

О.І. Карий, О.Ю. Трач
Національний університет “Львівська політехніка”

ДЕМАРКЕТИНГ ПАЛИВНО-ЕНЕРГЕТИЧНИХ РЕСУРСІВ У ЖИТЛОВО-КОМУНАЛЬНОМУ ГОСПОДАРСТВІ

© Карий О.І., Трач О.Ю., 2014

Проаналізовано сучасний стан енергозабезпечення житлово-комунального господарства України, в результаті чого встановлено актуальність застосування демаркетингу паливно-енергетичних ресурсів. Визначено теоретичні основи та концептуальні засади демаркетингу, які дали підстави зробити висновок, що комплекс демаркетингу споживання енергії складається з п'яти елементів – товарного, цінового, дистрибуційного, комунікаційного та карального демаркетингу. Проілюстровано окремі практики застосування інструментів демаркетингу паливно-енергетичних ресурсів у житлово-комунальному господарстві України.

Ключові слова: демаркетинг, паливно-енергетичні ресурси, житлово-комунальне господарство.

DEMARKETING OF FUEL AND ENERGY RESOURCES IN HOUSING AND UTILITIES SECTOR

© Karyy O., Trach O., 2014

The current state of energy supply in housing and utilities sector of Ukraine was analyzed in the article, and, as the result, the relevance of using a demarketing toolkit for energy resources was established. Analysis of theoretical and conceptual basics of demarketing led to the conclusion that the complex of demarketing of energy consumption consists of five elements – product, price, distribution, communication and punitive demarketing. Some practices of the use of demarketing tools of fuel and energy resources in the housing and utilities sector of Ukraine were illustrated in the article.

Key words: demarketing, fuel and energy resources, housing and utilities sector.

Problem formulation. There are two ways to reduce energy consumption in housing and utilities sector, which are based on the principles of marketing and depend on the purpose of the impact on demand: reducing the demand for energy or fuel and energy resources (demarketing) and / or increasing the demand for energy efficiency measures (stimulating marketing and remarketing).

Basic marketing strategies of marketing subjects are usually aimed to attract new and maintain existing customers. But sometimes there is a need to limit the consumption of certain goods. In this situation it is necessary to determine how to reduce access and the need in certain goods for certain customers, refuse to cooperate without creating enemies and without compromising own reputation. These are the issues with which demarketing deals.

The production of Fuel and Energy Complex of Ukraine meets the needs of primary fuel and energy resources by about 47 percent. Electricity demand are met in Ukraine entirely by domestic production, but significant dependence on imported oil, gas and nuclear fuel creates a negative impact on energy security and creates tension in the economic, social and political spheres. At the same time housing and utilities sector remains one of the weakest sector in a national economy. Thus, two-thirds of the fixed assets have reached lifetime, the loss of heat energy and drinking water in external network is 60 percent, and loss of heat energy in the housing and utilities sector exceeds 30 percent. Unit energy consumption is more than 2.5 times higher than in Europe, the number of accidents over the last 10 years has increased almost in 5 times [1].

Such high costs of energy and poor condition of housing and utilities services under the conditions of rising prices of fuel and energy resources leads to impoverishment of the population (fig. 1).

