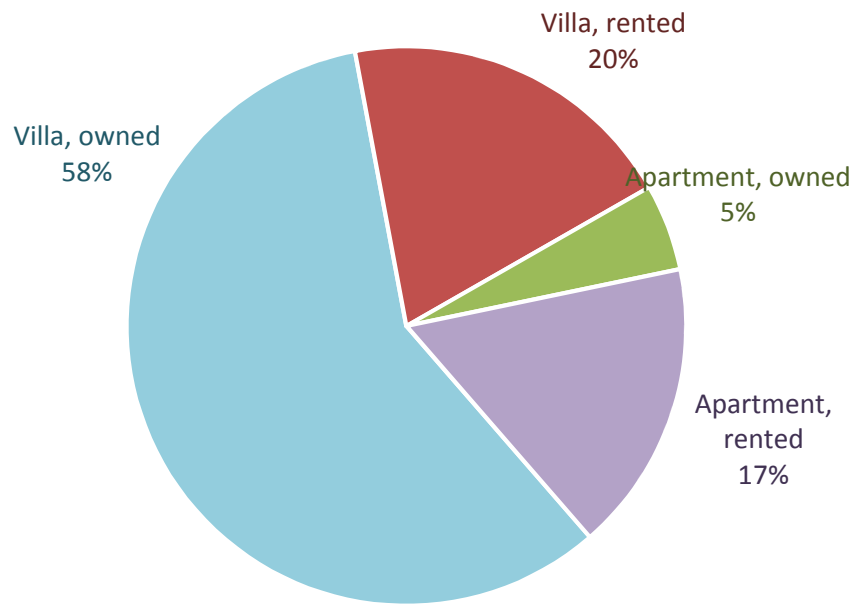
A larger proportion of 18-24 year old respondents said that there is more that they can do to reduce their electricity consumption (76%) in comparison to other age groups.

n=display()



Built Environment & Appliances

Type of Residence

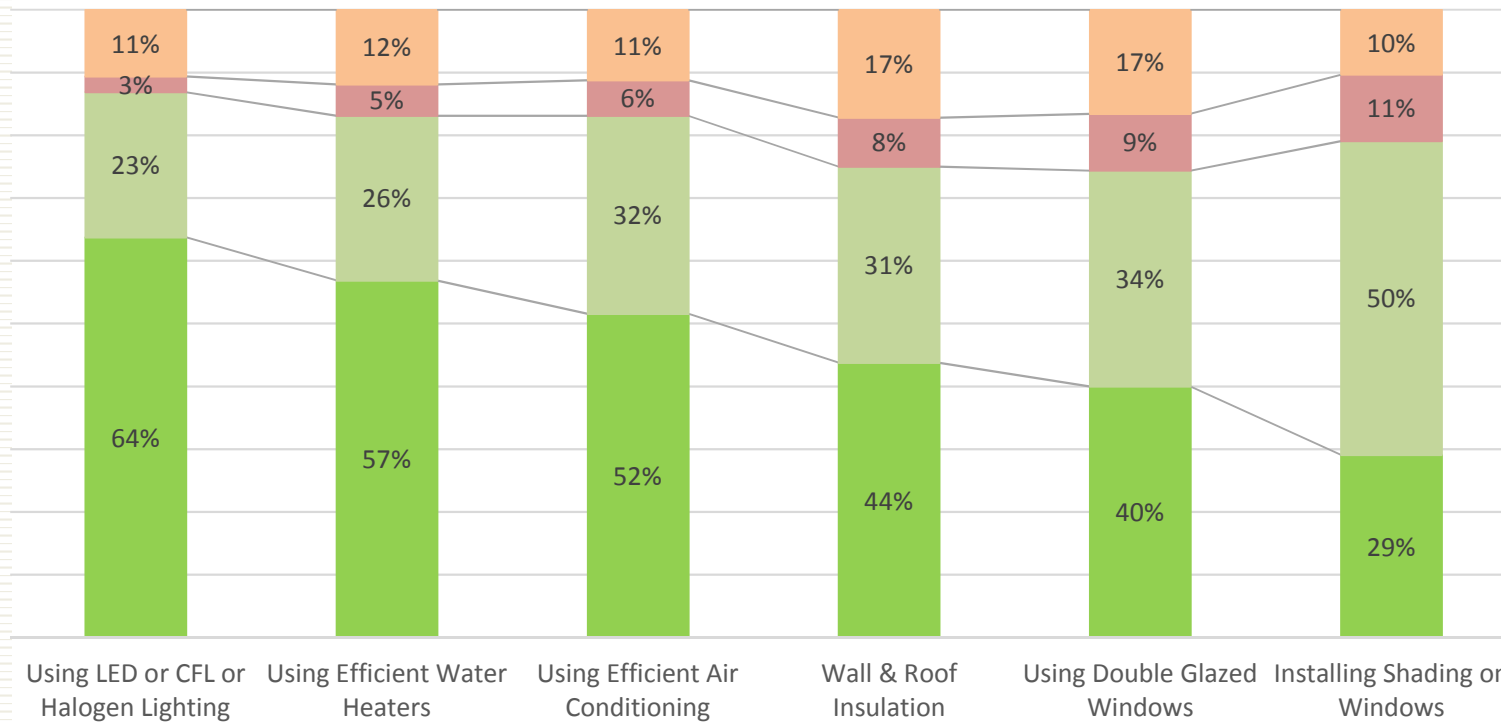


n=320

- Most of the respondents said that they lived in a villa that they owned (58%).
- This was followed by respondents living in rented apartments (17%) and rented villas (20%).

By how much can the following measures reduce electricity consumption?

■ A lot ■ Slightly ■ Almost Nothing ■ Don't Know



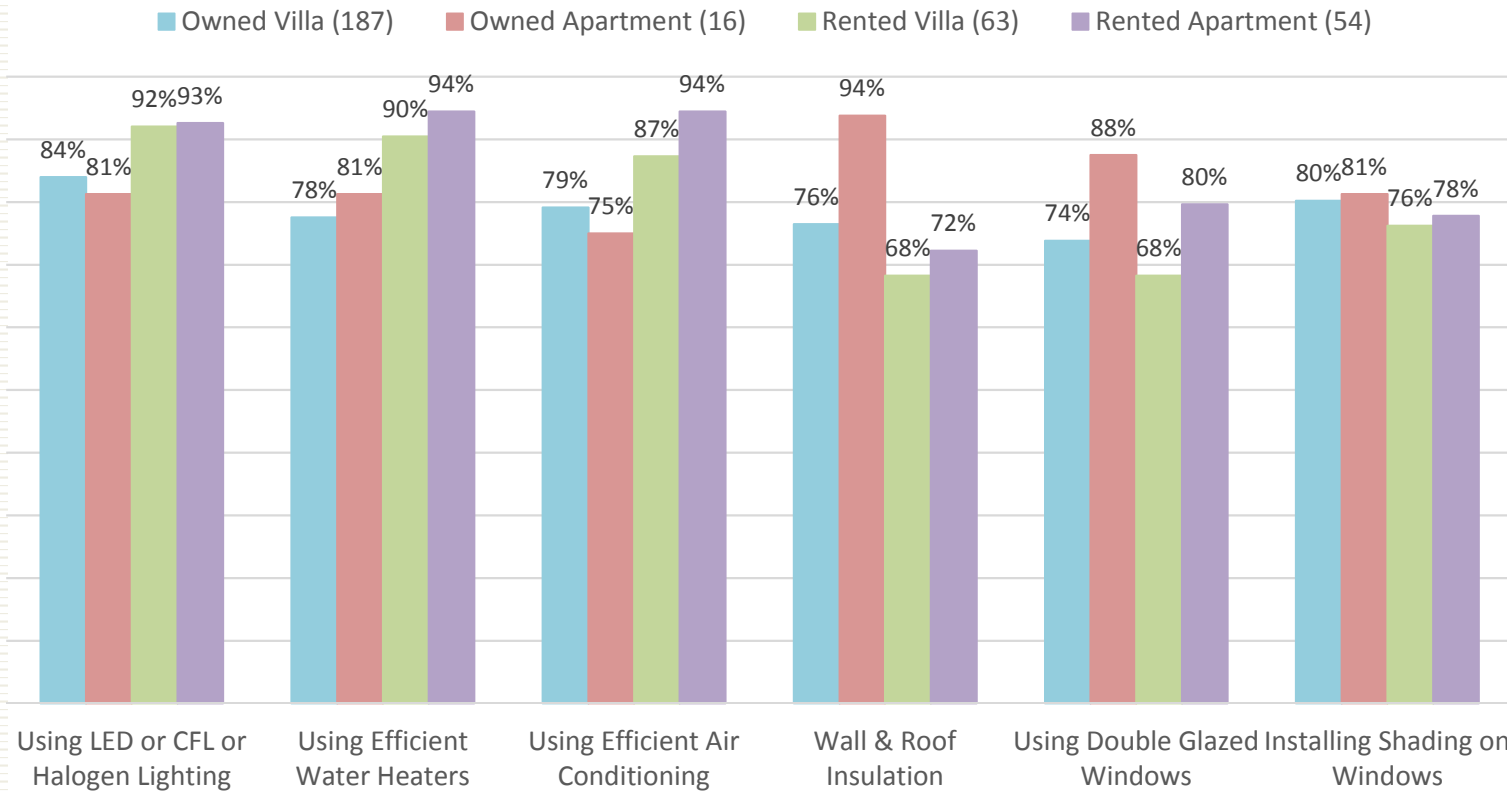
Top 3 measures to reduce electricity consumption:

- Using LED or CFL or Halogen Lighting
- Using Efficient Air Conditioning
- Using Efficient Water Heaters

n=320

By how much can the following measures reduce electricity consumption?

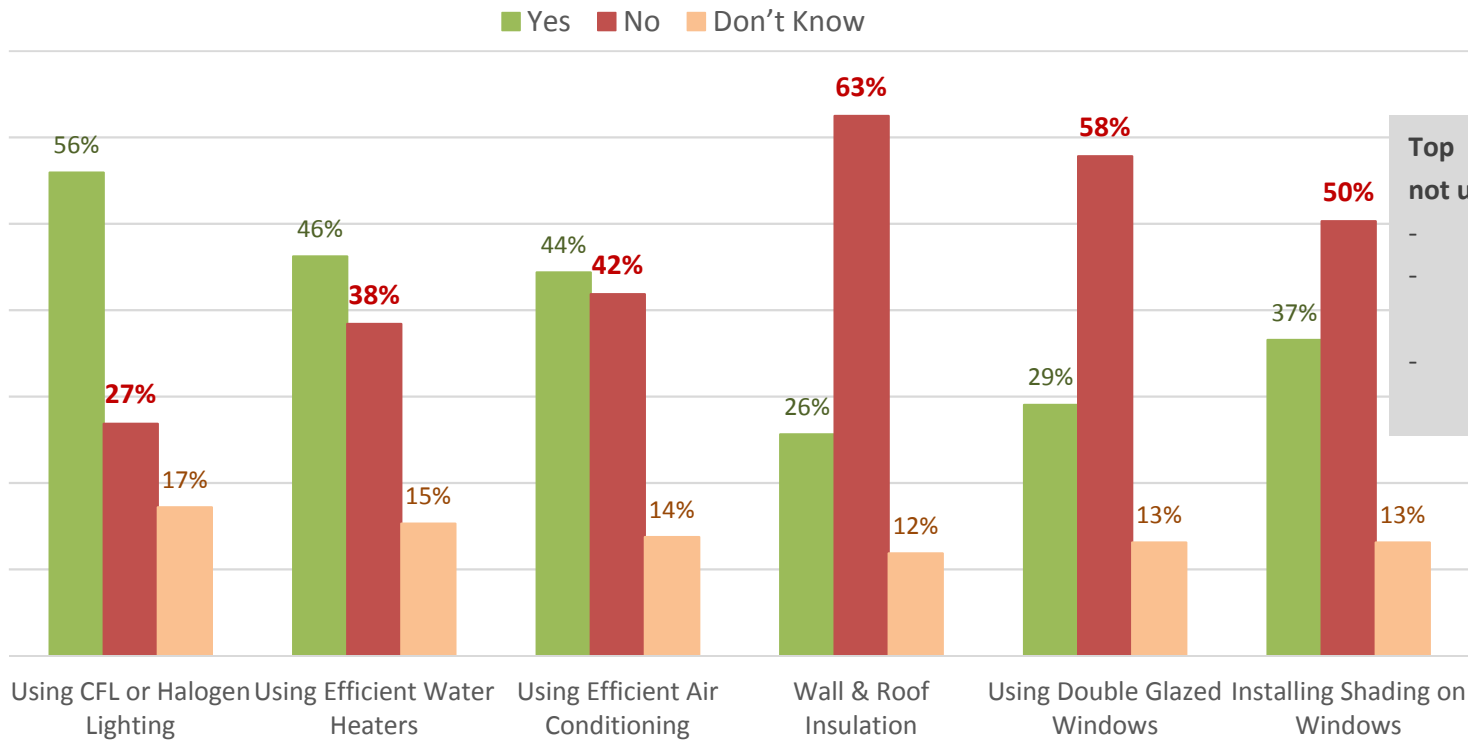
- By Type of Residence (Top 2 Box = A Lot + Slightly)



Those respondents who rent apartments and villas gave more responses of efficient air conditioning, efficient water heaters and LED/CFL Halogen lighting

n=display()

Are any of these measures currently used where you are staying?



