LITHUANIAN INSTITUTIONS RESPONSES TO THE PUBLIC CONSULTATION ON THE GREEN PAPER OF THE EUROPEAN COMMISSION FOR "A 2030 FRAMEWORK FOR CLIMATE AND ENERGY POLICIES"

4. Questions

4.1. General

Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

During the process of designing a framework for 2030 climate and energy policies it should be necessary to:

- evaluate the experience gained in the implementation of 2020 objectives while drawing attention to the inadequate system of subsidies. Widely applied subsidies for renewable energy distorted the market and did not create the appropriate conditions for the final energy prices to decline. Such system of subsidies and the inefficient Emissions Trading System have also led to a negative impact on the new electricity generation projects, thereby reducing the EU's competition in the electricity industry. All these circumstances have led to the competition of new generation projects for the subsidies between states, but not for the lowest price of electricity generation throughout the EU;

- take into account the need to ensure an economically optimal and consumer favourable self-supply of energy resources in all EU countries, to keep the competitiveness of goods and services in worldwide markets. This should be done by creating mechanisms that would maintain sustainable development of EU and MS energy and other industry sectors, based on low carbon dioxide emission technologies, increase of energy production and consumption efficiency, as well as RES utilisation in cost-effective manner;

- prioritise coherence of measures, designed to achieve the objectives of climate and energy policy;

- set mandatory targets for GHG reduction, RES utilisation and others on the EU and MS levels following a thorough impact assessment of the individual EU industry sectors and specific Member States, in order to avoid a negative impact on energy prices and economy competitiveness;

- assess how the objectives of the electricity security of supply will be implemented;

- take into account the need of a common EU policy on the unified energy infrastructure, import of energy resources (oil and gas) and priorities for investment;

- take into account the fragmentation of markets and the need for measures to reduce it;

- consider the fact that nuclear power plants are also regarded as the source of energy emitting low levels of CO2 into the environment;

- assess the increase of RES amount and the impact of such changes on the internal market: to coordinate the development regionally, for example, by evaluating the scale of RES

development on the socio-economic level, by harmonising the support schemes. RES should operate as close to the market conditions as possible. Repeal of national support schemes and the achievement of objectives through the Emissions Trading Scheme is to be considered;

- avoid the replacement of local electricity generation with electricity produced in third countries, not subject to similar environmental requirements as in the EU. To this end, the electricity import levies should be considered;
- envisage a relative target for energy efficiency.

Shaping a 2030 framework for climate and energy policies, strengths and weaknesses of the previously applied policy must be evaluated and a structured plan for its implementation must be outlined by setting priorities and assessing the risks.

In order to achieve the sustainable development objectives and cause a minimum negative impact on the environment, it is important to take into account the need to ensure an economically optimal and favourable to consumers self-supply of energy resources in all the EU countries, as well as to preserve the competitiveness of goods and services in worldwide markets.
When evaluating the experience gained in the implementation of 2020 objectives, attention should be drawn to the inadequate system of subsidies. The widely applied subsidies distorted the market and did not create the appropriate conditions for the final energy prices to decline. Such system of subsidies and the inefficient Emissions Trading System have also led to a negative impact on new electricity generation projects, which have become uncompetitive. Such system has led to the competition of new generation projects for the subsidies between states, but not for the lowest price of electricity generation throughout the EU.

For the year 2030, it should be sought to create mechanisms, which would maintain the sustainable development of EU and MS energy and all industry sectors, based on low carbon dioxide technology, the increase of energy production and consumption efficiency, RES utilisation in cost-effective manner – harmonisation of RES support schemes, at least on regional scale to avoid distortion of the market conditions in the adjacent states, trade of RES according to the guarantee of origin and other cooperation mechanisms between the Member States or with third countries. Therefore, in order to avoid a negative impact on energy prices and economy competitiveness, mandatory targets of GHG reduction, RES utilization and other should at the EU and MS level should be set following a thorough impact assessment of individual EU industry sectors and specific MS. Likewise, in order to ensure the implementation of climate and energy policies, as well as to determine the indicators and measures to achieve them, it is very important to assess how to implement the objectives of the electricity security of supply.

Determining the objectives and measures implementing them, their compatibility must be prioritised.
Cost of the measures, competitiveness of the energy resources market and fair price for the end-user should be in parallel with each other. The determined measures should be based on the existing and the potential sources of funding. Relocation of the subsidised activities, acquisition of additional financing and its diversion to the innovative technologies for the implementation of the measures is possible.

A common EU policy on the unified energy infrastructure, import of energy resources (oil and gas), and priorities for investment is necessary.
It would contribute to achieve the reorganisation of infrastructure in the EU and the Member States, as well as to assure the energy security and supply stability.

