

# FUTURE ENERGY SURVEY 2013

**Shell Indonesia**

Surveying conducted by Ipsos, commissioned by Shell Indonesia



# FUTURE ENERGY SURVEY 2013

## Introduction

A total of 1017 individuals have been surveyed across six cities in Indonesia, to assess their views on the future of energy, in the Shell Future Energy Survey 2013.

Surveying was conducted by Ipsos in March 2013, commissioned by Shell Indonesia.

City	Total number people surveyed
Jakarta	354
Bandung	152
Surabaya	204
Makassar	152
Medan	155

The data was collected through face-to-face surveys with individuals, and has been weighted at an age, gender and ethnicity level to ensure sample representativeness, within cities. Data has also been weighted at a total city level to ensure the total is representative of the population of each city.



## KEY FINDINGS

A total of 8 in 10<sup>#</sup> Indonesian respondents consider future energy needs a very important issue.

Solar energy is the most desired source to derive future energy from (46%)<sup>^</sup>, closely followed by natural gas (43%)<sup>^</sup>.

Approximately 1 in 2 Indonesian respondents (52%) think the most important factor in building future energy solutions is collaboration, followed by effective government policy (22%) and innovation (14%).

Government is considered to have the biggest role to play in creating a better energy future (69%)<sup>^</sup>, followed by the Indonesian general public (63%)<sup>^</sup>.

Almost all (98%)<sup>#</sup> of Indonesian respondents consider it important or very important to reduce CO<sub>2</sub> emissions.

### Technical details:

<sup>#</sup> This percentage refers to an individual category rating of 8 or above out of 10 on importance.

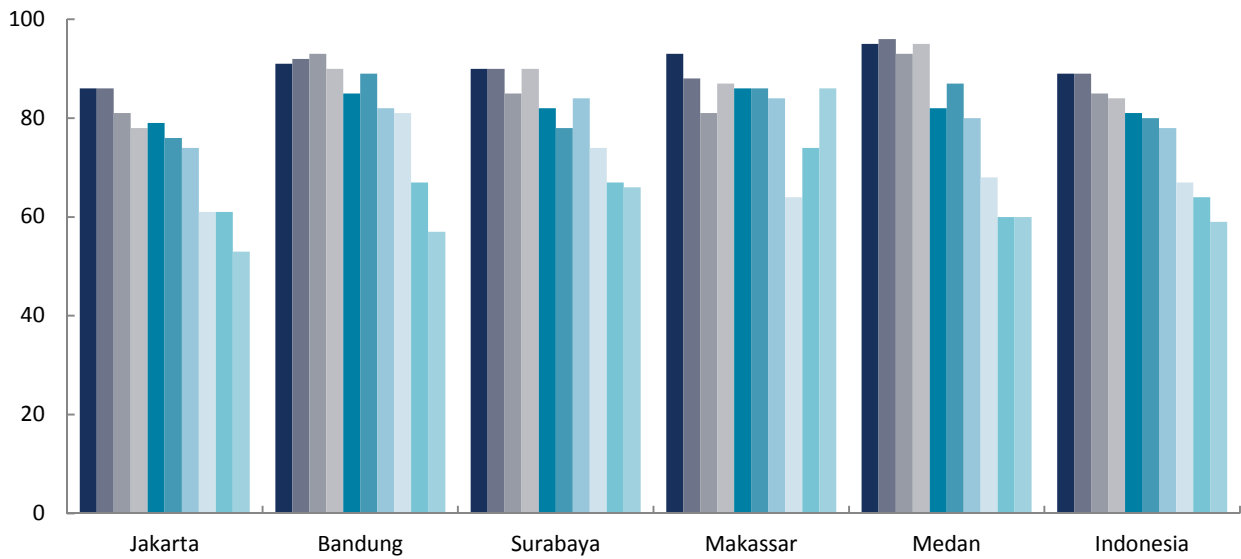
<sup>^</sup> This question was asked as a multiple response question, and accordingly responses will not total 100%.

## ISSUES IMPORTANT TO INDONESIAN HOUSEHOLDS

### Issues Important to Indonesian Households

Indonesian respondents consider health services (89% rated 8 or above out of 10 on importance), education systems (89%) and employment (85%) the most important issues facing Indonesian households, followed by future energy needs (81%).

**Graph: How do you rate each of the following issues on a scale of 0 to 10, where 0 means you think it is not an important issue and 10 means you think it is an important issue?**



# Questions were asked on a 10 point scale, and percentages reported are a total of the top 3 (i.e. rating 8, 9 or 10).

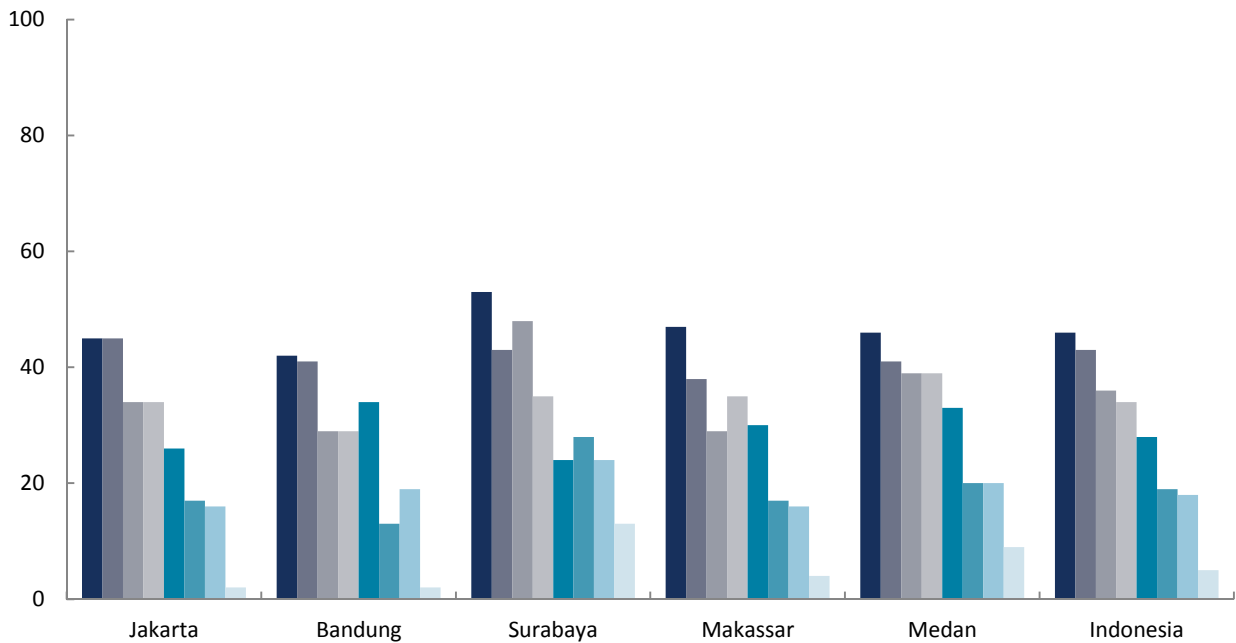
- Health services
- Education systems
- Employment/ job
- The cost of living
- Adequate energy supply to meet future needs
- Security, order
- The environment/ air pollution
- Housing affordability
- Traffic congestion
- Corruption

# THE FUTURE ENERGY MIX

## The Future Energy Mix

Solar energy is the most desired source to derive energy from in the future by Indonesian respondents (46%). Natural gas (43%), hydro energy (36%) and oil from fossil fuels (34%) are the next most desired sources.

**Graph: It is predicted that there will be 9 billion people (world-wide) in 2050, putting a serious strain on global resources. With this in mind, where do you think Indonesia should get its energy from?**



^ This question was asked as a multiple response question, and accordingly responses will not total 100%.

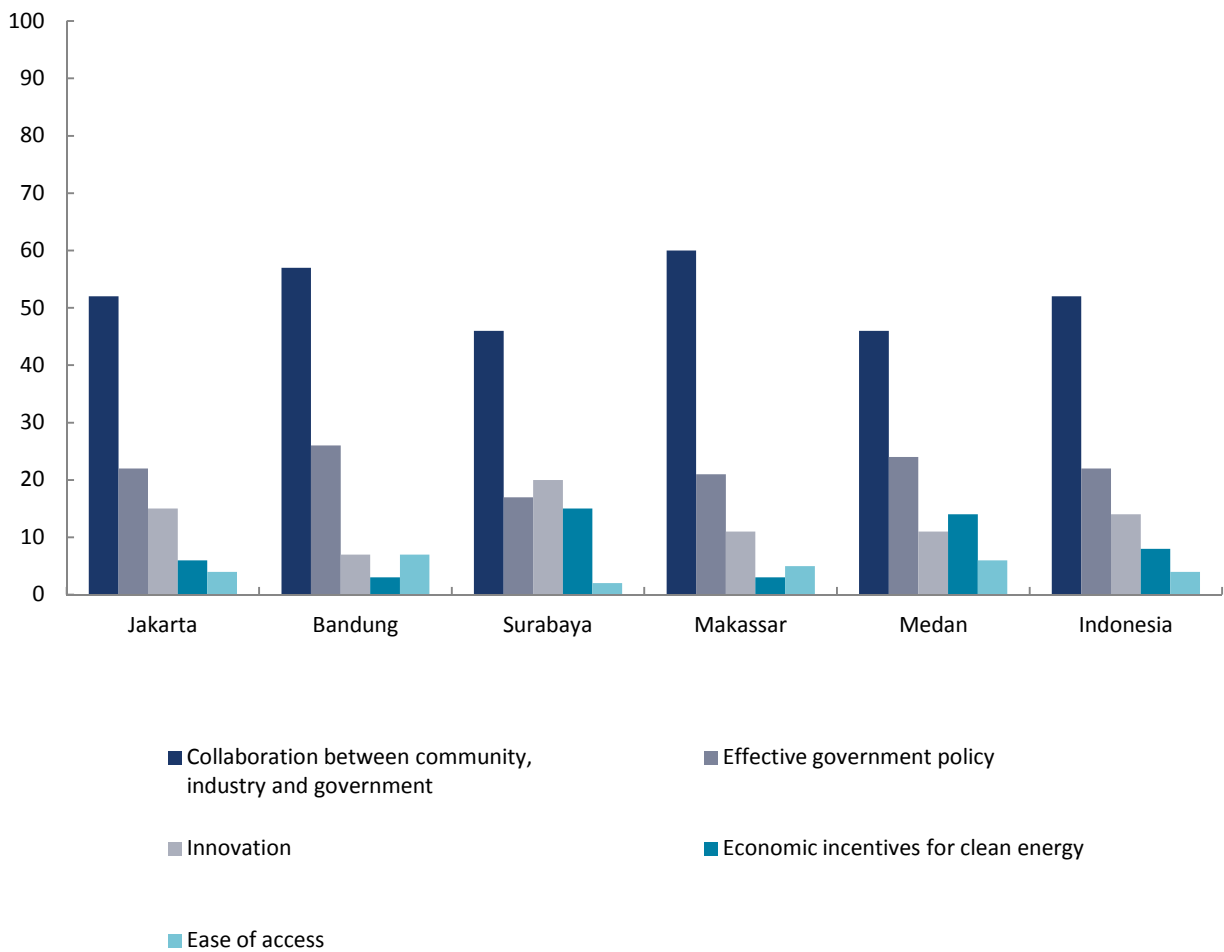
- Solar Energy
- Natural gas
- Hydro energy
- Oil from fossil fuels
- Coal
- Wind power
- Bio-fuels
- Wave power

## BUILDING AN ENERGY FUTURE

### Building an Energy Future

Approximately 1 in 2 Indonesians (52%) consider collaboration the most important factor in building future energy solutions, followed by effective government policy (22%), innovation (14%) and economic incentives for clean energy (8%).

Graph: What do you believe is the most important factor in building future energy solutions?

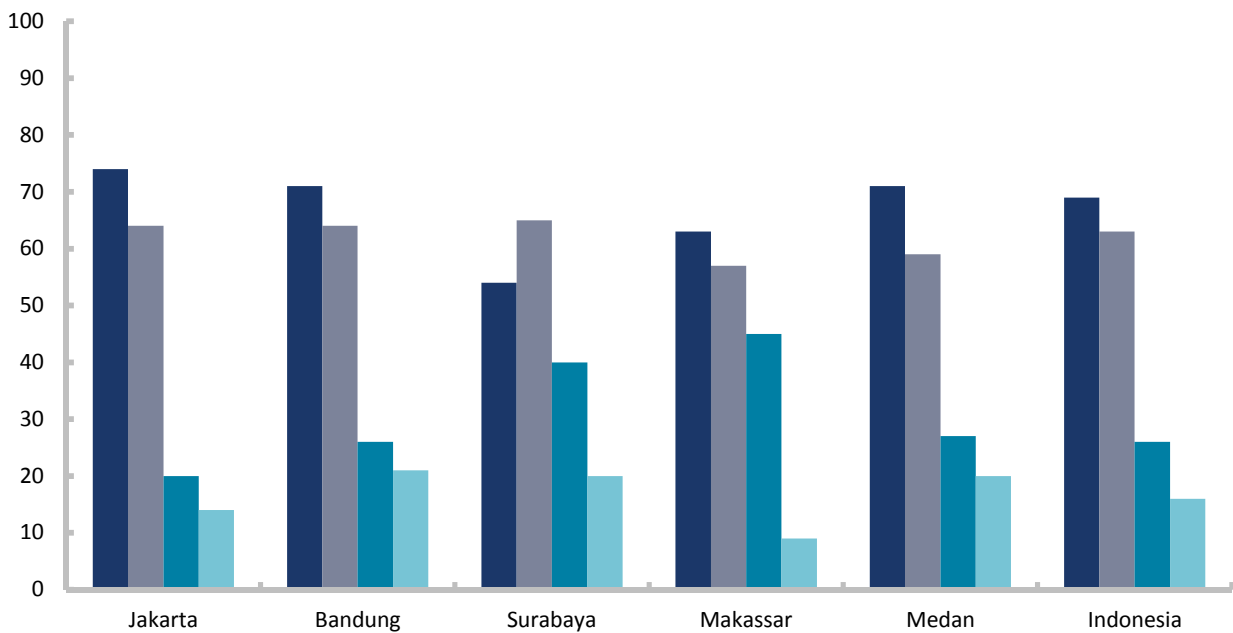


## CREATING A BETTER ENERGY FUTURE

### Creating A Better Energy Future

Government is considered to have the biggest role to play in creating a better energy future (69%), followed by the Indonesian general public (63%). Respondents in Jakarta are particularly likely to look towards the government (74%), respondents in Surabaya the least likely (54%).