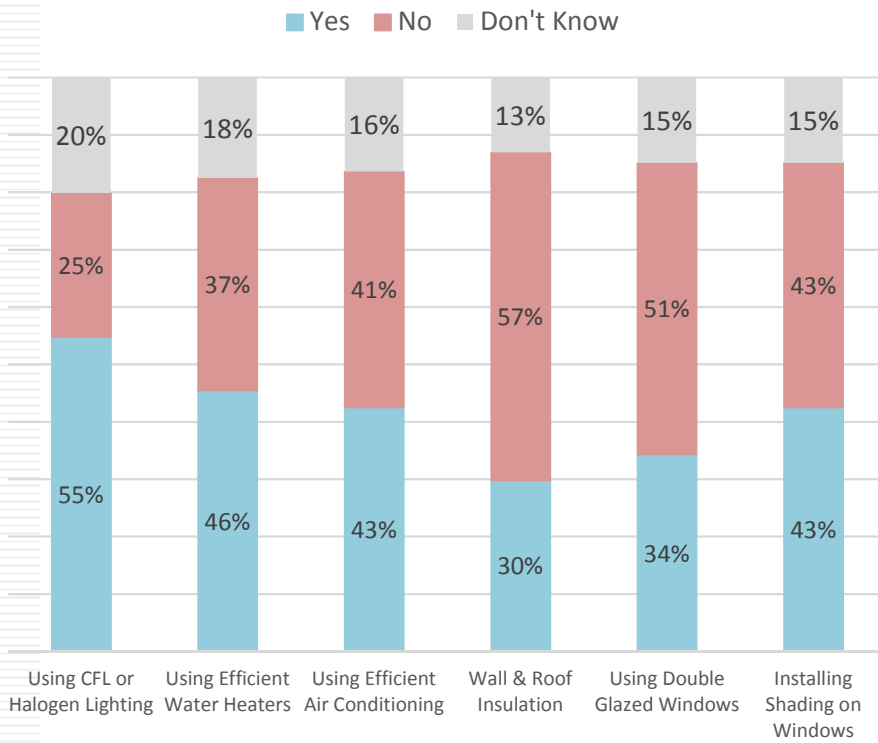
Top 3 measures currently not used:

- Wall & Roof Insulation
- Using Double Glazed Windows
- Installing Shading on Windows

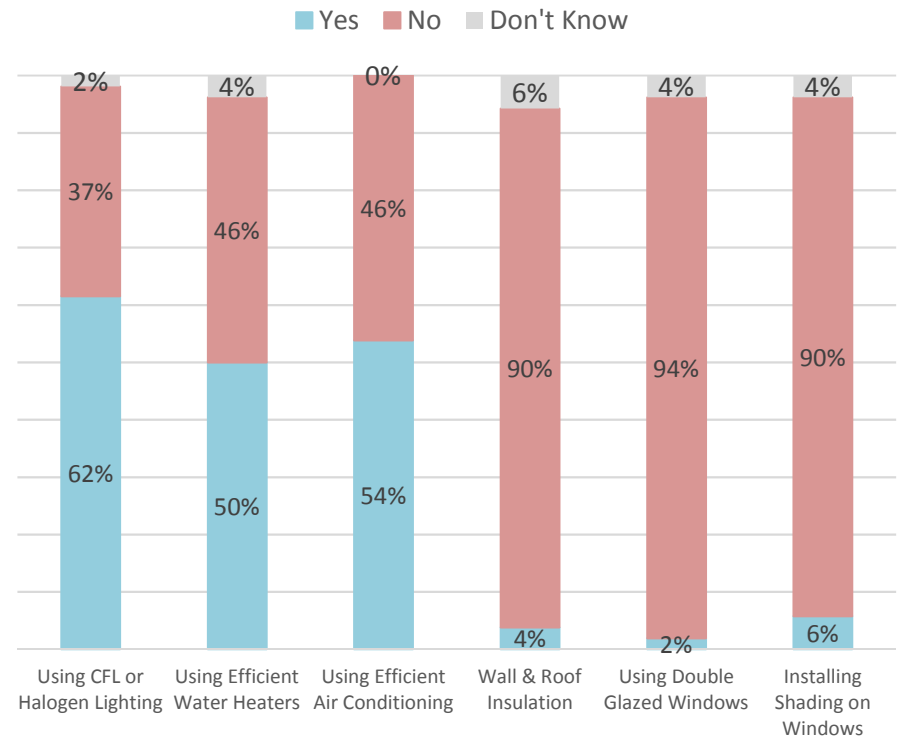
n=320

Are any of these measures currently used where you are staying? - By Nationality

Omanis (268)



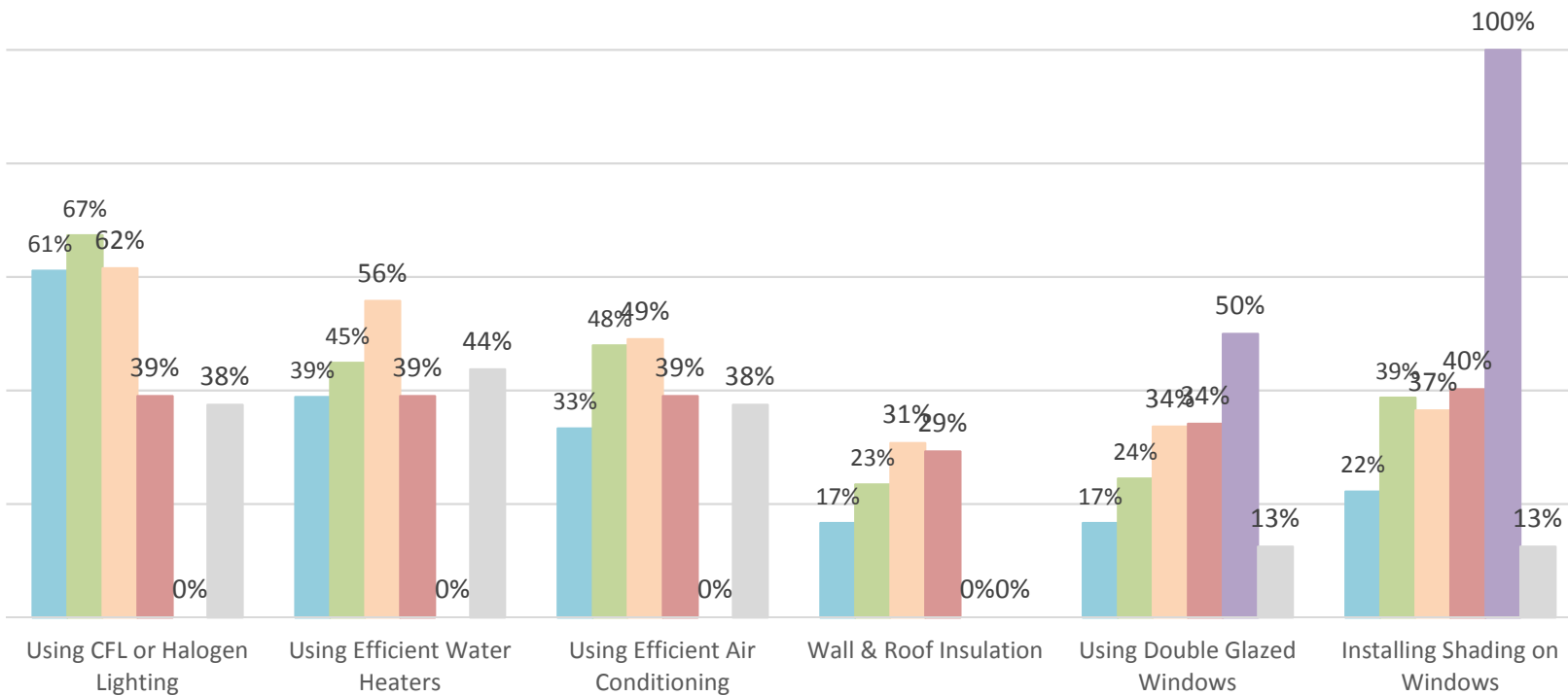
Expatriates (52)



n=display()

Are any of these measures currently used where you are staying? – By Bills in Summer (Only 'Yes' Responses)

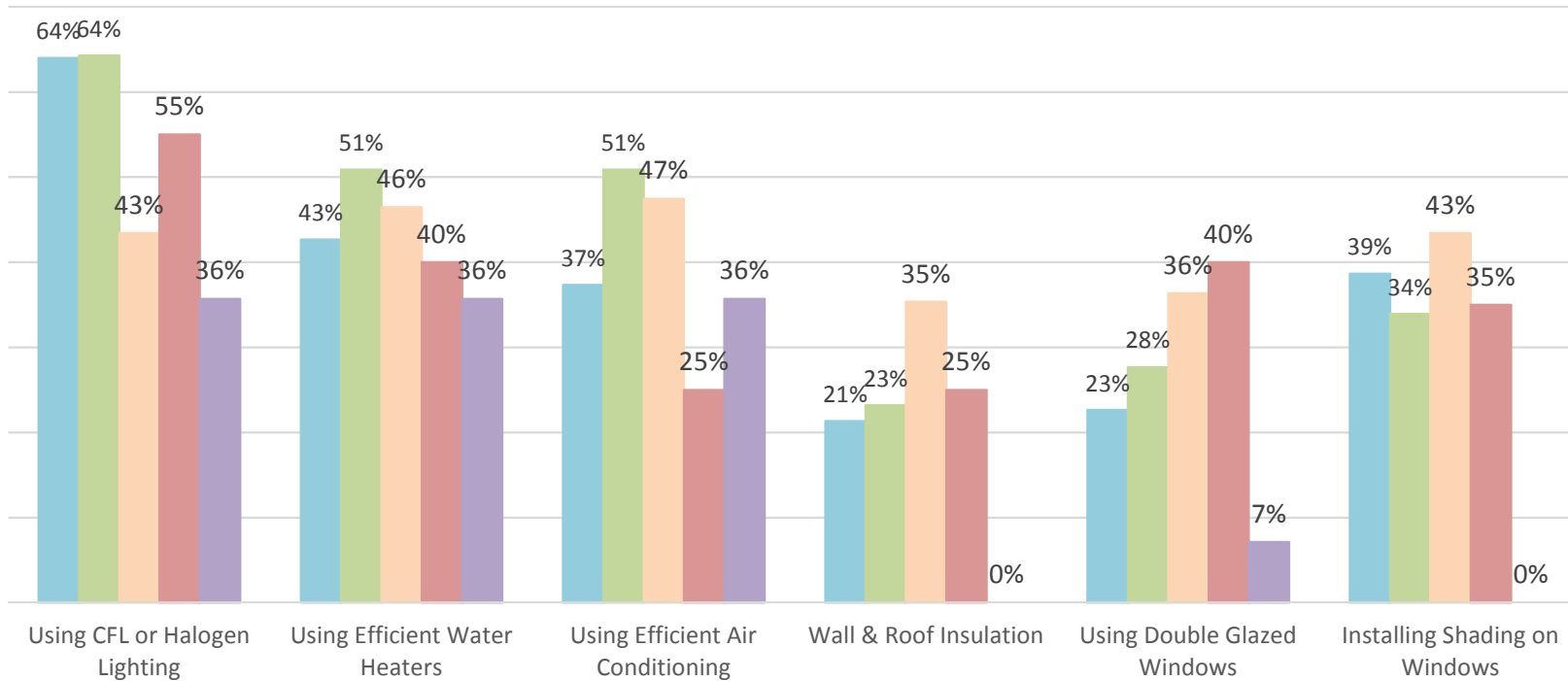
■ < 20 Rials (18)
 ■ 20-50 Rials (98)
 ■ 51-100 Rials (104)
 ■ 101-200 Rials (82)
 ■ 200 < Rials (2)
 ■ I don't know (16)



n=display()

Are any of these measures currently used where you are staying? – By Bills in Winter (Only 'Yes' Responses)

■ < 20 Rials (75)
 ■ 20-30 Rials (112)
 ■ 31-50 Rials (99)
 ■ 51-100 Rials (20)
 ■ I don't know (14)

