



**STEP**

Solutions to  
Tackle Energy Poverty

# TRAINING MODULES (FINAL) - QUIZ QUESTIONS

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## Quiz questions and answers

This document contains the quiz questions and answers that can be used at the end of each module to test the knowledge of the user taking them.

The parts in green are just an example of how the answers/ feedback to students can be adapted to national specificities.

## Module 1 - Basic knowledge about the energy sector

### 1.1 - European and national energy market

#### **Q1: The objective of the European energy market is:**

*Select one or more:*

- a. Ensure a high level of consumer protection
- b. Removal of numerous obstacles and barriers to trade
- c. Environmental and safety regulations implementation
- d. Centralization

#### **Feedback for students:**

Let's remember that during the 1990s, when most national electricity and natural gas markets were still monopolized, the European Union and the Member States decided to open these markets gradually to competition. The first liberalization directives (First Energy Package) were adopted in 1996 (electricity) and 1998 (gas), to be transposed into Member States' legal systems by 1998 (electricity) and 2000 (gas).

However industrial and domestic consumers are free to choose their own gas and electricity suppliers from a wider range of competitors from 2007.

The objectives of the changes in the energy sector is completion of the EU's internal market requirements: the removal of numerous obstacles and trade barriers; the approximation of tax and pricing policies and measures in respect of norms and standards; and environmental and safety regulations. The objective is to ensure a functioning market with fair market access and a high level of consumer protection, as well as adequate levels of interconnection and generation capacity.

Source: <https://www.europarl.europa.eu/factsheets/en/sheet/45/internal-energy-market>



**The correct answers are:**

- Removal of numerous obstacles and barriers to trade,
- Environmental and safety regulations implementation,
- Ensure a high level of consumer protection

**Q2: The Clean energy for all Europeans package is focused on:**

*Select one or more:*

- Preventing climate change
- Increasing and strengthening the role of consumers and prosumers in the energy market
- Withdrawal of state aid for fossil fuels

**Feedback for students:**

With this Package, the European Commission wants to mitigate climate change, stand for further development of the internal electricity market and promote carbon neutrality. A particular goal is to put consumers at the center of the new energy system, making it easier for them to become energy producers and sell any energy surplus on the market. These initiatives are also aimed at encouraging companies to invest in new green technologies.

As a result, consumers should profit by free access to smart meters and dynamic prices as well as the option of switching electricity supplier for free within a maximum of three weeks (and 24 hours by 2026). Member States will be able to temporarily regulate prices to support and protect vulnerable households.

**The correct answers are:**

- Preventing climate change
- Increasing and strengthening the role of consumer and prosumer in the energy market
- Withdrawal of state aid for fossil fuels

## 1.2 - Types of energy on the market

**Q1: Which of the following are renewable energy sources?**

*Select one or more:*

- Wind energy
- Energy from coal
- Geothermal energy
- Wave and tidal energy
- Energy of flowing water
- Energy from biomass
- Solar radiation energy



**Feedback for students:**

Renewable energy sources are inexhaustible in the long term and they do not deplete as they are used. They are profitable for implementation of the CO<sub>2</sub> neutrality. Wide use of renewable energy impact on view on the consumers and their role in the energy market. The consumer becomes the customer of the energy seller as well as the energy producer.

A new term – prosumer- was created, and new changes in the law and the system of market access (e.g. receipt of energy surplus from the prosumer) are crucial. The effect of the changes is Clean energy for all Europeans, mentioned in chapter 1.1. It is not accidental that decarbonization is only possible with decentralization and democratization of the energy market. 3D (digitalization, decarbonization, dynamic regulation) is a popular term for changes taking place in European and national energy markets.

**The correct answers are:**

- Solar radiation energy,
- Geothermal energy,
- Wind energy,
- Energy of flowing water,
- Energy from biomass,
- Wave and tidal energy

## 1.3 - Market participants

**Q1: DSO - distribution system operator:**

*Select one or more:*

- a. is an energy seller
- b. is the owner of the power grid
- c. is responsible for energy supply and its quality

**Feedback for students:**

The distribution system operator takes care of the distribution system, thus enabling the delivery of electricity to the recipient. Although it is the DSO that provides information about how much electricity users consumed and connects/disconnects them from the network, consumers conclude their energy contract with the energy supply company.

In Poland, the obligations of distributors are defined by the Energy Law. These include, among others:

- conducting network traffic in the distribution network,
- conducting operation,



- maintenance and repair of the distribution network,
- distribution network development planning,
- ensuring expansion of the distribution network,
- system balancing and system congestion management,
- enabling the implementation of electricity sales contracts by customers connected to the network,
- maintaining an appropriate level of security in the operation of the distribution network.

#### Distribution System Operators in Poland:

- Tauron Dystrybucja SA
- PGE Dystrybucja SA
- Enea Operator Sp. z o.o.
- Energa-Operator SA
- Innogy Stoen Operator Sp. z o.o.

However in some specific cases local company owning infrastructure can also be DSOs.

#### The correct answers are:

- is the owner of the power grid,
- is responsible for energy supplies and its quality

#### Q 2: Can consumers change energy supplier?

Select one:

- a. Yes
- b. No

#### Feedback for students:

The consumer may change the seller, but he/she cannot change their DSO.

The Electricity Directive 2003/54 / EC obliges Member States to provide certain sections of the population (households), and if the state decides - including small enterprises - the right to benefit from a comprehensive service including electricity supply (sales and network services) at "reasonable prices", easily and clearly comparable and transparent. " Member States may appoint a supplier of their own authority to ensure universal service. The Gas Directive does not introduce a deadline for comprehensive service, however, it gives Member States the right to select the seller ex officio also for customers connected to the gas network.

In Poland, the Energy Law declares five ex officio sellers. Each of the five companies (ENEA, ENERGA, PGE, INNOGY, TAURON) being the former monopoly is automatically allocated to



household electricity consumers who have not changed their supplier. The seller ex officio belongs to the same capital group as the local distributor (DSO).

The Energy Law imposes on the seller, ex officio, the obligation to conclude agreements with the consumer, i.e. the contract agreement covering the sale and distribution of electricity.

**The correct answer is:**

- Yes

## 1.4 - Types of energy contracts

**Q1: When switching electricity supplier, the company providing the distribution service will automatically change?**

*Select one:*

- a. Yes
- b. No

**Feedback for students:**

Changing the seller, consumers are still with their distribution system operator, who is responsible for the infrastructure through which energy is supplied through.

In Poland, unfortunately, this fact and the lack of common knowledge on this subject is used by dishonest energy sellers, who promise to the consumers lower energy fees, but "forget" for the simulations shown to mention the distribution fee, which will not change and still will be a consumer cost to pay.

**The correct answer is:**

- No

**Q2: A complex agreement is an agreement:**

*Select one:*

- a. for sale and distribution of energy
- b. for sale of gas and electricity

**Feedback for students:**

Under Polish conditions and in accordance with Polish regulations, if the consumer does not change the energy seller himself, he is served under a complex agreement, which includes both the sale of electricity and the service by the distribution system operator (DSO)

Agreements combining various services, e.g. electricity with insurance, an electrician service, or telecommunication services combined with a power supply service should ALWAYS be carefully read and analyzed before signing. If the consumer will not thoroughly analyze the gains or - what



is more common - will inaccurately analyze actual needs, guided only by the potential benefits, will as a result purchase a costly or of less use service.

