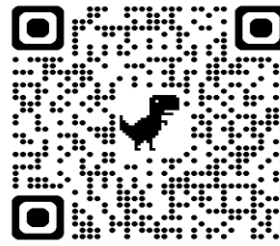


Google Form QR

0. Please write your name and affiliation. Name :

Affiliation :



**I. Understanding the current housing situation in Armenia**

**1. Select your type of residence:**

- 1) High Apartment (Over 5th floor)
- 2) Low partment (Under 5th floor)
- 3) Detached house
- 4) Other

**2. Please write the total area of your home.**

**3. Please write the number of rooms, bathrooms, living rooms, kitchens etc.**

- 1) Rooms ( )
- 2) Bathrooms ( )
- 3) Living rooms ( )
- 4) Kitchens ( )
- 5) etc. ( )

**4. Please select what you are most dissatisfied with about your current home.**

- 1) Heating and cooling (too cold or too hot)
- 2) Electricity (power outage)
- 3) It's noisy
- 4) Insulation is not good
- 5) Ventilation

**5. Please select the area you are dissatisfied with regarding air conditioning**

- 1) Under heated (It's cold)
- 2) Overheated (It's hot)
- 3) It's not uncomfortable
- 4) etc. ( )

**6. Please select what you are most dissatisfied with regarding electricity.**

- 1) The electricity goes out frequently

- 2) The electricity bill is expensive
- 3) The electricity usage is inaccurate
- 4) It is not inconvenient
- 5) Other

**7. Please select what you are most dissatisfied with regarding noise.**

- 1) I can hear outside sounds too well.
- 2) I can hear the noise next room clearly.
- 3) The noise between floors is severe.
- 4) It's not uncomfortable
- 5) etc. ()

**7-1. Is the house located close to the road?**

- 1) Yes
- 2) No

**8. Please select what you are most dissatisfied with regarding insulation.**

- 1) It's cold in the winter and hot in the summer
- 2) It's Infiltration
- 3) There's a lot of condensation (it causes mold)
- 4) It's not uncomfortable
- 5) Other

**9. Please choose the space in your home that you think is most urgent to improve in terms of energy efficiency. (Space)**

- 1) Exterior wall
- 2) Roof
- 3) Window
- 4) Door
- 5) Floor

**9-1. Please choose the facility in your home that you think is most urgent to improve in terms of energy efficiency.(Facilities)**

- 1) Heating equipment
- 2) Cooling equipment
- 3) Water supply equipment
- 4) Lighting equipment
- 5) Kitchen equipment

**10. Is the heating system in your house central heating or individual heating?**

- 1) central heating
- 2) individual heating

3) not sure

**10-1 What is the main heating system in your home?**

- 1) Gas boiler
- 2) Electric boiler
- 3) Gas Heat Pumps
- 4) Electric Heat Pumps
- 5) Ground source Heat Pumps
- 6) Solar Thermal Heaters
- 7) Bio fuel
- 8) etc. ( )

**11. What is the main cooling system in your home?**

- 1) Air conditioner
- 2) Electric fan
- 3) Open the window
- 4) None
- 5) etc. ( )

**12. What is the main hot water system in your bathroom & kitchen?**

- 1) Gas boiler
- 2) Electric boiler
- 3) Gas Heat Pumps
- 4) Electric Heat Pumps
- 5) Ground source Heat Pumps
- 6) Solar Thermal Heaters
- 7) Bio fuel
- 8) etc. ( )

**13. Are renewable energy system in your home? If so, what type of renewable energy is installed?**

- 1) Solar power generation (electricity)
- 2) Solar heat generation (hot water)
- 3) Heat pump (heat exchange of air heat, geothermal heat, etc.)
- 4) None
- 5) etc. ( )

**II. Policy opinion**

**1. Do you know about the building energy efficiency rating system in Armenia?**

- 1) I know

2) I don't know

**1-1 What are the building energy efficiency ratings that you know?**

- 1) 2016 «ՇԵՆՔԵՐԻ ԶԵՐՄԱՅԻՆ ՊԱՇՏՊԱՆՈՒԹՅՈՒՆ» Building Energy Efficiency Evaluation
- 2) 2022 «ՇԵՆՔԵՐԻ ԷՆԵՐԳԱԱՐԴՅՈՒՆԱՎԵՏՈՒԹՅԱՆ ԱՊԱՀՈՎՈՒՄ. ԷՆԵՐԳԱԱՐԴՅՈՒՆԱՎԵՏՈՒԹՅԱՆ ԳՆԱՀԱՏՄԱՆ ՑՈՒՑԱՆԻՇՆԵՐ» EE Class
- 3) I don't know

**2. Please select what you think are the factors hindering the diffusion of energy efficiency standards and certification systems for Armenian buildings.**

- 1) The standards and certification systems related to building energy efficiency are recommendations rather than mandatory.
- 2) There is no penalty for not complying with the standards and certification systems related to building energy efficiency.
- 3) The standards for the standards and certification systems related to building energy efficiency are too high.
- 4) There is no incentive for the standards and certification systems related to building energy efficiency.
- 5) There is a lack of products and technologies to comply with the standards and certification systems related to building energy efficiency.
- 6) The standards and certification systems related to building energy efficiency are not well known.
- 7) Although the standards and certification systems related to building energy efficiency are mandatory, there is a lack of awareness of why they should be followed.