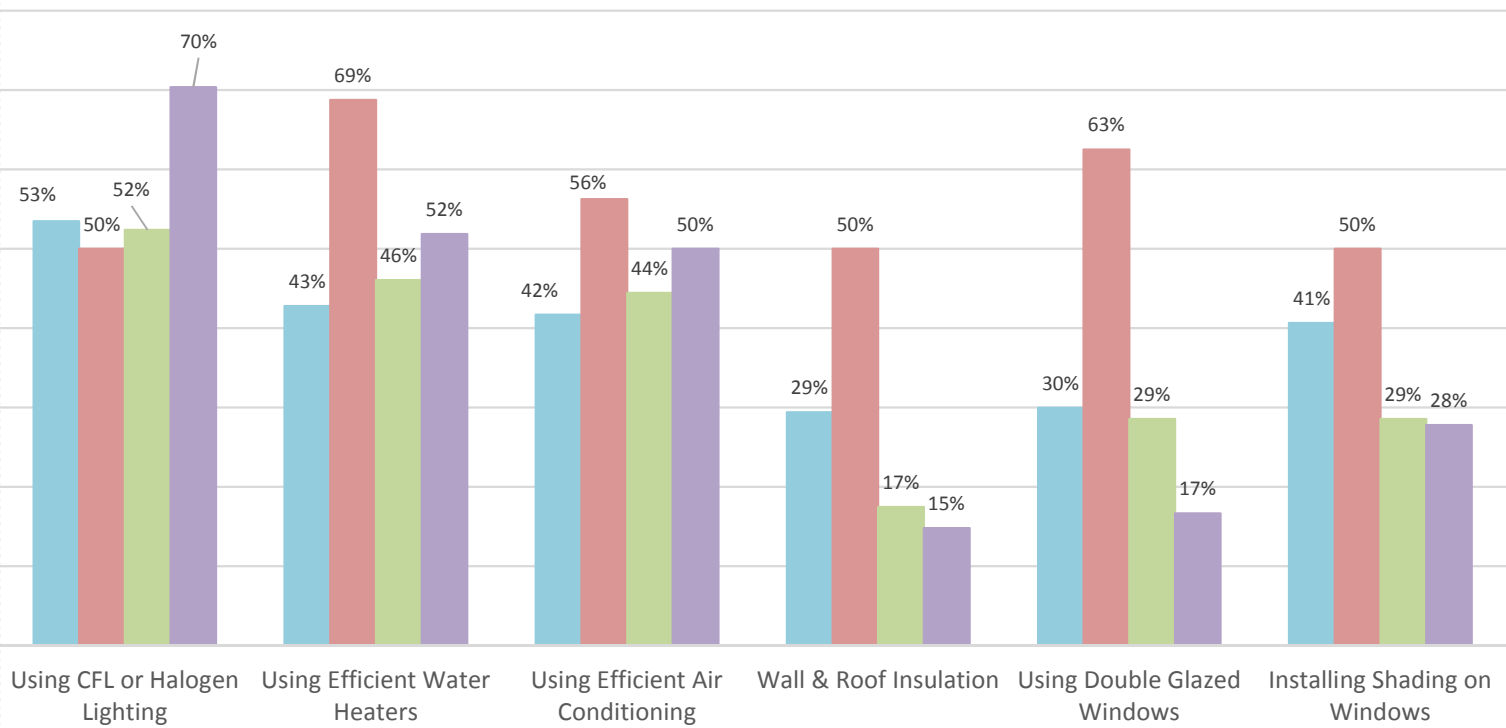


n=display()

Are any of these measures currently used where you are staying? – By Type of housing (Only 'Yes' responses)



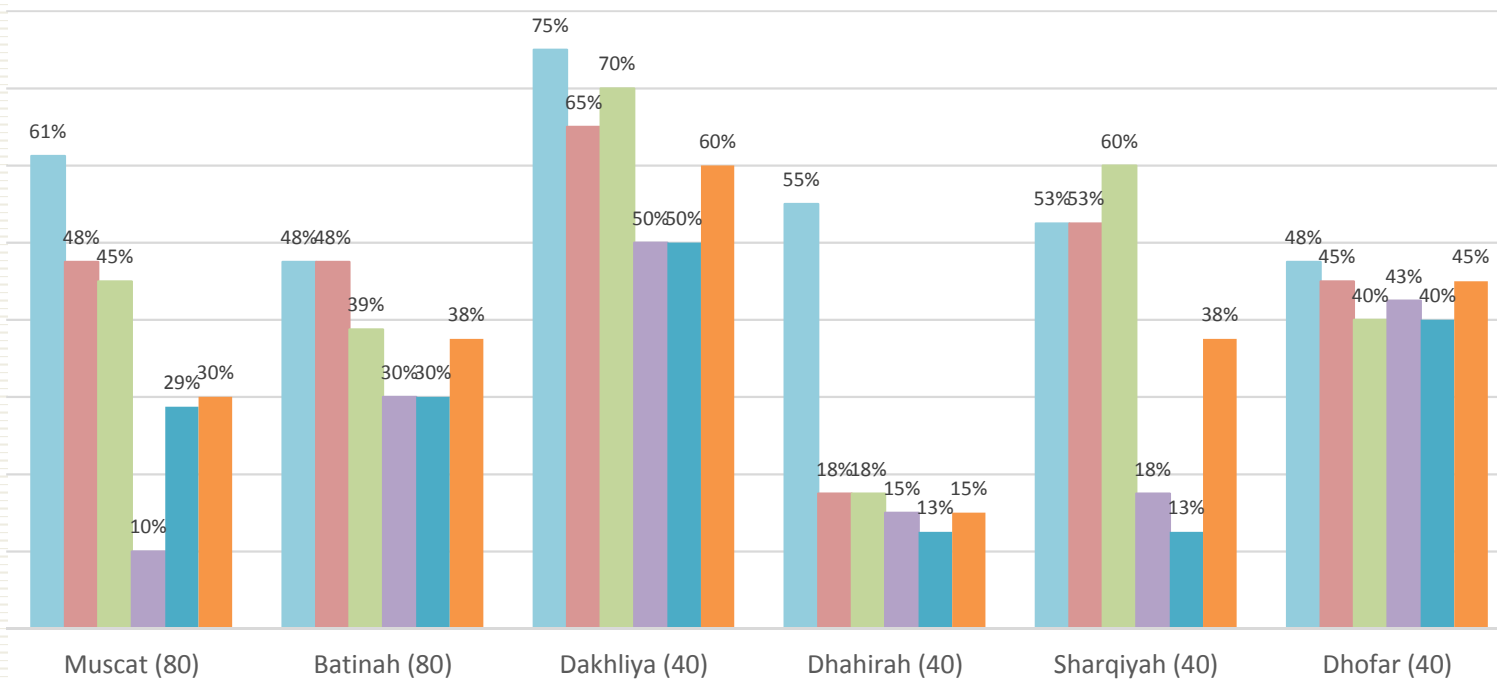
■ Villa Owned (187)
 ■ Apt Owned (16)
 ■ Villa, Rented (63)
 ■ Apt Rented (54)



n=display()

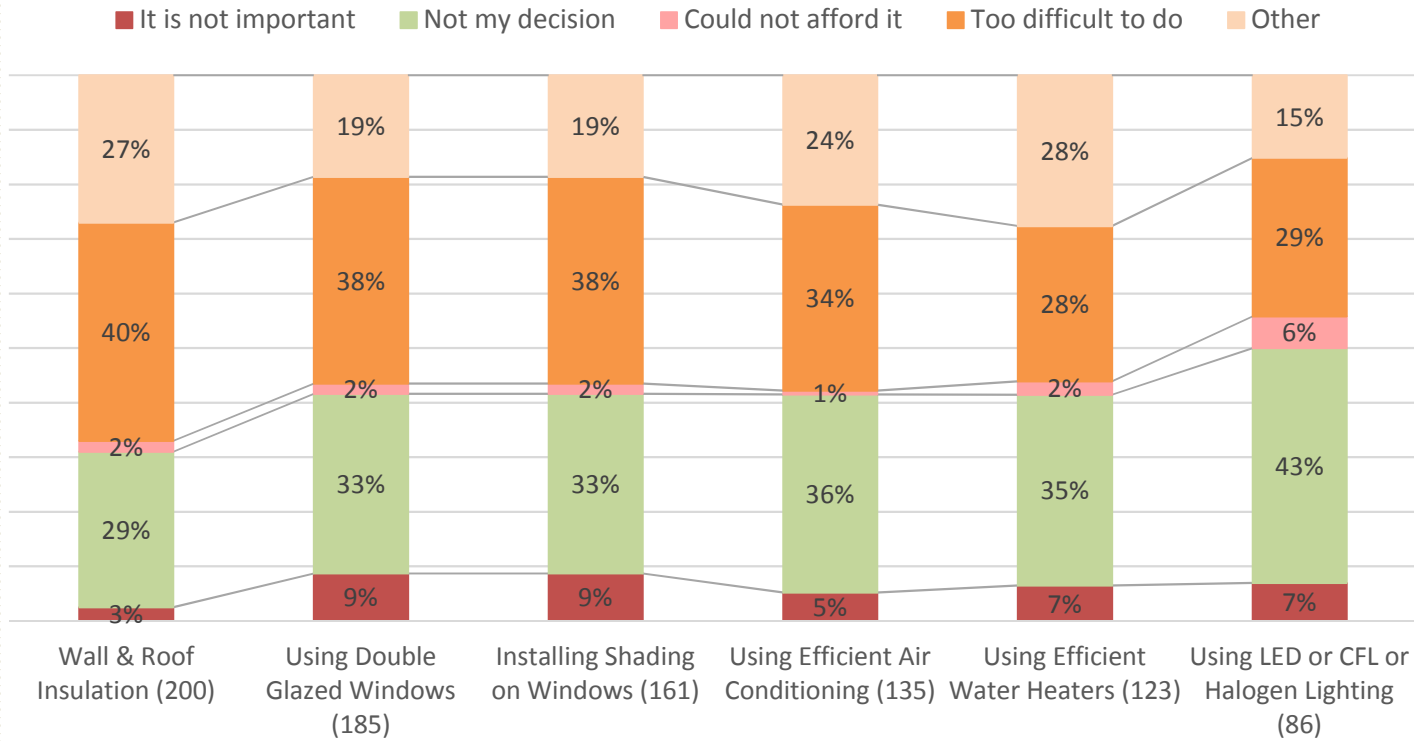
Are any of these measures currently used where you are staying? – By Region (Only 'Yes' responses)

- Using CFL or Halogen Lighting
- Using Efficient Water Heaters
- Using Efficient Air Conditioning
- Wall & Roof Insulation
- Using Double Glazed Windows
- Installing Shading on Windows



n=display()

What are the reasons as to why they are not in use?



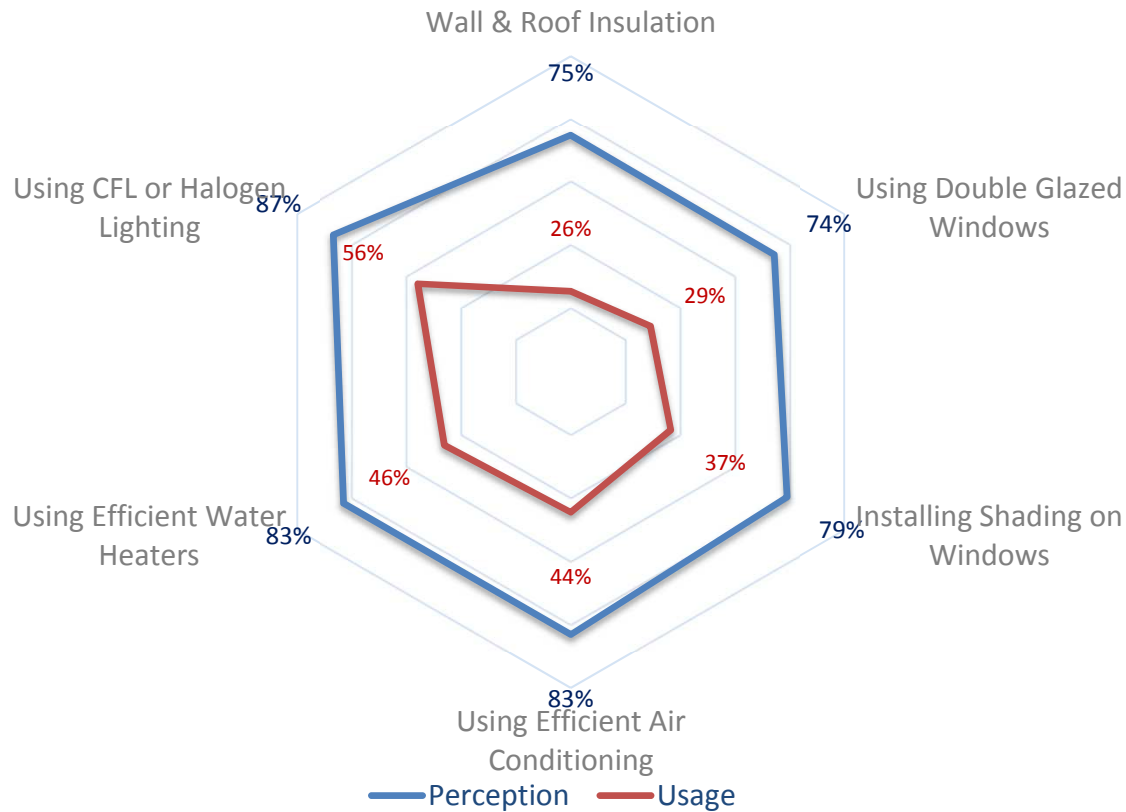
In the responses for 'Other' most of the respondents gave the following reasons:

1. Old House so doing it would not be possible.
2. Did not have enough information to use it in the house.
3. I do not know how to do it and from where it is available in the market.

n = display ()

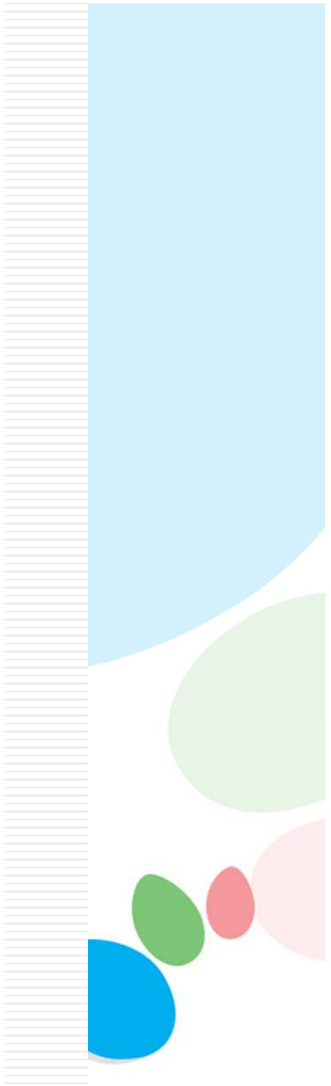
By how much can the following measures reduce electricity consumption?