The persistent fragmentation of markets and the need of measures to reduce it must be taken into account.
Mechanisms promoting investments should be created to support further development of low carbon dioxide emissions technologies.

It is worth to note that the source of energy emitting low levels of CO2 into the environment is considered not only RES, but also nuclear power plants.
They require a large amount of initial capital, but are sufficiently competitive after investment payback period and can supply energy for an attractive price. In order to improve the investment environment and to reduce fragmentation between the separate MS, when certain intervention measures designed to ensure long-term return on investment are being implemented, it should be sought to simplify the rules of competition at the EU level, involving the provisions of State aid.

Attention should be drawn to the significant increase in quantity of RES in the EU and on a separate Member State scale, as well as to their influence on the internal energy market.
Due to the intermittency of RES generation and its heavier forecasting, it is suggested at least to go to the coordination of wind and solar plants development regionally, in order to prevent overproduction and negative RES impact on the neighbouring systems. The harmonisation of RES support schemes is to be considered in order to avoid the distortion of market conditions in neighbouring countries and to move towards the creation of a united market. The scale of RES development should be assessed in socio-economical view in order to minimise the cost of electric power for the end-users and the industry. This is because the rapid expansion of wind and solar plants requires conventional generation, which increases the cost to the public. It is believed that RES should operate as close to the market conditions as possible, i.e. to be responsible for balancing or to sell electric power in electricity market.

The abolition of the national RES support schemes and the pursuit of "green" intentions through the functioning Emissions Trading System could be considered.
The quantity of allowances and their price should encourage the development of new non-polluting technologies, as well as to ensure a fully functioning electricity market.

It is appropriate to establish electricity import fees for the electricity from the third countries, which are not subject to similar principles related to environmental requirements as in the EU.
In this way it would be ensured that local generation would not be replaced by the third countries' electricity, which is not subject to comparable environmental requirements.

In the energy efficiency area, the main target should be a relative target related to energy intensity.
This is particularly important for countries in economic transition, because the objective to reduce the general consumption of primary or final energy in absolute terms can become a restrictive factor for the economic growth of these countries.

4.2. Targets

Which targets for 2030 would be most effective in driving the objectives of climate and energy policy? At what level should they apply (EU, Member States, or sectoral), and to what extent should they be legally binding?

- In addition to the existing three indicators designed to reduce GHG, develop renewable energy resources and energy efficiency, at the EU level it would be appropriate to provide additional indicators for the development of energy infrastructure, investment in research and experimental development;

- indicators should be converted into objectives at national level;

- at the EU or Member State level mandatory targets should not be set for individual sectors (energy, industry, transport, agriculture, etc.)

At the EU level in addition to the existing three indicators designed to reduce GHG, develop energy efficiency and utilise RES, it would be appropriate to provide additional indicators to develop energy infrastructure, investment in research and experimental development.
In order to create the internal energy market, the greatest attention must be paid to the development of energy infrastructure, construction of cross-border interconnections in electricity/gas sectors and diversification of energy resources. While, in the current climate and energy policy strategy the GHG emissions, RES and energy savings targets effectively reflect climate policy ambitions, in order to implement the objectives of energy policy other additional indicators are also needed.

In any case, the indicators should be converted into objectives at national level.
These targets should reflect different MS economic and geographical conditions and allow adopting national measures freely in order to achieve the aforementioned targets by taking into account the local conditions.

At the EU or MS level the mandatory targets should not be set for individual sectors (energy, industry, transport, agriculture, etc.)
This would limit the flexibility to apply the most effective measures based on cost-benefit.

Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

- There have been inconsistencies between the current 2020 targets as they lacked assessment in terms of actual possibilities. Moreover, they could be considered as insufficient to achieve some of the objectives.

- The current 2020 targets did not include the market integration and energy infrastructure interconnectivity indicators. They are no less important and cause a direct impact on the efficient increase of energy efficiency and RES, and the reduction of CO2.

- When deciding on the targets for 2030, it is necessary to base them on a detailed analysis of the present tendencies and of a balanced and realistic assessment of Member States' capabilities.

- When designing the targets for 2030, additional indicators or specific criteria are to be considered (for example, energy infrastructure, investment in research and experimental development).

The best way to assess the compatibility of 2020 targets is according to their application results, by analysing their impact and its scale. 2030 policy and its targets should be formed after the evaluation of the strengths and weaknesses of the previously applied policy, as well as the potential needs and risks.

The current 2020 targets did not include market integration and energy infrastructure interconnectivity indicators, which are no less important and cause a direct impact on the efficient 2020 RES, energy efficiency increase, and the reduction of CO2 emissions.

