

Towards Liberalized District Heating Market. Kaunas City Case

The purpose of the article is to formulate proposals to reshape the existing district heating market structure. Lithuanian district heating sector is highly integrated, local, naturally monopolistic and often municipality owned. Kaunas falls in a rather different position with several private independent heat producers. Despite this, the constantly increasing price of the heat is one of the reasons consumers to complain and to disconnect from the district heating networks. This situation implies strong need for change. Paper contains relevant literature review and a practical survey which is made using an official data and the data from district heating company Kaunas energy. The article ends with conclusions and practical suggestions addressed for Kaunas district heating sector.

Keywords: district heating, market liberalization, competition.

Straipsnio tikslas yra parengti pasiūlymus, kaip pertvarkyti esamą centralizuotos šilumos rinkos struktūrą. Lietuvoje, kaip ir kitose ES šalyse, centralizuotos šilumos sektoriuje dominuoja vietinės, dažnai savivaldybių nuosavybėje esančios monopolijos. Kauno miesto atvejis yra išskirtinis, nes veikia keletas privataus kapitalo nepriklausomų šilumos gamintojų. Tačiau nepaisant to, kainos už šilumą nuolat auga ir tai yra viena iš priežasčių, kodėl vartotojai skundžiasi ir siekia atsijungti nuo centralizuotos šilumos tiekimo tinklų. Susidariusioms problemoms spręsti būtini esminiai pokyčiai. Tyrimas pradedamas nuo teorinės problemos analizės, tada pristatomi atlikto empirinio tyrimo rezultatai. Tyrimas atliktas remiantis viešai pateikiama informacija bei bendradarbiaujant su AB Kauno energija. Straipsnio pabaigoje formuluojamos atlikto tyrimo išvados, pateikiami Kauno miesto centralizuotos šilumos sektoriui skirti pasiūlymai bei galimų ateities tyrimų kryptys.

Raktiniai žodžiai: centralizuotos šilumos sektorius, rinkos liberalizacija, konkurencija.

Introduction

The whole world or better to say it's concerned part is trying different ways to achieve sustainability, safety and cheaper way to use energy in everyday life. That is why more choice, investment and security

of supply lie at the heart of the 3rd energy package. The wide-ranging rules adopted by Parliament 21 April 2009 will also improve consumer rights and promote competitiveness (Pažėraitė, Krakauskas, 2011).

Therefore, one of the most important overall objectives of the entire 3rd energy

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package is to increase the availability of electricity and gas at more competitive prices for the benefit of the final consumers. And the chosen way was an introducing of competition into industries that were mostly dominated by natural and / or legal monopolies. The final consumers have experienced an undeniable fall of average electricity prices.

The district heating sector is very important as well. It supplies heat to more than 100 million people in Europe (Russia excluded). The total district heating capacity is more than 2 million MW and the length of the district heating network is more than 400 000 km in Europe (Sipila et al., 2005). Despite the fact what district heating has only 10 % of the average heating market in whole the European Union (EU), a residential market share of Central and Eastern European countries is appr. 40 %. Therefore, the market share is decreasing. According to the data provided by the Lithuanian District Heating Association, Lithuanian district heating sector takes even more – 46 % of the total space heating. The district heating sector takes more than 1/5 of the

total primary energy consumption. This is almost equal part as for electricity. On the other hand, expenditures for the district heating are almost twice bigger than electricity (Pažėraitė, Krakauskas, 2012).

Despite this, there are no legal acts concerning directly district heating sector on the European Union (EU) level as it is left for each individual Member State. Lithuania does have the separate legal act for the district heating sector. This Law on Heat Sector indicates that the heat production must be based on competition between heat producers. However, it is not widely discussed. It means that a very important, in our case costly energy sector is left without proper attention from both the Lithuanian and the European Union side as well.

Authors assume that the lack of competition could be one of the main reasons why the price for the district heating is constantly growing as it is shown in Figure 1. This figure is prepared according to the data provided by the National Control Commission for Prices and Energy (the Commission) for the years 2000–2013 (the Commission, 2000–2013).

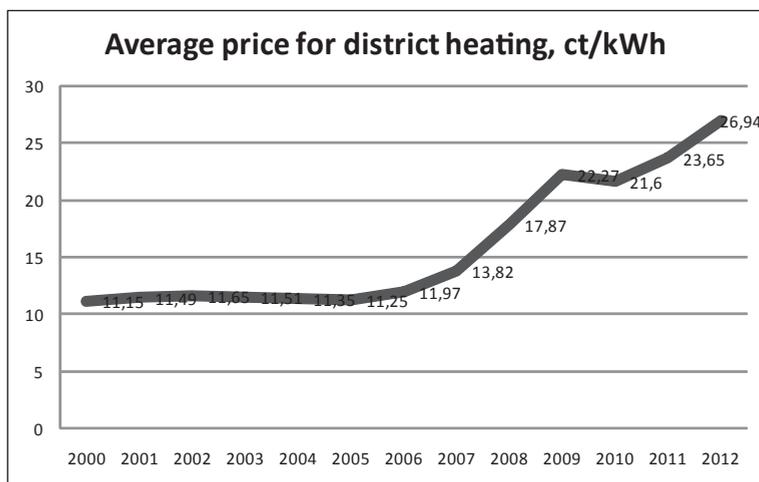


Fig. 1. Average price for district heating in Lithuania, ct/kWh

Moreover, Kaunas residential prices of the district heating are the highest in comparison with other cities of Lithuania already for several years.