Graph: Who do you think has the biggest role to play in creating a better energy future?



^ This question was asked as a multiple response question, and accordingly responses will not total 100%.

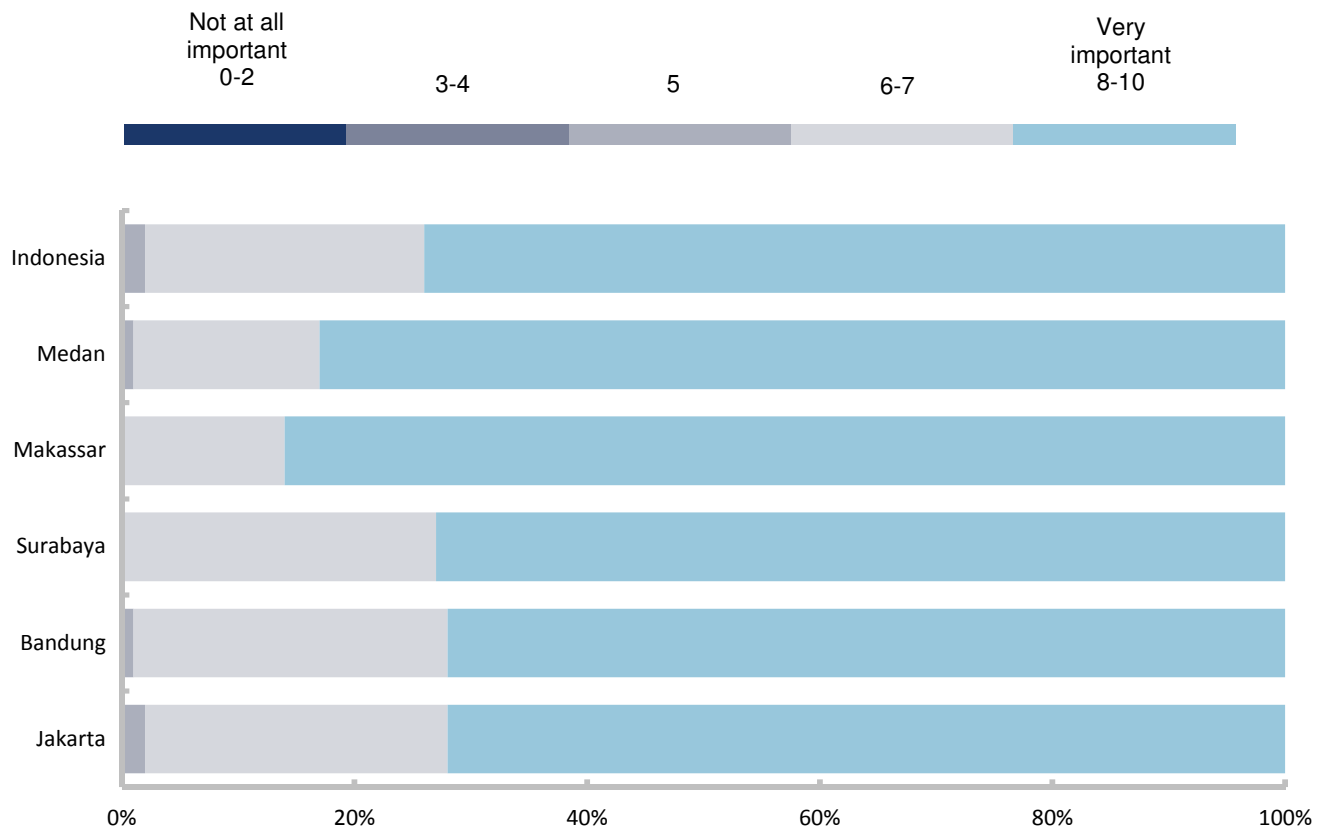
■ National government    ■ General public    ■ Industry    ■ International community

## REDUCING CO<sub>2</sub> EMISSIONS

### Reducing CO<sub>2</sub> Emissions

A total of 74% of Indonesians consider it very important (rating it 8 or above on a scale of 10) to reduce CO<sub>2</sub> emissions, while none (0%) consider it not at all important (rating 0 to 2 on importance). Respondents in Makassar (86%) and Medan (83%) are particularly likely to consider it very important to reduce CO<sub>2</sub> emissions.

Graph: How important do you feel it is to reduce CO<sub>2</sub> emissions?



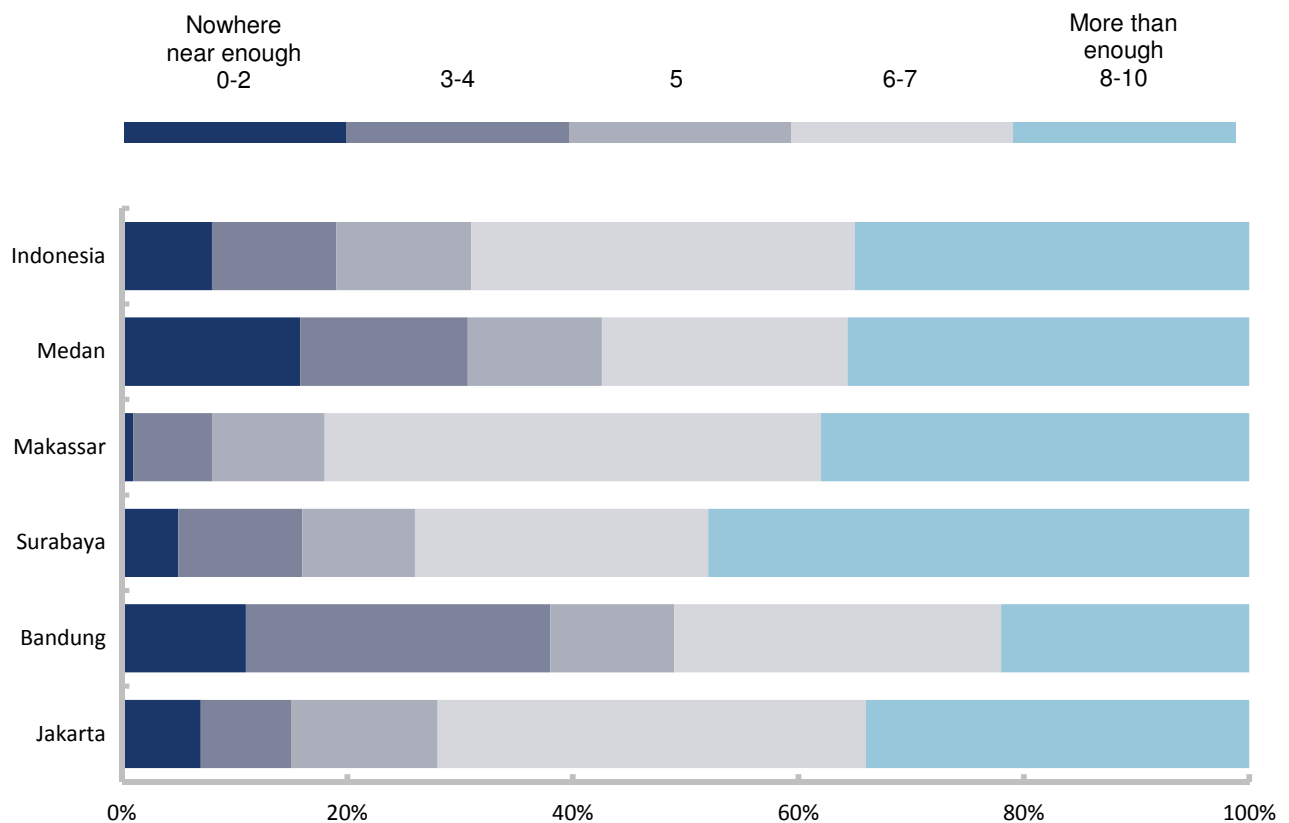


## PERCEIVED EFFORTS OF ENERGY INDUSTRY

### Perceived Efforts of Energy Industry

A total of 69% of Indonesians feel that the energy industry is doing enough to address future energy needs (rating 6 or above on a scale of 10) while 19% think that the industry is not doing enough (rating 4 or below on a scale of 10). Respondents in Surabaya (74%) and Makassar (82%) are particularly likely to think enough is being done.

Graph: Do you think the energy industry is currently doing enough to address future energy needs?

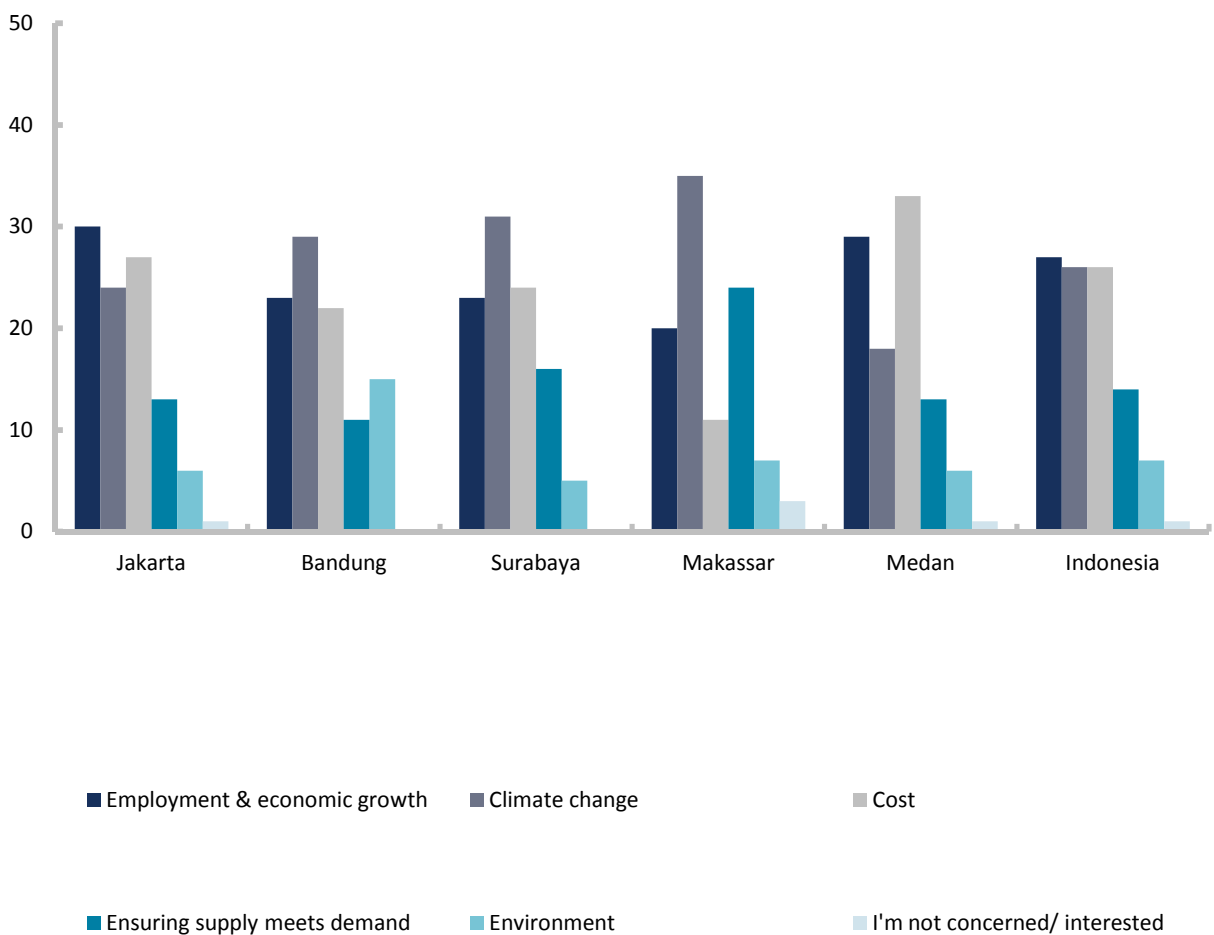


## IMPORTANT ISSUES FOR FUTURE ENERGY

### Important Issue When Thinking About Future Energy

Employment (27%), climate change (26%) and cost (26%) are the most important issues for Indonesians when thinking about future energy.