It seems that 2020 targets have not been fully consistent, besides, they could be considered as insufficient for the EU and MS low carbon dioxide economy development, reorganisation of infrastructure, assurance of energy security and supply stability.
Therefore, as it was mentioned before, additional targets are needed for 2030, for example, related to energy infrastructure development, investments in research and experimental development. Moreover, the current targets were not compatible from the perspective of real capabilities. When determining the targets for 2030, it is necessary to refer to the detailed analysis of the existing tendencies as well as to the balanced and realistic assessment of the EU and Member States' capabilities.

Are targets for sub-sectors such as transport, agriculture, industry appropriate and, if so, which ones? For example, is a renewables target necessary for transport, given the targets for CO_2 reductions for passenger cars and light commercial vehicles?

For specific sectors there should be no binding targets at the EU or Member State level. They could only be indicative, while the right to decide on the establishment of binding targets should remain for the Member States.

There should be no binding targets at the EU or Member State level for specific sectors (energy, industry, transport, agriculture etc.)
Aiming to maintain flexibility, to take into account national circumstances and to ensure the possibility to achieve national climate change and energy goals with lowest costs and in most efficient methods, the right to decide on the need to establish sector targets should remain for the Member States.

In the case of adopting targets for specific sectors, they should remain indicative.
Moreover, they should be evaluated from the perspective of their interaction. The application of equal implementation levels, intensity indicators or surveillance measures creates a real risk to damage the overall policy implementation quality.

If indicative indicators are established, it is advisable to set certain sustainable development criteria for the monitoring of the industry sector development and for the evaluation of changes:
- final quantity of consumed energy (MWh) in sub-sectors per GDP unit, in total and for each economic activity type;
- water quantity consumed for production (m3) per GDP unit, in total and for each economic activity type;
- number of factories having quality management standard ISO 9001, in numbers and from the total number of factories in percentage;
- number of factories having standard ISO 14001 or EMAS, in numbers and from the total number of factories in percentage;
- a part of added value created by manufacturing companies, that consists from the added value created in the high technology sector, in percentage.

In this context, it is worth mentioning that according to valid and currently being changed new passenger cars (Regulation (EU) 443/2009) long term target is 95 g CO2/km by 2020 and new vans emission reduction (Regulation (EU) 510/2011) target is 147 g CO2/km by 2020. If a RES utilisation – biofuels or liquid bio-products – target would be determined, it should be related not only with transport sector but also with the agriculture sector. Moreover, transport sector has wide opportunities to reduce GHG emissions by increasing the number of electric cars and other technologies.

How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?

To achieve the strategy targets at the EU and national level rather flexible measures should be implemented. They should be available for review and adaptation by establishing in the initial measures the criteria and circumstances that would define the time and demand for such reviews.

Measures, implemented for achievement of the framework targets at the EU and national level in pursuance of improvement of the investment climate and reduction of fragmentation between individual Member States, should be rather flexible so that in the light of fluctuation of technology prices, other related costs they could be reviewed and adapted.
Innovation technologies require significant initial capital, however, they are sufficiently competitive after expiry of the investment payback period and can supply energy to consumers at an attractive price. For this purpose the initial measures should provide criteria and circumstances that would define the time and demand for such reviews. It should be noted that, given the 2020 framework lessons, the promotion of certain technologies by establishing support methods and not taking into account the implementation costs of technologies, resulted in overpayments. Therefore, the issue of economic viability and maturity of technologies must be well examined prior to adopting specific measures to achieve targets and it must be reflected in these measures.

How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

- In order to assess the progress in respect of these policy goals, it is suggested to establish criteria or risks. The monitoring and evaluation of them would allow the assessment of progress in the achievement of security of supply or other targets. It is also suggested to adopt recommendation guidelines regarding the achievement of these criteria.
- Due to the fact that no specific targets are established for security of supply or other EU energy policy goals, they should not be treated as less important or requiring less monitoring in assessing their achievement progress.

Various criteria, reference points could be established instead of a specific target. They could be monitored and their general assessment would demonstrate the progress in the achievement of these targets. As an alternative, risks could be established, the mitigation or avoiding of which would mean existence of progress. At the same time targets could be replaced with guidelines the implementation of which would influence progress.

4.3.
Instruments

Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?

- As Member State direct investment may be a too heavy burden for the budgets and industries of individual states, EU level instruments and investments are essential for the rearrangement of EU and Member States' infrastructure and the achievement of climate targets.
- Coordination of national support schemes at regional or EU level should be initiated, if this

is not possible – a gradual exist from support schemes should be started. It is also necessary to take decisive and effective measures in the achievement of market integration and to develop necessary instruments to this end.