Considering all the aforesaid, authors will focus on the possibilities to implement competition into the trade process in the district heating sector taking the city Kaunas as a main object of the research. The objectives of the research are:

- To review literature on market liberalization and their implication for district heating.
- To conduct empirical study on the Lithuanian district heating sector (taking the city Kaunas as an example).
- To draw conclusions on reshaping the existing district heating market structure in the city Kaunas.

Literature review, statistical data analysis, comparative analysis of energy sectors and expert evaluation along with legal documents analysis will be used to achieve the objectives.

Competition and the district heating sector. Methodological aspects

Strengthening of competition and even market liberalization are well known and broadly analyzed issues throughout the different literature sources. Theoretically and practically market liberalization is seen as a process when customers are becoming eligible and have a right to choose the energy supplier on their own. Liberalization process has started on the political level in 1996 by adopting the first European directive concerning common rules for the internal market in electricity (the European Parliament and the Council, 1996). Moreover, some countries had started the liberalization earlier. And their good practice was an example for the rest of the Europe. Table 1 shows the price change in different countries after the adoption of the Directive.

Table 1

The level of the market opening and electricity price changes

| The level of the market opening / liberalization | Country | Electricity price changes for industry 1996–1999, % |
|--|----------------|---|
| 100 % | Finland | -19.6 |
| 100 % | Sweden | -17.8 |
| 100 % | Germany | -9.6 |
| 100 % | United Kingdom | 8.7 |
| 90 % | Denmark | 0.2 |
| 45 % | Spain | -16.2 |
| 35 % | Belgium | -3.5 |
| 35 % | Netherlands | -1.7 |
| 30 % | Portugal | -14.0 |
| 30 % | France | -12.7 |
| 30 % | Austria | -4.0 |
| 30 % | Italy | -2.8 |
| 30 % | Greece | -0.9 |
| 30 % | Ireland | 2 |

Source: created by the author.

Analysis of the heat trade liberalization has just started. Some Danish authors, such as P. E. Grohnheit and B. O. G. Mortensen (2003), are taking attention to the district heating sector. Therefore, it is more in the sense of district heating as the infrastructure for competition among fuels and technologies (such as combined heat and power) not that much analyzing the ways of introduction of competition in trade process. Of course, it is very important to have competition in whole the value creation chain, but at this time authors will concentrate more on a heat trade.

The heat trade liberalization is mostly studied in Lithuania and Scandinavian countries in recent years. Therefore the full heat trade liberalization as far as it known is not carried out practically anywhere. Authors believe that this sector could be regarded as a stagnant not only in Sweden (Magnusson, 2012), but in other countries as well. One of the reasons could be very big skepticism about the taking new initiatives.

Skeptics use to refer to the particular features of the district heating: market locality, hydraulic features etc. Of course, distinctive features should be observed, but they should not act as obstacles to try to lessen the burden for the district heating consumers. Actually, in the very beginning of the idea to liberalize electricity markets there were a lot of arguments against around the Europe. It took almost 8 years to come to conclusion that liberalization could be implemented in the electricity sector despite all the “distinctive features”. Afterwards, it was implemented a Directive concerning natural gas with very similar ideas in 1998.

We absolutely agree with the opinion that generation and supply of electricity

and gas are subject to competition, while the grid activities – transmission and distribution – remain natural monopolies and subject to regulation. A similar concept may be developed for district heating, either on a national level or harmonized for the Member States and Accession countries of the European Union (Grohnheit, Mortensen, 2003).

Before analyzing trading models it is worth to start from the similarities between different energy sectors. Similarities of all three sectors (electricity, natural gas and district heating) could be stated as following:

- the sectors are dealing with a networks infrastructure;
- the infrastructure could be treated as a natural monopoly;
- the sectors are serving customers vital needs.

In a market characterized as a natural monopoly it is usually not possible to achieve effective competition by means of a general competition regulation. It is obvious these three sectors are subject of the State regulation. On the other hand, monopolies have no incentives to implement proper conditions for competition unless there are important driving forces from the State, customers etc. (Pažėraitė, Krakauskas, 2012).

The main ways to introduce competition into monopolistic sector is to implement third party access (TPA) (bilateral contracts) and / or some kind of auction and a single buyer model. Generally TPA implies that a third party can access the district heating network in a non-discriminatory way, in order to supply its heat. Two forms are known of TPA: regulated or negotiated.