**The correct answer is:**

- for sale and distribution of energy

**Q3: Does the consumer always pay for the pre-paid meter installation?**

*Select one:*

a. Yes

b. No

**Feedback for students:**

For consumers who have problems paying their electricity bills, the energy company may decide to install the meter. It is difficult to assess whether it is a clearly beneficial solution for the consumer, because it prevents from indebtedness, however the cost for kWh spent is slightly higher in pre-paid tariffs.

**The correct answer is:**

- No

## 1.5 - Consumers and groups on the energy market

**Q1: Is investment in renewable energy sources reserved only for wealthy consumers?**

*Select one:*

a. Yes

b. No

**Feedback for students:**

Theoretically yes, practically not necessarily. The plan of ownership of consumer shares - is an example in which energy-poor consumers have a chance to become co-owners of renewable energy sources. If consumers find a renewable energy scheme or community operating in their area, they should do not hesitate to contact a consumer organization for support in assessing the terms of the contract offered.

**The correct answer is:**

- No



## **Q2: Can consumers create cooperatives and buy energy together?**

*Select one:*

- a. Yes
- b. No

### **Feedback for students:**

Yes - one of the cooperative's activities may be buying energy for its members. In the next presentation from this series, which is not obligatory for you, you can read - interesting - as we think, examples of various solutions used in Europe. What is more, we believe that one should not focus only on current advice on how to save energy. It is worth knowing that alternative solutions are becoming more and more popular, and some of them have a chance, if not now - to include consumers at risk of poverty in the energy sector in the near future.

### **The correct answer is:**

- Yes

## **Q 3: Can a consumer be a member of an energy cluster?**

*Select one:*

- a. Always yes
- b. Neither yes nor no is correct
- c. Always no

### **Feedback for students:**

Both answers are correct to some extent. The cluster is an entity that generally associates large institutions (like several municipalities) and it is difficult to handle contracts with distributed prosumers. But nothing prevents prosumers from creating their own group and becoming a member of the cluster as a group.

It should be remembered that the various forms we write about in this presentation are the market's response to the changes taking place in European legislation. The consumer is certainly no longer just a passive energy recipient, along with the already initiated process of democratization of the energy market, the position of the consumer as a participant in this market will be strengthened. The consumer at risk of energy poverty obviously has other more important problems than investing, e.g. in the development of renewable energy sources.

### **The correct answer is:**

- Neither yes nor no is correct





## 1.6 - Tariffs: evaluation, change, special tariffs

**Q1: Is the cost of 1 kWh the most important for the consumer when choosing a tariff?**

*Select one:*

- a. Yes
- b. No

**Feedback for students:**

Single kWh cost is important, but not the main factor of pricing. We recommend a special attention to be paid to fixed elements, like monthly subscription fee. Such costs can diminish all savings from kWh price. As always with consumer choices, common sense is most important, time for analysis and avoiding the trap of buying under the pressure of the moment etc.

Assessing the consumer needs is very important needs, i.e. a contract with extremely cheap energy between 12 and 3 am will definitely not be beneficial for everyone. It is best if the consumer, in general, but especially in the case of a vulnerability to ask the seller for time to make a decision and consult the contract and its terms with an advisor.

**The correct answer is:**

- No

**Q2: Can the consumer switch energy distributor (DSO)?**

*Select one:*

- a. No
- b. Yes, if has a comprehensive agreement

**Feedback for students:**

Of course not. Energy advisors should be aware that consumers do not usually know this fact, which brings sometimes confusion and vulnerability to being cheated by unfair door-to-door sellers.

**The correct answer is:**

- No

## 1.7 - Collective switching

**Q 1: Collective switching of energy supplier is:**

*Select one or more:*

- a. **not allowed in Poland**



- b. available to the consumers
- c. obligatory for residents of one apartment block

**Feedback for students:**

This is available and, moreover, very popular in most European countries - where there has been complete liberalization of the energy market. This is a chance to buy cheaper electricity, cheaper gas. Consumer organizations are one of the specialized entities in the organization of collective group purchases and energy auctions.

**The correct answer is:**

- available to the consumers

**Q 2: The goal of group switching is to reduce energy prices**

*Select one:*

- a. Yes, but not only to reduce price
- b. Yes, only to reduce the price

**Feedback for students:**

Group switching is done not only in the purpose to reduce prices. Organizers make sure that competing companies also provide adequate consumer protection in contracts, without additional costs and without contractual penalties. The price is important but it shouldn't be the only determinant when evaluating an offer.

**The correct answer is:**

- Yes, but not only to reduce price

## 1.8 - Energy market

**Q1: Energy market in EU is a:**

*Select one:*

- a. Market during liberalization process
- b. Market based on state monopoly
- c. Totally free market

**Feedback for students:**

During the late 1990s, the European Union decided to fundamentally change the basis for the provision of electricity and gas from a monopolistic to a competitive market framework. The first electricity and gas Directives removed the legal monopolies and partially opened the market to competition by allowing large users to choose their suppliers. In 2007 EU decided for effective



separation of supply and production activities ensuring equal and open access to transport infrastructures and independence of decisions on investment in infrastructure.

However, some forms of market regulation make it possible to take account of the fundamental importance of secure and reliable energy supply for the public welfare. This a reason for regulation specific standards, regarding the so-called services of general interest and to security of supply. Such regulations limit private market development, but some form of regulation is however needed to accompany market liberalizing measures (e.g regulatory administration).

*In Poland this crucial role is held by the Energy Regulatory Office.*

**The correct answer is:**

- Market during liberalization process

**Q2: Who is the owner of the energy infrastructure (e.g. energy meters, energy lines, transformers)?**

*Select one:*

- a. The state
- b. The power plants and sometimes the coal mines
- c. The distribution system operators

**Feedback for students:**

Prior to the liberalization, in almost all the Member States electricity and gas were historically supplied by monopolies, which were often owned or controlled by the State and had exclusive rights under the national law. These companies were vertically integrated, as they owned the networks and the generation facilities and were involved in the supply phase. One of the unbundling priorities were to separate sales and distribution. A Distribution System Operator (DSO) securely operates and develops an active distribution system comprising networks, demand, generation and other flexible distributed energy resources.

As a neutral facilitator of an open and accessible market it enables competitive access to markets and the optimal use of energy resources on distribution networks. It also ensures security, sustainability and affordability with the purpose to support the whole system optimization.

**The correct answer is:**

- The distribution system operators

## 1.9 - Representing consumers in energy matters

**Q1: The information on the energy bill is understandable for everyone.**

*Select one:*

- a. Yes
- b. No



**Feedback for students:**

Unfortunately not, but surely it should be easier to understand. EU directives state that consumers have the right to obtain accurate information on energy consumption and billing on this basis. Hopefully bill readability will get better thanks to the proposed provisions of the "Clean energy for all Europeans" Package, adopted in May 2019. For those interested in the topic, we suggest visiting: [https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/protecting-energy-consumers\\_en?redir=1](https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/protecting-energy-consumers_en?redir=1)

**The correct answer is:**

- No

**Q2: Which state institutions are responsible for consumer protection in the energy market?**

*Select one:*

- a. Energy Regulatory Office
- b. Office of Competition and Consumer Protection
- c. Both of the above

**Feedback for students:**

The Office of Competition and Consumer Protection as the central body of state administration is responsible for the application of consumer policy, which also applies to the energy market, if there are problems such as:

- infringements of collective consumer interests
- unfair commercial terms
- misleading advertising

The Energy Regulatory Office - in its activities ensures that the position of the energy recipient (i.e. also the consumer) is properly secured. What does this mean in practice? Let's use an important example in consumer counseling.