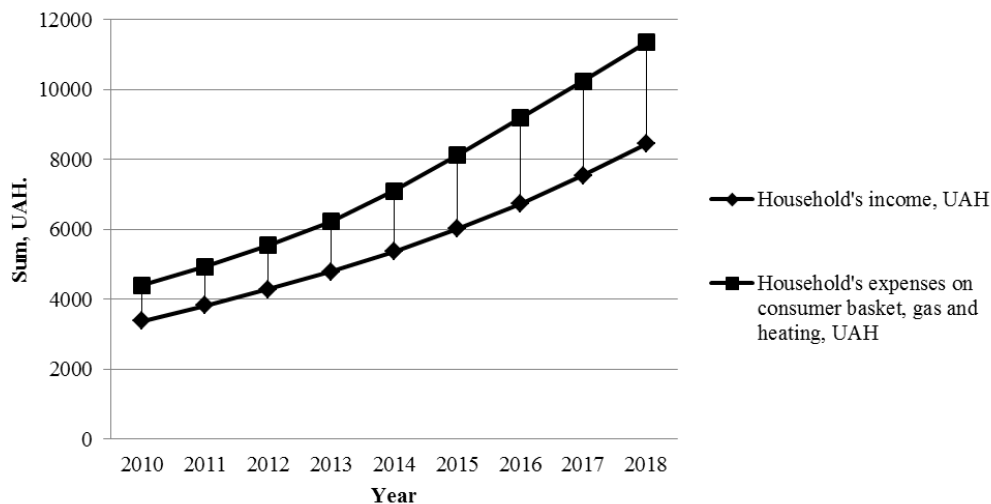


Fig. 1. Forecasted revenues and expenditures for gas, heating and goods from the consumer basket per month

Source: own development

Fig. 1 shows it is not surprising that in 2012 285.3 thousand families received subsidies for reimbursement of the purchase of natural gas, solid and liquid stove fuel [99]. The planned increase in gas prices by 50 % for households and 40 % for the heat communal enterprises in 2014 [2] will certainly increase the number of families who receive subsidies or are unable to pay bills for consumed energy. So, necessity of demarketing application for fuel and energy resources in housing and utilities sector becomes relevant.

Analysis of current research outputs and publications. The term “demarketing” with its meaning was conceptually proposed in 1971 by P. Kotler and S. Levy [3, p.74–80]. Currently demarketing concepts are presented in most of marketing manuals and in economic dictionaries.

Demarketing is a situation and a line of acting in marketing caused by the increasing demand for commodities to a level that exceeds the capacity of production with existing resources. In this case, it is advisable to carry out a restraining marketing that is demarketing as a set of measures aimed to decrease and decelerate the demand [4].

Unlike resisting marketing that is used to eliminate irrational or “harmful” demand, the main purpose of demarketing is not the complete elimination of demand for goods but only reduce of it to a certain limit.

Moreover, different components of the marketing mix are distinguished by scientists in resisting marketing and demarketing. In most countries for the modern state regulation with the use of demarketing it is typical to use a 3R paradigm: prevention, protection and prosecution, which in some cases is supplemented by another element – partnership [5; 6; 7].

For example, measures of prevention for avoiding human trafficking include informational campaigns aimed to inform and educate a community about human trafficking so that they could reveal victims of trafficking or vulnerable to this threat group of people. Also instruments of this type include changing of labor laws which eliminates the use of slave work. Prevention is based on the research of reasons and technologies of human trafficking.

Protection is aiming primarily to victims of human trafficking and provides rescue, rehabilitation and reintegration into society.

Prosecution is aimed at traffickers, primarily through the introduction of criminal responsibility for such activities in all countries.

The partnership, in turn, is aimed to develop cooperation between governments and civil society organizations in combating human trafficking.

In turn, the complex of demarketing is more traditional. K. Roets [8, p.28–29] adds to the traditional marketing mix of demarketing the fifth “P” – penalties (fig. 2). According to him, penalties encompass strict control over the consumption of certain goods, harsher penalties for violations of the rules of consumption and higher rates for insurance for consumers of certain goods.