Regulated TPA refers to a situation, where the network owner has a legal

obligation to allow full access to the network. The networks operations are regulated *ex ante*, i.e., the conditions for access to the network (e.g., fees, etc.) are determined in advance. Regulated TPA is now the only way to access the electricity networks in EU.

Therefore, this was not an easy task to implement TPA principle in electricity and gas sectors, and it will be more difficult for an urban district heating grid. The geographical extension is limited to an urban region instead of Europe-wide networks, and the hydrological conditions in the district heating network are far more complicated than the flow conditions for electricity or gas (Grohnheit, Mortensen, 2003).

In order to implement regulated TPA, it is required to have a vertical separation between the production and distribution of heat, as well as the introduction of competition at the production side. The vertical separation should be done to ensure non-discriminatory access to the network. Such separation means that the price regulation only needs to address the network operations, while the different heat producers will be competing in an essentially free market (Soderholm, Warell, 2011).

The same authors come to the conclusion that regulated TPA may have small positive effects on competition, and at the same time it may have a significant impact on the possibility to run the integrated district heating operations in a cost effective manner. On the other hand, vertically integrated monopolies do not have a habit to share this cost effectiveness with the customers. This clearly indicates the history of electricity sector monopolies. The only Regulator could act as an artificial competitor in this case.

Unfortunately, in most cases regulators are not able to do this.

Negotiated TPA implies that the district heating network owners are required to negotiate about access to the network with the producers of heat. The main difference between regulated and negotiated TPA is thus that the latter form implies that the network operations are determined *ex post*. The specific conditions for network access are negotiated between the network owner and the third party (Klom, 1995). This kind of TPA requires deeper regulation and provides the same stimulus for effective competition only theoretically.

Another trading model and its variations is an auction trade (exchange). This classical model is based on the interaction of the demand and supply. One of the variations is one side auction (demand or supply) where the purchasing amount is known in advance and sellers or buyers are providing bids regarding quantity and price, and a merit order is organized afterwards.

The organized markets for spot and future electricity already exist. The spot market in England and Wales and its successor have been in operation for more than a decade, and the power exchange in Oslo has developed from a national Norwegian electricity exchange to a multinational exchange, Nord Pool, covering four Nordic countries (Grohnheit, Mortensen, 2003) and Lithuania, and Estonia from 2012. The spot and future markets of Nord Pool have become a model for power exchanges in the Netherlands, Germany, Poland and Spain (Grohnheit, Mortensen, 2003).

Lithuania has started with the one side auction and regulated TPA in electricity case. JSC Lietuvos energija was acting

like a single buyer according to the Directive where it is stated that single buyer shall mean any legal person who, within the system where he is established, is responsible for the unified management of the transmission system and / or for centralized electricity purchasing and selling (the European Parliament and the Council, 1996). The producers had an obligation to sell a part of electricity, the so-called additional, on the auction basis.

The process has started from the year 2002 after adoption of new Law on Electricity in Lithuania, and the experience obtained could be worth to use in the district heating sector. Regulated TPA was introduced using a body of independent supplier. Actually, it was not so popular to choose an independent supplier among eligible customers (Figure 2).

Reasons to run business as usual could be drawn as following:

- Eligible customers were not so advanced to use all the possibilities of the new market structure,

- The way to change the supplier was not an everyday practice,

- The market was dominated by one big generator Ignalina Nuclear Power Plant (NPP) and suppliers had no possibilities to play price difference games.

Therefore, a share of bilateral contracts was around 60-70 % because two public suppliers (a part of distribution system operators) were presenting the biggest part of consumers and those public suppliers were signing bilateral contracts directly with generators (Figure 3).

The market share dramatically increased in 2010. The reason was a closure of Ignalina NPP because import from third countries, at this time Russia, should be traded through exchange mechanism. Separate trading of public service obligations has disappeared as this amount is not traded separately (a special support mechanism is process but not the separate trade).

All the aforesaid shows, that the regulated TPA and exchange are the most promising instruments to nurture the competition in energy sector.