The President of the ERO has the right to withdraw the license or change its scope if the entrepreneur violates the conditions set out in the license or other conditions for conducting the licensed business activity, as defined by law. For example, if the seller misleads customers during direct sales about his name, the actual purpose of the visit and the conditions for supplying

them with electricity, or by not giving them full, reliable and comprehensive information about their rights and obligations.

**The correct answer is:**

- Both of the above



## 1.10 - Energy efficiency and health conditions

**Q1: The most important parameters characterizing and affecting the quality of the natural environment are:**

*Select one or more:*

- a. Dust concentration PM 2.5, PM 10
- b. Air humidity
- c. Air temperature
- d. Air pressure

**Feedback for students:**

Appropriate ventilation prevents dampening and molding of a household and moisture and mold can cause lung and respiratory diseases. People living in damp rooms and breathing polluted air are 40% more likely to develop asthma. This is especially dangerous for children.

In pursuit of maintaining thermal comfort in the rooms, ventilation should not be forgotten while focusing on draught proofing and airtightness of windows. At the same time, ventilation does not mean a tilted window and radiators turned up on full potential. It may be trivial but in contacts with consumers it is worth emphasizing to turn off the radiators while opening the window.

When talking about humidity, it's also worth paying attention to eliminate behavioral errors, such as boiling water in a pot without a lid. Otherwise we will spend more time on boiling water and in addition water vapor will condense in the room, leading to its excessive moisture.

PM2.5 are atmospheric aerosols with a diameter not exceeding 2.5 microns. It is the most harmful dust for human health. It is very small and can get directly into the bloodstream. Similarly, slightly larger particles of PM10 are particulate matter, which primarily negatively affect the respiratory system, increase the risk of heart attack and stroke.

**The correct answers are:**

- Air temperature,
- Air humidity,
- Dust concentration PM 2.5, PM 10

**Q2: Which of the following user behaviours can improve indoor air quality?**

*Select one or more:*

- a. Smoking inside rooms
- b. Cyclical maintenance and inspection of ventilation systems
- c. Tight closing of windows and ventilation grids
- d. Airing of rooms



**Feedback for students:**

Too high humidity, exceeding 60 percent, can create breathing problems, and in addition promotes the development of mold and fungi in the household, which can also be the cause of many other diseases. On the other hand, too low humidity weakens the body and increases the risk of illness. This is especially dangerous for people with allergies, asthma and other respiratory diseases.

Periodic maintenance and inspection of ventilation installations ensure correct operation of the installation, increasing its efficiency and allowing optimal operation. Thanks to this, the air is ventilated and its quality is maintained at an appropriate level.

**The correct answers are:**

- Airing of rooms
- Cyclical maintenance and inspection of ventilation systems

**Q3: Which of the following diseases can be a symptom of being in contaminated rooms?**

*Select one or more:*

- Lung cancer
- Respiratory diseases
- Allergy
- Heart and circulatory system diseases

**Feedback for students:**

80 million Europeans live in damp and unhealthy buildings, spending 90% of their time there. When rooms are polluted, inadequate humidity and temperature are maintained and rooms are not ventilated, there is a risk of developing many different diseases. These include respiratory diseases, allergies, lung cancer, heart and circulatory system diseases. Cognitive abilities of children increase by 15% if they are provided with a good climate in the rooms they stay in.

The remedy is thermo-modernization or the use of additional insulation of external walls and roof, replacement of windows, doors, improvement or even repair of ventilation / air conditioning and sensible care for air comfort (e.g. ventilation of rooms, maintaining the right temperature).

**The correct answers are:**

- Respiratory diseases
- Allergy
- Lung cancer
- Heart and circulatory system diseases



## Module 2 - Energy at home

### 2.1 - Energy efficiency and user habits

#### Q1: Which of the following statements is true:

*Select one or more:*

- a. Devices in stand-by mode do not consume energy.
- b. Covering radiators does not affect their operation.
- c. When ventilating rooms, it is recommended to leave the heaters on.
- d. It is beneficial to lower the temperature in rooms that are rarely used.

#### Feedback for students:

Changing habits is an effective way to implement energy savings that does not require investment. These simple tips can be applied by any consumer:

- control thermostatic valves,
- lower the temperature in rooms that are rarely used,
- lower the temperature at night and during absence,
- matching the room temperature with its purpose and time of day,
- adjusting the temperature in the rooms to the outside temperature,
- turn off heaters when airing rooms (especially cold, preferably ventilated),
- do not keep rooms completely unheated because reheating them requires more energy,
- maintain heating at slightly lower but constant temperature,
- do not cover or block heaters (curtains, furniture),
- behind the radiator you can place a heater screen that will allow the heat to "come back" to instead of penetrating outside,
- regularly check the condition of the window seals (reduction of heat loss)

#### The correct answer is:

- It is beneficial to lower the temperature in rooms that are rarely used

#### Q2: What are the benefits of improving bad user habits?

*Select one or more:*

- a. Reduction of energy consumption.
- b. Significant improvement of indoor air quality.
- c. Reduction of facility operating costs.



**Feedback for students:**

Many apartment and house users misuse their rooms. The temperature is kept too high, devices do not work in the optimal range or they work when it is not necessary. Depending on the actions taken and the improvement of bad habits, we can reduce the need for energy. As the energy consumption decreases, the costs decrease proportionally.

**The correct answer is:**

- Reduction of facility operating costs.

**Q3: How much can we reduce the cost of electricity, reducing the working time of lighting with a power of 60 W by an hour a day for a year (365 days). The price of electricity should be 0.60 PLN / kWh:**

*Select one:*

- a. About 22 PLN
- b. About 13 PLN
- c. About 2 PLN
- d. About 7 PLN

**Feedback for students:**

Calculations for the task:

1 hour daily 60 W lighting operation:  $1 \text{ [h]} * 60 \text{ [W]} = 60 \text{ [Wh]} / \text{day}$

365 working days are:  $60 \text{ [Wh]} / \text{day} * 365 \text{ [days / year]} = 21900 \text{ [Wh]} \text{ per year}$

21900 [Wh] per year is divided by 1000 to get kWh:

21900 [Wh] for a year = 21.9 [kWh] / year

$21.9 \text{ [kWh]} / \text{year} * 0.60 \text{ [PLN / kWh]} = \text{PLN } 13.14 = \text{around PLN } 13 / \text{year}$

**The correct answer is:**

- About 13 PLN

## 2.2 - Energy labelling

**Q1: Class D energy efficiency means that:**

*Select one:*

- a. The product consumes the least energy
- b. This is the best ratio of product price to energy consumption
- c. None of the above are correct





**Feedback for students:**

We have already got used to the fact that most products in the store are marked as A and differ in the number of pluses. But in March 2021, the EU will return to the scale of energy efficiency classes: A-G and "pluses" will disappear.

Devices that are currently classified as A +++ will receive the letter "C" on a new scale. The letters "A" and "B" are reserved for products that have not yet appeared on the market and will be more energy efficient than currently available.

Labels will occasionally be scaled, depending on the market situation.

Changes will be made gradually until all devices are covered.

During transition periods, new energy labels will be used in parallel with the old ones until the old ones are completely withdrawn.

**The correct answer is:**

- None of the above is correct

## 2.3 - Energy performance certificates for buildings

**Q1: The obligation to draw up certificates applies to:**

*Select one or more:*

- a. Only the building or part of the building sold.
- b. A rented and sold building or part of a building.
- c. Only a rented building or part of a building.