Graph: What is the most important issue for you when thinking about future energy?

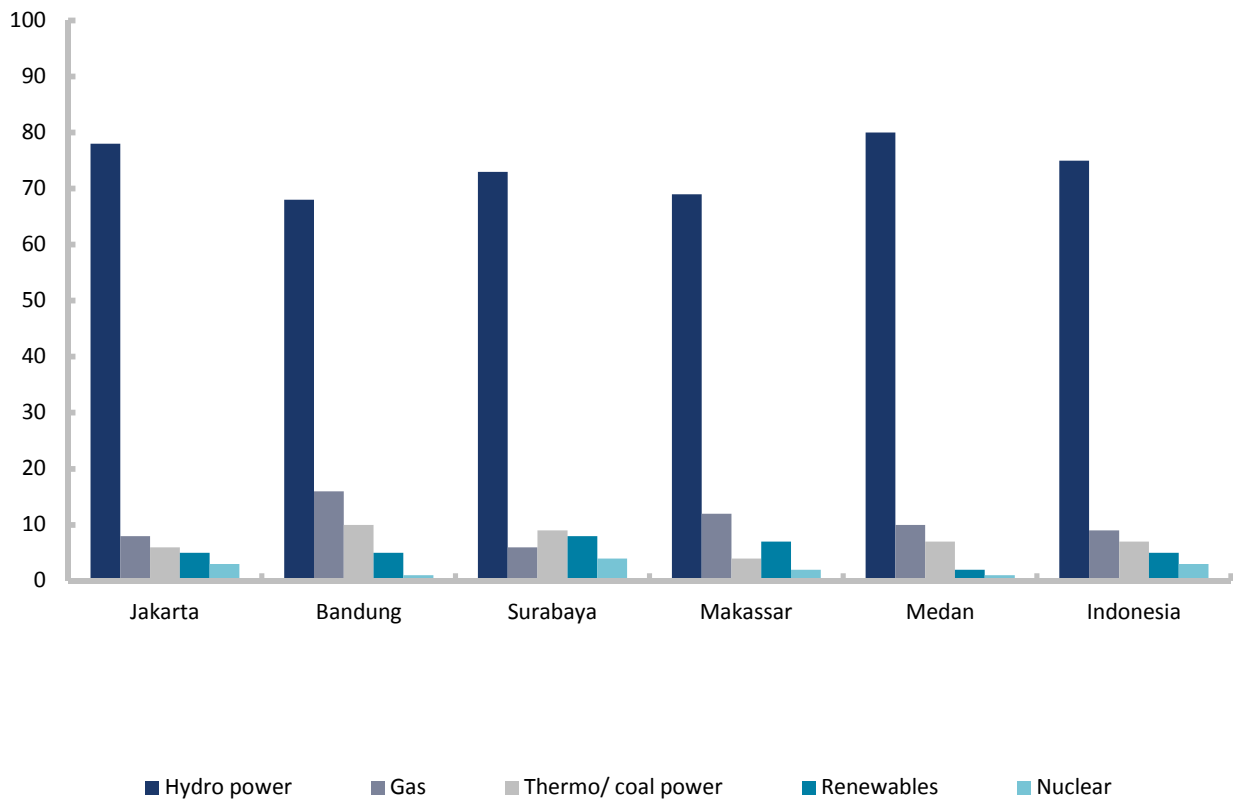


## CLEANEST METHOD OF POWER GENERATION

### Cleanest Method of Power Generation

A total of 75% of Indonesians consider hydro power the cleanest method of power generation. This is followed by gas (9%), thermo/coal power (7%) and renewables (5%).

Graph: Which method/way of power generation is the cleanest (i.e. has the lowest CO<sub>2</sub> emission) in your opinion?

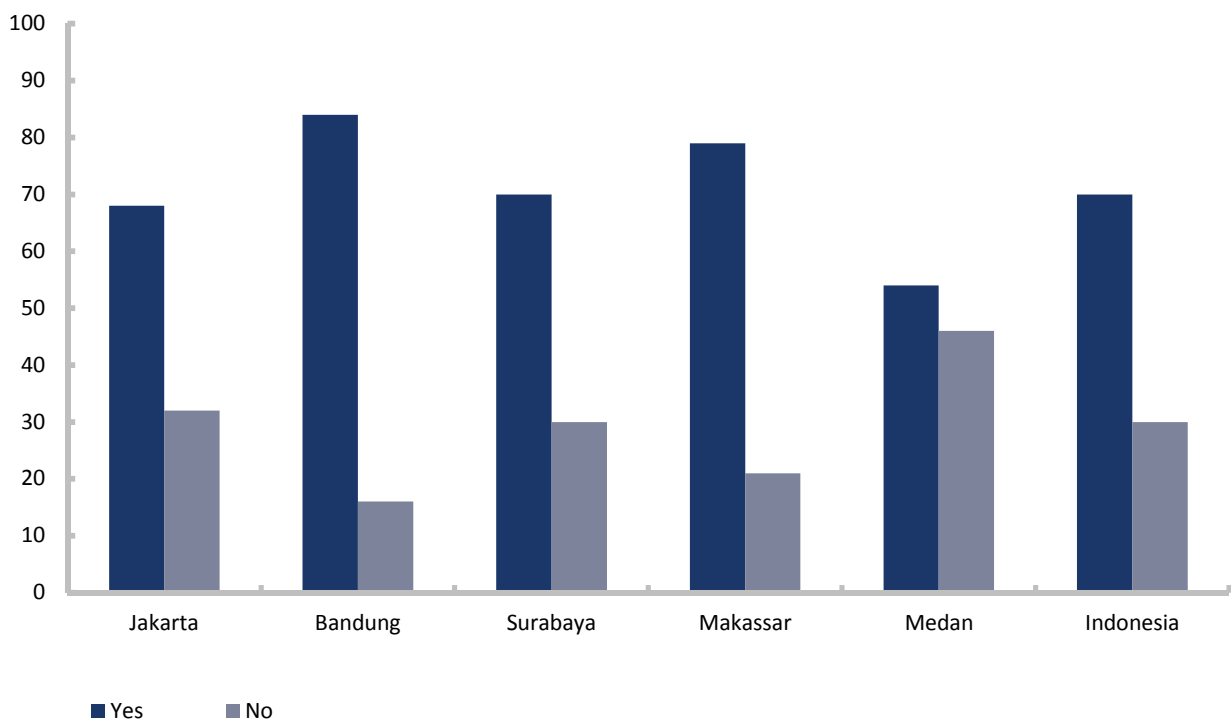


## WILLINGNESS TO PAY MORE FOR CLEANER POWER

### Willingness to Pay More for Cleaner Power/Electricity

A total of 7 in 10 Indonesians stated that they would be willing to pay more for cleaner power/electricity. Respondents in Bandung (84%) and Makassar (79%) were more willing to pay more, relative to Medan (54%) respondents.

Graph: Are you willing to pay more for cleaner power/electricity?

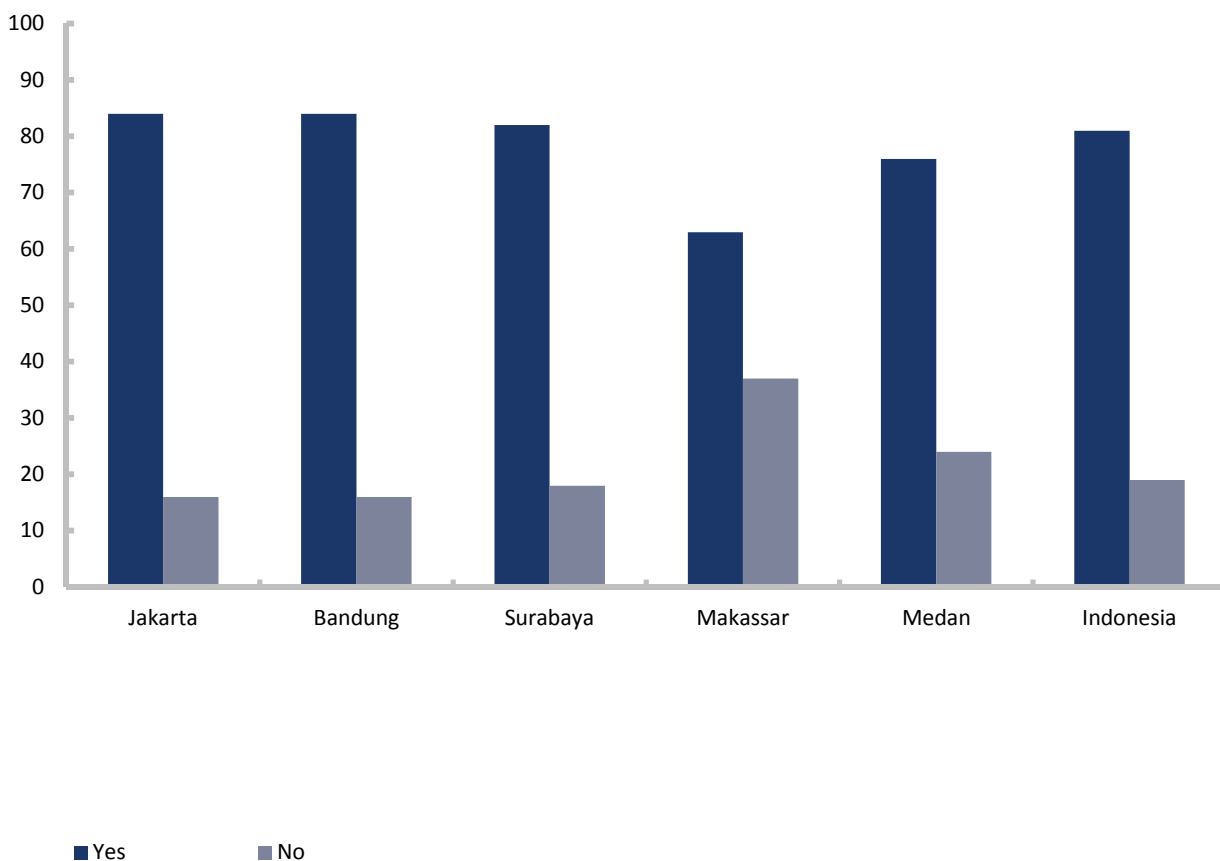


## SWITCHING TO NATURAL GAS OR BIOFUELS IN VEHICLES

### Switching to Natural gas or biofuels in Vehicles

A total of 81% of Indonesians would consider switching to natural gas or biofuels as an alternative to petrol. Respondents in Makassar are the least likely to consider switching to natural gas or biofuels (63%).

Graph: If you own motorized vehicle, would you consider switching to natural gas or biofuels as an alternative to petrol?

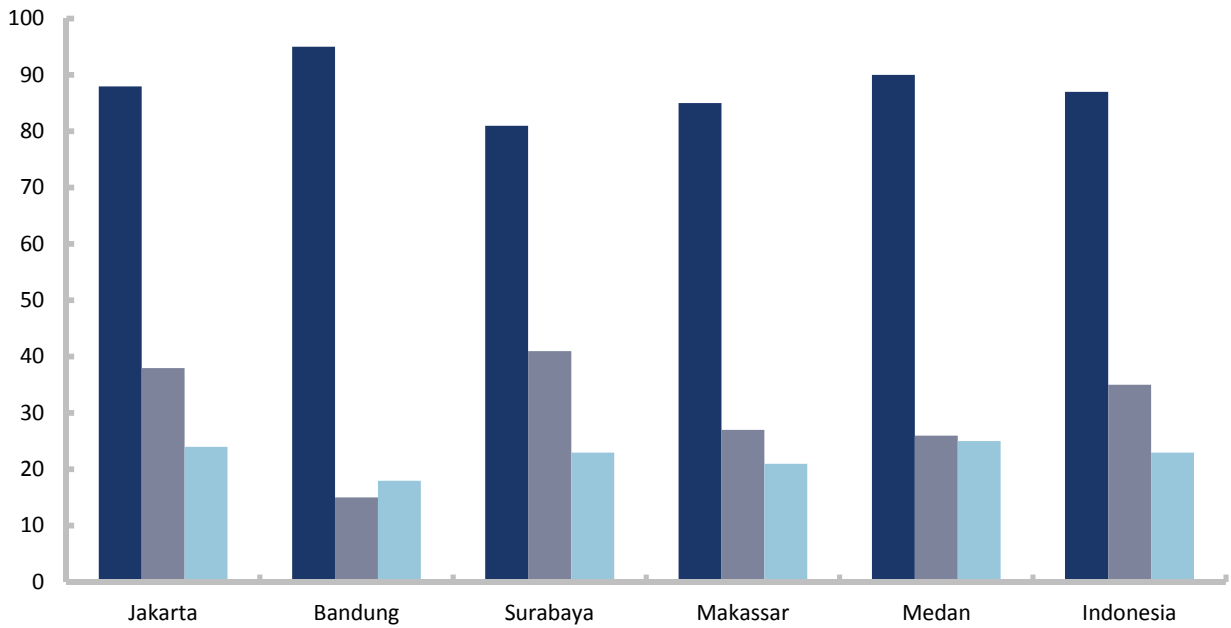


## USING BIOFUELS IN VEHICLES

### Using Biofuels in Vehicles

Factors under consideration when using biofuels in vehicles include it being better for the environment (87%), better value (35%) and better for my vehicle (23%).