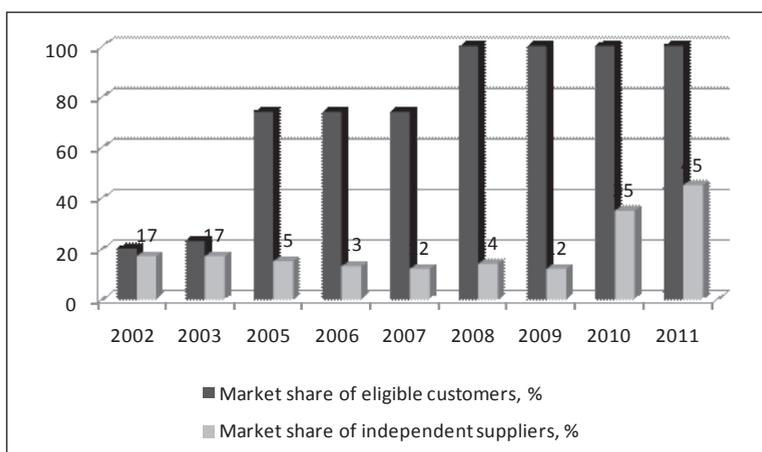


Fig. 2. Comparison of possible and actual market shares using the TPA

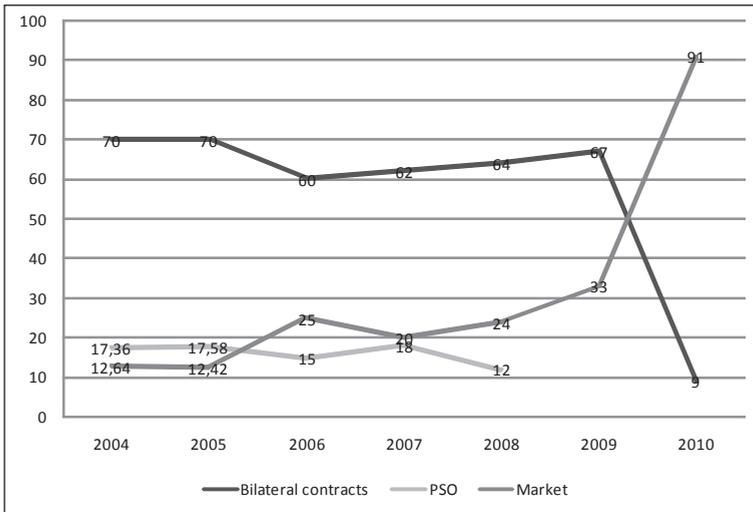


Fig. 3. Trading mechanisms, %

Competition and Kaunas district heating. Practical insights

The only heat supplier for the city Kaunas is JSC Kaunas Energy. This company serves 117 thousands population and 3.6 thousands companies and organizations in Kaunas city and district. Kaunas Energy operates ~ 300 km of heat supply pipeline. It should be noticed that Kaunas Energy operates various power plants: 7 district, 14 isolated network, and 36 boiler houses, 5 boilers of integrated network and combined heat and power plant Petrašiūnai. Therefore, summer minimum is about 55 MW and winter peak reaches about 500 MW. Despite the fact that the total volume of Kaunas Energy heat capacity is 568 MW, the main heat supplier is an independent one. Kaunas Heat and Power plant (HPP) covers for more than 95 % of the total Kaunas city district heating. This is almost a situation of vertical restructuring. It provides more flexibility and options to use a variety of models of the market opening or

even a combination of models. Klaipėda in this case falls in quite similar situation. Unfortunately, price comparison between different Lithuanian cities shows that Kaunas runs worst of all (Figure 4). Prices of the district heating in Kaunas are even higher than Lithuanian average. Drop in prices in Šiauliai and partly in Panevėžys can be explained by the initiation of the use of biofuels: 38 % and 41 % correspondingly (Figure 5).

On the other hand, Alytus, Marijampolė, Telšiai, Palanga they all have quite big 44-48 % of biofuel share but prices are higher than in Klaipėda, where biofuel share is zero. Moreover, according to the assumptions and calculations made preparing District heating development strategy for Kaunas municipality, biofuel prices will be growing according to the scenario of high biofuel prices (twice or more on average). Overall switching to the biofuel instead of price reduction could generate a price rise because of fuel monopoly. It is obvious that