**Feedback for students:**

Your answer is partially correct.

European law introduced the obligation to have a certificate and the purpose this was primarily to promote energy-efficient construction and increasing public awareness of the possibilities to achieve energy savings in buildings. The certificate compares the building (in terms of energy) with other buildings, which comply with current regulations. The certificate makes it easier for the owner to reliably present the advantages of the building or premises offered for sale or rent.

For the buyer or the tenant it provides protection against any unrevealed defects the building or premises being bought or rented.

**The correct answer is:**

- A rented and sold building or part of a building.



**Q2: How much time, from the date of preparation, is the energy performance certificate valid?**

*Select one:*

- a. 15 years
- b. Indefinitely
- c. 10 years
- d. 5 years

**Feedback for students:**

Any person who has drawn up certificates on the energy performance of a building has the obligation to store them for 10 years. This should be done together with the documents or a copy of and data on the basis of which the certificate was delivered. The certificate may expire however before this deadline, in the case when, as a result of construction works carried out, the energy performance of the building or parts of the building have changed.

**The correct answer is:**

- 10 years

**Q3: Mark the correct sentences:**

*Select one or more:*

- a. The information contained in the certificate allows the owner or tenant to estimate the approximate annual energy demand and its costs.
- b. The owner or manager of a building, having the appropriate permissions, can issue a certificate for his own building.
- c. The certificate only specifies the total demand for electricity in the building and its premises.

**Feedback for students:**

The certificate specifies the demand for energy that is necessary to meet the needs of the building or parts of the building, i.e.

- energy for heating and ventilation purposes,
- energy for preparing domestic hot water,
- cooling (if any),
- lighting (for non-residential buildings)

**The correct answer is:**

- The information contained in the certificate allows the owner or tenant to estimate the approximate annual energy demand and its costs.



## 2.4 - Windows - the weakest link in a building's thermal insulation

### Q1: In which cases it is worth recommending the modernization of windows?

*Select one or more:*

- a. In the case of casement windows, where the inner wings are equipped with a double-glazed unit (double-glazed unit).
- b. The building regularly feels "stuffy" so that users throughout the winter have the windows ajar, and thermostats set to 100%.
- c. In the case of composite windows repainted in 2015.
- d. The building uses three-pane windows (with combined glass) in an aluminium frame.
- e. The building underwent thermo-modernization in 2005, as a result of which windows with composite glass were used.

#### Feedback for students:

From an energy poverty perspective, window replacement should be considered if there are any old type windows (single-pane, box or composite. ATTENTION !!! not from insulated glass) or if they are crucial for the proper functioning of the ventilation systems and do not have diffusers.

#### The correct answers are:

- The building regularly feels "stuffy" so that users throughout the winter have the windows ajar, and thermostats set to 100%.,
- In the case of composite windows repainted in 2015.

### Q2: When should you use window diffusers?

*Select one or more:*

- a. When in the building we have mechanical ventilation with heat recovery (so-called recuperation).
- b. When PVC windows were used in the building as part of thermo-modernization, users must open them to ensure the right amount of fresh air comes in.
- c. When the windows are draughty so that you feel the movement of air when you put your hand on the frame.

#### Feedback for students:

Your answer is partially correct.

Needing to open the windows in winter causes excessive heat loss and increases the energy costs. If the carried out thermo-modernization caused a decrease in the efficiency of the ventilation system so that windows must now be open in winter then the application of window diffusers should be considered.



**The correct answers are:**

- When PVC windows were used in the building as part of thermo-modernization and users must open them to ensure the right amount of fresh air.
- When the windows are draughty so that you feel the movement of air when you put your hand on the frame,

**Q3: What are the best available window technologies?**

*Select one or more:*

- Window diffusers controlled automatically with manual adjustment
- Windows in which the U frame ratio is  $< 1.0 \text{ W / m}^2\text{K}$
- Triple glazed windows (with double glazing)
- Three-pane windows (with combined glass) in a steel frame
- Windows whose coefficient U of the glazing unit is  $> 1.0 \text{ W / m}^2\text{K}$
- Diffusers manually adjustable

**Feedback for students:**

Currently, the best windows available on the market are triple glazed windows with a  $U < 1.0 \text{ W/m}^2\text{K}$ . If there is no ventilation system in the building, mechanical supply/exhaust, then the best solution are automatic hygrostable window diffusers.

**The correct answers are:**

- Triple glazed windows (with double glazing),
- Window diffusers controlled automatically with manual adjustment,
- Windows in which the U frame ratio is  $< 1.0 \text{ W/m}^2\text{K}$ .

## 2.5 - Thermal insulation of the building envelope

**Q1: What parameter allows you to assess the thermal insulation of a building partition?**

*Select one or more:*

- Heat transfer coefficient U.
- Whether the wall has a layer of thermal insulation
- EP indicator of demand for non-renewable primary energy.
- Wall thickness.

**Feedback for students:**

The technical assessment of thermal insulation of a partition is based on the heat transfer coefficient U [ $\text{W/m}^2\text{K}$ ]

**The correct answer is:**

- Heat transfer coefficient U.



## **Q2: What do we mean by thermal insulation?**

*Select one or more:*

- a. Any material that increases partition thickness.
- b. Any material that does not contain eternit.
- c. Any material that increases the thermal insulation of the partition according to modern standards.
- d. Any material.

### **Feedback for students:**

As thermal insulation, we understand modern, contemporary insulation materials, e.g. polystyrene, mineral wool, PUR boards, etc. It is not a thermal insulation chipboard, OSB, roofing felt, straw, etc.

### **The correct answer is:**

Any material that increases the thermal insulation of the partition according to modern standards.

## **Q3: Mark the correct sentences:**

*Select one:*

- a. Thermal bridges that increase heat loss should be eliminated from the thermal insulation of building partitions.
- b. Nothing can be done with thermal bridges.
- c. Thermal bridges that increase heat loss are a natural phenomenon and we should worry about them.
- d. Thermal bridges are the invention of scientists, in fact they do not occur in most buildings.

### **Feedback for students:**

Thermal bridges should be insulated in such a way that their impact on heat loss is as minimal as possible.

### **The correct answer is:**

Thermal bridges that increase heat loss should be eliminated from the thermal insulation of building partitions.

## **2.6 - Selection of a heat source**

### **Q1: What solution will you suggest to a user exposed to energy poverty who uses a solid fuel boiler:**

*Select one or more:*

- a. Electric stove



- b. Automatic solid fuel boiler
- c. Condensing gas boiler if it is possible to make a gas connection and funding for such modernization is available
- d. Heat pump

**Feedback for students:**

The solution offered to the user at risk of energy poverty should not only be energy-efficient, but also relatively cheap in operation - such solutions are sources powered by gas or solid fuel with automatic control.

**The correct answers are:**

- Condensing gas boiler if it is possible to make a gas connection and funding for such modernization is available,
- Automatic solid fuel boiler

**Q2: What should be considered when buying a boiler?**

*Select one or more:*

- a. Boiler energy label
- b. The seasonal efficiency of the device
- c. Seller feedback
- d. Fuel quality requirements imposed by the manufacturer
- e. Neighbour opinion
- f. Nominal efficiency of the device

**Feedback for students:**

It should be checked that, in the case of solid fuel boilers, the manufacturer does not impose requirements on the quality of fuel that would cause the heating costs to be very high. Do not be guided by opinions, consider technical data - mid-season efficiency, energy label, etc.