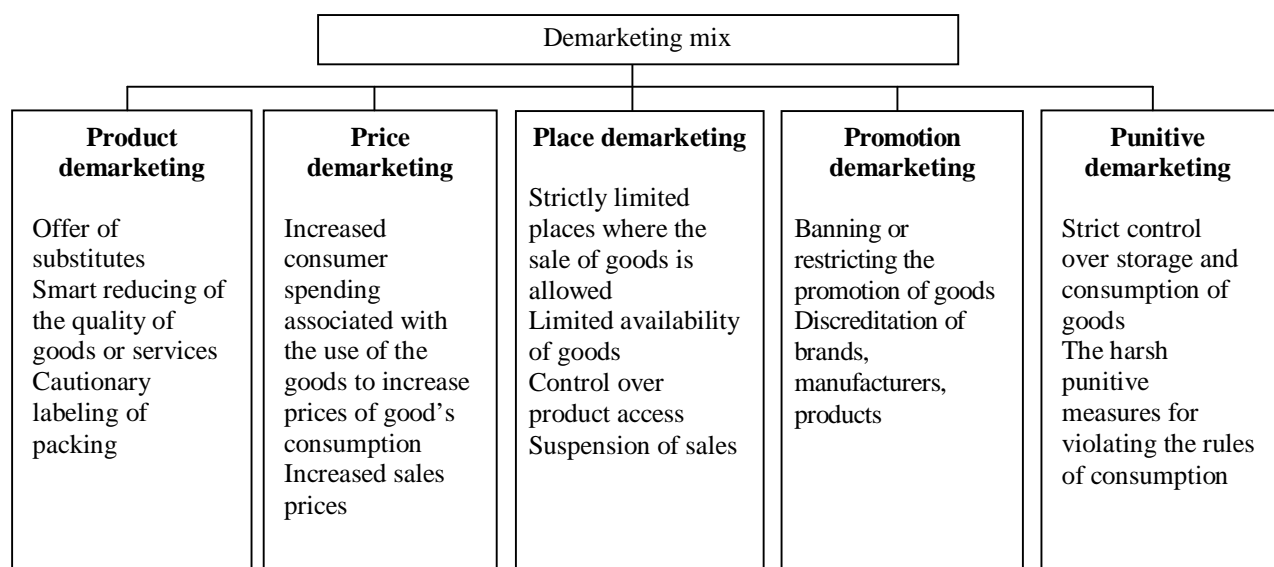


Fig. 2. Main strategies of demarketing

Source: [own development on the base of 8, p.30; 9, p.147]

P. Kotler and S. Levy highlighted three ways of demarketing [4, p.74–80]:

- general demarketing, that is a set of measures aimed to reduce the overall demand for goods;
- selective demarketing, aiming to refuse or limit undesirable interactions with customers, the needs of which are undesirable from economic, organizational or image perspectives;
- ostensible demarketing, which involves creating artificial shortages to increase the desire of buyers to buy “rare” goods.

As noted by V. Kovalev [9, p.147] general demarketing in business may be caused by the following factors: a temporary deficit, which is impractical to remove by expanding production, “chronic” hyperpopularity of commodity, need to recall the product on a life cycle stage of decline. Main areas of demarketing in public sector are:

- resource conservation, promotion of prudent use;
- the implementation of social projects (rejection of over-consumption, smoking, drinking, overeating, switch to a healthy diet);
- solving environmental problems (pollution, limiting the use of natural resources, creating reserves, national parks, restrict on hunting, fishing).

Selective demarketing at the state or local level can be directed to the most unprofitable and subsidized consumers. For this purpose cross-subsidization may be used, as well as the introduction of additional taxes and fees for certain groups of consumers, the introduction of various restrictions on the purchase of different consumer groups. Implementation a minimum order size, increased fees for small orders, fee-for-service to some customers who didn't get certain amount of goods could also be ways to limit the demand.

Conditional demarketing is usually based on the volume of sales (quotas). This can improve the image of a product and the company as the owner of a unique product. Parallel with the quotas this product can be widely advertised. Good examples of marketing campaigns in the consumer goods market are Apple and Google for the sale of iPhone and Gmail (at the launch beginning an opportunity to buy / use was provided only by invitation of friends who have been customers of these companies).

Article objectives. The aim of the paper is to analyze the practice use of demarketing tools for energy resources in housing and utilities sector.

Presentation of main materials. The life of modern person is impossible without the use of energy resources. However, the availability and cost of various fuels and energy may be different. Therefore, it is reasonable to stimulate some part of consumers of energy resources to use alternative energy sources – goods substitutes.

For example, gas consumption in Ukraine is not covered by domestic production. That is why the “Program for upgrading existing boiler houses of city communal enterprise “Zolochivteploenerho”, which included their transfer to solid fuels: five boiler houses till the heating season of 2012/2013 and two more – before the heating season 2013/2014 was approved at the session of the City Council of Zolochiv (Lviv region) on February 16, 2012.

So in 2013 Zolochiv completely transferred his boiler house from imported natural gas into solid fuel. Back in the 2012, the use of solid fuel boilers instead of gas made it possible to reduce the cost of heat for customers in the public sector from 1176 UAH per 1 Gcal to 830 UAH. Savings during the heating season (9500 Gcal of heat) reached 3.37 million UAH. As noted I. Hrynkiv, these funds are paid to the city forestry for firewood and remain in Ukraine to work on the development of the economy of Lviv region [10].