**3. What do you think is the most important improvement to make to expand the energy efficiency system in buildings?**

- 1) Legal system
- 2) Incentives
- 3) Product improvement
- 4) Technology improvement
- 5) Promotion and education

**4. What do you think needs to be most improved in the legal system to improve the energy efficiency of buildings at the design stage?**

- 1) Mandatory regulation and certification system
- 2) Penalty for non-compliance with regulations and certification system
- 3) Strengthening of regulations and certification system standards
- 4) Relaxation of regulations and certification system standards

**4-1. What do you think needs to be most improved in the legal system to improve the energy efficiency of buildings at the certification stage?**

- 1) Mandatory regulation and certification system
- 2) Penalty for non-compliance with regulations and certification system
- 3) Strengthening of regulations and certification system standards
- 4) Relaxation of regulations and certification system standards

**4-2. What penalties do you think would be effective in the event of noncompliance with building energy efficiency-related standards and certification systems?**

- 1) Imposition of fines
- 2) Restrictions on building permits and use
- 3) Restrictions on public project bidding
- 4) No separate penalty required

**4-3. If the government does not issue building permits for buildings that do not comply with the regulations and energy efficiency certifications related to building energy efficiency, how do you expect people to react?**

- 1) It seems likely that they will comply with the regulations and obtain certification
- 2) It seems likely that there will be many opposing opinions about the implementation of the system

**5. Would it be effective in the market if incentives were provided for implementing standards and certification systems to improve building energy efficiency?**

- 1) Yes
- 2) No

**5-1. If incentives are given for implementing the standards and certification system for improving building energy efficiency, please list which incentives would be effective.**

- 1) Providing benefits related to construction (floor area ratio, height, landscaping)
- 2) Tax reduction
- 3) Subsidy payment
- 4) Low-interest loan
- 5) Please list them in order: ( )-( )-( )-( )-( )

**5-2. Please select which of the construction-related benefits would be most effective as an incentive.**

- 1) Increased building area
- 2) Increased building height
- 3) Reduced mandatory landscaping area
- 4) Reduced donation related new construction(contributed acceptance)

**5-3. Please select which tax reduction benefit would be most effective as an incentive.**

- 1) Property tax reduction

- 2) Acquisition tax reduction
- 3) Registration tax reduction
- 4) Certification fee reduction

**5-4. Please select the incentives you have received (multiple selections possible)**

- 1) Provision of benefits related to construction (floor area ratio, height, landscaping)
- 2) Tax reduction
- 3) Subsidy payment
- 4) Low-interest loan
- 5) Never received

**6. Please select what you consider most important in terms of product improvement for effective implementation of building energy efficiency-related norms and certification systems.**

- 1) Building insulation
- 2) HVAC (heating, Ventilation, and Air Conditioning)
- 3) Renewable energy (photovoltaic, solar thermal, etc.)
- 4) Energy management (BEMS, smart metering, etc.)

**6-1. Please select the aspect of passive product improvement that you consider most important.**

- 1) Windows
- 2) Insulation
- 3) Exterior finishing materials
- 4) Interior finishing materials
- 5) Door

**6-2. Please select the aspect of active product improvement that you consider most important.**

- 1) Boiler (heating equipment)
- 2) Air conditioner (cooling equipment)
- 3) Lighting
- 4) Hot water equipment

**7. Please select the most important aspect of technological improvement for effective implementation of building energy efficiency-related standards and certification systems.**

- 1) Building insulation (high-insulation construction methods, utilization of natural lighting, etc.)
- 2) HVAC products (high-efficiency heating and cooling equipment technology, etc.)
- 3) Renewable energy
- 4) Energy management

**7-1. Please select the aspect that you consider most important among the passive**

**technology improvement aspects.**

- 1) Application of high-insulation method
- 2) Airtight structure
- 3) Layout plan
- 4) Utilization of natural lighting

**7-2. Please select the aspect that you consider most important among the active technology improvement aspects.**

- 1) High-efficiency heating equipment technology
- 2) High-efficiency cooling equipment technology
- 3) High-efficiency lighting equipment technology
- 4) High-efficiency hot water equipment technology

**8. Do you think renewable energy is necessary?**

- 1) Yes
- 2) No

**8-1. What renewable energy sources do you think are necessary?**

- 1) Solar power generation (electricity)
- 2) Solar thermal power generation (hot water)
- 3) Heat exchange (Air heat, geothermal heat, etc.)
- 4) etc. ( )

**8-2. If renewable energy sources are not needed, why is that?**

- 1) Energy rates are not expensive, so there is no need for it
- 2) Renewable energy has low energy rate reduction effect
- 3) Reliability of renewable energy facilities is low
- 4) etc. ( )

**9. Have you ever received training on the methods and benefits of building energy efficiency?**

- 1) Yes
- 2) No

**9-1. If you have received training, please briefly describe the institution and content of the training.**

**9-2. Who do you think needs the most publicity and education on the building energy efficiency certification system?**

- 1) General citizens
- 2) Building energy efficiency experts
- 3) Building energy efficiency evaluation/management/supervision government agencies
- 4) Construction industry workers