**The correct answers are:**

- Fuel quality requirements imposed by the manufacturer,
- The seasonal efficiency of the device,
- Boiler energy label

**Q3: What should be the sequence of actions when deciding to replace the heat source?**

Action 1: Analysis of available sources of financing for modernization

Action 2: Expert analysis in terms of thermo-modernization potential

Action 3: Boiler selection

*Select one:*



- a. Sequence 2 - 1 - 3
- b. Sequence 1 - 2 - 3
- c. Sequence 3 - 1 - 2

**Feedback for students:**

The availability of co-financing may decide what will be the most cost-effective solution, however, to avoid errors, we start with analysis by the expert in terms of thermo-modernization.

**The correct answer is:**

- Sequence 2 - 1 - 3

## 2.7 - Lighting

**Q1: Estimate the savings resulting from replacing 2 fluorescent sources with an E27 thread (so-called energy-saving light bulbs), 23 W each, LED sources 12 W each, assuming that both work for 5h / day, 365 days / year, for an energy price of 0,70 PLN / kWh.**

*Select one:*

- a. Approx. 6 PLN / year
- b. Approx. 15 PLN / year
- c. Approx. 65 PLN / year
- d. Approx. 28 PLN / year

**Feedback for students:**

Power before modernization:  $2 \times 23 \text{ W}$

Power after modernization:  $2 \times 12 \text{ W}$

Working time in the year [h]:  $5 \cdot 365 = 1825 \text{ h / year}$

Energy consumption before modernization:  $2 \cdot 23 \cdot 1825/1000 \text{ *} = 84 \text{ kWh / year}$

Energy consumption after modernization:  $2 \cdot 12 \cdot 1825/1000 \text{ *} = 44 \text{ kWh / year}$

Energy costs before modernization:  $84 \cdot 0.70 = 59 \text{ PLN / year}$

Energy costs after modernization:  $44 \cdot 0.70 = \text{PLN } 31 \text{ / year}$

Savings:  $59 - 31 = 28 \text{ PLN / year}$

\* We divide energy consumption by 1000, to change from the unit Wh to the unit on which energy costs are calculated in – kWh

**The correct answer is:**

- Approx. 28 PLN / year

**Q 2: Estimate the savings resulting from replacing 8 halogen sources with a GU10 thread, power 42 W each, LED sources 5 W each, assuming that both work for 1.5 hours / day, 365 days / year, for an energy price of PLN 0.70 / kWh.**



Select one:

- a. approx. 251 PLN / year
- b. approx. 114 PLN / year
- c. approx. 92 PLN / year
- d. approx. 25 PLN / year

**Feedback for students:**

Power before modernization:  $8 \times 42 \text{ W}$

Power after modernization:  $8 \times 5 \text{ W}$

Working time in a year [h]:  $1.5 \cdot 365 = 547.5 \text{ h / year}$

Energy consumption before modernization:  $8 \cdot 42 \cdot 547.5 / 1000 * = 184 \text{ kWh / year}$

Energy consumption after modernization:  $8 \cdot 5 \cdot 547.5 / 1000 * = 22 \text{ kWh / year}$

Energy costs before modernization:  $184 \cdot 0.70 = \text{PLN } 129 \text{ / year}$

Energy costs after modernization:  $22 \cdot 0.70 = \text{PLN } 15 \text{ / year}$

Savings:  $129 - 15 = 114 \text{ PLN / year}$

\* We divide energy consumption by 1000, to change from the unit Wh to the unit for which energy costs are calculated – kWh

**The correct answer is:**

- approx. 114 PLN / year

**Q3: In what rooms are energy savings most justified?**

Select one or more:

- a. In a bathroom without a window, for a family of 5 persons
- b. In the attic of a secondary home used only when the owner arrive for the summer
- c. In the garage where the owner does "DIY" works during the night
- d. In the broom closet
- e. In the living room where there is a chandelier and 3 sconces (wall mounted-light appliances), all connected to one switch

**Feedback for students:**

The saving potential is greatest where lighting works the longest or the installed power is high.

**The correct answers are:**

- In the living room where there is a chandelier and 3 energy appliances, all connected to one switch,
- In a bathroom without a window, for a family of 5 persons,
- In the garage where the owner does "DIY" works during the night





#### **Q4: What parameters should we pay special attention to when choosing light substitutes?**

*Select one or more:*

- a. The life-time of the current light source
- b. Whether the colour of the bulb will match the room
- c. Source power
- d. Light beam
- e. The shape of the bulb compared to the current one
- f. Light colour (so-called light temperature)
- g. Cap type

#### **Feedback for students:**

The most important parameters of light sources from are:

- Checking the source type - so-called cap type
- Checking the luminous flux of the light source used so far
- Finding a source with comparable luminous flux and the lowest power (unless low power affects the 'light color temperature' too much, then choose the source with the lowest power at the corresponding color; usually in stores you can check the quality of light, which allows you to choose the color)

If several sources with comparable parameters are available, you can additionally compare the estimated life of the unit (often manufacturers provide such data expressed in working hours).

#### **The correct answers are:**

- Light beam,
- Source power,
- Cap type,
- Light color (so-called light temperature)

## **2.8 - Key electric appliances in households**

### **Q 1: Which of the following is true for the energy label?**

*Select one or more:*

- a. Shows the declared electricity consumption of the equipment.
- b. It allows you to compare the price of the device with other similar devices available on the market.
- c. Specifies the quality of the device.



**Feedback for students:**

Energy label - this is a label that presents information about the energy class of the device and describes its most important parameters by making it easier to compare several products from the same group.

The energy label of the equipment shows the estimated annual consumption of electricity and other resources, the level of noise generated and other parameters depending on the device.

**The correct answer is:**

- Shows the declared electricity consumption of the equipment.

**Q 2: In a household's electricity balance, most often, the largest share is represented by the:**

*Select one:*

- a. TV
- b. Lighting
- c. Washing machine
- d. Fridge

**Feedback for students:**

The fridge works 24 hours a day, 7 days a week. It is the equipment that everyone should pay special attention to when planning a purchase. Evaluate the energy class and buy one that has the best energy efficiency class. However, you should also compare the price of the fridge, because it often happens that the fridge with the highest energy-saving class is much more

expensive than the slightly more energy-consuming one. Before buying, assess your own needs, i.e. buy a fridge with the capacity that you actually need in the household.

**The correct answer is:**

Fridge

**Q3: Mark the false sentences:**

*Select one or more:*

- a. The devices should be used in accordance with the manufacturers' recommendations, and if possible turned off if not in use.
- b. Energy labelling allows customers to make an informed choice when purchasing equipment.
- c. Fluorescent lighting (the so-called energy-saving) is the most energy-efficient lighting.



### Feedback for students:

Once we purchase new home appliances and electronics, we can optimize energy consumption and operating costs:

- New equipment should be installed in accordance with the manufacturer's instructions and recommendations (especially built-in appliances, they need appropriate distances between furniture and heat dissipation).
- Read the operating instructions and follow the manufacturer's instructions.
- Some receivers can be turned off when not in use (TV, lighting, radio).
- Some devices have the option of enabling the energy-saving mode, tailored to the current needs (TV, washing machine) or have a holiday mode, when we are not in the household for a long time, and the device must continue to work (fridge).

### The correct answer is:

- Fluorescent lighting (the so-called energy-saving) is the most energy-efficient lighting.