EU level instruments to ensure the security of energy supply, stability, economic competitiveness and investments are essential for the rearrangement of EU and Member State infrastructure and achievement of climate targets, as Member State direct investment may be a too heavy burden for the budgets and industries of individual states. Coordination of national support schemes at the regional or EU level should be initiated, if this is not possible – a gradual exist from support schemes. It is also necessary to take decisive and effective measures in achievement of market integration and to develop necessary instruments to this end.

How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?

- The European Commission must conduct a detailed impact assessment at the EU and Member State level, evaluate the potential of individual Member States, establish reasonable RES and energy saving targets.

- It is suggested to prepare regional programs to avoid unbalanced energy production within the region and to reduce demand for long distance transfer of energy flows.

- Coordination must be reinforced at the EU or regional level not only to promote the integration of markets, coordination must also be initiated in order to ensure competitive electricity generation.

In pursuance of achieving climate and energy targets in the most cost-effective manner, prior to setting targets and defining specific EU and national level instruments, the European Commission must conduct a detailed impact assessment at the EU and Member State level.
Climate and energy targets must be defined through the assessment of demand for application thereof, possibilities and target impact. The analysis should justify their economic and environmental benefits, assess their consequences and propose solidarity measures for less developed EU Member States to achieve climate and energy targets and tasks by 2030.

The potential of individual Member States must be assessed prior to defining the measures.
When developing the targets, particular attention should be given to energy market competitiveness, growth and aspects typical to the countries wherein the targets are being developed, so that each Member State would make its contribution in the most acceptable manner. E.g., it is essential to set, both at the EU and Member State levels, reasonable ratios for renewables portion in the final energy consumption balance and for energy savings. In this regard, measures promoting long term perspective investments into technologies, research, cooperation or development of competences are purposeful. From the perspective of security of energy supply and cost-effectiveness it is suggested to prepare regional programs. They would help to avoid unbalanced energy production within the region and reduce demand for long distance transfers of energy flows.

How can fragmentation of the internal energy market best be avoided particularly in relation to the need to encourage and mobilise investment?

- Development of appropriate investment climate;

- changing support schemes, i.e. setting a medium and sound, and economically reasonable

payback period;

- harmonisation or coordination of RES support schemes;

- implementation of Member States' interconnection infrastructure projects;

- establishment of general guidelines or procedures for risk assessment regarding safety of the electricity system, generation adequacy, security of supply and benefits to consumers;

- Member States' specific situation should be taken into account in the development of RES support and CO_2 taxation schemes, energy performance standards for buildings and other support systems for energy policy measures;

- in the development or expansion of infrastructure certain temporary regulatory measures must be ensured which would help a new market player to enter the market and to compete with the existing ones.

Development of appropriate investment climate is essential for investment attraction, which is required for further development of infrastructure, reduction of fragmentation, diversification of energy sources and ensuring security of supply.
In order to avoid internal market fragmentation in allocation of investments excess regulation should be avoided, control functions should be strengthened and compatibility of policy directions prioritized. Simplification of cooperation should be also considered by mitigating the gap between the countries of developed and developing economies. Smooth implementation of regional strategic energy projects would mitigate the risks of failure to generate investment payback.

It is suggested to set a medium and sound, and economically reasonable payback period at the EU level and promote respective sectors to the extent the payback in the sector would account for the period set at the EU level.
It is based on the grounds that each promotion measure distorts the market and investments start moving to the sector they would never normally move since, given the normal conditions, the payback period in this sector is too long.

It is suggested to harmonise and coordinate RES support schemes in pursuance of reducing the internal energy market fragmentation.

It is essential to ensure faster implementation of energy infrastructure interconnections projects, to set general guidelines or procedures for risk assessment regarding safety of the electricity system, generation adequacy, security of supply and benefits to consumers.

Existing economic differences of the developed countries and economies in transition must be evaluated and at the same time assumptions for coherent mitigation of these differences must be developed.
Internal market fragmentation is determined to a large extent by different abilities of Member States to achieve certain national measures. Therefore, a full analysis must be made of possibilities to develop such schemes for RES support and CO2 taxation, energy performance standards for buildings and other support systems for energy policy measures which would take into account the economic differences of the countries and develop assumptions for mitigation thereof. Specific situation of some EU countries has not been adequately evaluated until now.

Certain temporary regulatory measures must be ensured which could allow a new market player to enter into the market and compete with the existing players.

It is important when speaking of development of new infrastructure or its expansion and when the project requires major initial capital in the market dominated by monopolies.

Which measures could be envisaged to make further energy savings most cost-effectively?

In pursuance of promoting energy savings it is suggested to:

- define target markets wherein respective measures could be implemented in the most effective manner;
- draw-up national energy saving programmes;
- present to the consumers, public on a systematic basis, in a short and clear manner the latest saving technologies with examples for each typical customer group and emphasize the expected benefit.