- Gap between perception and usage



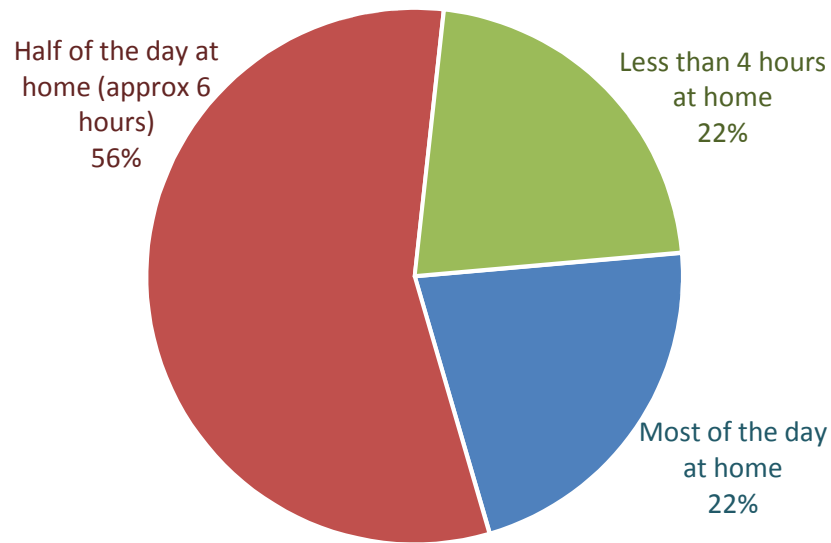
Differences can be noticed in perception of customers and usage of different measures to conserve electricity. Highest gap found in the following:

- Wall & Roof Insulation
- Using Double Glazed Windows
- Installing Shading on Windows



Behaviors

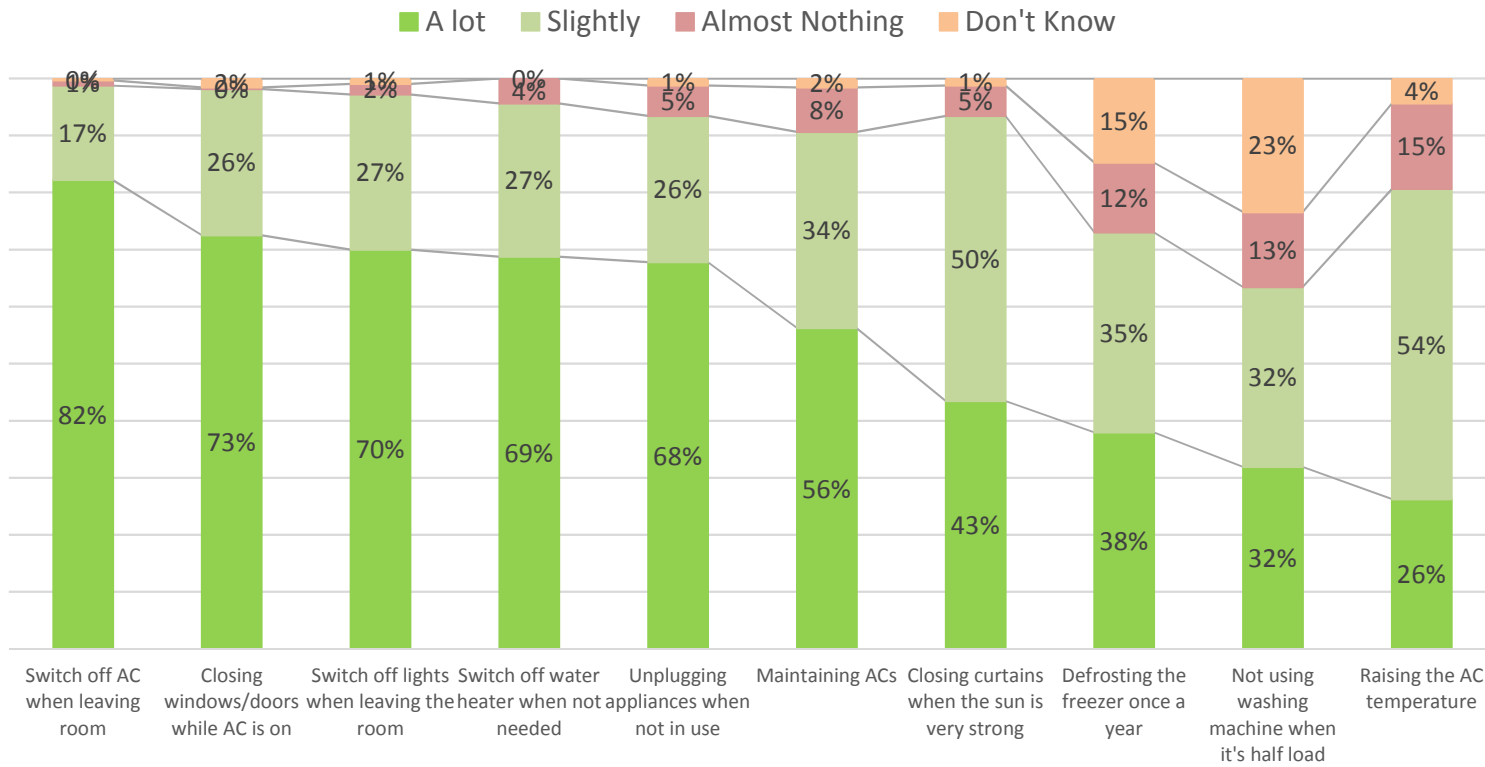
During weekdays, not including sleeping time, how do you spend most of your day,?



○ Most of the respondents said that they spent approximately half the day at home (56%).

n=320

By how much can the following behaviors reduce electricity consumption?

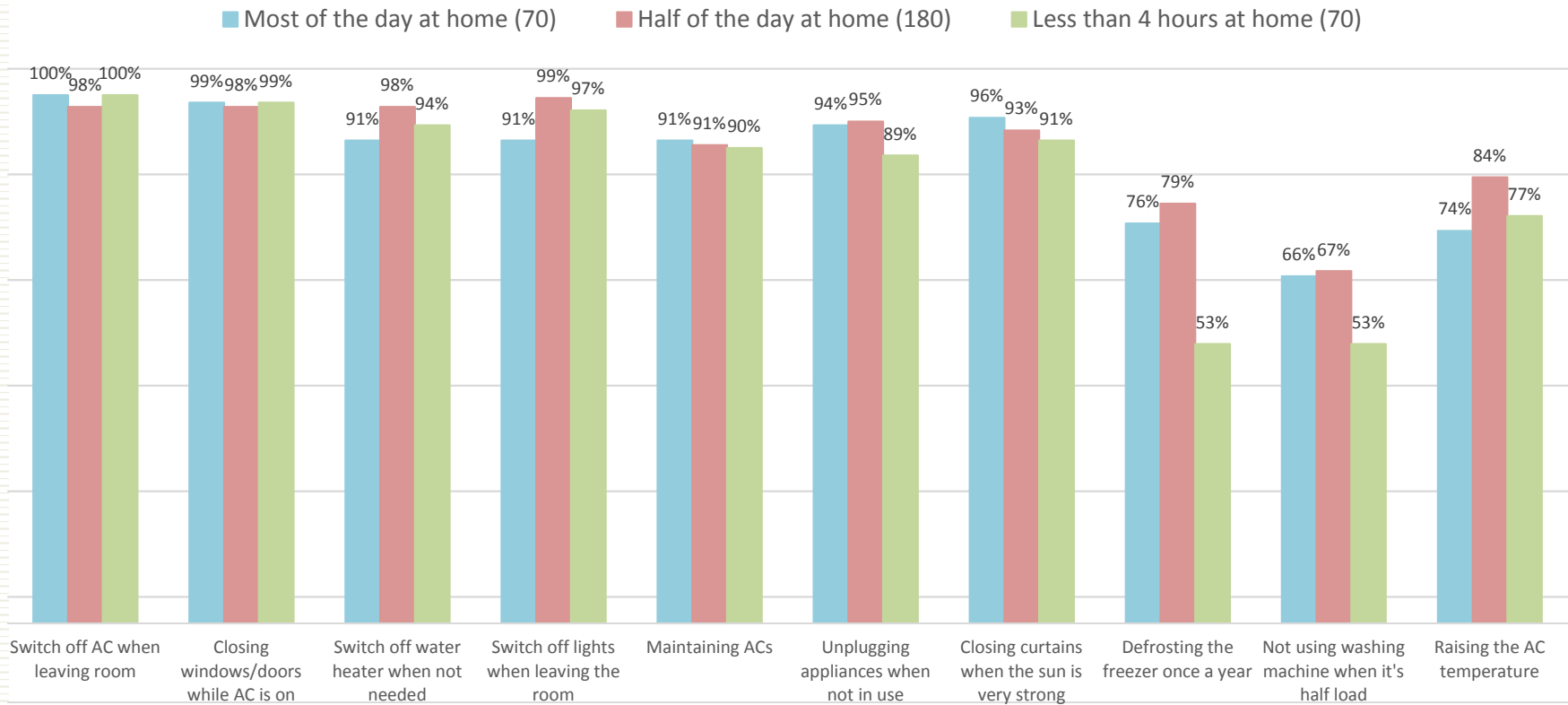


Differences can be noticed in distribution of measures to reduce electricity consumption. In general almost nothing and don't responses vary between 1-36% for all the measures.

n=320

By how much can the following behaviors reduce electricity consumption?

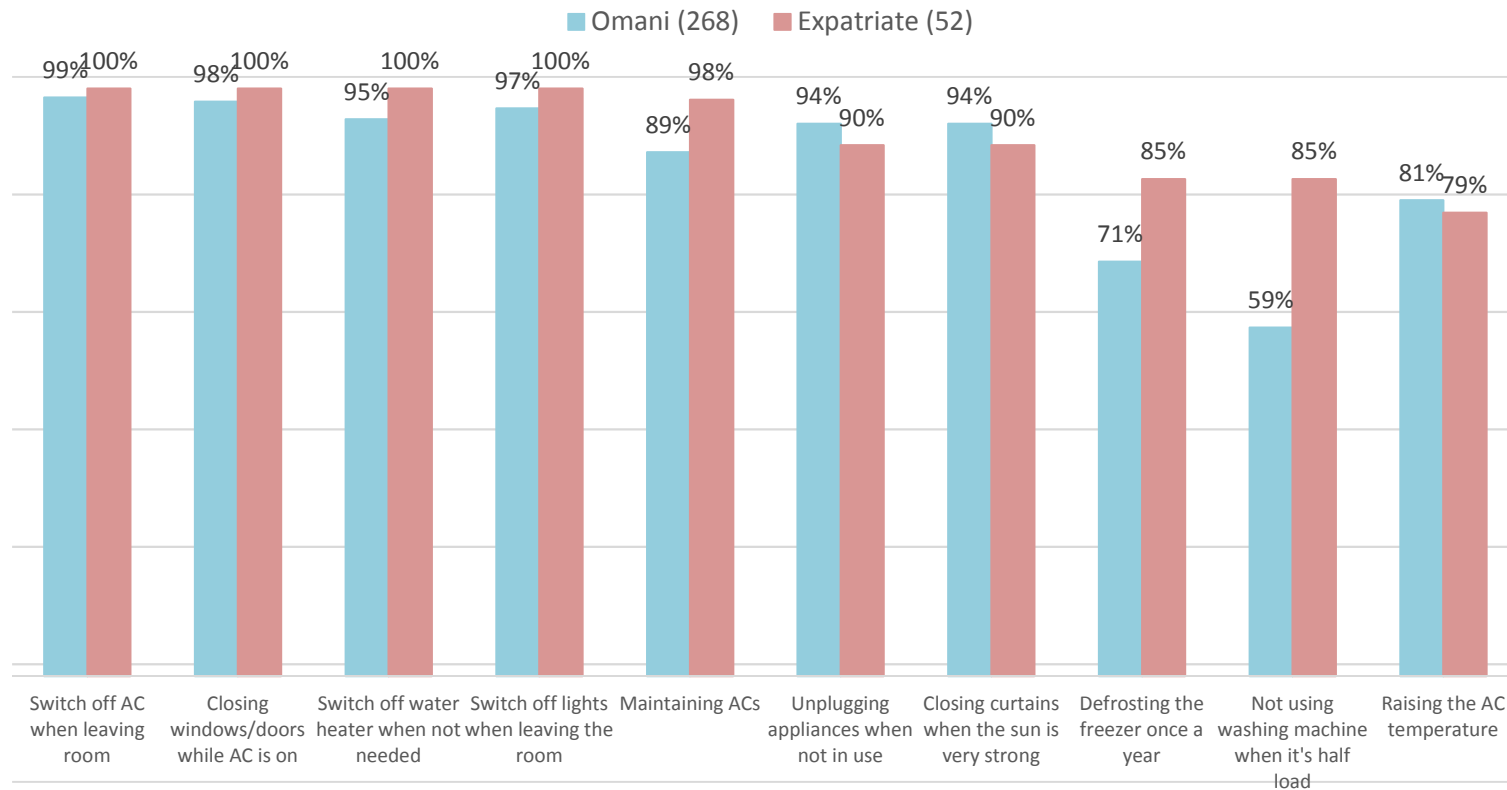
- By Time Spend during the day (Top 2 Box = A Lot + Slightly)



n=display()

By how much can the following behaviors reduce electricity consumption?