Graph: What factors do you think about when considering using natural gas or biofuels?



^ This question was asked as a multiple response question, and accordingly responses will not total 100%

■ Better for environment

■ Better value (price)

■ Better for my vehicle

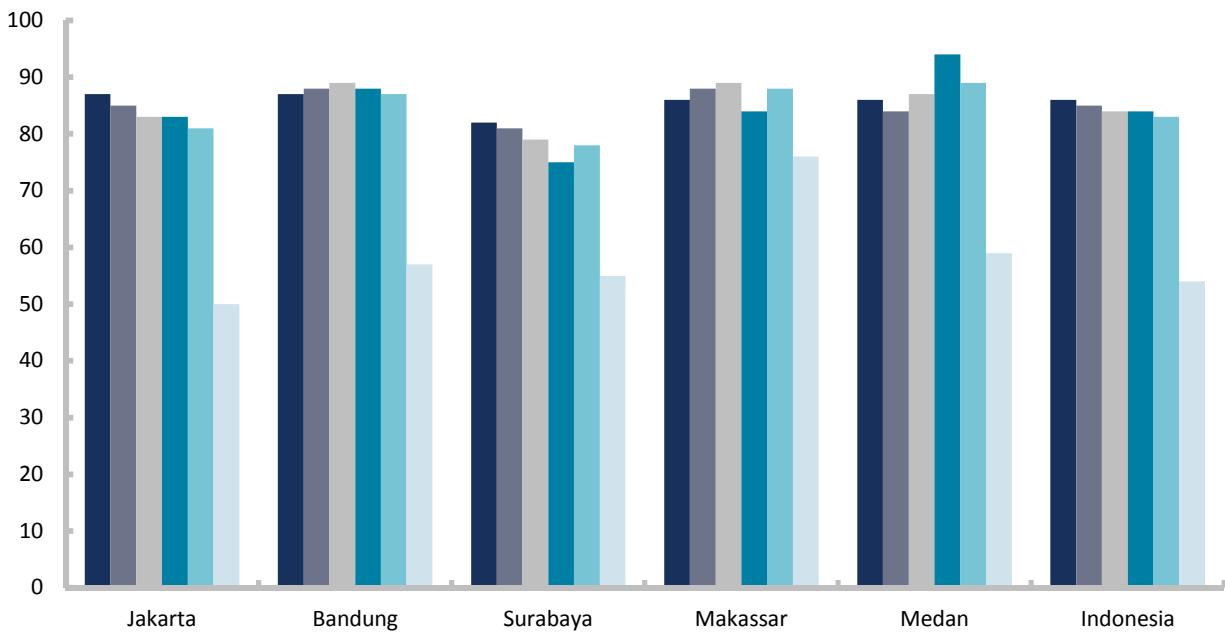


## EXPECTED IMPACT OF ISSUES ON INDONESIA

### Expected Impact of Issues on Indonesia

The majority of Indonesians consider higher energy prices (84%) and energy shortages (83%) to have the biggest impact on Indonesia. This is in line with food shortages (86%), water shortages (85%) and higher unemployment (84%).

Graph: In an energy constrained world, what do you think is the likely impact of the following issues on Indonesia?



# Questions were asked on a 10 point scale, and percentages reported are a total of the top 3 (i.e. rating 8, 9 or 10).

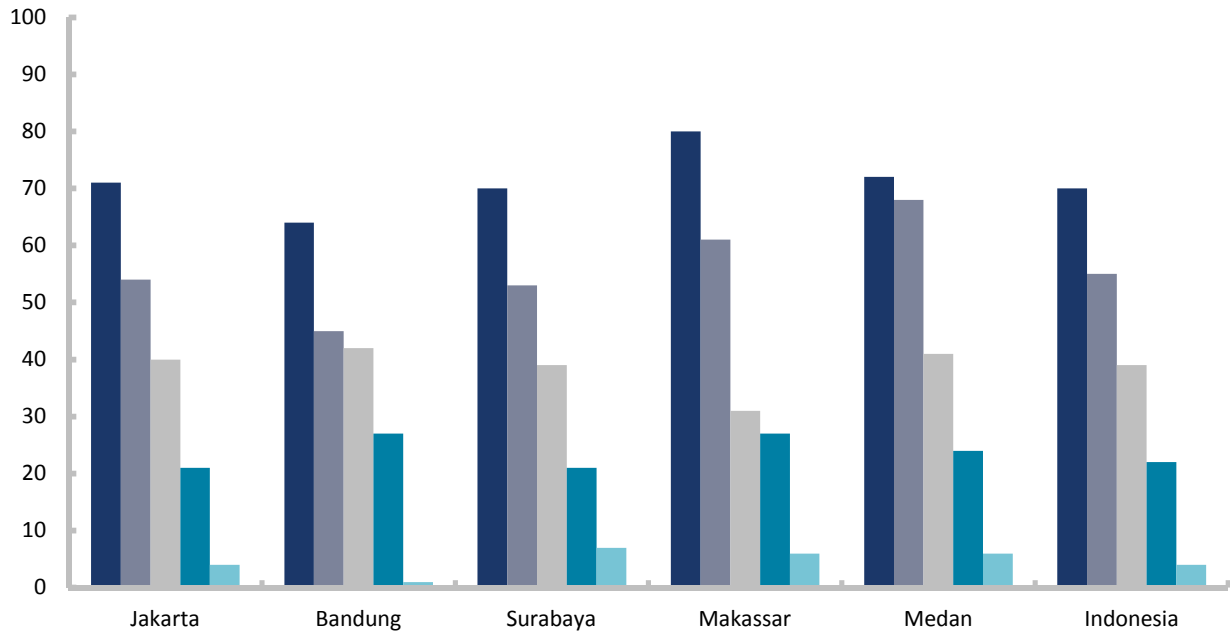
- Food shortages
- Water shortages
- Significantly higher energy prices
- Higher unemployment
- Energy shortages
- Geopolitical instability

## REDUCING CO<sub>2</sub> EMISSIONS

### Reducing CO<sub>2</sub> Emissions

Multiple behaviours at the individual level are employed to reduce CO<sub>2</sub> emissions. Using energy saving products (70%), and using less energy (55%) are the behaviours primarily undertaken.

Graph: What do you do personally to reduce CO<sub>2</sub> emissions?



^ This question was asked as a multiple response question, and accordingly responses will not total 100%

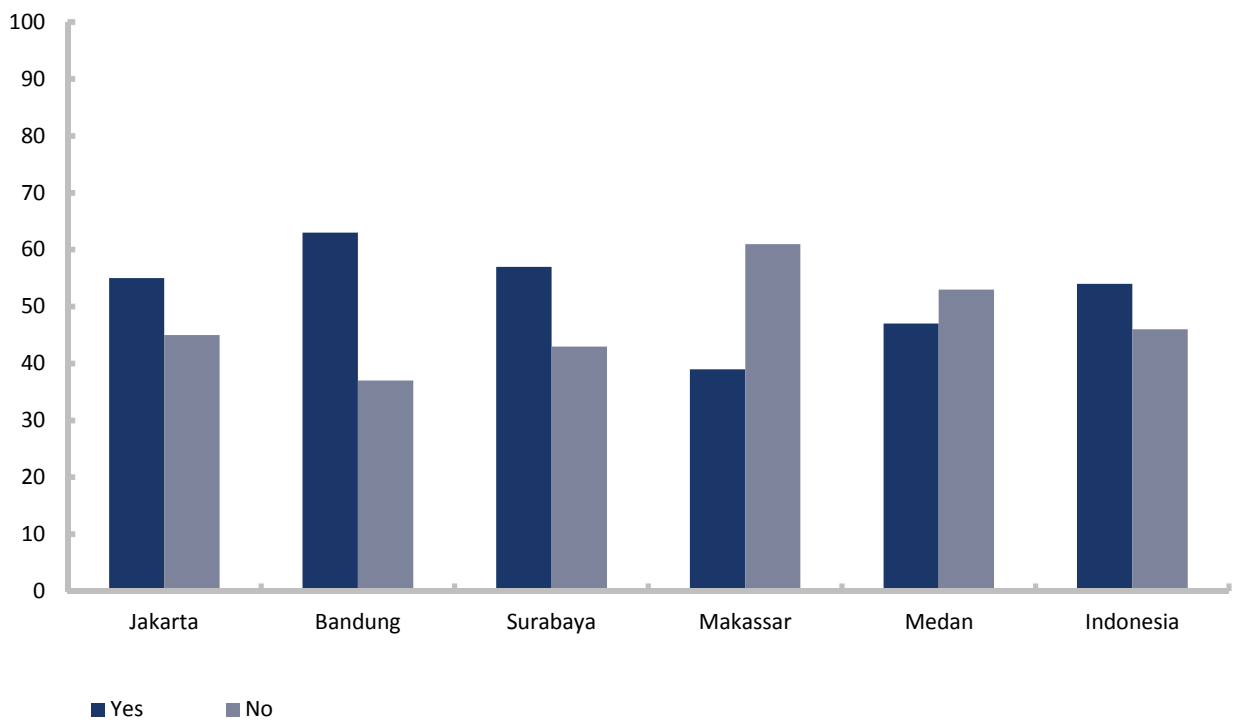
- Use energy saving products
- Use less energy
- Use public transport/bike/walk
- Recycle
- Reduce air travel

## LEVEL OF SURPRISE

### Level of Surprise

A total of 54% of respondents are surprised to know oil and gas is a leading investor in new energy technology. This is higher in Bandung (63%) and Surabaya (57%).

**Graph: Oil and gas industry is the leading investor in new/renewable energy technology. Would you be surprised to know that?**





# FUTURE ENERGY ONLINE SURVEY 2013

**Shell Indonesia**

Online Surveying conducted by Lebah Biru, commissioned by Shell Indonesia



# FUTURE ENERGY ONLINE SURVEY 2013

## Introduction

Shell Indonesia also commissioned the Shell Future Energy Survey 2013 to be conducted online. During the week of April 22nd, the Earth Day, a twitter-based campaign invited Indonesian netizens to complete the survey, which was posted online. 2,160 individuals responded and completed the survey, with the majority of them residing in Jakarta, Bandung, Makassar and Surabaya

City	Total number people who responded to the online survey
Jakarta	1,173
Surabaya	145
Bandung	308
Makassar	128
Others	406

Online Surveying was conducted by Lebah Biru, commissioned by Shell Indonesia.

## KEY FINDINGS

9 in 10# Indonesian rate future energy needs as an important issue.

Solar energy is the most desired source to derive future energy from (43%)^, followed by hydro energy (29%)^ and coal (29%)^.

A total of 2 in 5 Indonesian think the most important factor in building future energy solutions is Government policy (41%), followed by collaboration (33%), and innovation (21%).

Government is considered to have the biggest role to play in creating a better energy future (42%)^, followed by Industry (39%)^ and general public (34%)^.

A total of 93%# of Indonesian consider it very important to reduce CO2 emissions.

### Technical details:

# This percentage refers to an individual category rating of 8 or above out of 10 on importance.

^ This question was asked as a multiple response question, and accordingly responses will not total 100%.