In pursuance of promoting energy saving it is suggested to:

- define target markets wherein respective measures could be implemented in the most effective manner. The initial ratio for categorisation of energy users could consist of ways and quantities of energy use. Once these criteria are established more specific and detailed saving guidelines or using restrictions could be prepared.
- draw-up national energy saving programmes;
- present to the consumers, public on a systematic basis, in a short and clear manner the latest saving technologies with examples for each typical customer group;
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- apply measures to increase the interest of users, emphasize the expected benefit;
- upgrade residential and public buildings, including the upgrade of their engineering and social infrastructure;
- upgrade the car fleet;
- develop modern technologies in the industry sector;
- use standard LST EN ISO 50001:2011 Energy Management Systems.

How can EU research and innovation policies best support the achievement of the 2030 framework?

By setting realistic achievable targets, providing grounds for the most cost-efficient measures, developing and implementing future technologies in the energy sector.

The EU must reinforce the role of innovations and new sustainable technologies in the energy policy.

Scientific research and innovations may significantly contribute to the implementation of the 2030 framework by setting realistic achievable targets and by providing grounds for the most cost-efficient measures, especially by developing and implementing future technologies in the

energy sector. The EU innovations policy must be focused on transforming the scientific outcomes into actual products, technologies which would reduce pollution and financial costs and implementation thereof into the market. The EU should pay particular attention to the eco-innovations and the "green" industry which would help in reducing the negative environmental impact.

4.4. Competitiveness and security of supply

Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?

- Framework for climate and energy policies must preserve EU competitiveness, not increase the burden on the public sector, business and customers and avoid the risk of carbon dioxide leakage;

- binding GHG reduction targets should be established with regard to the obligations to be undertaken by other countries which emit the majority of CO2 (USA, China, etc.);

- in case of a failure to approve the international climate change agreement, measures to avoid carbon dioxide leakage should be established at the EU level;

- to evaluate the impact of the international climate change agreement on the finances in the public and private sectors;

- to aim for level-playing field for energy producers and suppliers in EU and outside EU;

- to enhance the energy policy external dimension in negotiations with the third parties;

- to analyse the interaction of strategy elements, impact and influence at the EU and Member States levels;

- to enhance the investment share in scientific research and experimental development and innovations;

- to take into account the potential of indigenous energy resources of each Member State;

Framework for climate and energy policies must preserve EU competitiveness, not increase the burden on the public sector, business and customers and avoid the risk of carbon dioxide leakage.

Therefore, it should be associated with the future international climate change agreement and other international processes related to sustainable development, international security, economic and global perspectives of the energy resources' trade policy and the targets of the climate and energy policy should be established with regard to the comparative obligations to be undertaken by other countries which emit the majority of CO2 (USA, China, etc.). The framework should provide that in case of a failure to approve the general international climate change agreement which would enter into force in 2020, respective internal measures will be established at the EU level to avoid carbon leakage. The impact of the international climate change agreement on the finances in public and private sectors must be also taken into account (In 2011 in Cancun the developed countries undertook to allocate until 2020 100 billion US dollars annually to the developing countries). In the framework for climate and energy policies it is suggested to

establish more links to adaptation to climate change in different sectors.

Necessity to develop a level-playing field for the EU and third countries.
In pursuance of maintaining competitiveness and promoting growth of its economy as well as ensuring the increase of occupancy, the EU must speak with one voice in relationships with third countries and aim for equal conditions for its industry and third countries' business – the same as are available for them in the EU markets.

In order to identify measures which would make it possible to reduce the number of working places driven out of the EU, increase GDP size and competitiveness in the global markets, it is necessary to analyse the interaction of the framework elements, their impact and influence at the EU and Member State levels.
Such analysis should reveal the differences of regional markets, indicate where reinforcement of GHG reduction or renewable energy development targets is more purposeful. Such method would allow enhancing the rational and well-balanced development of renewable energy sources and implementation of measures to achieve higher energy efficiency. The potential of indigenous energy resources of each Member State must be considered. That would allow achieving the maximum outcomes in increasing the economic growth of the country, occupancy and competitiveness, e.g. in case of Lithuania biomass industry could be strengthened. In any event, to achieve the afore-mentioned targets it is essential to enhance the investment share in scientific research and experimental development and innovations.

What evidence is there for carbon leakage under the current framework and can this be quantified? How could this problem be addressed in the 2030 framework?

- Having regard to some EU members' dependency on electricity import from third countries, as well as CO2 leakage danger indicators, when deciding on the policies for 2030 GHG reduction targets should be approved taking into account the obligations that the countries emitting the majority of CO2 are willing to undertake.