In the context of precautionary labeling of packaging the attention should be paid to the Resolution of Cabinet of Ministers of Ukraine “On Approval of the Technical Regulation of the energy labeling of household electric appliances” according to which all domestic and imported electrical equipment (refrigerators, freezers, washing machines and dryers, dishwashers, stoves, water heaters, lighting appliances, air conditioning, etc.) should be marked with an appropriate labels indicating level of energy efficiency and other information about the device [11]. It is assumed that this Resolution should activate energy saving in housing and utilities sector by making consumers able to choose a device with low power consumption to reduce the costs of using the device.

In practice, however, not all electrical equipment is marked with labels, or, if such labeling is present, it does not attract much attention. Therefore, one way to activate energy saving in housing and utilities sector may be the introduction of penalties for lack of labels on electrical equipment, as well as clear requirements for labeling of equipment, including well-defined size, special content of labels and a duty to place them on the front side of the device.

It happens often that content of labeling, including these labels are unclear to consumers of energy and therefore ineffective in terms of activation of energy saving [12, p.28]. Therefore, the establishment of mandatory energy labeling must be supported by informational support.

Price demarketing in energy sphere obviously appears in setting the tariffs for energy. For example, the Resolution of the National Electricity Regulatory Commission of Ukraine from 13.07.2010 number 812 [13] determines differentiation in prices for natural gas for households – tariff increases significantly after exceeding a certain level of gas consumption.

Limits on the gas and electricity consumption for state institutions are an example of a distribution demarketing. Thus, the Decree of State Committee of Ukraine for Energy Conservation “On approval of

rules of electricity and heat energy consumption for institutions and organizations of public sector of Ukraine” [14] and the relevant decisions of local government define standards of heat and electricity consumption for state institutions and penalties for non-compliance of it.

In 2009, the executive committee of Slavuta city council introduced a system of daily electronic measuring of energy consumption for all public and communal institutions. Main task of this system is to measure daily amount of energy used in the city, after which the data is processed in a shared database. This practice makes it possible to control energy use, detect deviations and unauthorized users of energy, etc [15].

Such system to control energy consumption in the city is also introduced in the city of Konotop in terms of the project “Development and implementation of the system of rational use of energy” [16].

Promotion demarketing of energy resources can be based on a broader context. In particular, the need for abandonment of expensive imported gas from Russia fits into the actual nationwide public campaign of Russian goods boycott called “Do not buy Russian!” or “Boycott Russian”, which emerged as a reaction to the export trade blockade of Ukraine with the Russian Federation. The campaign started on August 14, 2013 with a call from social networks that is widely spread in the Internet [17].

Later, the activists held an action, after which the mass distribution of leaflets, posters and stickers began. The campaign has lost the systemic nature with beginning of Euromaydan in November 2013. However, on March 2, 2014, after the beginning of the “Crimean crisis” and the invasion of Russian forces in Ukraine, activists announced the renewal campaign of boycott of Russian goods. The main organizer of the boycott is movement “Vidsich”. In addition to “Gazprom” gas this campaign promotes the rejection of the use of “Lukoil” and “TNK-BP” petrol.

Thousands of scientific and popular worldwide publications about rapid exhaustion of fuels and energy resources, increasing energy consumption and associated greenhouse effect, as well as the negative effects of climate changes are an evidence of the fact that promotion demarketing is important not only for Ukraine.

An example of punitive demarketing is differentiation in tariffs for electricity for the population. According to Resolution of the National Electricity Regulatory Commission of Ukraine “On establishment of tariffs for electricity sold to the public” [18], tariffs for electricity are lower for the people living in homes equipped with electric stoves, as well as in homes that are not connected to central heating, than for those who use gas cookers and central heating. Thus, domestic consumers of natural gas pay more for electricity consumed.

The implementation of strict control over the use of energy resources is also possible from the own enterprises’ of housing and utilities sector initiative, in particular through standardization. On June, 15, 2011 International Organization for Standardization ISO published standard ISO 50001:2011 “Energy management systems – Requirements with guidance for use”. This standard provides permanent reducing of energy use, reducing pressure on the environment and greenhouse gas emissions, as well as getting financial gains [19, p.128; 20, p.6].