**Q 4: Calculate the estimated annual energy cost, assuming: energy price 0.60 PLN / kWh, device power 2000 W, working time per year 50 hours.**

*Select one:*

- a. 6 PLN / year
- b. 20 PLN / year
- c. 60 PLN / year
- d. 126 PLN / year

### Feedback for students:

2000 W = 2 kW

$0.60 \text{ [PLN / kWh]} \times 2 \text{ [kW]} \times 50 \text{ [h]} = 60 \text{ [PLN]}$

### The correct answer is:

- 60 PLN / year

## 2.9 - Renewable Energy Sources

### Q 1: Mark the correct sentence

*Select one or more:*

- a. The use of renewable energy sources always reduces energy consumption.
- b. The use of renewable energy sources usually helps reduce energy costs.
- c. Renewable energy is always profitable.
- d. Renewable energy can help solve energy poverty.
- e. Everyone has the opportunity to use renewable energy.



**Feedback for students:**

It should be emphasized that in most cases the use of renewable energy sources does not affect at all, or slightly reduces energy consumption of the final customer. For example, a building that consumes 3000 kWh of electricity per year, after the use of renewable energy in the form of photovoltaics producing 2500 kWh / year for own purposes the building will still consume 3,000 kWh per year, but only 500 kWh will be bought from a distribution network.

From the point of view of energy poverty, the economic effect can be important. In the context of the cited example the user who until now was charged for 3000 kWh / year, after applying RES will be charged only for 500 kWh / year (over 80% less).

Their electricity bill will decrease by approx. 80% (this is an estimate whose accuracy depends on the share in costs which are fixed costs, subscription costs, etc. Of course, the investment problem remains, but with funding being obtained, favorable credit, external support (even participation in the form of group investments) this investment may also be available to persons at risk of energy poverty.

**The correct answers are:**

- The use of renewable energy sources usually helps reduce energy costs,
- Renewable energy can help solve energy poverty.

## 2.10 - Where to get energy advice and information

**Q 1: When facing a problem with understanding their invoice, consumers can ask for support with:**

*Select one or more:*

- a. The Consumer Federation
- b. A consumer ombudsmen
- c. A customer service employee
- d. Other

**Feedback for students:**

Of course, all the answers are correct. Advisors of the Consumer Federation are there to explain consumer issues, explain what is on the invoice, help write and submit a complaint. They will take the most effective actions for the consumer, also considering the needs and capabilities of the person concerned.

Similarly, the consumer ombudsman will work with consumers daily and are involved in solving problems.

Point of sale (POS) employees - this obviously depends on the standards implemented in the electricity seller company. According to the regulations, the bill should be understandable to the



consumer, so if this is not the case, the PO employee should clear any doubts. If the consumer still has doubts, or it seems to them that the employee did not explain everything, or it did but in an incomprehensible way – then they can use the help of the above-mentioned institutions.

The institutions listed here are not the only ones, more could be available depending on local possibilities and conditions.

**The correct answers are:**

- a customer service employee,
- The Consumer Federation,
- A consumer ombudsman
- Other

## Module 3. Consumer issue - Conscious consumer in the energy market

### 3.1 - Tariffs and tariff groups

**Q 1: Can a consumer who consumes a lot of energy at night benefit from tariff C?**

*Select one:*

- a. Yes
- b. No

**Feedback for students:**

The electricity tariff is a price plan according to which consumers pay for electricity consumption. Each tariff specifies the price per 1 kWh applicable at a specific time during the day. The household uses the G tariff. There are several categories of G tariff. The most popular are: G11 and G12.

**The correct answer is:**

- No

**Q 2: Should consumers change the tariff because the 'assigned' one in the contract is unfavourable for them?**

*Select one:*

- a. Yes
- b. No
- c. It depends

**Feedback for students:**



The tariff should be chosen depending on the consumer lifestyle and habits based on well-thought-through decisions. It is worth looking at all household tariffs and choose the one that can bring measurable energy savings and thus reduce bills. This depends on when and how much energy consumers use in the household. As usual with consumer choices one should not only evaluate the offer but above all their own needs and expectations.

**The correct answer is:**

- It depends

## 3.2 - Traps in the contracts

**Q 1: It is possible to withdraw from a contract with no cost for the consumer:**

Select one or more:

- a. Always
- b. If the contract is concluded outside the business premises, e.g. during a salesman's visit
- c. If the contract is concluded at a distance, i.e. via the Internet

**Feedback for students:**

If the consumer has entered into a distance or off-premises contract, he may withdraw from the contract by **submitting a statement within 14 days**. The withdrawal has no negative financial effects for the consumer. The consumer is only required to pay for the energy or gas actually consumed.

The right of withdrawal cannot be limited or excluded by the seller.

What's more, the consumer does not have to explain why he wants to withdraw from the contract, he does not have to give a reason, but must only submit a statement (e.g. by posting it by registered mail with confirmation of receipt).

**The correct answers are:**

- If the contract is concluded outside the business premises, e.g. during a salesman's visit
- If the contract is concluded at a distance, i.e. via the Internet

**Q 2: How long does the consumer have to withdraw from the contract (concluded remotely or off premises)?**

Select one:

- a. Always 14 days
- b. 14 days, but may be prolonged up to 12 months if the consumer is not properly informed of their rights
- c. 30 days

**Feedback for students:**



The consumer **has 14 days to withdraw** from the contract (concluded remotely or outside the business premises)

BUT...

The seller is obliged to inform the consumer about this right - lack of information means an extension of the withdrawal period by up to 12 months.

**The correct answer is:**

- 14 days, but may be prolonged up to 12 months if the consumer is not properly informed of their rights

**Q 3: If the contract with the consumer contains conditions that conflict with the requirements of good faith:**

*Select one:*

- a. the unfair terms in the contract do not bind the consumer
- b. the consumer must fulfil the contract anyway

**Feedback for students:**

Pursuant to Directive 93/13 / EEC, contractual terms which have not been individually negotiated, as is generally the case with an energy purchase contract, may be considered unfair if they conflict with the requirements of good faith and cause significant contractual imbalances, rights and obligations of the parties to the detriment of the consumer. Unfair contract terms do not bind the consumer. The remainder of the contract remains in force if this is possible after excluding unfair terms. This means that a contract containing prohibited provisions may in some cases be void in its entirety.

**The correct answer is:**

- the unfair terms in the contract do not bind the consumer

### 3.3 - How to read an electricity bill

**Q 1: The fee for energy distribution depends on the consumer's energy consumption.**

*Select one:*

- a. True
- b. False



**Feedback for students:**

The distribution fee includes a variable transfer fee, which is calculated depending on the energy consumption. In addition, the bill also has 10 items (which make up the distribution fee) that are not dependent on energy consumption and which the consumer has no influence over.

**The correct answer is:**

- True

**Q 2: Your energy bill may be based on:**

*Select one or more:*

- a. neighbourhood consumption average
- b. actual energy consumption
- c. estimation of consumption counted on last year's consumption

**Feedback for students:**

In case of regular meter reading or smart metering, energy bill is probably based on actual energy consumption. However it is possible and acceptable by law, that your bill may be based on the estimation and real consumption will be checked in longer periods like 6 months or even one year. This depends on the tariff the consumer has contracted.

**The correct answers are:**

- actual energy consumption,
- estimation of consumption counted on last year's consumption

## 3.4 - Energy consumption management

**Q 1: If you are billed for electricity based on forecasts, this means:**

*Select one or more:*

- a. The forecast is based on the energy consumption in a similar period, e.g. last winter.
- b. If an overpayment occurs, it can be refunded or credited to future invoices if the consumer does request the payback of the overpayment.