- In the event of a failure to approve a global climate change agreement, introduce measures at the EU level to prevent CO2 leakage.

Currently, there is no evidence of CO2 leakage, however while forming 2030 policies we should focus on the EU's and each Member State's economic growth based on low CO2 economy development.
This might be an effect of the economic recession and the excess amount of GHG emission allowances. Nevertheless, while forming 2030 policies we should focus on the EU's and each Member State's economic growth based on low CO2 economy development, focusing on CO2 leakage danger indicators, such as high energy import rate. Therefore, as it was already mentioned, willing to maintain EU competitiveness, not to increase burden on public sector and business and avoid the risk of CO2 leakage, it is important to introduce obligatory GHG reduction targets taking into account obligations that countries emitting the majority of CO2 are willing to undertake. *If efforts to approve a global climate change agreement are unsuccessful, measures at the EU level which prevent CO2 leakage should be introduced.*
The European Commission is prompted to provide results of actual input in reducing the amount of CO2 emissions since 1990, taking into consideration the current consumption of imported products in the EU. Determination of this input, revision of environmental requirements, impact of free pollution allowances, analysis of geographical arrangement and specific reports would allow examination of the results of these policies and a review for 2030. Emissions should be reduced in a way that does not harm the EU competitiveness as well as prevent the risk of CO2 leakage,

especially in sectors that consume large amounts of energy.

What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?

- Final energy prices are influenced by the price of energy resources and the factors determining it, diversity of electricity production sources and lack of base level production, insufficiently liquid wholesale energy market, investments in new inter-systemic interconnections, long-term supply contracts, connection to oil prices, EU environment and energy policies, which lead to a wider use of renewable energy, reduction of pollution and GHG emission, promotion of new technologies.

- The EU is able to influence energy prices through completion of the internal energy market, expansion of infrastructure and upgrade of capacities, consumer involvement, increase of energy effectiveness.

Final energy prices are heavily influenced by prices of energy sources (in Lithuania's case – natural gas) *and factors that determine these prices:* changes in the explored reserves of these sources and in the conditions for their extraction, growth of world economics (especially of rapidly developing countries') and of energy demand etc.

Energy prices are also influenced by the diversity of electricity production sources and lack of base level production, insufficiently liquid wholesale energy market, investments in new inter-systemic interconnections, long-term supply contracts, connection to oil prices etc.
How specific decisions influence energy prices could be determined by analysis of price components and their interaction. For example the price of natural gas is determined by these factors: price of imported natural gas, delivery expenses, expenses for assuring security and reliability, allowed profit and taxes set for provider. In this case, the investments into potential natural gas sources, transmission system modernization or security measures must be evaluated giving priority to the right price for final customer.

Energy prices are also influenced by EU energy and climate change policies, leading to wider use of renewable energy, reduction of pollution and GHG emissions, promotion of new technologies etc. It is worth noticing that EU efforts to lower CO2 emission by increasing taxes, is directly influencing the growth of energy prices, besides, high allowances' prices should make electricity even more expensive, because production of energy using conventional methods emits large amounts of CO2. Furthermore, promotion of renewable energy sources leads to energy price increase to final customer through taxes (i), transferring balancing responsibilities to users (ii), expenses of connection (iii).

The EU can influence energy prices through measures which promote transparent and competitive internal energy market, that would provide accurate real-time price information and make the system more effective. Price tendencies can be positively influenced through the *expansion of infrastructure and measures stimulating the upgrade of old capacities*.

Moreover, the EU could reinforce measures aimed at *consumer involvement, increase of energy efficiency,* which would lead to the reduction of energy demand and price.

How should uncertainty about efforts and the level of commitments that other developed countries and economically important developing nations will make in the on-going international negotiations be taken into account?

While forming 2030 policy, obligatory GHG reduction goals should be approved considering the obligations that countries emitting the majority of CO2 are willing to undertake, as well as effect on public and private sector finances of the international climate change agreement. In the event of failure to approve global climate change agreement, measures at the EU level in order to prevent CO2 leakage should be introduced.

See the answer to part 4.4, question 1, part 1.

How to increase regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?

Assure regulation stability or define the possible change tendencies and envisage in the legal act the fact that legal regulations can be changed upon a change in certain circumstances, provide enough time to adapt to new circumstances. Legal regulation changes should be coordinated with interested parties, while informing public/business beforehand.