- By Nationality (Top 2 Box = A Lot + Slightly)

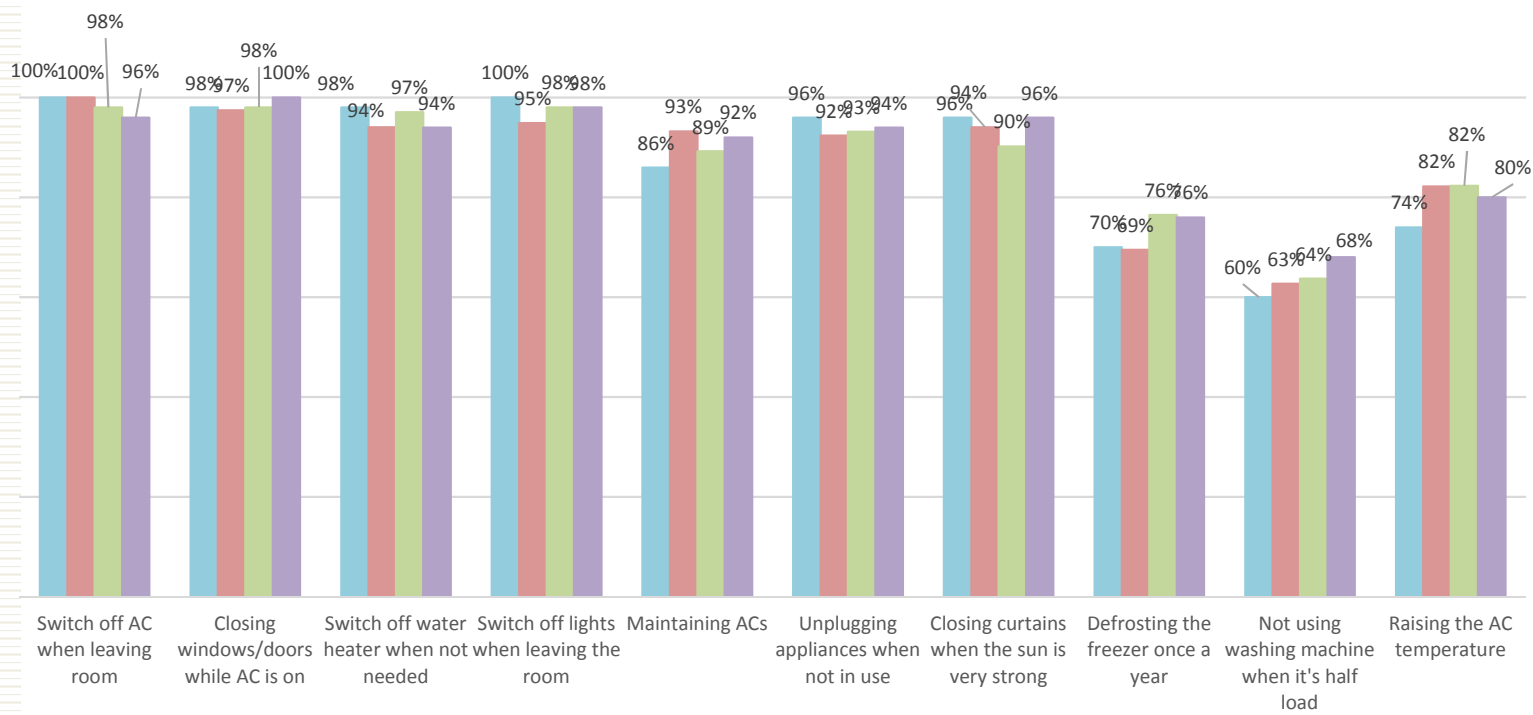


n=display()

By how much can the following behaviors reduce electricity consumption?

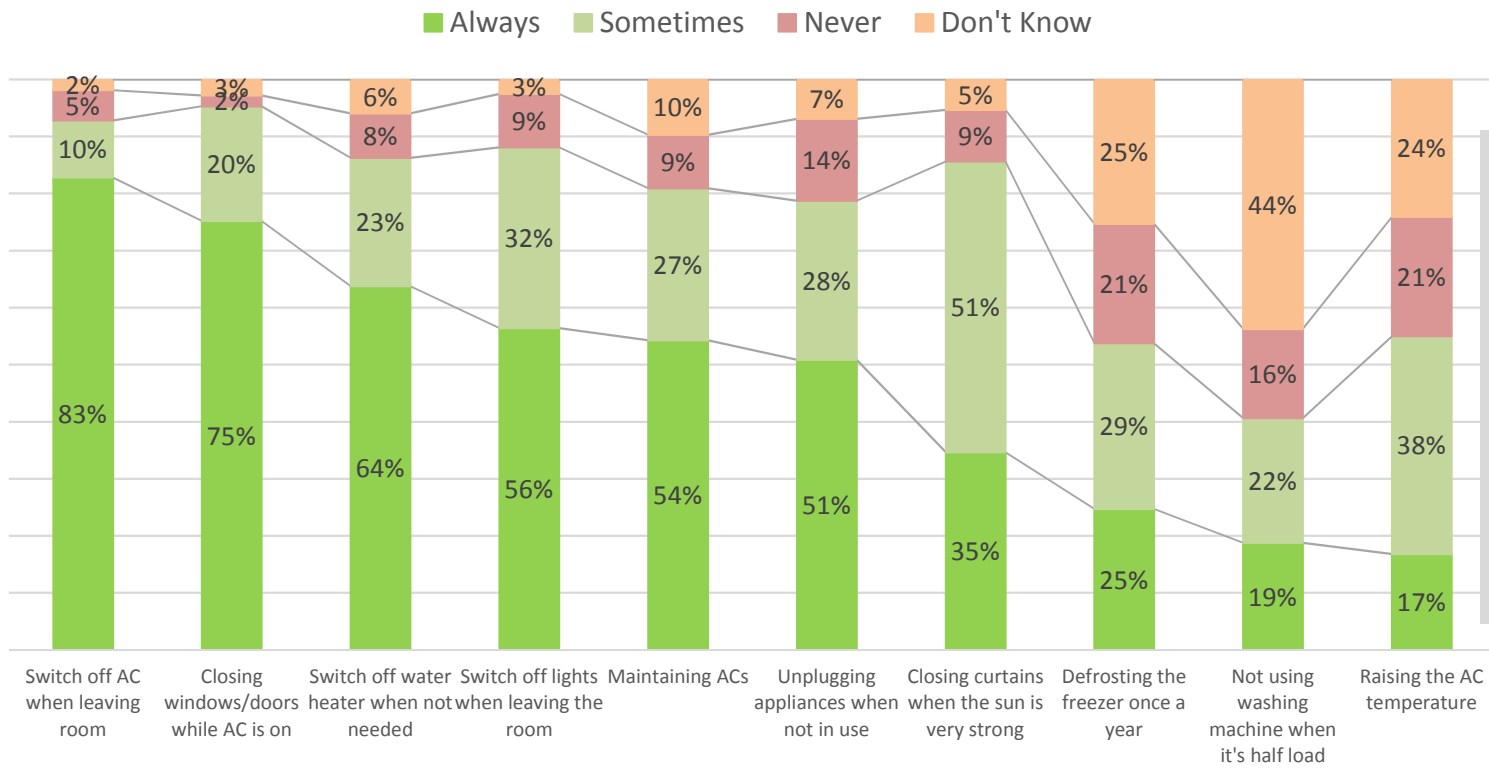
- By Age Group (Top 2 Box = A Lot + Slightly)

18-24 (50) 25-35 (118) 36-45 (102) 45+ (50)



n=display()

How often do you carry out any of these following measures?



Differences can be noticed in distribution of measures to reduce electricity consumption usually.

In-general never and don't responses vary between 5-60% for all the measures.

n=320

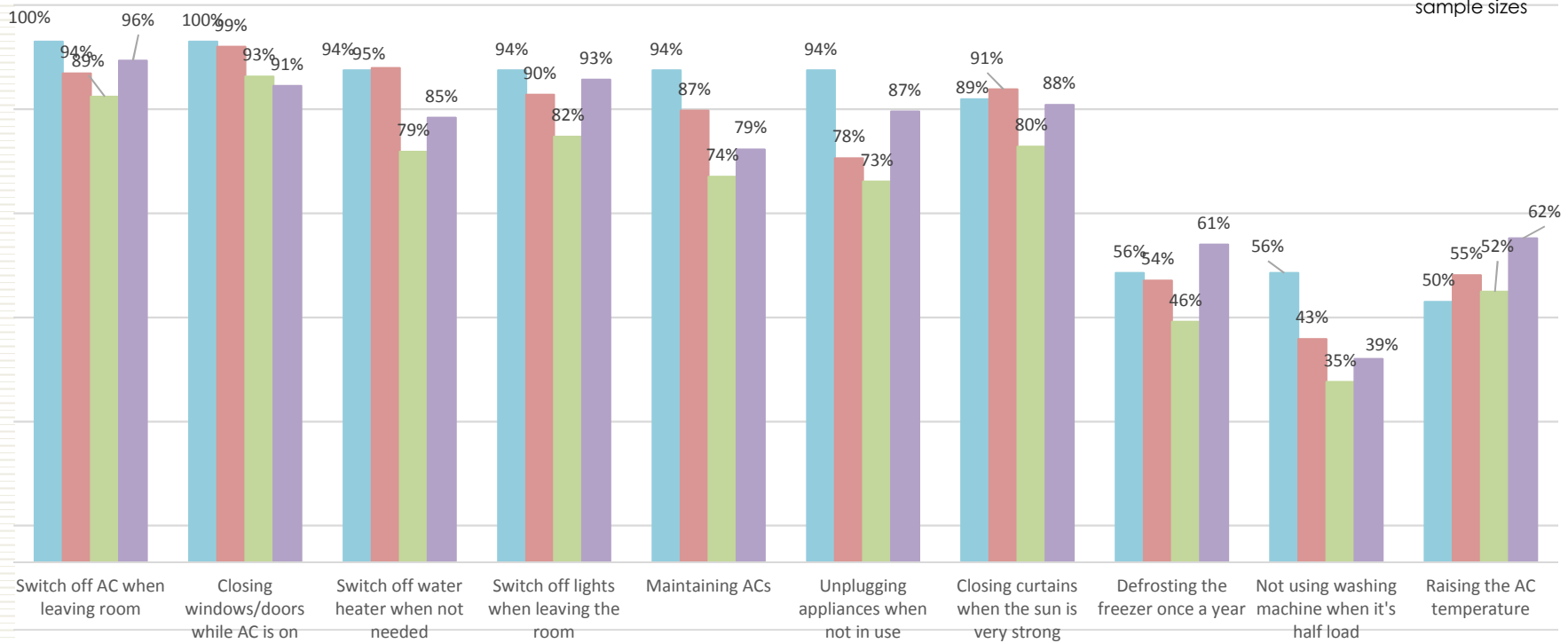
How often do you carry out any of these following measures?

- By Summer Bill (Top 2 Box = 'Always' + 'Sometimes')



*Note: '>200' and 'Don't Know' were removed due to statistically insignificant sample sizes

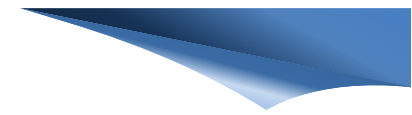
< 20 Rials(18) 20-50 Rials(98) 51-100 Rials(104) 101-200 Rials(82)



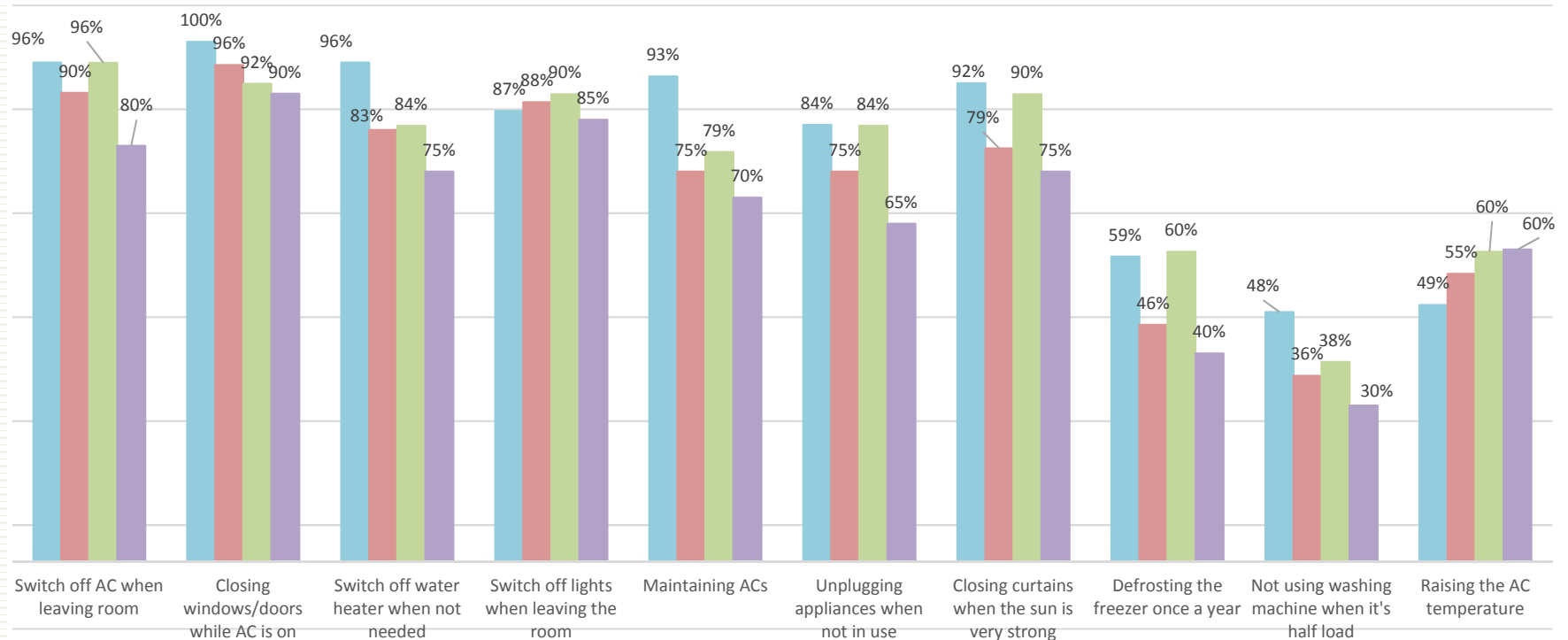
n=display()

How often do you carry out any of these following measures?