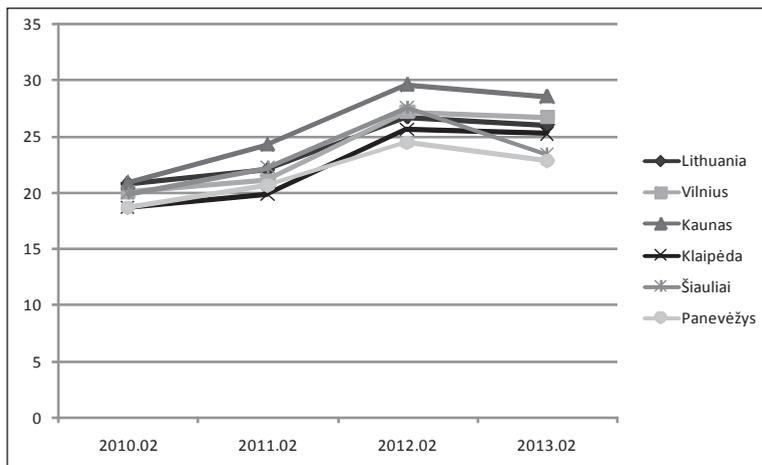


Fig. 4. Winter peak district heating prices, Lt

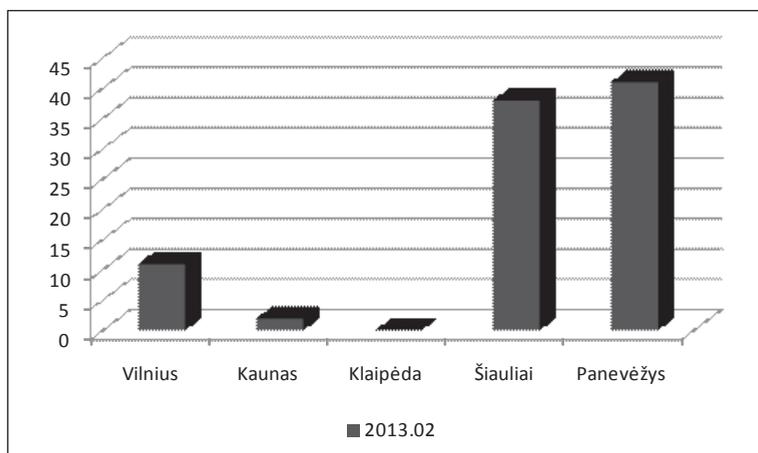


Fig. 5. Usage of biofuels in cities district heating systems, %

switching is not enough for the gain in long run period.

The main driving force is a sufficient playing field for competition to implement. Lithuania has already experienced some kind of the failure in implementation of liberalization in electricity sector. One of the main reasons was too small playing field for competition caused by one of the highest price for the infrastructure in whole the EU. Current situation does not

look better. Reduction in the generation cost is not so important for final consumers due to the big share of network costs. The data presented by the Commission shows that electricity sector still loses dramatically in the battle for the playing field for competition (e.g. see Figure 6). Fixed costs represent the price of infrastructure as the variable costs are related with the purchasing of heat or electricity as a commodity (Pažėraitė, Krakauskas, 2012).

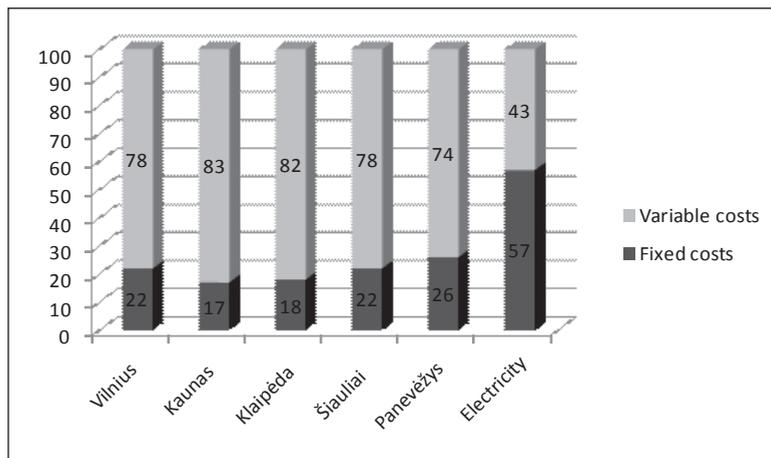


Fig. 6. Prices for district heating and electricity divided into fixed and variable costs (2012-02-16), % excl. VAT

As one can see, district heating has a very strong driving force to achieve the price reduction. Playing field for competition takes in some cases even more than 80 % (Kauno energija, 2012). In comparison with electricity where playing field for competition takes only 43 % (Pažeraitė et al., 2012). On the other hand, a part of costs related with infrastructure is quite low in district heating sector. We believe that it should be even bigger because some new reconstructions of district heating infrastructure are vitally required.

Of course, fuel prices, not as much depending on Lithuania should be also taken into account as the biggest share takes natural gas. It implies that playing field for competition should be reduced. Despite this fact, Klaipėda case clearly shows that there is a place for competition and it could work even in not that large-scale district heating network.

Three biggest cities mainly use fossil fuel for heat generation. Kaunas and Vilnius have dominated generator in their district heating systems. Maybe these generators could run, maybe they are running in

the cost effective manner, but the benefit does not reach customers at all. Klaipėda, only the third city in Lithuania, has several – 4-5 quite similar in size – independent heat suppliers and organises some kind of one side auction to buy heat energy in price effective manner. It is interesting, that the average price offered by independent producers for May 2013 was 18,44 ct/kWh in Kaunas and only 11,84 ct/kWh in Klaipėda. A situation for June was quite similar: 16,9 ct/kWh in Kaunas and 9,06 ct/kWh in Klaipėda. Price difference is rather big – 7-8 ct/kWh.

Another important aspect is that Kaunas district heating market looks attractive for potential new comers. This is the case because there are about 150-200 MW installed capacity on the list to enter Kaunas district heating market. This is one more reason why it is particularly important to prepare proper rules to act in the market.