These steps should create an increased regulation certainty for business sector:

- Assure the consistency of legal regulations and other important factors for as long as possible or at least define possible changes;
- Emphasize the advantages of regulation and provide additional exemptions in the period of adaptation;
- Provide regular market organization reviews, but avoid major changes in the middle of these periods;
- In the legal act, determine the fact, that in the event of technological (or other specific) changes, legal regulations may also be changed;
- Regulatory certainty may also be improved by specific legislation review provisions, especially in situations where the circumstances (IT development, climate changes, new technologies, science progress etc.) may change shortly. This review should evaluate the effect of the legislation in practice, suitability for the initial regulatory goal and decide if it should be changed, removed or left out as it is.
- Assure that legal regulation requirements do not take effect retroactively and given permits/licenses are not denied retroactively because of inadequate decisions of public administration bodies. In this context a need for clear responsibility and accountability of public administration bodies for the decisions taken and the drafted and adopted legal acts is to be stressed.
- It is especially important that legal regulation changes would be coordinated with interested parties, while informing public/business beforehand.

It is worth noticing that the freedom for business to adapt is as important as the period of time that is given them. Also, regulatory certainty in the energy sector does not necessarily lead to certainty of the whole market, because of its close connections to unregulated fields.

How can the EU increase the innovation capacity of manufacturing industry? Is there a role for the revenues from the auctioning of allowances?

We agree to use income from auctioning of allowances in order to improve innovation capacity of manufacturing industry, as it is already regulated in this way in Lithuania.

We offer to use income from auctions of allowances to improve innovation capacity of manufacturing industry. As an example we provide current legal regulation in Lithuania. According to the Law of the Republic of Lithuania on climate change management financial tools (Official Journal 2009, No 87-3662) and its enforcing legislations, income from auctions of allowances are transferred to the special climate change program and are used according to the Act on the utilization of the funds of the special climate change program approved by the Minister of Environment on the 6th of April, 2010. The program funds, in the form of subsidies, loans, investments in capital, may be used to finance industry modernization, projects for the increase of energy efficiency and on the use of renewable energy. It is worth noticing, that in order to successfully use income from auctions of allowances, their extensive planning and observation is needed.

How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU to contribute to reduced energy prices and import dependency?

Development of indigenous energy resources would influence the reduction of energy price and dependency on import in two main ways: by diversifying resources and saving expenses used for transportation.

Development of unconventional energy resources might promote diversification of energy resources.
This would contribute to ensure security of supplying, lower the dependency on import, to encourage EU and each country's economic growth as well as the creation of a single competitive internal market.

Because fuel prices are sensitive to transportation expenses, it is important that Member States try to use the "closest available" resources.
This would provide additional workplaces and, due to saved expenses used for transportation, promote competitiveness. It is important to provide favorable conditions for cooperation between the EU members with specific mechanisms for this purpose.

How can the EU best improve security of energy supply internally by ensuring the full and effective functioning of the internal energy market (e.g. through the development of necessary interconnections), and externally by diversifying energy supply routes?

- The EU can influence security of supply by improving conditions for investments, expanding infrastructure, especially the inter-systemic interconnections, encouraging maximum usage of indigenous energy sources, strategic reserve maintenance and joint reserve storage with partner countries, smart technology introduction and development of measures for energy storage.

- In order to improve security of supply, the EU must reinforce external dimension of its energy policy, which would help to diversify energy resources, their geographical origins and routes.

EU can influence supply security introducing these changes:

- For a secure energy supply it is important to coordinate internal and external policies. The EU must introduce clear and non-discriminatory legal terms, improve conditions of investments, physical security, development of environmental and energy infrastructure.

- Each Member State should put indigenous energy resources to maximum use; install such capacities in the electricity generation sector, that would guarantee the possibility to supply consumers with electricity and centralized heating in a quantity that corresponds to the level determined in each Member State for the energy self-supply from own resources; install a part of generation capacities that can flexibly react to changes of the internal energy market (price fluctuation, climate changes, supply limitations etc.).

- In addition, it is important to make the network as dense as possible as that would lead to the lowest price, security of supply and reliability, and reduce the dependency on energy import from third countries. In this context it is important to note that, on one hand, the EU supports decentralized energy production for local usage, but, on the other hand, it has the idea to create the EU 'Super Grid' network for long distance energy transportation from wind and sun power stations. However, long distance routes reduce supply reliability, therefore, to ensure supply reliability energy storage measures should be developed (pumped storage plant etc.) to store the peak energy surplus closer to its production location. It is also important to promote energy reserve maintenance and joint reserve storage with partner countries.

- Furthermore, the EU energy security of supply might be improved by strengthening the external dimension of its energy policy, as that would help to diversify energy resources, their geographical origin and supply routes.

- Smart technology introduction would lead to the most efficient electricity consumption and production.

It is worth noticing that, while raising ambitious future plans, the EU should make sure that the participants have the required tools to pursue these goals and also determine responsible parties for lack of generation capacities and further developments of electricity market.