**Feedback for students:**

Billing on forecasts and regularization can be done on separate invoices or both on one single form. Therefore, when paying for energy, the following need to be included in the bill:

- prediction of the energy costs,
- payments done,
- actual energy consumed.





As a result, the billing invoice compensates for the differences between the forecast and the actual electricity consumption, as consumers pay for what they will use in the future, and get to pay extra (or get a refund) for what they used in the past.

**The correct answers are:**

- The forecast is based on current energy consumption in a similar period, e.g. last winter.
- If an overpayment occurs, it can be refunded to us or credited to future invoices if the consumer does not request the payback of the overpayment.

## 3.5 - Change of energy seller

### Q 1: Who assures in Poland that every consumer can change the seller?

*Select one:*

- a. the President of the Energy Regulatory Office
- b. the President of the Office of Competition and Consumer Protection

**Feedback for students:**

The directives mandate the designation of a national regulator that oversees the market, including the right to free change of seller. **In Poland, this institution is represented by the President of the Energy Regulatory Office ([ure.gov.pl](http://ure.gov.pl)).**

**The correct answer is:**

- the President of the Energy Regulatory Office

### Q 2: Does the consumer change their contract with the distributor by changing the supplier?

*Select one:*

- a. Never, the distributor stays the same
- b. It depends on the existing contract with the distributor
- c. The distributor is always changing

**Feedback for students:**

The Distribution System Operator (DSO) - is an energy company dealing in the distribution of electricity, responsible for operational safety, operation, maintenance and repairs as well as its necessary expansion, modernization. The distribution of electricity is simply its transport, which takes place on the power lines: high, medium and low voltage. Despite the change of seller, the distributor will remain the same, because he supports the supply of electricity in the area where consumers live. But, if we had a comprehensive agreement - that is, one agreement for distribution and purchase of electricity, then by changing the seller we will have to terminate the



comprehensive agreement and conclude two agreements: with a new seller and a new agreement with our current distributor. If the consumer grants a power of attorney to the new seller, this entire legal undertaking can take place without his personal participation. **The fees resulting from this agreement (i.e. for distribution) will remain unchanged because they are regulated by the Energy Regulatory Office.**

**The correct answer is:**

- Never, the distributor stays the same

**Q 3: Is it possible that as a result of the supplier change the consumer is left without electricity?**

*Select one:*

- a. Yes
- b. No

**Feedback for students:**

One can have only one energy supplier at the same time. Infrastructure owner - DSO - switches consumer into a new supplier during the change. But DSO cannot just switch us off and not switch on - so the continuity of supply should be ensured. Even if our supplier stopped his operational activity (i.e. case of bankruptcy) - Energy Law ensures a "reserve supplier" - usually incumbent company in the area of consumer's household. But this "reserve solution" is rather expensive - we strongly recommend choosing a new supplier as soon as possible to avoid higher bills.

**The correct answer is:**

- No

## 3.6 - Smart metering

**Q 1: Mark the correct sentences: A smart meter...**

*Select one or more:*

- a. allows you to reduce power consumption
- b. is beneficial only for the seller
- c. requires access to the Internet at home
- d. allows you to pay for actual consumption
- e. allows you to choose the optimal tariff

**Feedback for students:**

Smart meters can reduce power consumption - if our problem is that we do not know when and for what we consume energy, we can check it with the use of the smart metering system, we can also check whether our devices consume as much electricity as they should, maybe one of them



requires checking or repair.

One of the advantages of smart meters - no more estimations are needed - we are up to date, we pay for what we have used and we know what we have used.

It also makes the tariff selection easier - since we know when and how much energy we use, we can easily choose the offer and tariff that is favorable to us.

Smart meters are also beneficial for the seller as they allow continuous monitoring of energy system and the ability to react quickly to disruptions.

The smart meter does not require access to internet, but you need an interface / panel with functions that allow consumers to be active on the market. **In pilot implementations in Poland, operators provided consumers with a website and an application where measurement data can be tracked and analyzed. Unfortunately, not yet in real time (because the meters collect data every 15 minutes, but send data to the system once a day). Internet access will be needed if, in addition to a smart meter, we also use smart home solutions.**

**The correct answers are:**

- allows you to reduce power consumption, allows you to pay for actual consumption,
- allows you to choose the optimal tariff

## 3.7 - Complaints

**Q 1: Laws protecting the consumer on the energy market must ensure at least:**

*Select one or more:*

- dedicated solutions addressed to consumers at risk of energy poverty
- information on compensation and refunds that apply if the service quality standards guaranteed in the contract are not met, including incorrect and delayed billing
- information on the level of services rendered
- information on consumer rights, including complaint handling
- the possibility of using transparent, simple and inexpensive complaint handling procedures

**Feedback for students:**

According to Directive 2009/72 / EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and Directive 2009/73 / EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas all listed points should be provided to consumers on domestic markets.

**The correct answers are:**

- information on the level of services rendered,
- information on compensation and refunds that apply if the service quality standards guaranteed in the contract are not met, including incorrect and delayed billing,
- dedicated solutions addressed to consumers at risk of energy poverty,
- information on consumer rights, including complaint handling,



- the possibility of using transparent, simple and inexpensive complaint handling procedures

## 3.8 - ADR in disputes with energy sellers

### Q 1: ADR proceedings in disputes with the energy supplier:

*Select one or more:*

- a. is mandatory for the supplier
- b. an agreement concluded thereunder is mandatory for both parties
- c. is mandatory for the consumer

#### Feedback for students:

ADR proceedings are amicable, voluntary and aim to help the parties to the conflict in reaching an agreement. The proceedings are voluntary for the Parties, and the result depends on the will and activity of the consumer and the enterprise. If the parties fail to reach agreement in this proceeding, it will be necessary to go to court.

Working out an amicable settlement of the dispute may require concessions. Arbitration means that the parties will have to give up some of their claims to reach a settlement. However, the reward will be a quick end to the dispute, which can be difficult in ordinary court.

#### The correct answer is:

- an agreement concluded thereunder is mandatory for both parties

## 3.9 - Debt and recovery

### Q 1: The seller may cut off electricity or gas supply when:

*Select one or more:*

- a. the consumer is in delay of payment for at least 30 days after the due date
- b. it was found after inspection that there was illegal gas or energy consumption
- c. it was found after inspection that the recipient's installation poses a threat to life, health or the environment
- d. under certain conditions, the recipient will not agree to the installation of a prepayment device
- e. the consumer does not use energy or gas at all

#### Feedback for students:

All statements - except when not using the energy are true.

Pre-paid meters can be obligatory for consumers with negative payment history - as a tool for reducing indebtedness.

Security and safety measures can also be a reason for disconnection. Re-connection should be done immediately after dangerous factors (exposed cables, flammables surrounding meter, etc.) are



eliminated.

In case of illegal consumption - disconnection will last until the meter and installation are legally connected and approved by technicians.

The seller must inform in advance about his intention to cut-off and give additional time for settlement of arrears.

The cut-off cannot be made while the complaint process is in progress or the case is being considered by the Negotiation Coordinator acting at the President of the Energy Regulatory Office.

**The correct answers are:**

- under certain conditions, the recipient will not agree to the installation of a prepayment device,
- it was found after the inspection that the recipient's installation poses a threat to life, health or the environment,
- it was found after the inspection that there was illegal gas fuel or energy consumption,
- the consumer is in delay of payment for at least 30 days after the due date

**Q 2: After receiving the request for payment, can the consumer negotiate with the seller the payment in instalments?**

*Select one:*

- a. Yes
- b. No

**Feedback for students:**

The basic recommendation for consumers is that when problems arise, e.g. paying bills, consumers should talk to the supplier, negotiate debt repayment terms, e.g. installments.