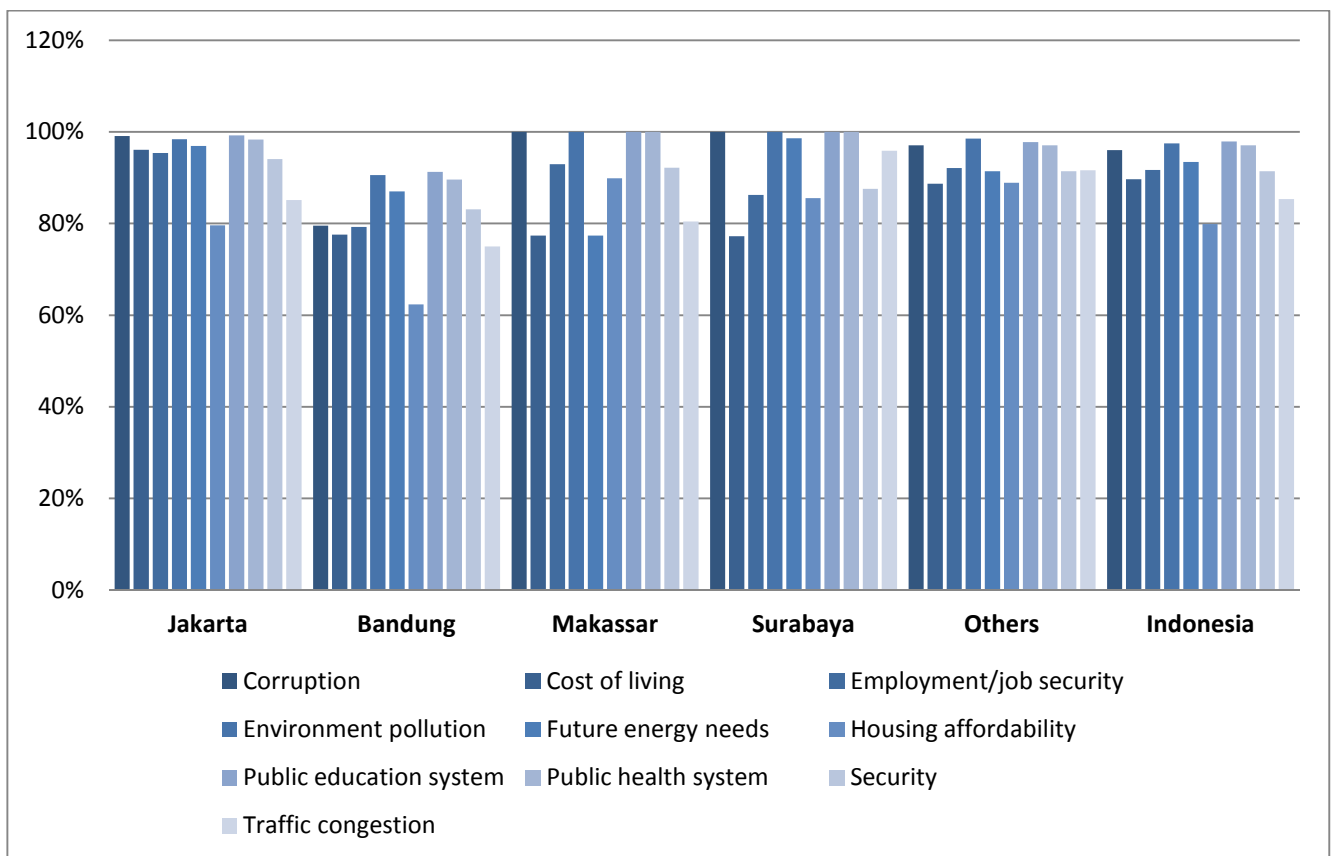


## ISSUES IMPORTANT TO INDONESIAN HOUSEHOLDS

### Issues Important to Indonesian Households

After environment pollution, public education system, public health system and corruption, future energy needs is considered by the majority as a very important issue (93%). Surabaya residents consider future energy needs particularly important (99%), while Makassar residents consider it a less important issue (77%).

**Graph: How do you rate each of the following issues on a scale of 0 to 10, where 0 means you think it is not an important issue and 10 means you think it is an important issue?**



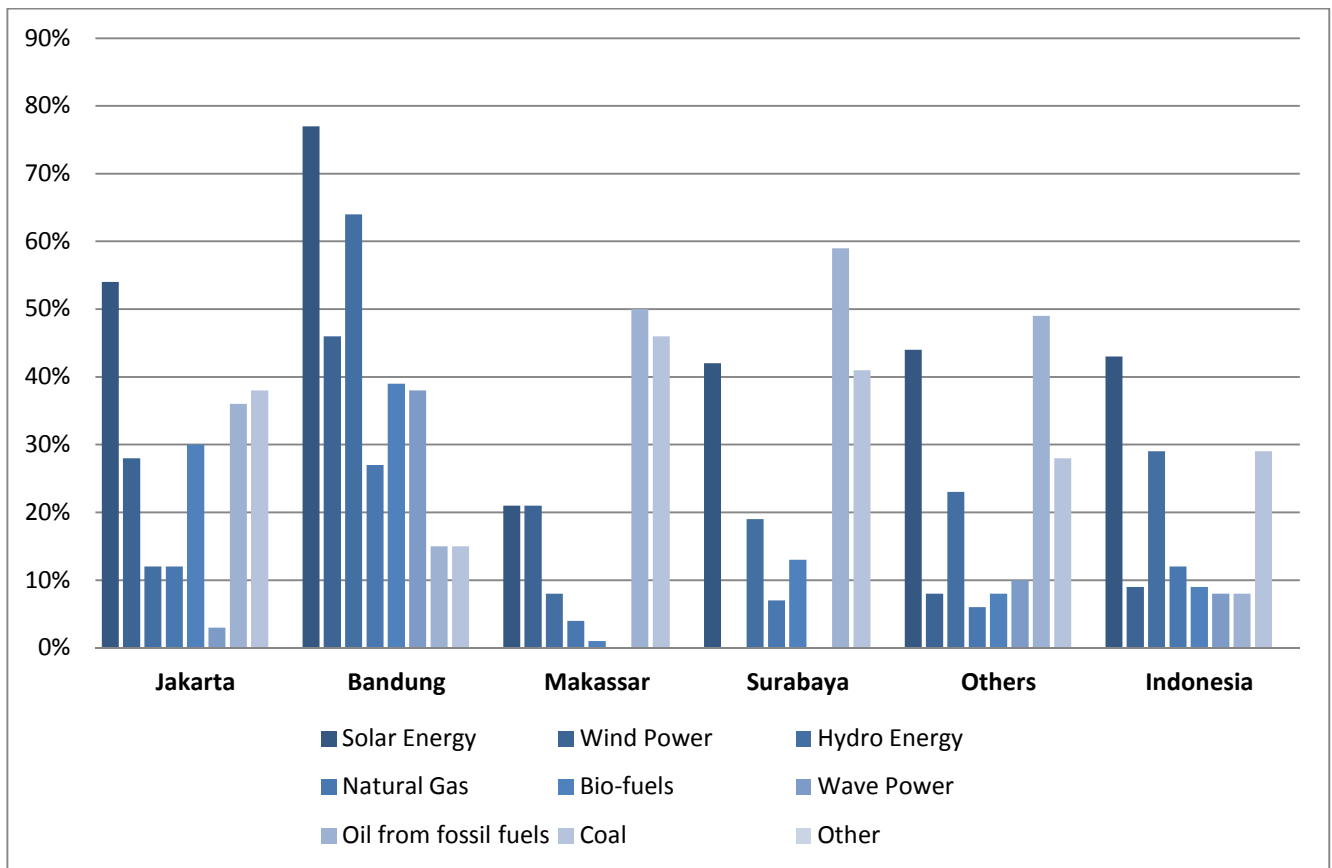
# Questions were asked on a 10 point scale, and percentages reported are a total of the top 3 (i.e. rating 8, 9 or 10).

# THE FUTURE ENERGY MIX

## The Future Energy Mix

Solar energy, hydro energy and Coal are the top considerations as an energy source. Solar energy is the most desired source to derive energy from in the future by Indonesian residents (43%). Hydro energy (29%) and coal (29%) are the next most desired sources.

**Graph:** It is predicted that there will be 9 billion people (world-wide) in 2050, putting a serious strain on global resources. With this in mind, where do you think Indonesia should get its energy from?



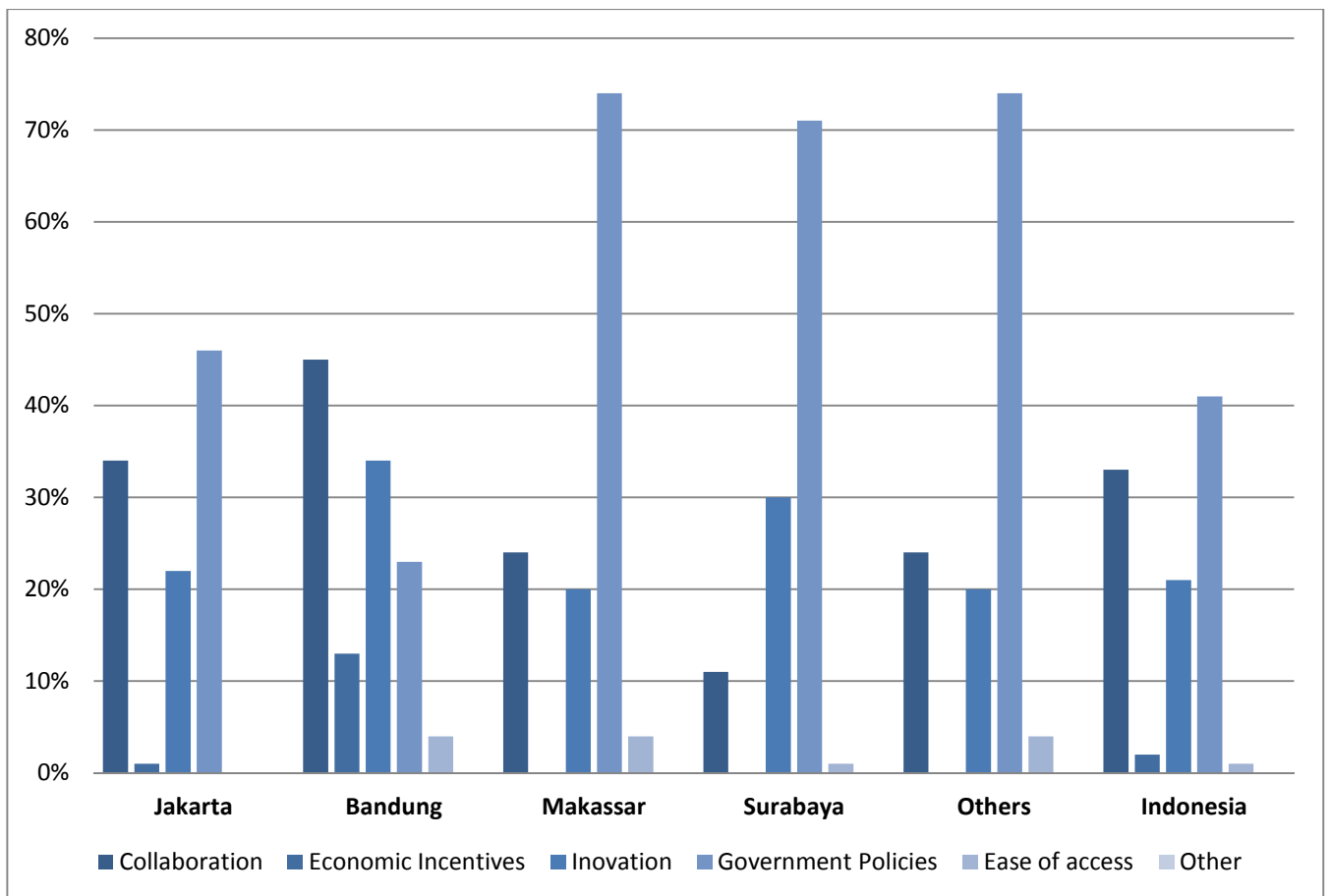
^ This question was asked as a multiple response question, and accordingly responses will not total 100%.

## BUILDING AN ENERGY FUTURE

### Building an Energy Future

A total of 2 in 5 Indonesian think the most important factor in building future energy solutions is Government policy (41%), followed by Collaboration (33%) and innovation (21%).

Graph: What do you believe is the most important factor in building future energy solutions?

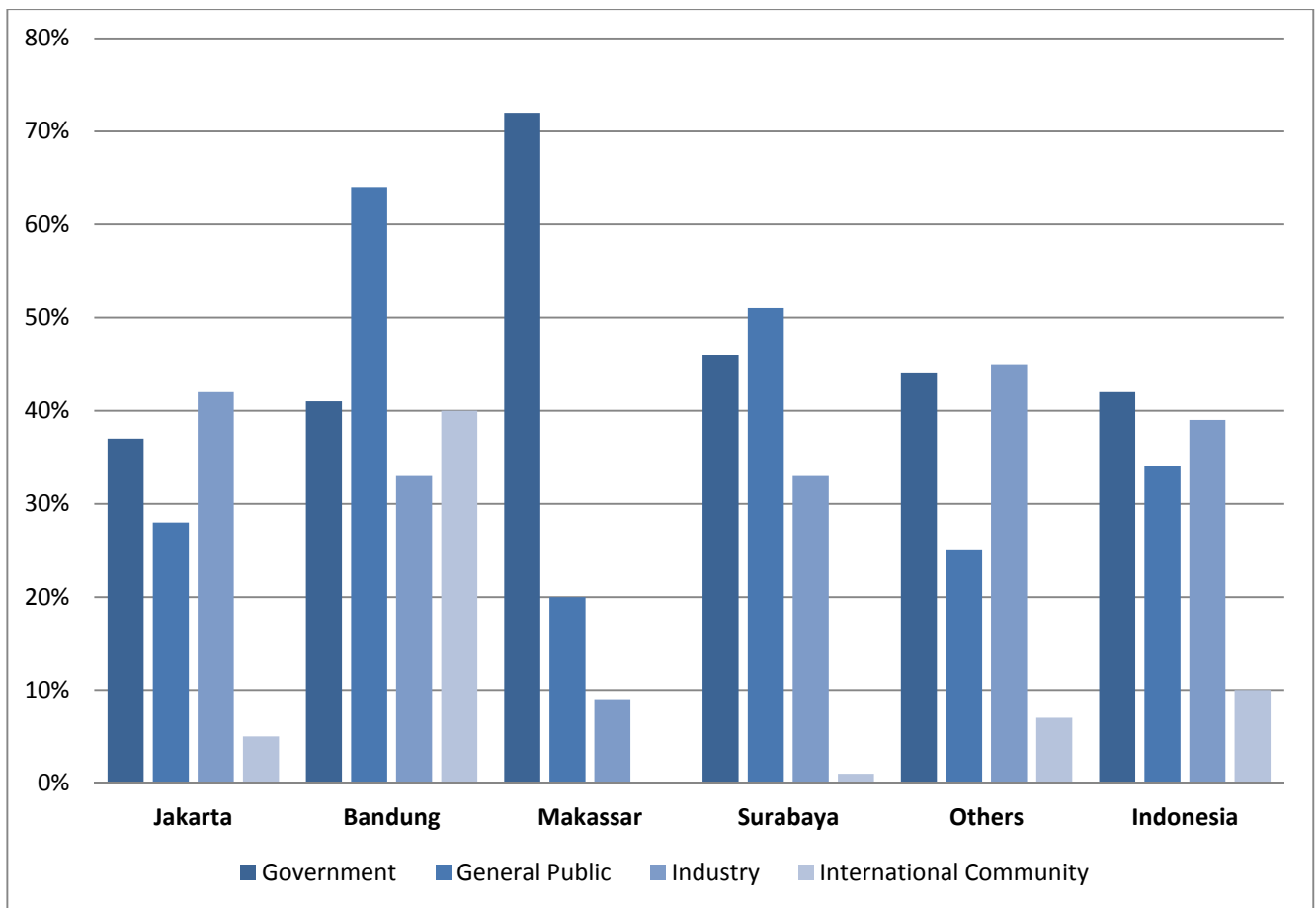


## CREATING A BETTER ENERGY FUTURE

### Creating A Better Energy Future

Government is considered to have the biggest role to play in creating a better energy future(42%), followed by Industry (39%), general public (34%), international community (10%). Makassar is particularly likely to look towards the Government (72%).