20 MW of installed capacity of biofuel boiler began operation in 2012. Of course, it did not have any significant impact on the final price, as the situation in Kaunas district heating market is still monopolistic.

It is important to notice, that Kaunas district heating system could experience big changes in the near future. This is related with Kaunas HPP situation. Since 2016 entry into force of the new requirements for pollutant concentrations in combustion products – Directive 2010/75/EU on industrial emissions, which are considerably more stringent than the current norms. Kaunas HPP can apply for gradual implementation of the Directive 2010/75/EU and Kaunas HPP have also to participate in the Transitional National Plan program. However, in order to participate in this program, Kaunas HPP needs to achieve full implementation of the old Directive 2001/80/EU. This is costly as well, and new owners of the plant are considering different plans (e.g. construction of new biofuel plant etc.). Moreover, a long-term contract for purchasing 80 % of heat from Kaunas HPP ends in 2018.

Summarizing, all the analysis given earlier could be presented in the Table 2.

All the analyzed trading models imply some changes. They are as following:

- Legal changes;
- Changes in regulative process;
- Changes in district heating system.

Changes in district heating system are required in order to ensure proper competition, to avoid situation with cross subsidies and most importantly to ensure market participants about confidence of trading process itself. Separation of Kaunas energy activities, legal unbundling, or even in terms of ownership, would add value to the transparency and confidence of trading process (Figure 7). The mentioned figure illustrates a managerial unbundling of activities. This was a first step to start restructuring in electricity sector in EU as well. Actually, this kind of separation was clearly not enough to ensure transparency and acting in non discriminatory manner. Legal unbundling came very soon as a must do and now this is the minimum for restructuring electricity

Table 2

Evaluation of different trading models

| Trading model | Evaluation |
|-------------------------|---|
| TPA/bilateral contracts | Easy way to start implementation of competition. |
| | Not all customers could be eligible due to the legal collision with setting the meaning of “customer” in district heating sector; |
| | Step by step implementation would not provide benefits for all customers; |
| | No reference price; |
| One side auction | It does not solve the problem of proper trading rules in all cases. |
| | Proper trading rules in all cases; |
| | Transparency of trading process; |
| | Reference price; |
| Exchange | Moderate complexity of implementation. |
| | Most possibly benefits would not be that big but for all the customers. |
| | Probably the best way to achieve perfect competition; |
| | Transparency of trading process on both sides; |
| Exchange | Reference price. |
| | It is a sophisticated way to implement competition; |
| | Legal collision with setting the meaning of “customer” in district heating sector. |

Source: created by the authors.

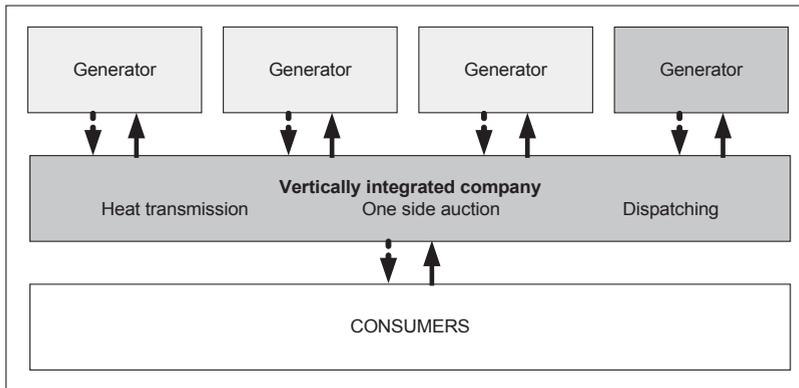


Fig. 7. Structure of performed activities in district heating sector, heat purchase and money flows

sector, and a very clear EU direction in natural gas sector as well.

We assume, that there should be implemented legal unbundling instead of managerial in Kaunas energy company. After the legal unbundling of generation, Kaunas energy would perform very important and publicly valuable activities: heat transmission and distribution, auction organization and dispatching. Moreover, all these activities are naturally monopolistic and not mixed with competitive ones (such as generation).

Kaunas district heating sector is now in quite a favorable situation in regards implementation of competition because Kaunas energy generation is not taking an active role in the Kaunas district heating market. It allows taking a painless step forward to legal unbundling of generation. A current status quo in Kaunas district heating system is rounded with light dashed curve in the Figure 8. Shortly the situation could be described as favorable to start unbundling and to implement regulated TPA and / or one side auction.

Regulated TPA would be very good and attractive solution in order to propose some additional possibility inside the

district heating sector instead of switching directly to self heating most probably using natural gas. The biggest shortage is that in this case the benefit from implemented competition would get only a part of consumers. It is very important to send a message for every consumer no matter the size and position. Otherwise the idea of really valuable market liberalization would be discredited for a long time.