– By Winter Bill (Top 2 Box = 'Always' + 'Sometimes')



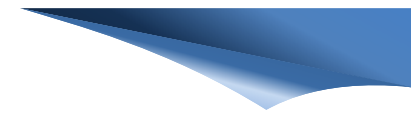
■ < 20 Rials (75)
 ■ 20-30 Rials (112)
 ■ 31-50 Rials (99)
 ■ 51-100 Rials (20)



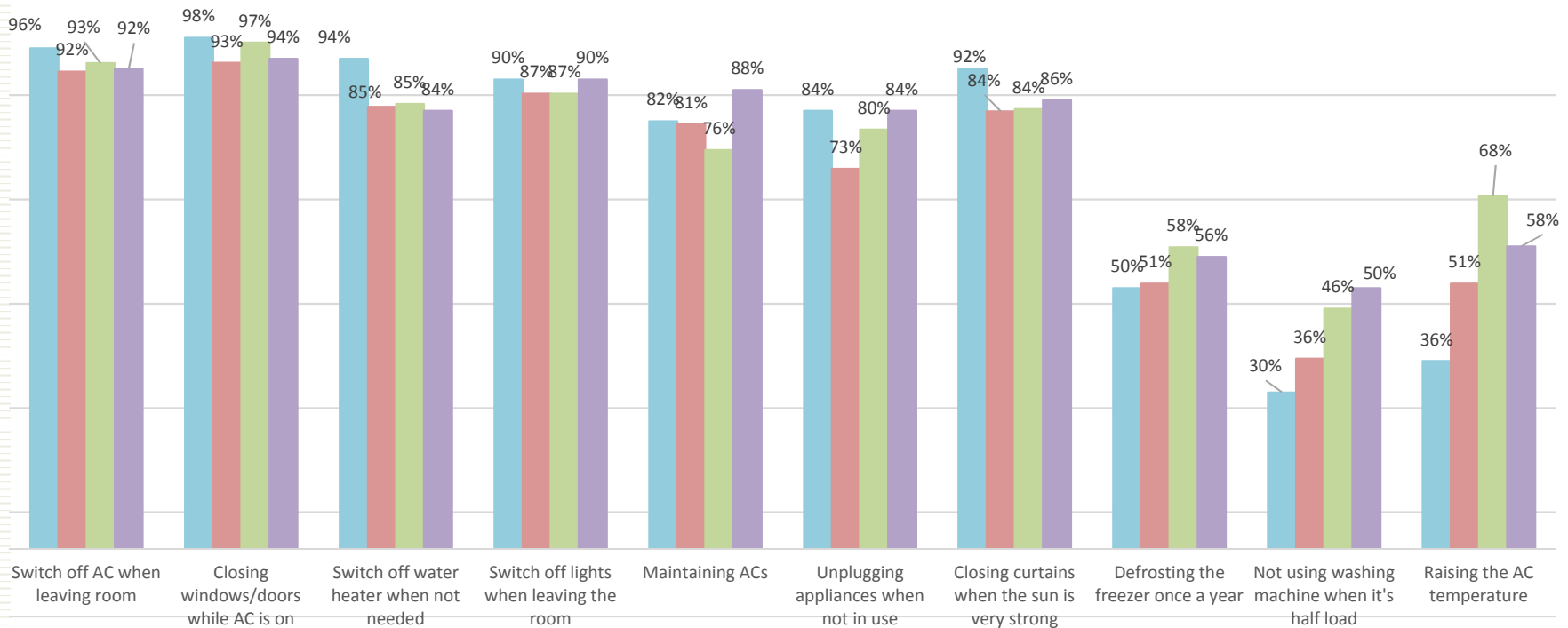
n=display()

How often do you carry out any of these following measures?

- By Age Group (Top 2 Box = 'Always' + 'Sometimes')



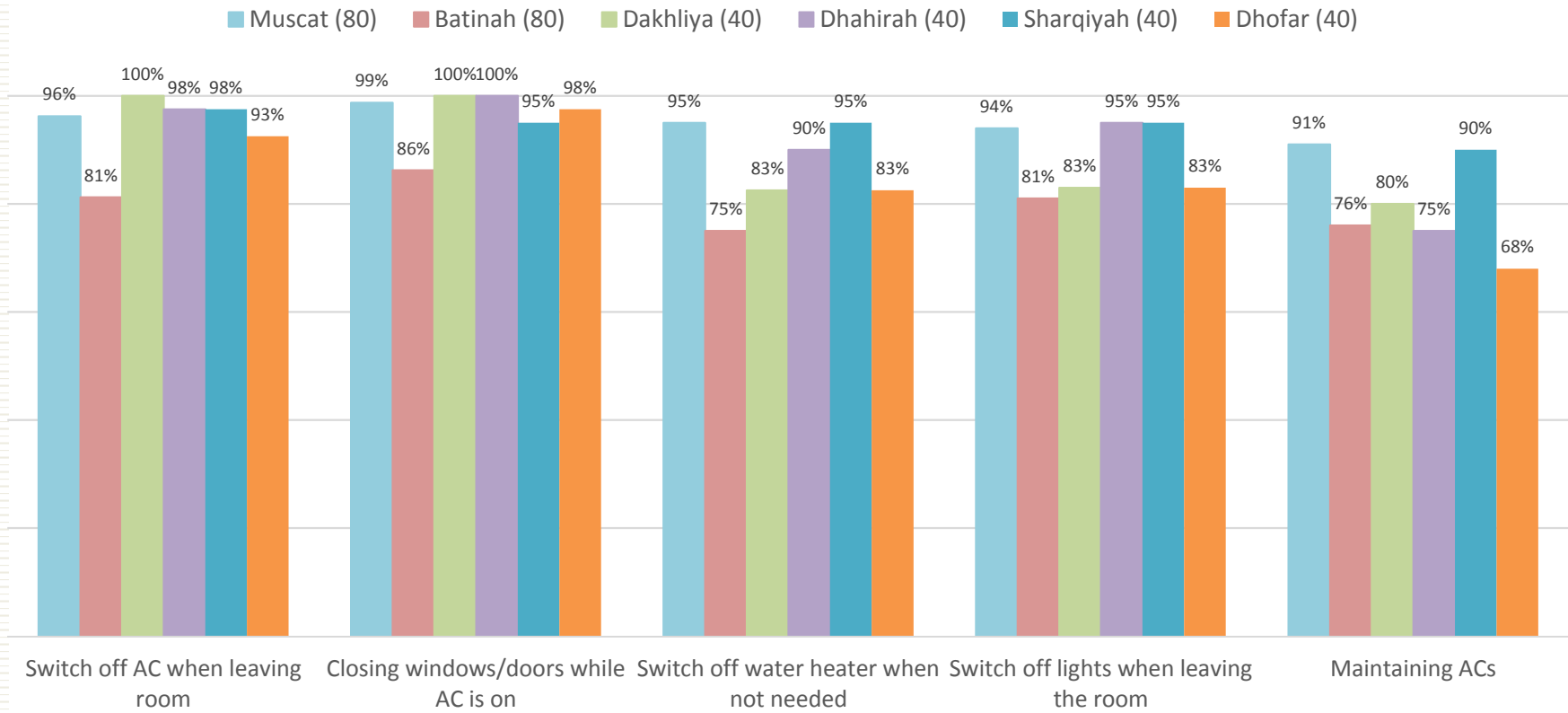
■ 18-24 (50) ■ 25-35 (118) ■ 36-45 (102) ■ 45+ (50)



n=display()

How often do you carry out any of these following measures?

- By Region (Top 2 Box = 'Always' + 'Sometimes')

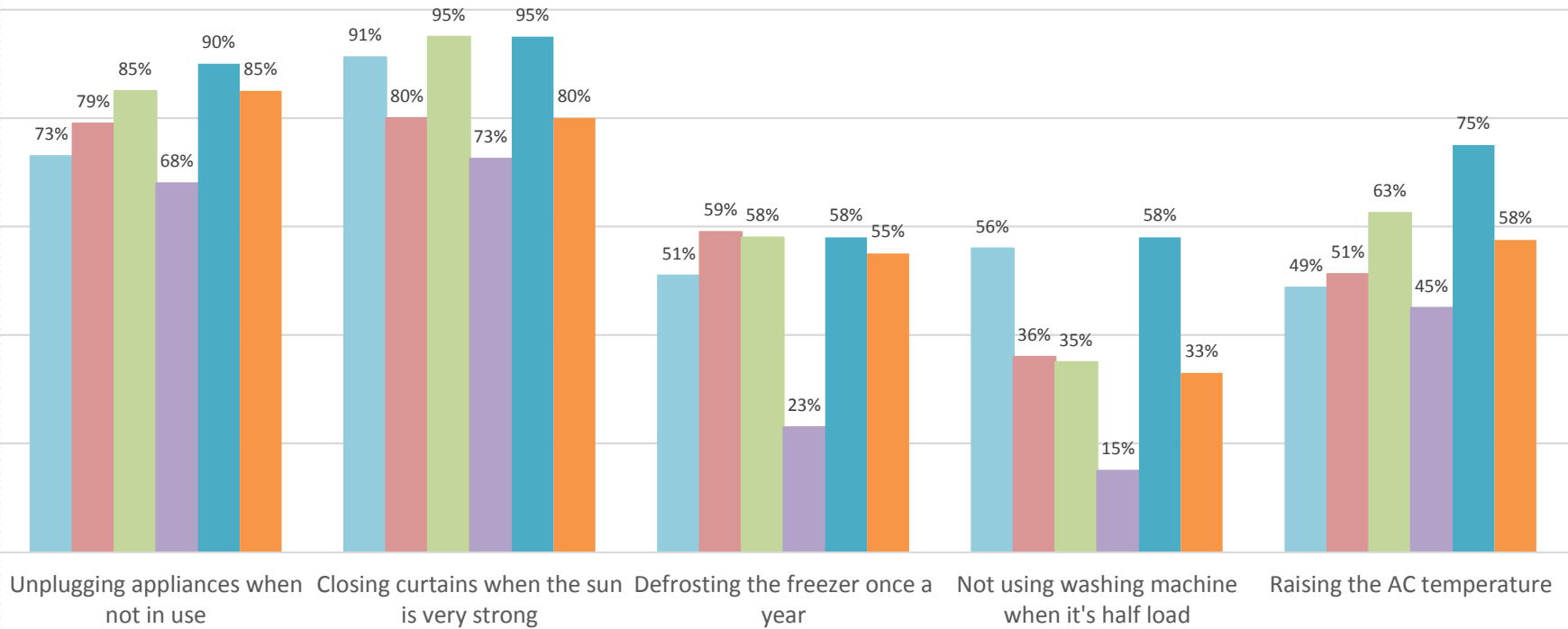


n=display()