Graph: Who do you think has the biggest role to play in creating a better energy future?



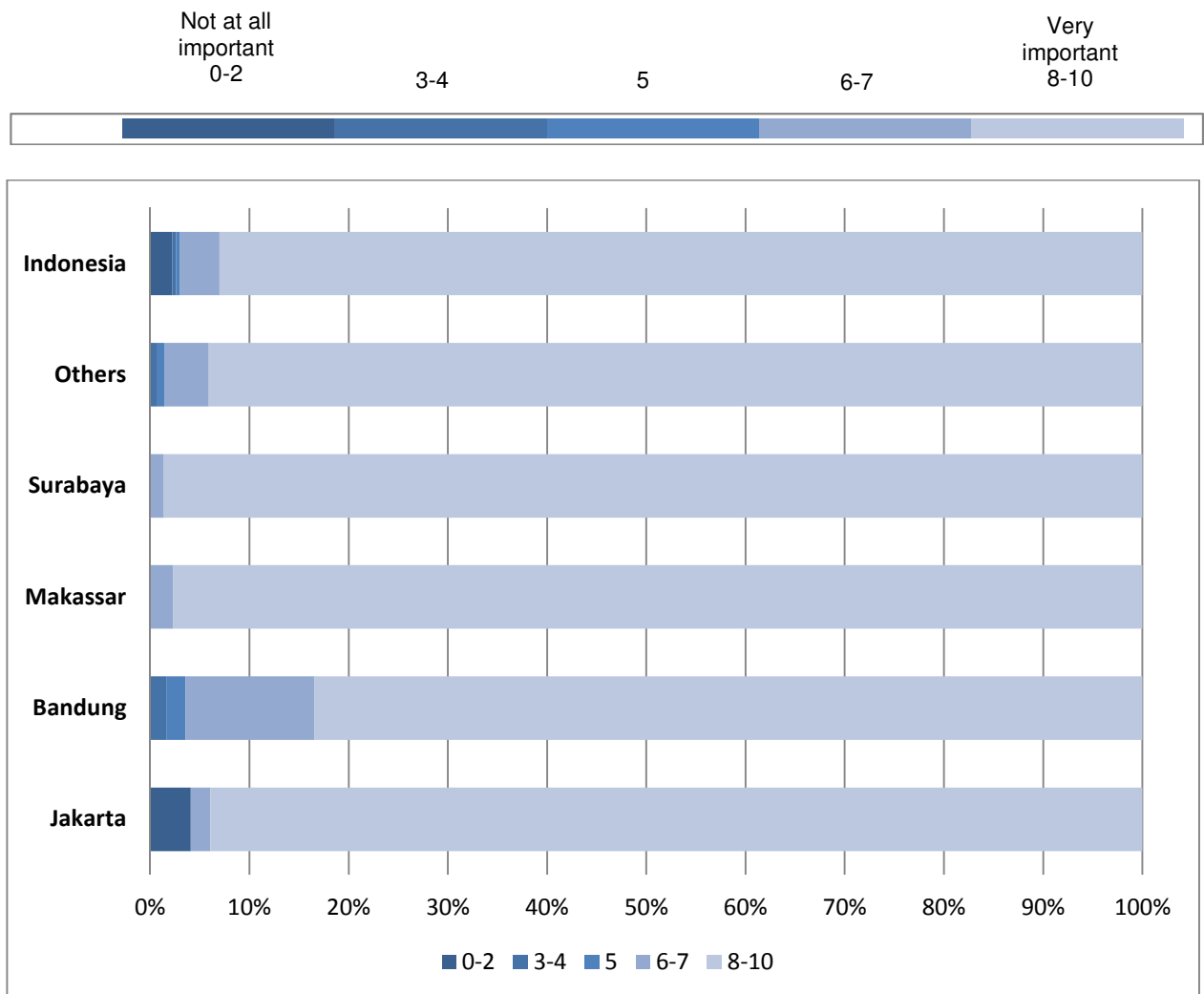
^ This question was asked as a multiple response question, and accordingly responses will not total 100%.

## REDUCING CO<sub>2</sub> EMISSIONS

### Reducing CO<sub>2</sub> Emissions

A total of 93% of Indonesian consider it very important (rating it 8 or above on a scale of 10) to reduce CO<sub>2</sub> emissions, while none (0%) consider it not at all important (rating 0 to 2 on importance).

Graph: How important do you feel it is to reduce CO<sub>2</sub> emissions?

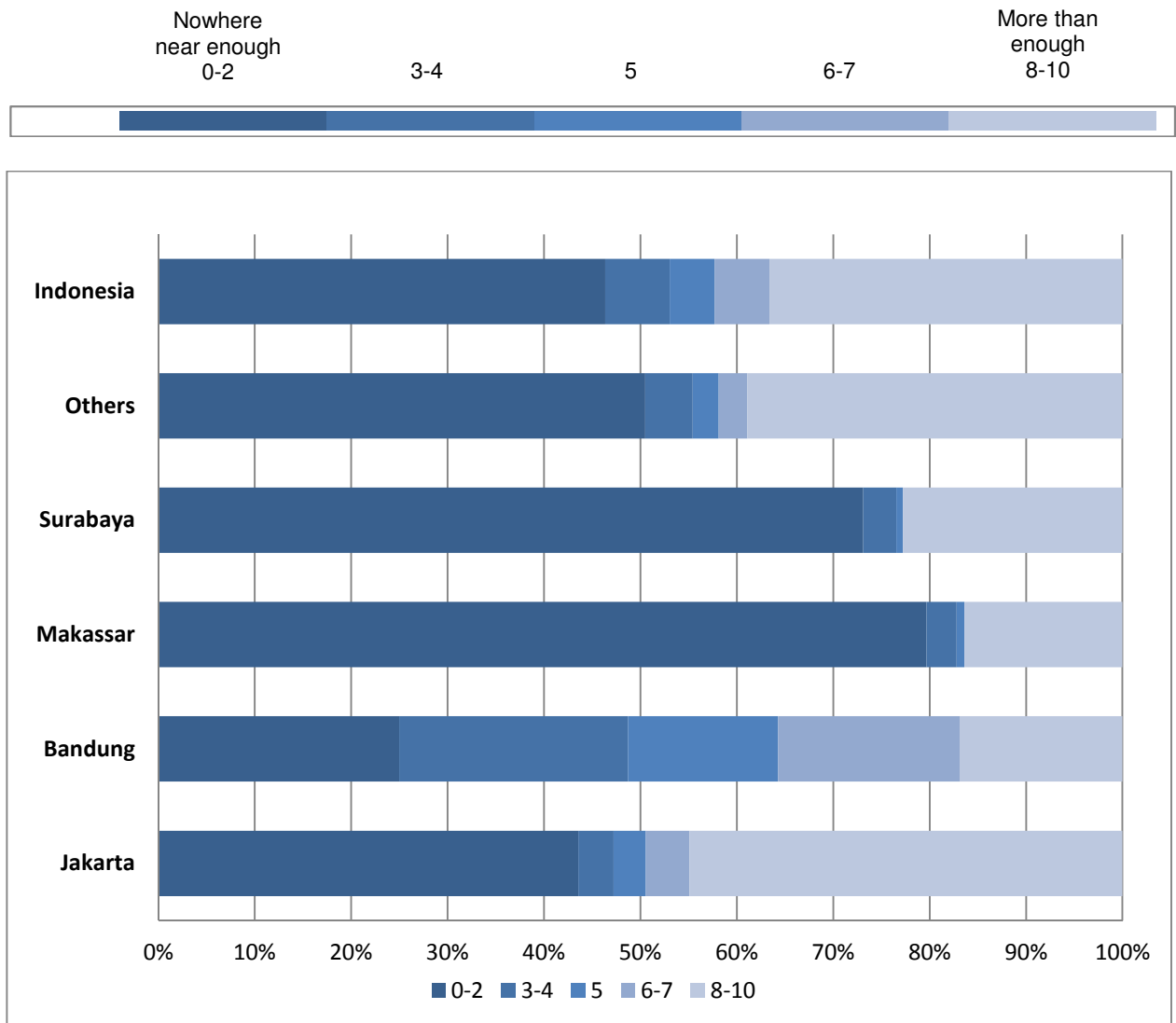


## PERCEIVED EFFORTS OF ENERGY INDUSTRY

### Perceived Efforts of Energy Industry

Residents in Jakarta (45%) and Surabaya (23%) believe the energy industry is currently doing more than enough to address future energy needs, followed by Bandung residents (35%).

Graph: Do you think the energy industry is currently doing enough to address future energy needs?



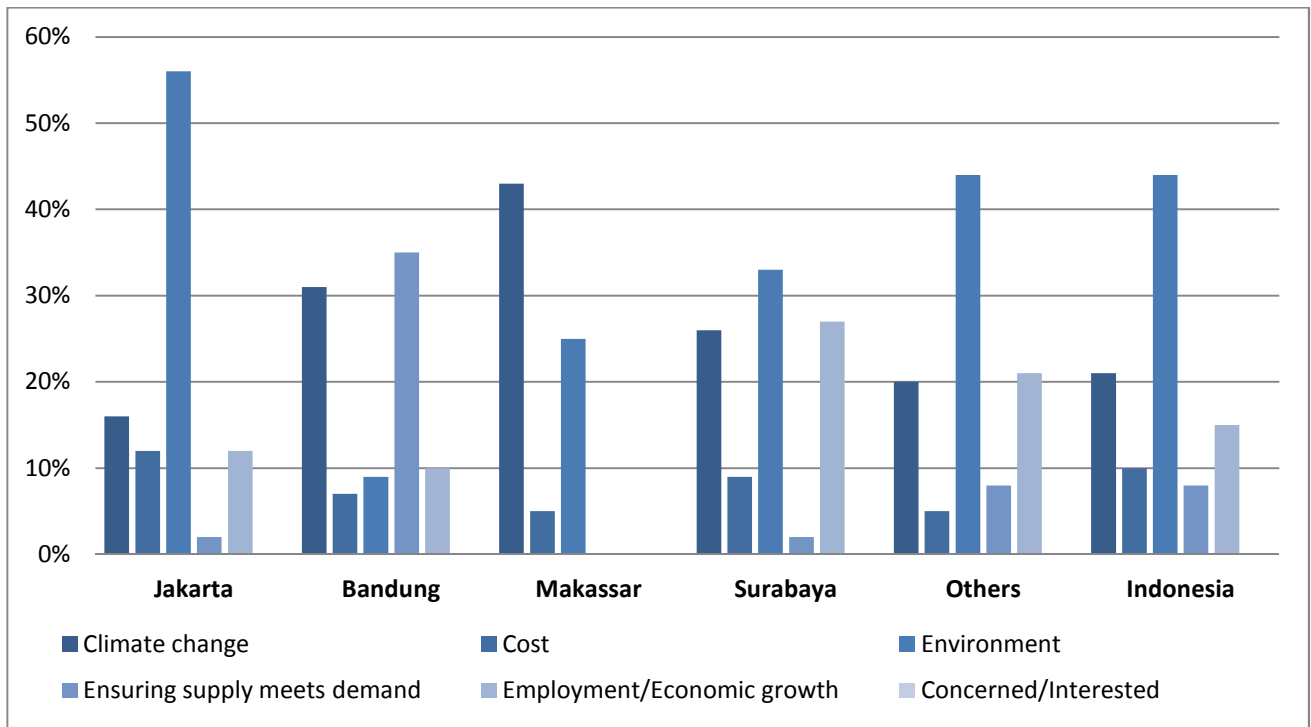


## IMPORTANT ISSUES FOR FUTURE ENERGY

### Important Issue When Thinking About Future Energy

Environment (44%) is the most important issue for Indonesian when thinking about future energy, followed by Climate change (21%) and employment/economic growth (15%).

Graph: What is the most important issue for you when thinking about future energy?