In regards all the aforesaid, we suggest to change the district heating market structure evolutionary – to start from one side auction and to implement regulated TPA (Figure 8) only after taking some actions:

- Ensuring proper functioning of the auction procedures – after implementation of TPA probably it would be valuable to start running both sides auction in order to have more flexibility in the market;
- Preparing legal framework – solving all the collisions, setting the liberalization speed etc.;
- Preparing regulatory framework – setting non-discriminatory access rules and grid tariff system.

All the mentioned actions should not prolong. Taking into account experience

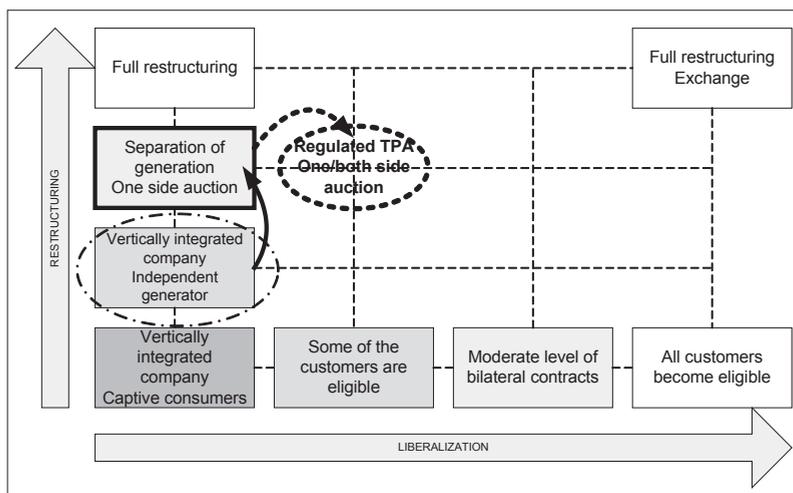


Fig. 8. Development of the district heating market structure

from other energy sectors, the process could take one year. Therefore, the most important is a political willingness in this case. Kaunas is now in the unique situation – starting almost from the scratch in the district heating system. There is a chance to have effectively functioning competition in the long run perspective. In order to reach the objective, it is very important not only to implement competition but to foster the emergence of the larger number of participants on both sides (especially on supply side) as well.

Conclusions

District heating sector is wide spread and takes a big part of energy spending in Lithuania. Kaunas compared with other cities of Lithuania has the most expensive end use product of district heating. Therefore, there is no proper legal background to change the prevailing situation. EU does not provide any directions in this case as well.

There is no doubt that competition contributes to price fall. The most important is to choose an appropriate way for introducing the competition in order to avoid negative implications. The difficulty is due to the wide variety of political and economic interests, which often outweigh the concern about heat consumers.

Large and medium-scale district heating networks have some characteristics that are similar to the electricity market, which is the most advanced out of three energy sectors. It provides a possibility to embrace the experience from actions taken in electricity and gas sectors.

Despite the skeptics, electricity market liberalization has proven its effectiveness all around the world. The same ideas and the best practice experience are replicated into the natural gas sector as well.

Overall analysis shows that there is a space for competition and it could work in Kaunas district heating system and in other Lithuanian biggest cities as well.

Taking into account consumer expectations, Kaunas specifics and legal status

of Lithuanian district heating sector, more detailed analysis of different trading options shows that the most popular regulated TPA could be only the second step to start implementing the competition. The first step should be restructuring of the vertically integrated monopolies and introduction of one side auction.

Although there is no example of an urban district heating grid with full-feature third party access and competition between many suppliers and / or one or two

sided auction trade implemented. Kaunas in this case would be a pilot version.

Even regardless of the particular method of trading chosen, the rules should be prepared and established because Kaunas energy has a list of new heat producers willing to enter Kaunas district heating market. Therefore, further research and discussions in order to formulate the most promising one side auction procedures would be very important and well-timed.

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CENTRALIZUOTOS ŠILUMOS SEKTORIAUS LIBERALIZACIJA. KAUNO MIESTO ATVEJIS

S a n t r a u k a

Centralizuotas šilumos tiekimas yra seniai žinomas apsirūpinimo šiluma būdas, ypač ten, kur koncentruojasi daugiau gyventojų, yra daug komercinių ir visuomeninių pastatų. Šiaurės Europoje (40 % šilumos rinkos) taip pat ir Lietuvoje (46 % šilumos rinkos) šis apsirūpinimo šiluma būdas yra ypač paplitęs. Nepaisant populiarumo, centralizuotas šilumos tiekimas sulaukia ypač daug kritikos ir nepasitenkinimo tiek iš vartotojų pusės dėl nuolat augančių kainų, tiek ir iš gamintojų pusės, kad nėra aiškių ir visiems vienodai taikomų veikimo centralizuotos šilumos rinkoje taisyklių. Be to, šiame energetikos sektoriuje dominuoja vietinės, dažnai savivaldybių nuosavybėje esančios monopolijos. Autorių nuomone konkurencijos trūkumas yra viena iš pagrindinių sektoriaus veiklos neefektyvumo priežasčių.