How often do you carry out any of these following measures? - Continued

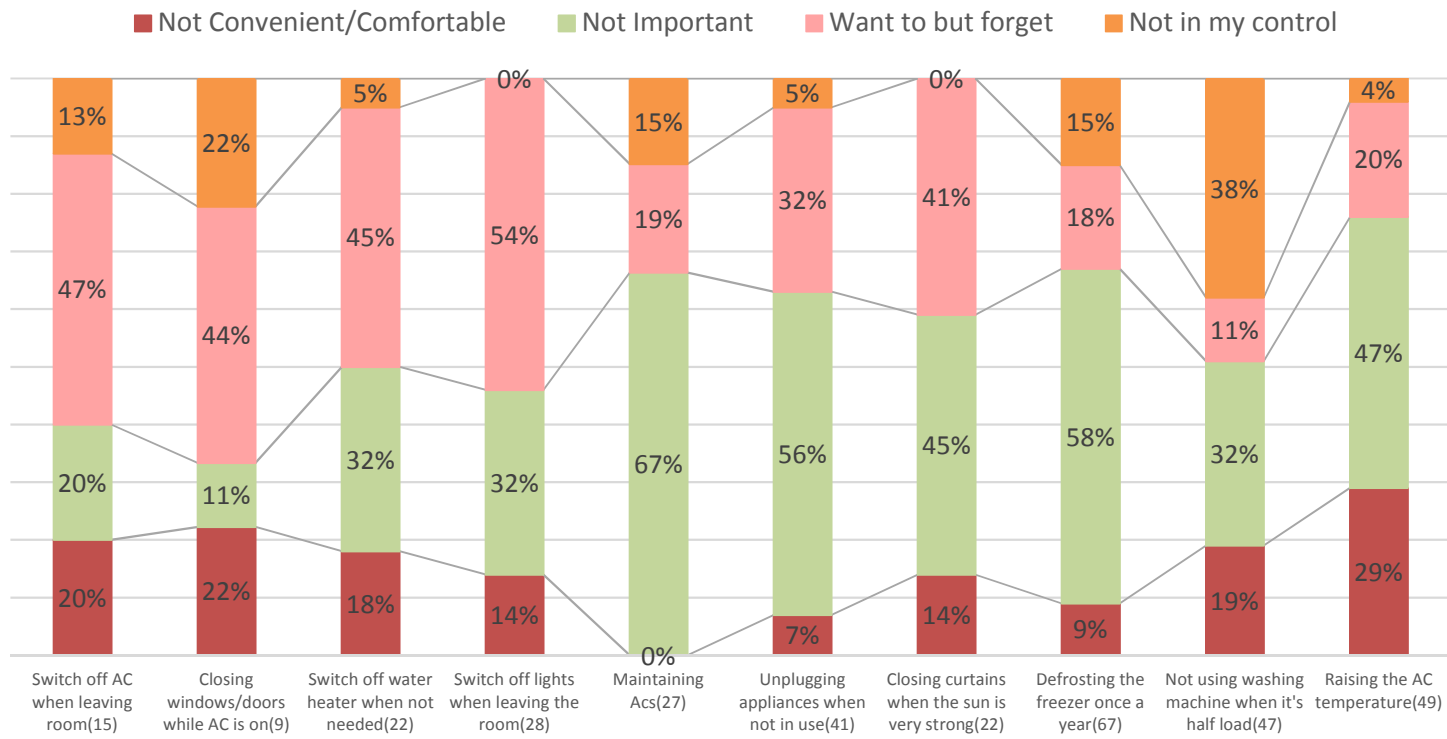
- By Region (Top 2 Box = 'Always' + 'Sometimes')

Muscat (80) Batinah (80) Dakhliya (40) Dhahirah (40) Sharqiyah (40) Dhofar (40)



n=display()

If measures not carried out, why not?

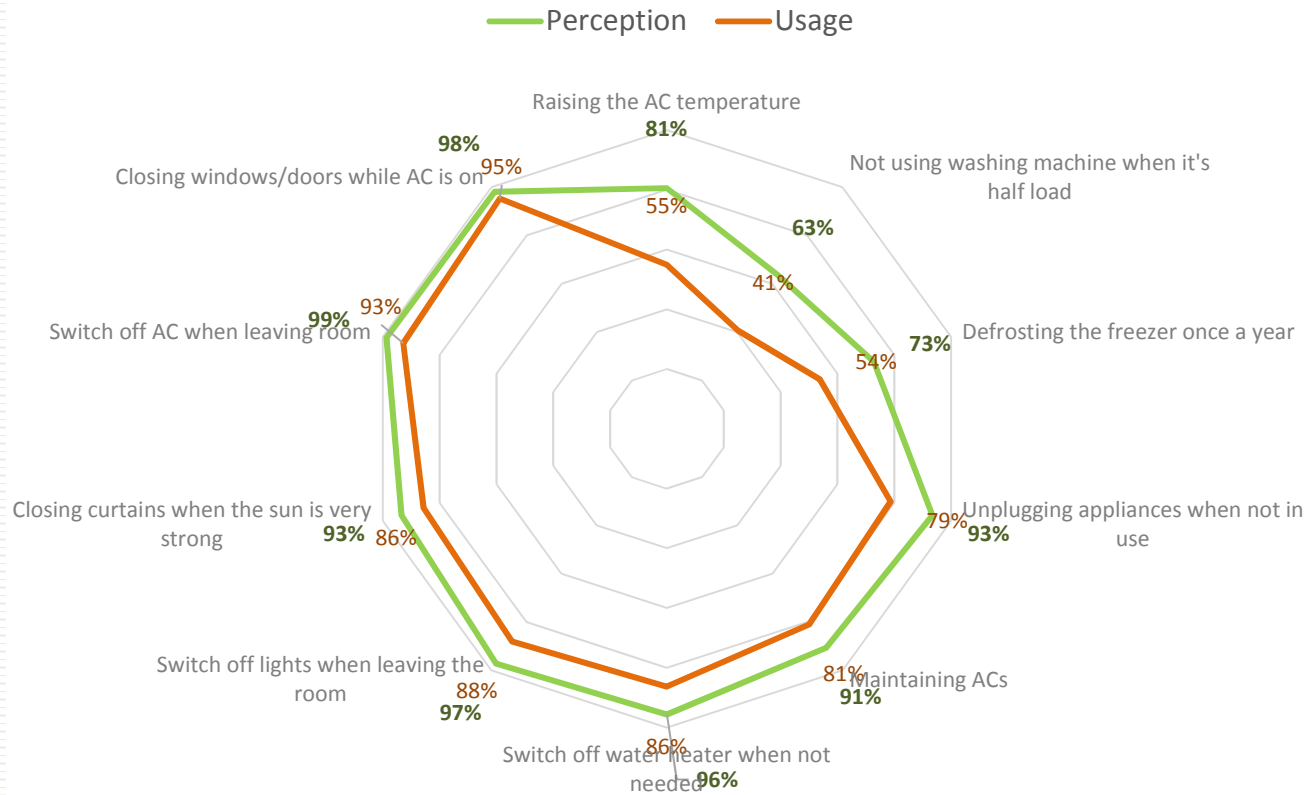


Differences can be noticed in results of measures not carried out.

n = display ()

By how much can the following measures reduce electricity consumption?

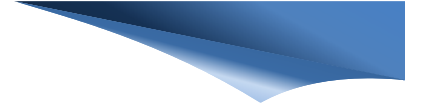
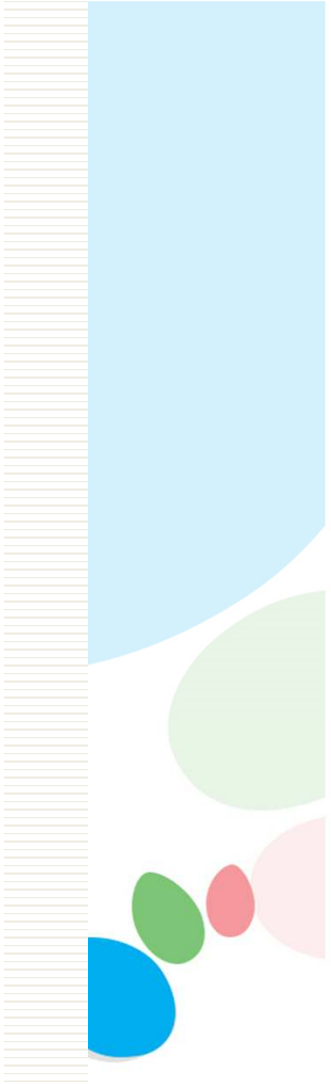
– Gap between perception and usage



Differences can be noticed in perception of customers and usage of different measures to reduce electricity consumption. Highest gap found in the following:

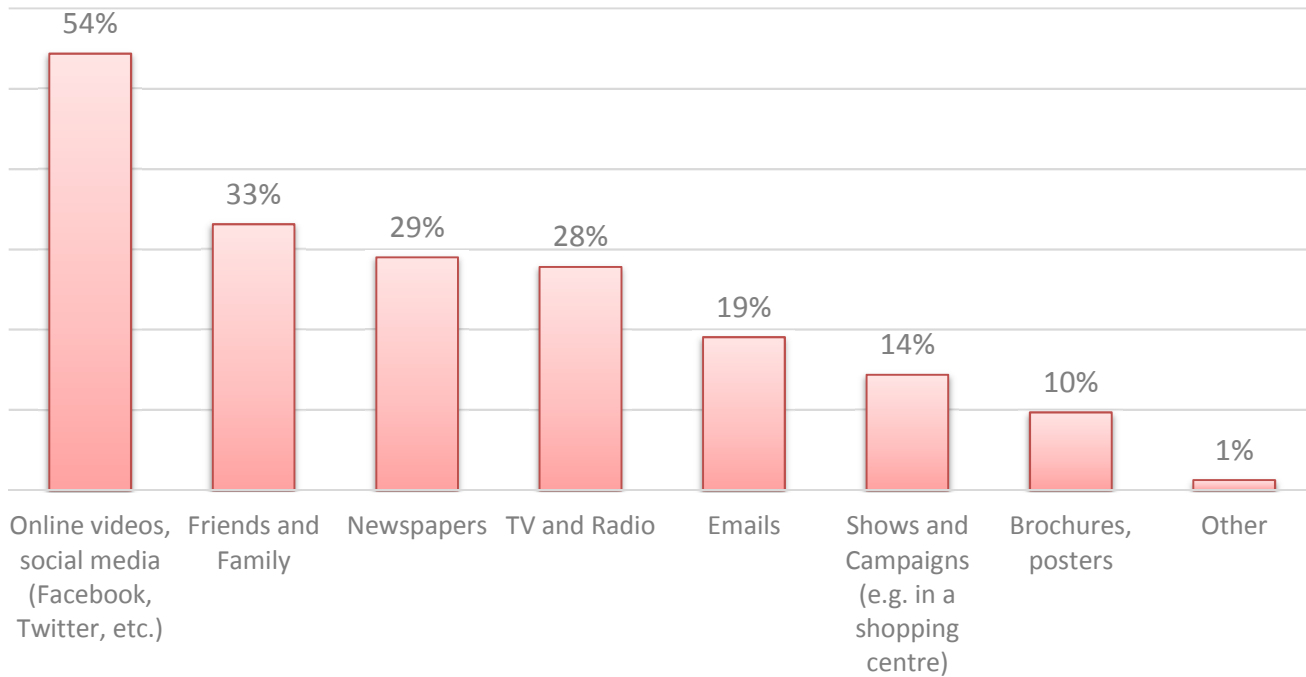
- Raising the AC temperature
- Not using washing machine when it's half load
- Defrosting the freezer once a year

n=320



Communication Channels

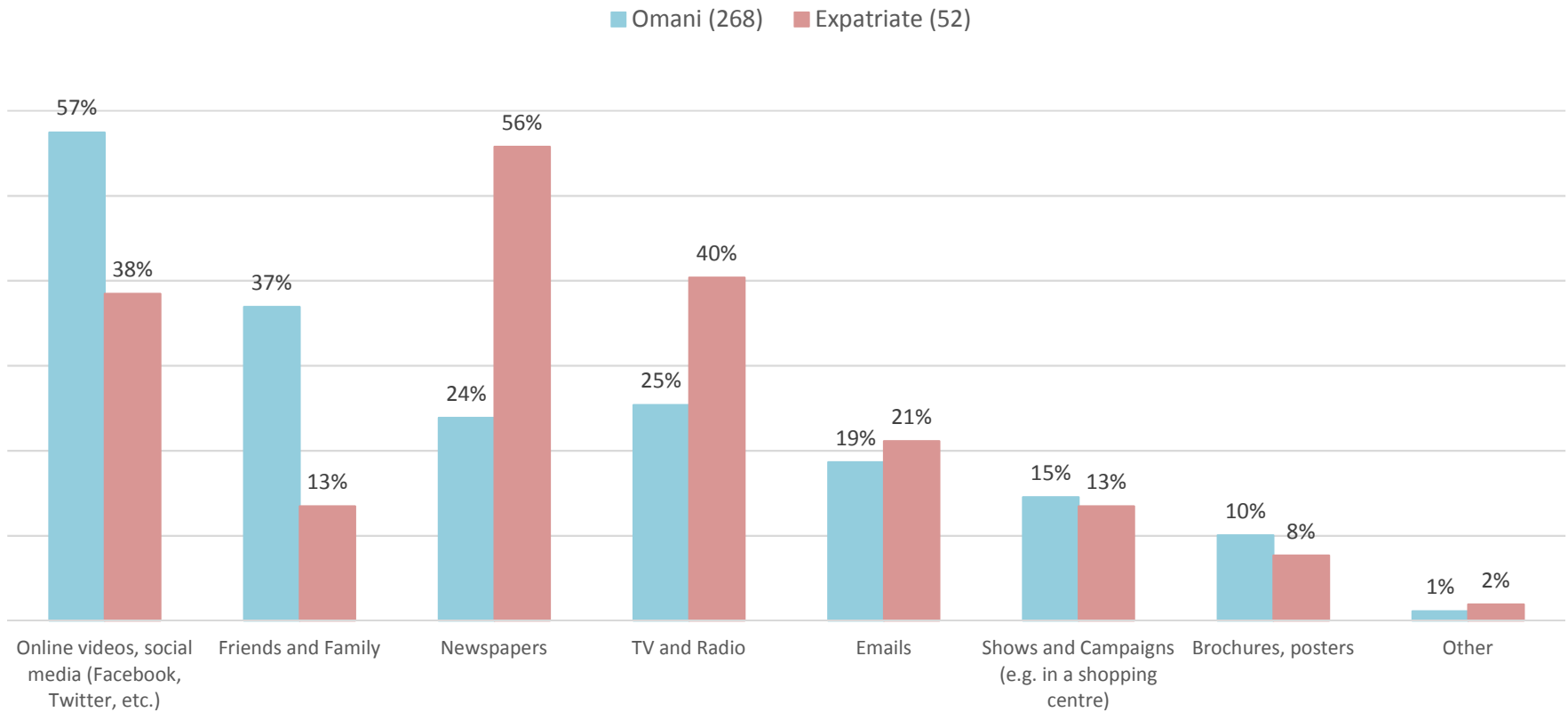
Which of the following communication mediums influence you the most?