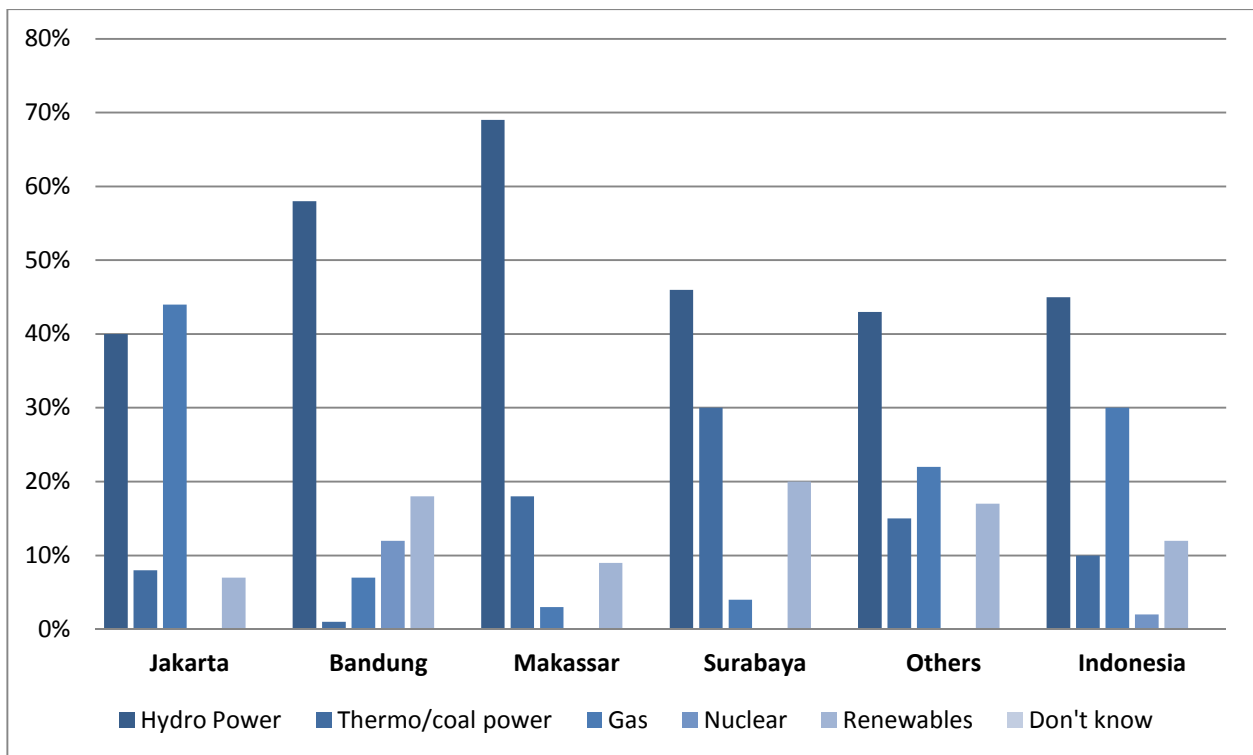


## CLEANEST METHOD OF POWER GENERATION

### Cleanest Method of Power Generation

A total of 45% of Indonesian hydro power the cleanest method of power generation, followed by Gas (30%). Residents in Makassar (69%) and Bandung (58%) are particularly likely to think hydro power is the cleanest method of power generation.

Graph: Which method/way of power generation is the cleanest (i.e. has the lowest CO<sub>2</sub> emission) in your opinion?

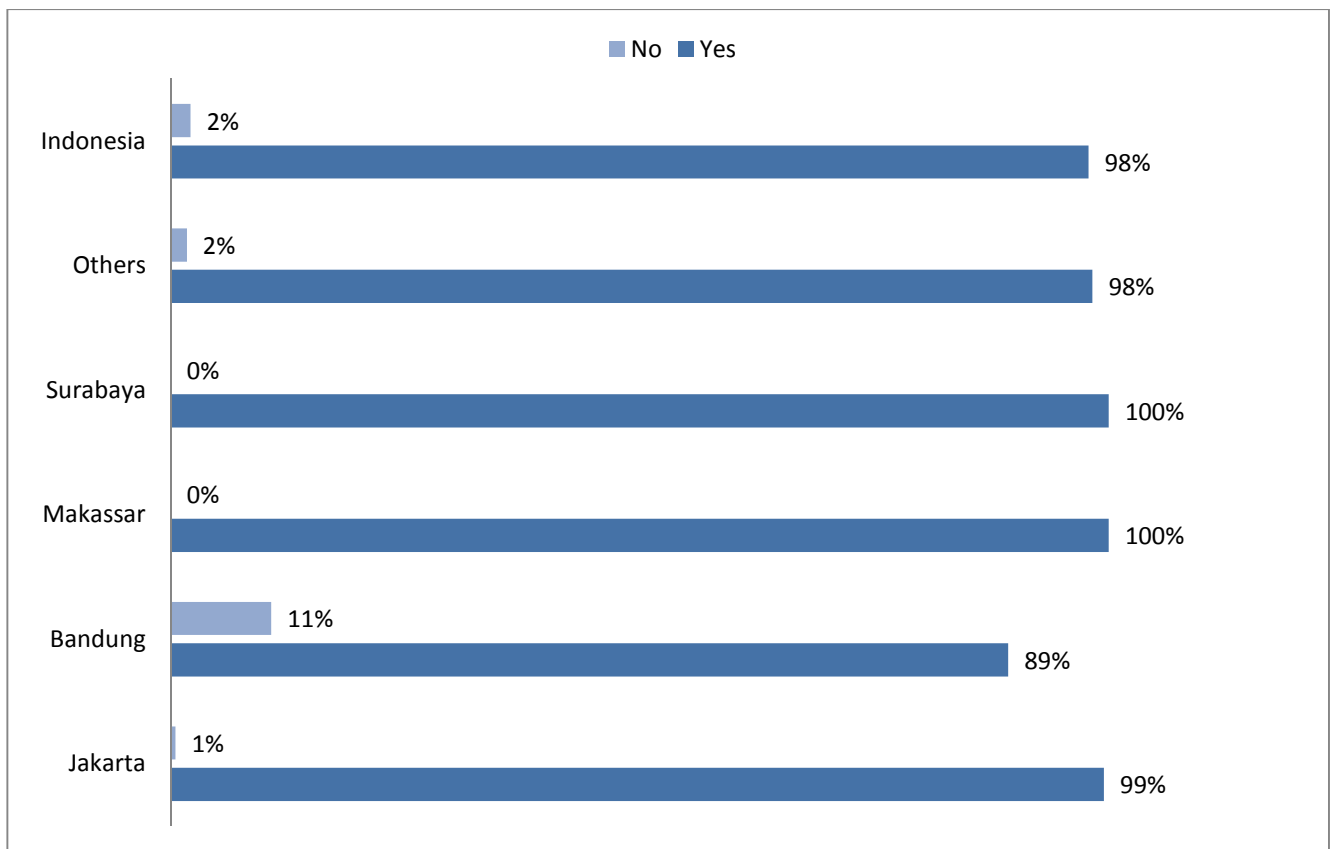


## WILLINGNESS TO PAY MORE FOR CLEANER POWER

### Willingness to Pay More for Cleaner Power/Electricity

A total of 98% of Indonesian stated they would be willing to pay more for cleaner power/electricity, while 2% expressed their non-willingness. Surabaya residents (100%) and Makassar residents (100%) were more willing to pay more, relative to Jakarta (99%) and Bandung (89%) residents.

Graph: Are you willing to pay more for cleaner power/electricity?

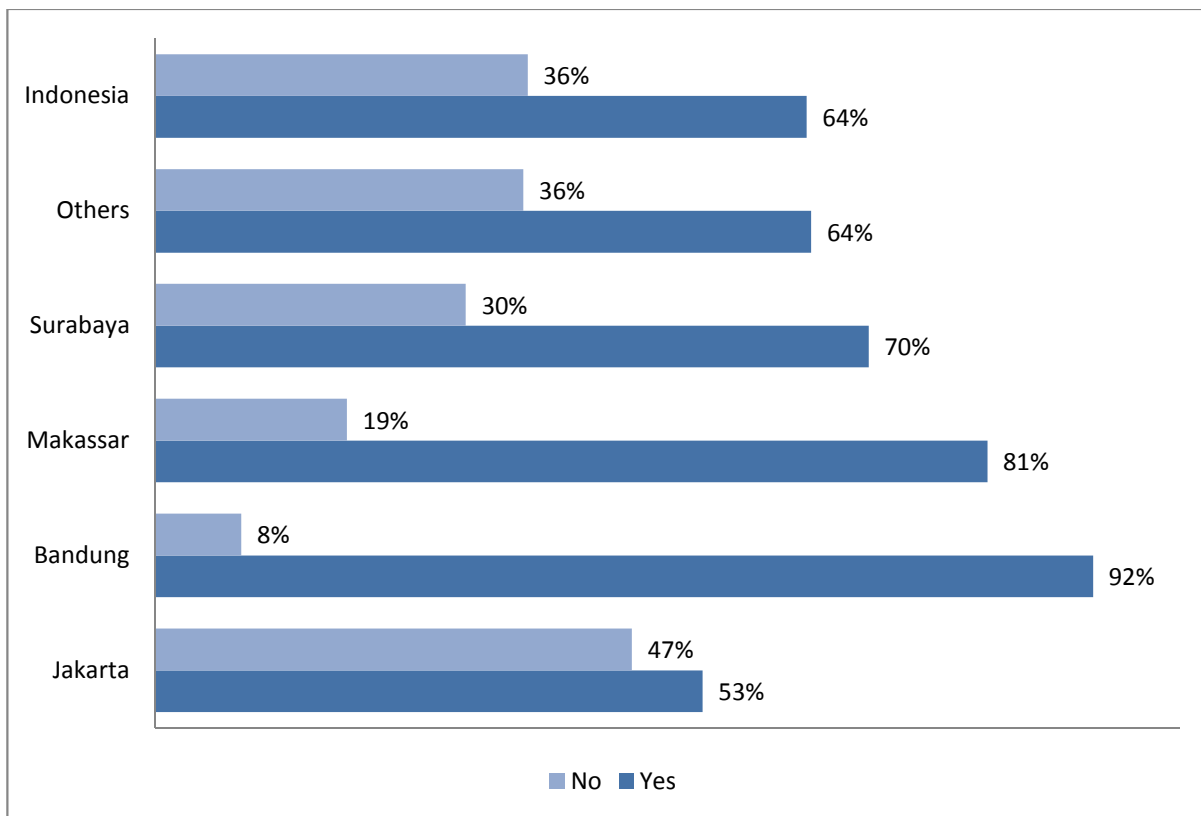


## SWITCHING TO NATURAL GAS OR BIOFUELS IN VEHICLES

### Switching to Natural gas or biofuels in Vehicles

A total of 64% of Indonesians would consider switching to natural gas or biofuels as an alternative to petrol. Respondents in Jakarta are the least likely to consider switching to natural gas or biofuels (53%).

Graph: If you own motorized vehicle, would you consider switching to natural gas or biofuels as an alternative to petrol?

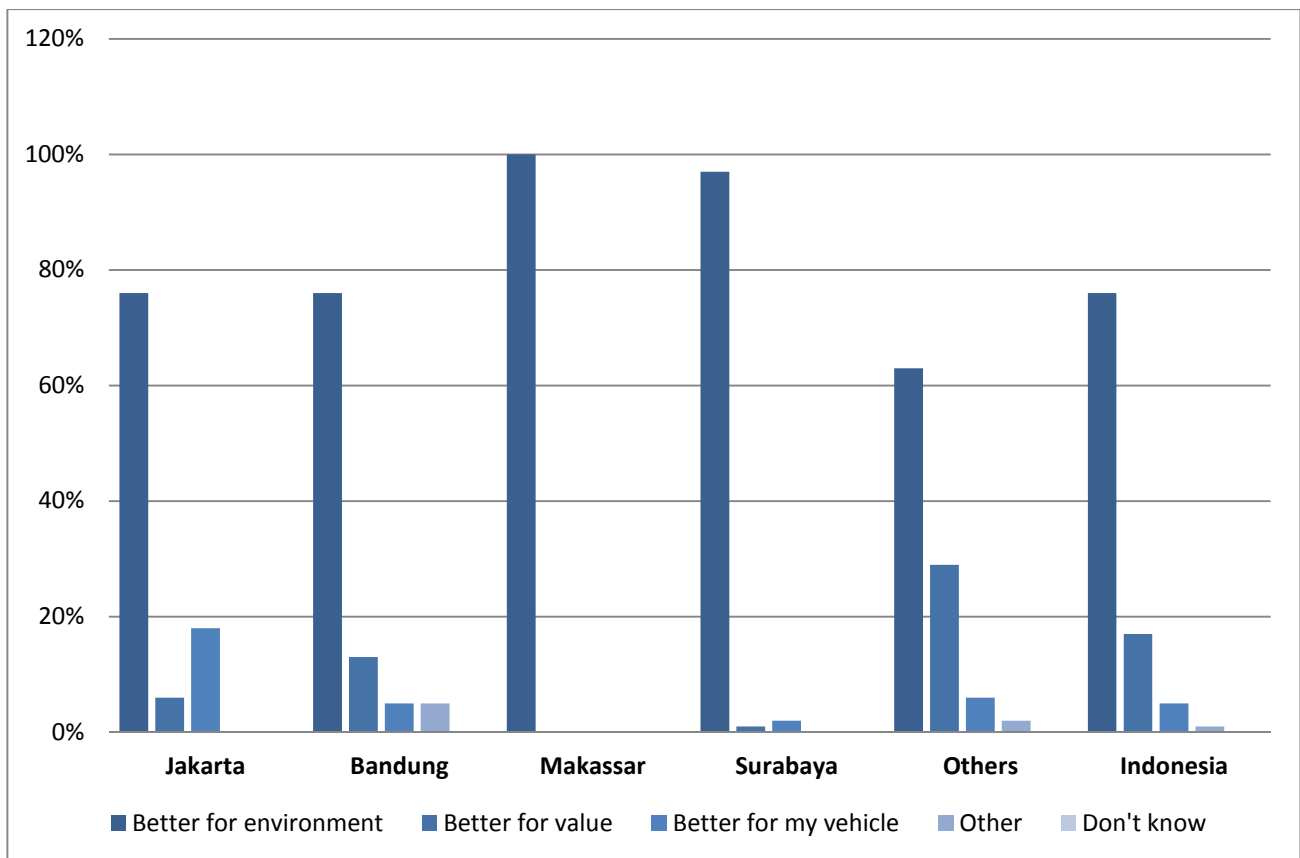


## USING BIOFUELS IN VEHICLES

### Using Biofuels in Vehicles

Factors under consideration when using biofuels in vehicles include it being better for the environment (76%), better for value (17%), and better for my vehicle (5%).