Nors Lietuva ir turi atskirą Šilumos ūkio įstatymą, taip pat visą eilę jį lydinčių poįstatyminių teisės aktų, bet deja, įstatyminė bazė ir tuo pačiu bendras,

tame tarpe ir kainų reguliavimas, stokoja išsamumo, nuoseklumo ir sistemiskumo. Apie konkurenciją šilumos sektoriuje užsimenama labai trumpai ir fragmentiškai. Europos Sąjungos mastu šis sektorius nereguliuojamas, prioritetas teikiamas elektros energetikos ir gamtinių dujų sektoriams, nors kita vertus išlaidos centralizuotam šildymui, ypač centrinės ir šiaurinės Europos šalyse, sudaro didesnę dalį nei elektros energijai. Kita vertus, iki šiol taikytos šalių narių vietinės reguliacinės priemonės padėties centralizuotos šilumos sektoriuje toli gražu nepagerino. Tai yra dar vienas argumentas ieškoti kitokių rinkos veiklos efektyvinimo priemonių.

Galimybė diegti konkurenciją centralizuotos šilumos sektoriuje net ir pasauliniu mastu nagrinėjama dar labai mažai. Todėl išbandytų būdų kaip, kokiomis priemonėmis, kokiais būdais, koku eiliškumu diegti konkurenciją ir tuo pačiu sumažinti kainas ar bent pristabdyti jų augimą, ir taip

suteikti daugiau naudos šilumos vartotojams, dar nėra. Skeptikai teigia, kad konkurencijos diegimas šilumos ūkyje apskritai yra neįmanomas. Pateikiami argumentai atkreipiant dėmesį, kad šiluma yra išskirtinė prekė, kad rinka, kurioje prekiaujama šiluma dažniausiai yra daug mažesnė nei elektros energijos atveju ir t.t. Visa tai tiesa, tačiau praktiškai identiškus argumentus skeptikai pateikinėjo ir prieš pradėdant elektros energijos sektorių liberalizaciją. O pastarosios įdiegimo dėka elektros energijos kainos daugelyje šalių sumažėjo, veikla sektoriuje išskaidrėjo, veikia įprastiniai rinkos dėsniai – tą puikiai iliustruoja Nord Pool birža, kuri šiuo metu apima prekybą elektros energija ne tik Šiaurės šalyse, bet prie jos prisijungė ar greitai laiku prisijungs visos Baltijos šalys.

Konkurencijos diegimo modelį autoriai formuluoja Kauno miesto specifikai – šio miesto centralizuotos šilumos vartotojai, palyginus su kitais Lietuvos didmiesčiais, patiria didžiausias centralizuotos šilumos kainas, kai tuo tarpu šilumos persiuntimo tinklų dedamoji yra viena mažiausių. Tai reiškia, kad didžioji kainos dalis yra dėl gamintojo monopolinės padėties, veiklos būdų, naudojamo kuro ir pan. – visa tai natūraliai yra konkurencijos aprėptis. Kita vertus, yra daug į rinką norinčių įeiti naujų gamintojų, nes artėja 2016 m., Kauno termofikacinei elektrinei pradės galioti griežtesni aplinkosauginiai

reikalavimai ir tai gali apskritai ženkliai padaryti įtaką naujų savininkų sprendimams dėl elektrinės ateities.

Atsižvelgdami į straipsnyje atliktą naujausios teorijos ir situacijos analizę, autoriai siūlo Kauno miesto centralizuotos šilumos sektoriuje įvykdyti veiklų atskyrimą (geriausia teisini) ir po to, skirtingai nei kituose energijos sektoriuose, diegti vienpusį (pasiūlos) aukcioną. O, išspręsdus esamas ir su diegiamais naujais procesais susijusias teises problemas bei išdirbus sklandžiai veikiančias aukciono taisykles, pradėti vartotojų išlaisvinimo procesą (reguliuojamo trečios šalies dalyvavimo pagalba) tuo pačiu atveriant dvipusį aukcioną. Toks evoliucinis perėjimas visų pirma būtų patrauklus ir naudingas (tame tarpe ir smulkiausiems) centralizuotos šilumos vartotojams.

Kitas labai svarbus aspektas, kad tuo pačiu turi būti vykdomas centralizuotos šilumos rinkos demopolizavimo skatinimas, nes tik tokiu atveju yra galimas konkurencijos veikimo efektyvumas. Taip pat būtina šioje srityje tęsti tyrimus ir diskusijas, kad Kauno miestui būtų galima pasiūlyti optimaliausią prekybos mechanizmą, kuriame būtų aptariama prekybos specifika, produktai, eiliškumas ir pan. Tinkamai parinktas ir įdiegtas prekybos mechanizmas gali suteikti daugiau net ir fizinio saugumo rinkoje nei dabar naudojamas planinis / reguliacinis.