**The correct answer is:**

-Yes

## Module 4. Social system

### 4.1 - Basic knowledge about social system and poverty

**Q 1: Social assistance is provided at the request of:**

*Select one or more:*

- a. consumer
- b. law agent



c. ex officio

**Feedback for students:**

The right to social aid (including financial) is owed to people and families whose income does not exceed the income criteria determined on the basis of the threshold of social intervention. Income criteria and benefits are updated and announced in the relevant regulation.

**The correct answer is:**

- All of the above.

## 4.2 - Consumers exposed to energy poverty

**Q 1: According to the regulations in Poland, an energy vulnerable person is:**

*Select one or more:*

- a. a person with an income below the poverty line
- b. a person who cannot afford to pay their energy bills and a risks cutting off electricity
- c. a person who lives in an old, poorly insulated home and uses only electricity to heat the rooms.
- d. none of the above

**Feedback for students:**

As for today, there is no statutory definition of energy poverty in Poland. Although all the answers are justified and appropriate and energy poverty is not only an economic problem, but also has social and health implications, none of the above is the right one.

**The correct answer is:**

- None of the above.

## 4.3 - Energy poverty

**Q 1: The energy allowance depends on the housing allowance.**

*Select one:*

- a. Yes
- b. No



### Feedback for students:

The energy allowance is granted by the head of the commune, mayor or city president, as an administration decision, at the request of a recipient. The energy allowance is a government administration task. The energy allowance is paid by municipalities.

An energy allowance can be given to a vulnerable beneficiary, i.e. a person who has been provided a housing allowance.

This person additionally :

- submits an application for an energy allowance
- has an electricity agreement with an energy company
- lives in the place where the electricity is supplied.

### The correct answer is:

- Yes

## 4.4 - Social system

### Q 1: Organizational units of social assistance are:

*Select one or more:*

- Social welfare centers
- Dedicated advising centers
- Family aid centers

### Feedback for students:

Poviat family aid centers are responsible for poviat tasks in the field of social assistance. The tasks of poviat family assistance centers in cities are the duties of municipal social welfare centers (municipal family aid centers).

Specific counselling such as legal, psychological and in family issues is provided to people and families who have difficulties or need support in solving their life problems, regardless of their income. The register of specialist counseling units is kept by the voivode.

### The correct answer is:

- All of the above

## 4.5 - Support mechanisms

### Q 1: Who can apply for the grants from the Clean Air Programme?



*Select one or more:*

- a. NGOs on behalf of the consumers
- b. a commune on behalf of a group of residents
- c. individual owner or co-owner of the house

**Feedback for students:**

The Clean Air Programme can be used by a private person who:

- is the owner or co-owner of a single-family house or
- has a residential premises separated in such a house with a separate mortgage registry
- has annual income up to PLN 100,000

Under above circumstances consumers in Poland can apply for basic support.

However, if monthly average income per person in the household does not exceed:

- PLN 1400 - if you live with someone
- PLN 1960 - if you live alone

Then consumers can apply for higher support.

**The correct answer is:**

- individual owner or co-owner of the house







**STEP**

Solutions to  
Tackle Energy Poverty

**TRAINING MODULES  
ONLINE AND OFFLINE  
(FINAL) –  
RECOMMENDED WAY  
OF USE**

# ABOUT THE PROJECT

Solutions to Tackle Energy Poverty (STEP) is a project to develop a simple, innovative and replicable model of measures to address energy poverty.

The project covers some of the [countries](#) with the [highest rates of energy poverty in Europe](#). These are Bulgaria, Cyprus, Czech Republic, Latvia, Lithuania, Poland, Portugal, Slovakia and the United Kingdom.



There are three specific objectives:

- To get consumer groups and frontline organisations, who advise people on a range of issues such as financial or health-related ones, to partner and deliver [advice](#) to energy poor consumers.
- To help energy poor consumers across the 9 countries save energy and improve their living standard. We will [advise consumers on more efficient energy consumption](#) and how this can help them save money and improve their health and well-being. We will carry out information campaigns, provide tips on [how to save energy](#), demonstrate cost savings and help put in place low-cost energy efficiency measures.
- To disseminate [best practices and policy choices](#) that can alleviate energy poverty and promote their replication in other EU countries.

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Author	Kamil Pluskwa-Dąbrowski (FK)
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## Recommended approach for the use of the training modules

Energy advising is interdisciplinary and its recipients require support in the field of economics, law, housing construction and basic physics is also welcome. If we consider energy advising dedicated to people at risk of energy poverty and vulnerable consumers there is a need to add on knowledge of social assistance, support systems and measures.

Energy consulting can be provided by employees or volunteers of various institutions and non-governmental organizations.

The training course described in this document was created as part of STEP project in which consumer organizations from European countries are directly involved, nevertheless the course is dedicated to various entities, institutions and organizations.

By giving the training a universal character, we tried to take into account as many factors as possible to make it useful not only for the project implementation, but also for other institutions that will be faced with the task of training energy advisers to help vulnerable consumers.

### 1. Scope of the training

The training is designed for various institutions and can be used by people with different basic education and various levels of preparation for consulting work. To meet this assumption, we adopted a modular training model, provided the user with almost 40 units that can be adapted according to the recipient's needs. As a result, the training is appropriate both for the advisor (lawyer) from a consumer organization and a long-term employee of the social service. To organize the training, one simply needs to choose the right modules that complement the student's knowledge.

We have selected four main areas in which vulnerable consumers need the advisors support - they constitute training blocks:

- basic knowledge about the energy sector
- energy at home
- consumer issue - conscious consumer in the energy market
- social system

Each of the thematic blocks consist of modules - available in the off-line training as power point presentations. An extra training block has been added for the training of energy advisors and frontline workers on Data Privacy and Project Reporting.



## 2. How to use the training modules

### 2.1 Adaptation

We believe that the trainings organized for consumer energy advisers prepared under the project are convenient for use by other institutions in all EU countries. However, we are aware that trainings should be adapted to the specificities of each energy market.

Despite many common regulations and provisions, it is important that the adviser knows how to effectively use the national regulations and can advise the consumers including their needs and possibilities.

We made use of European law and regulations wherever it seemed appropriate, but in many places we used the national (Polish) regulations as an example. Our purpose was to show multipliers how to train advisers, that is, to what level of detail they should refer to in course preparation. We marked the typical Polish references both in the training presentations and in the additional file (questions and answers) in green. It should help in training adaptation to the national circumstances.

However, several presentations (three) in the field of social assistance should be written in accordance with the national specifics, here the differences are so large between countries that they require individual work of each entity that intends to train counselors.

### 2.2 Structure and recommended way of use

The modules can be best used at national level by following the sequence below.

1. Selection of appropriate modules – according to the student expectations and basic knowledge/professional background
2. Conducting lectures based on modules (presentation) used. Lectures can be conducted as a traditional (face-to-face) meeting or as a webinar.
3. As a bonus for students one can use the ending questions (from the file questions & answers). This is a quiz not a test. These questions can be asked (as a part of presentation or using one of the online poll tools) and the discussed with participants to clarify the answers. Examples of teacher comments can also be found in the questions & answers file.
4. One can also randomly generate a set of 15 questions for a final test based on the quiz questions.

The training modules will be adapted by the lecturers to the student needs, to the online or off-line environment and to the number of participants. They represent thus the basis on which all STEP trainings will take place.