Graph: What factors do you think about when considering using natural gas or biofuels?



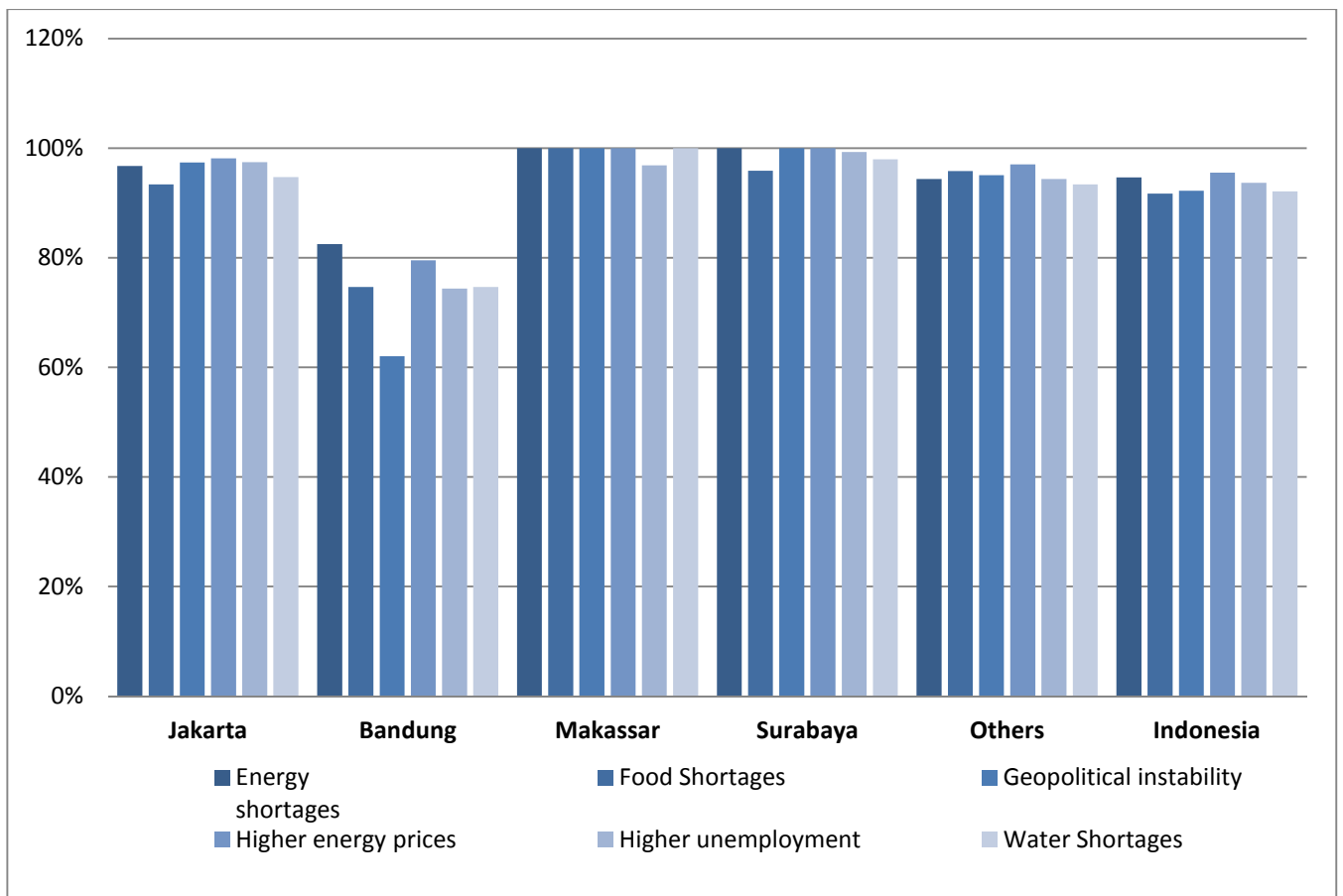
^ This question was asked as a multiple response question, and accordingly responses will not total 100%

## EXPECTED IMPACT OF ISSUES ON INDONESIA

### Expected Impact of Issues on Indonesia

Higher energy prices considered to have the biggest impact on Indonesia (96%), followed by energy shortages (95%) and higher unemployment (94%). The vast majority of Indonesian feel Food shortage (92%), Geopolitical instability (92%) and water shortage (92%) will have an impact on Vietnam.

Graph: In an energy constrained world, what do you think is the likely impact of the following issues on Indonesia?



# Questions were asked on a 10 point scale, and percentages reported are a total of the top 3 (i.e. rating 8, 9 or 10).

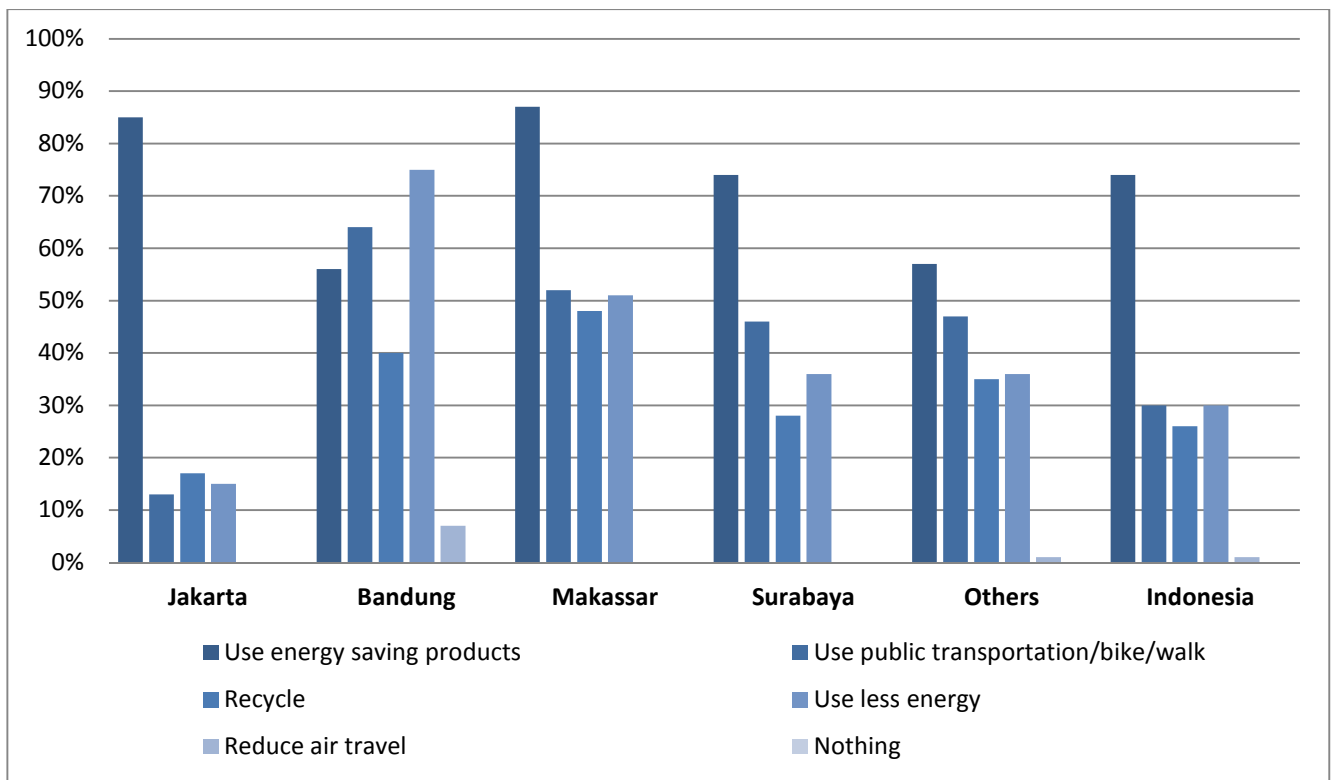


## REDUCING CO<sub>2</sub> EMISSIONS

### Reducing CO<sub>2</sub> Emissions

Multiple behaviours at the individual level are employed to reduce CO<sub>2</sub> emissions. using energy saving products (74%), Using less energy (30%) and using public transportation/bike/walk(30%) are the behaviours primarily undertaken.

Graph: What do you do personally to reduce CO<sub>2</sub> emissions?



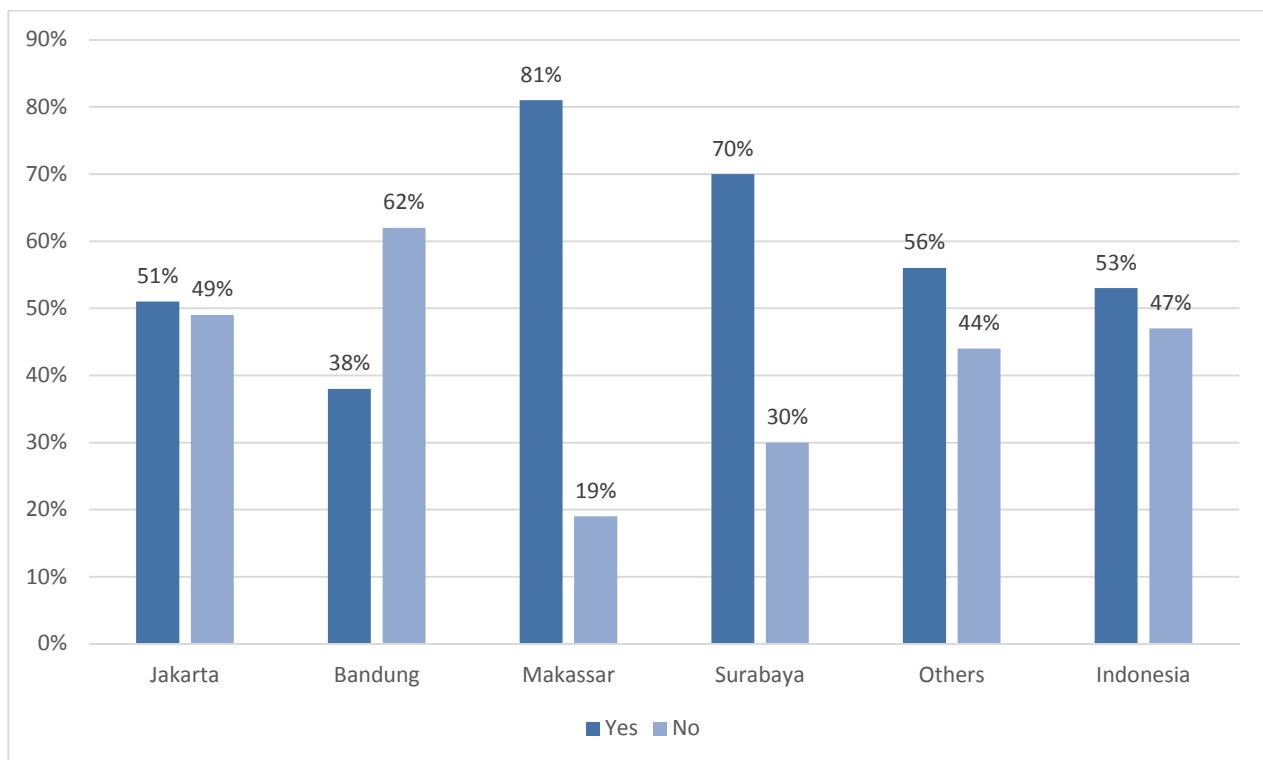
^ This question was asked as a multiple response question, and accordingly responses will not total 100%

## LEVEL OF SURPRISE

### Level of Surprise

A total of 53% of respondents are surprised to know oil and gas is a leading investor in new energy technology. This is higher in Makassar (81%) and Surabaya (70%).

**Graph: Oil and gas industry is the leading investor in new/renewable energy technology. Would you be surprised to know that?**





# FURTHER INFORMATION

**For further information please contact:**

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