- Most of the respondents said that they are influenced by Social Media (54%).
- This was followed by Friends and Family (33%) and Newspapers (29%)

n=320

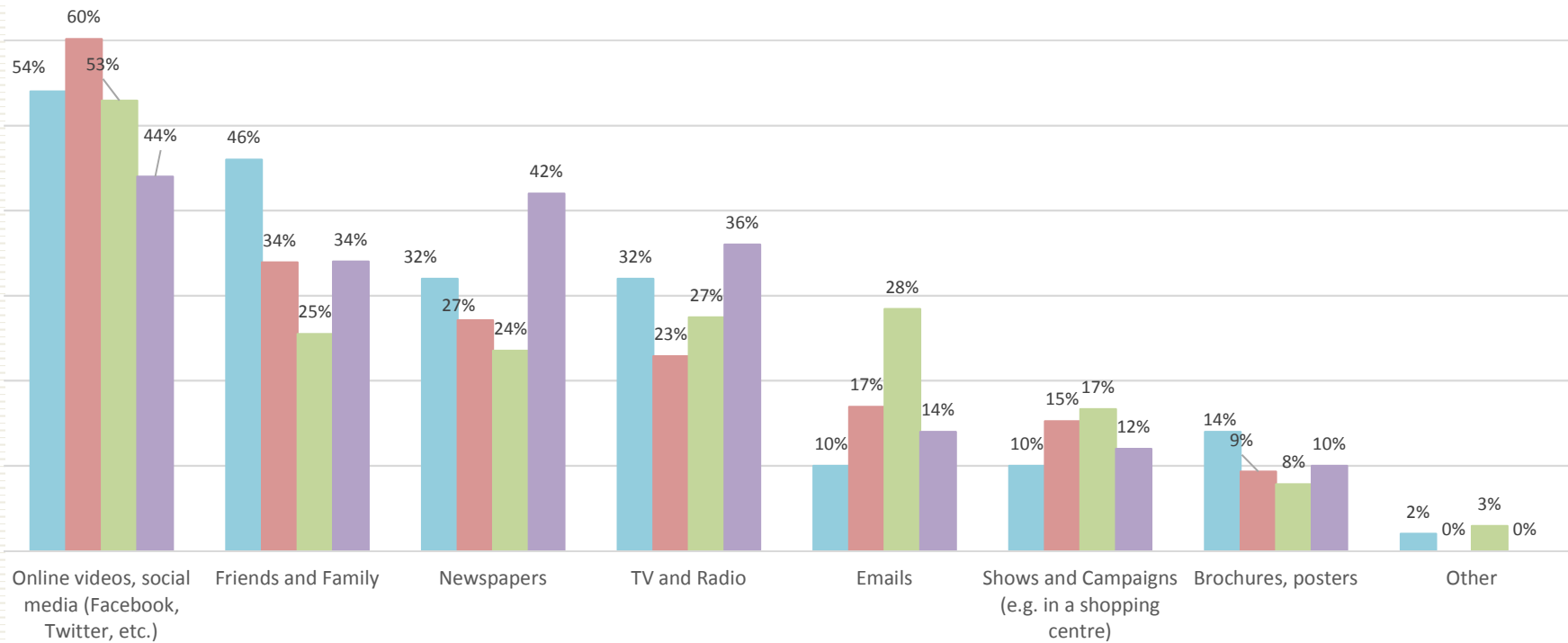
Which of the following communication mediums influence you the most? – By Nationality



n=320

Which of the following communication mediums influence you the most? – By Age

18-24 (50) 25-35 (118) 36-45 (102) 45+ (50)

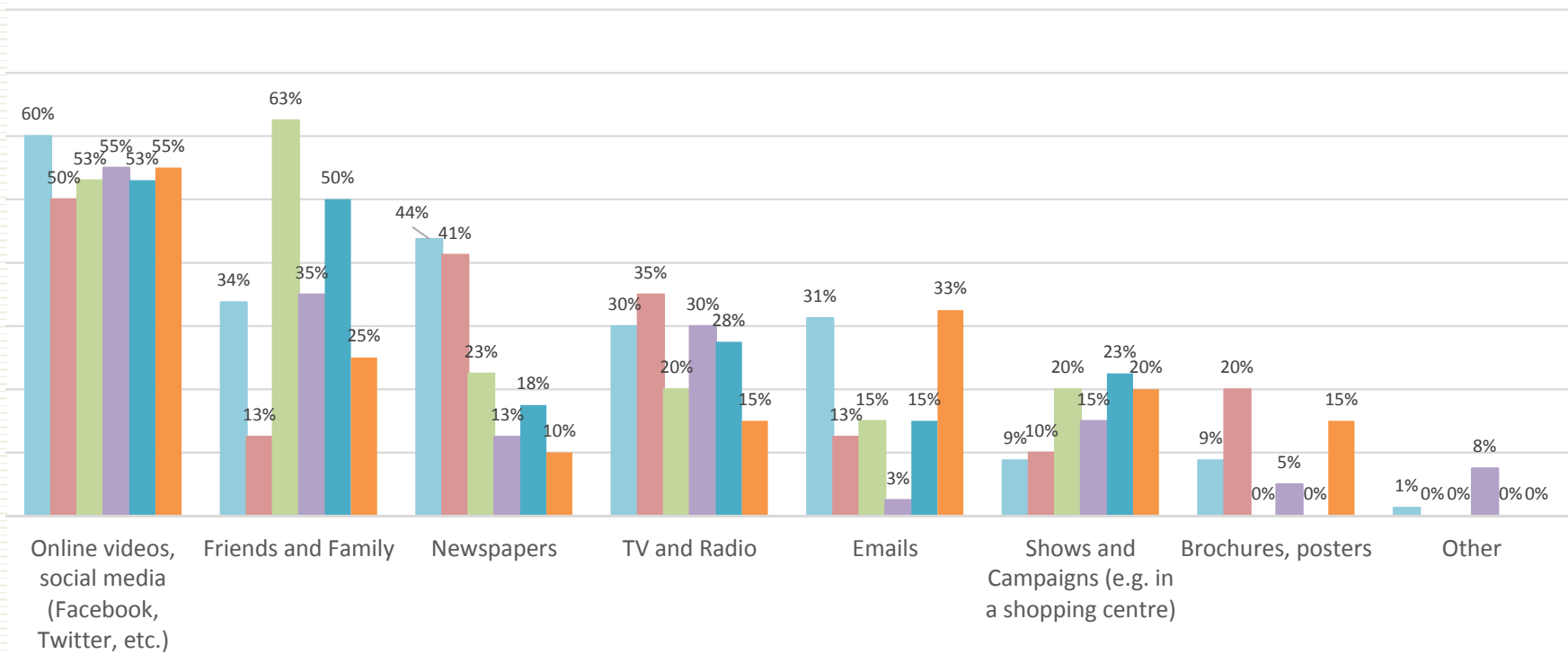


n=320

Which of the following communication mediums influence you the most?

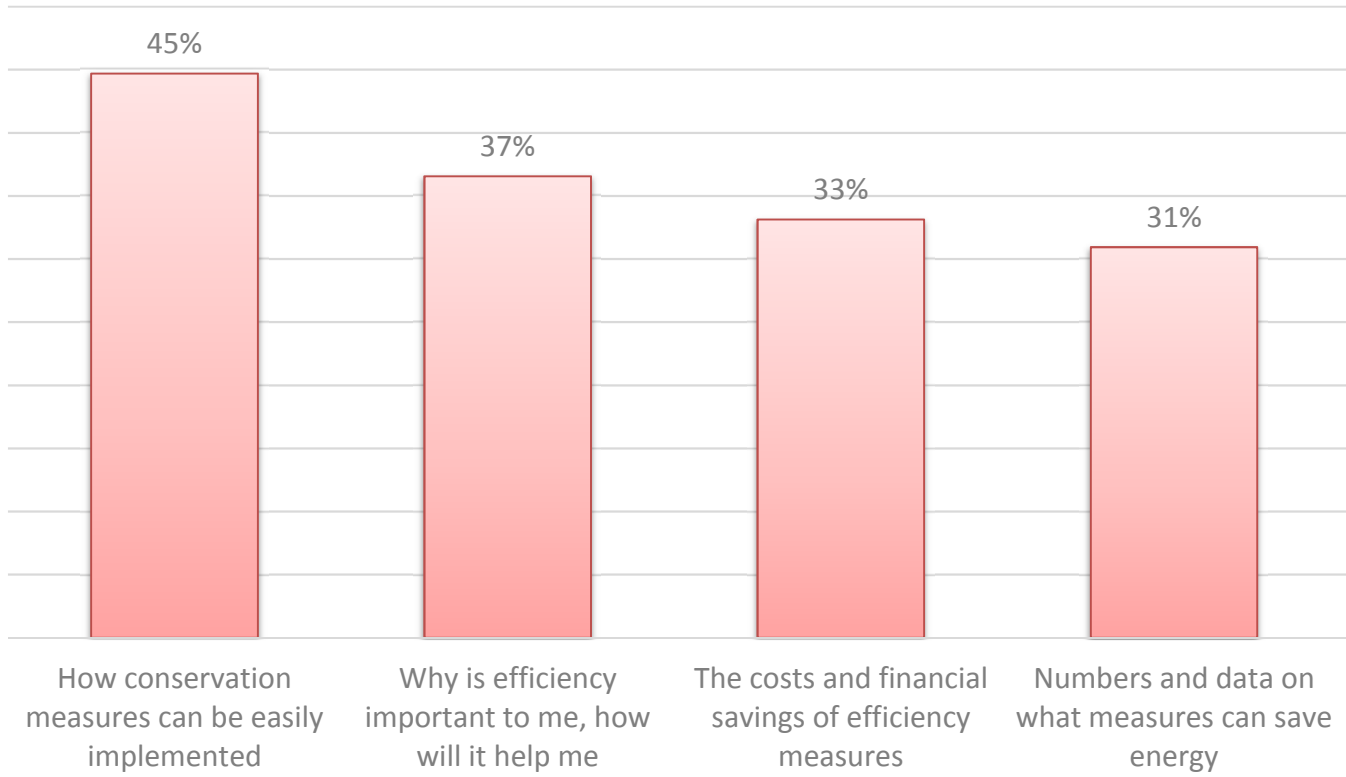
- By Region

■ Muscat (80)
 ■ Batinah (80)
 ■ Dakhliya (40)
 ■ Dhahirah (40)
 ■ Sharqiyah (40)
 ■ Dhofar (40)



n=320

Which of the following aspects influence you the most?



➤ Most of the respondents said that they are influenced by information on how electricity conservation measures can be easily implemented (45%). This is followed by information on the reasons why efficiency is important for consumers (37%).

n=320



Further Suggestions

Billing

Some customers complained that they do not receive bills on time and this adversely impacts their conservation efforts.

Customers want their billing to be done accurately and for them to receive the bill in a timely manner which will help them to organize their daily activities.

Pricing

Customers also want pricing of their bills to be as transparent as possible. Some customers complained of excessive charges. There needs to be more education of customers on how charges are levied and how they correspond to their meter readings.

Quality of Service

Some customers wanted improvements in the quality of service so that their equipment does not get spoiled. Repairs and maintenance should be carried out regularly and in a timely manner. Some customers in interior regions of Oman said this.

Further Suggestions

Awareness on Energy Conservation and Provision for Energy Saving

- A high number of respondents said that they would like to see the use of solar power electricity transmission. They also asserted that government should make it easier and convenient to purchase energy-saving devices from markets. Permits should be provided to install solar-cells and accordingly housing standards should also be adjusted to make for their provision.
- A lot of respondents said that they would like to see more awareness campaigns initiated by the government through various media on the importance of conserving electricity consumption. Special consideration should be placed on the Omani youth and they should be educated from a young age on the importance and methods of conservation.
- Electricity consumers should be regularly informed on the benefits and importance of saving and what adjustments they need to make to their lifestyles to ensure that they are saving as much electricity as possible.
- Government should also raise awareness amongst individuals and commercial property owners on what methods best to employ while constructing their buildings so that electricity saving measures are put in place according to world standards.

“ A lot more communication with public using all platforms to make them aware of the duty and responsibility. Reduction in subsidy for all except underprivileged or poor communities, change in construction by laws by making double glazed pane, solar heaters and roof insulation or heat diversion techniques. Increase in the rate for those who have high consumption of electricity in non industrial area. ”

“ There should be Campaigns for educating people making them practically aware on how less electricity can be consumed. School education is most helpful. ”



Authority for Electricity Regulation

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Email: info@arabianresearch.com

Thank you!