4.5. Capacity and distributional aspects

How should the new framework ensure an equitable distribution of effort among Member States? What concrete steps can be taken to reflect their different abilities to implement climate and energy measures?

- European Commission should perform an exhaustive impact assessment at the EU and Member States' levels and provide solidarity measures for less developed countries.
- Implementation of the Effort Sharing Decision should be evaluated.
- Efforts should be divided from the perspective of regional production-consumption compliance.
- Specific country obligations might be set based on GDP.

The European Commission should perform exhaustive impact assessment at the EU and Member States' levels.

This analysis should measure each Member State's (or region's) real possibilities for economically efficient technology development, currently possessed capabilities, used energy types, condition of buildings and real financial potential to improve their energy efficiency, capability to implement specific climate and energy policy measures. Based on this analysis and taking into account national Member state circumstances, solidarity measures for less developed Member States should be proposed for the achievement of energy and climate policy goals by 2030.

We offer:

- To analyze the Decision No. 406/2009/EB on the effort of Member States to reduce their greenhouse gas emissions. After evaluating how smoothly the envisaged quotas or requirements were implemented in separate Member States, decisions on their need, adjustments or strengthening could be taken.

- From the perspective of electricity production, security of supply and competitiveness, effort sharing issue between Member States should be solved on the basis of regional production-consumption compliance and the resulting obligations for Member States according to their capabilities.

- To determine the size of obligations based on GDP. In this case each EU Member State is able to fulfill its obligations in line with its current financial capabilities and without damaging their budgets by investing into the measures implementing the strategy. Lower but gradual investments should be easier than single huge investments, which less developed countries are not able to provide independently.

What mechanisms can be envisaged to promote cooperation and a fair effort sharing between Member States whilst seeking the most cost-effective delivery of new climate and energy objectives?

- Mechanisms that would ensure application of flexibility measures for GHG emission reduction in different sectors should be created.

- Member States' climate change and energy efficiency plans might be combined into regions or sub-groups.

- It is offered to prepare regional plans depending on economic development levels or energy market volume, emphasize that international effort division goes in parallel with additional investments attraction or market expansion.

- There should be legal, economic and financial measures provided at the EU level that would encourage Member States to cooperate and honestly divide efforts when together searching for the most effective climate and energy policy realization approaches.

- Mechanisms should be created that would ensure application of flexibility measures for GHG emission reduction in different sectors (use credits under the UNFCCC and Kyoto protocol flexible mechanisms; for the sectors not under the EU ETS, allow a transfer of a certain percentage of the annual GHG target to another year or to another Member State) and which would support cohesive further development based on low CO2 emission technologies, increase of energy production and consumption efficiency, use of renewable energy sources of energy and other industry sectors of the EU and of each Member State,
- EU climate change and energy efficiency plans might be combined into regions or sub-groups, regional energy plans depending on economic development levels or energy market volume of the region could be prepared.

- Additional motive encouraging cooperation may be emphasizing of that international effort division will lead to additional investments or market expansion.

Are new financing instruments or arrangements required to support the new 2030

framework?

- In order to implement the 2030 EU climate change and energy strategy a specific percent of funds for realizing these measures should be envisaged in the 2021-2028 Multiannual Financial Framework.

- If this strategy will be updated with new measures, additional financing capabilities on national as well as on the EU level should be provided.

- It is advised to firstly direct funds into city infrastructure modernization and sustainable development.

- On the national level, support methods, which would ensure correct and appropriate expansion of renewable resources and avoid the negative impact of feed in tariff, should be determined.

EU Multiannual Financial Framework should specify the percent of funds for realizing the strategy.
Considering the fact that in the 2014-2020 EU Multiannual Financial Framework at least 20% of the EU support programs' funds are allocated to the implementation of the climate change measures, a similar model should be followed for the implementation of the 2030 energy and climate policy strategy in the upcoming 2021-2028 Multiannual Financial Framework.

If this strategy will be updated with new measures, additional financing should be provided.
Under the condition that financing of current or earlier policies is satisfactory, there is no need to change it significantly for the 2030 strategy. But considered the fact that this strategy can be changes by inserting new measures, it is critical to envisage financing possibilities on national, as well as the EU level, in order to create conditions for a maximum realization of 2030 strategy goals.

It is advised to firstly *direct funds into city infrastructure modernization and sustainable development*, because current statistics show that 80% of GHG are emitted in cities.

Taking into account the experience of the 2020 strategy implementation it is to be noticed that the implementation of RES goals on the national level based on feed-in tariff causes negative impact. Therefore, it is advised to make use of other *support methods, which would ensure appropriate and adequate expansion of energy from renewable energy resources.*