In March, 2012, in the city of Kamyanets-Podilsky [21, p.3] a pilot project to determine the compliance of budgetary institutions of the city to the standard ISO 50001:2011 was held. The following institutions took part in this project: Department of Energy Conservation under the Department of housing, roads and infrastructure; Department of Education and Science; Gymnasium; Preschool educational institution # 21; Department of Labor; City Hospital # 1.

The analysis conducted by the German company “Envidatek East” [21, p.32] proved that the existing energy management in the city of Kamyanets-Podilsky corresponds standard ISO 50001:2011 to 62.52 %. The analysis showed that the deficiencies of the existing system of energy management are the lack of international standardization in the area of system management, low level of unification of methods and procedures. As the positive side of management system was attributed a high level of professionalism, interest of employees of city government energy efficiency department in the construction of modern energy management system etc.

Conclusions and further research prospects. Demarketing toolkit of fuel and energy resources is not systematically used in Ukraine. Subjects of demarketing do not coordinate their efforts and the effectiveness of demarketing in this area has not been fully evaluated.

We believe that in relation to the population it is necessary to focus on the price demarketing, but when considering enterprises of housing and communal services, the attention should be paid to the implementation of standard ISO 50001:2011 “Energy management systems – Requirements with guidance for use”.

Implementation of demarketing of energy or specific fuel and energy resources consumption is being facilitated by a stimulating marketing and remarketing of energy saving measures. So, the optimal combination of these marketing strategies becomes a perspective direction of further studies.

1. Про затвердження Державної програми активізації розвитку економіки на 2013–2014 роки. Постанова КМУ № 187 від 27 лютого 2013 р. // Офіційний вісник України. – 05 квітня 2013. – № 24. – С. 11.
2. “Нафтогаз”: з травня ціна на газ для населення зростає на 50 %. – Режим доступу: http://www.bbc.co.uk/ukrainian/news_in_brief/2014/03/140326_hk_gas_praise.shtml.
3. Kotler P. De-marketing, yes, de-marketing / Kotler P., Levy S. // *Harvard Business Review*. – 1971. – November-December. – P. 74–80.
4. Економічна енциклопедія: У трьох томах. Т. 1. / редкол.: С. В. Мочерний (відп. ред.) та ін. – К.: Видавничий центр “Академія”, 2000. – 864 с.
5. The “3P” Paradigm: Prevention, Protection, and Prosecution. – Режим доступу: <http://www.state.gov/documents/organization/144603.pdf>.
6. 3Ps project: Prevention, Protection, Prosecution. – Режим доступу: <http://ikwro.org.uk/ourservices/how-we-spend-the-money/3ps-project-prevention-protection-prosecution>.
7. Four “Ps”: Prevention, Protection, Prosecution, Partnerships. – Режим доступу: <http://www.state.gov/j/tip/4p>.
8. Roets C. Black generation Y students’ attitudes towards the demarketing of smoking and alcohol consumption / Roets C. – *Vanderbijlpark: Vaal Triangle Campus of the North-West University*, 2013. – 111 p.
9. Ковалев В. А. Демаркетинг: оксюморон или стратегический парадокс? / Ковалев В. А. // *Маркетинг и маркетинговые исследования*. – 2013. – № 02(104). – С. 146–151.
10. Худицький В. Золочів – на дрова?! / Худицький В. // *Дзеркало тижня*. – 15 листопада 2013. – Режим доступу: http://gazeta.dt.ua/energy_market/zolochiv-na-drova-_.html.
11. Про затвердження Технічного регламенту енергетичного маркування електрообладнання побутового призначення. Постанова КМУ від 06.01.2010 р. № 5 // Офіційний вісник України. – 2010. – № 1. – 2010. – С. 174.
12. Achieving energy efficiency through behaviour change: what does it take? Technical report, #5. – *Luxembourg: Publications Office of the European Union*, 2013. – 56 p.
13. Про затвердження Роздрібних цін на природний газ, що використовується для потреб населення, Міжнародного дитячого центру “Артек” і Українського дитячого центру “Молода гвардія”: Постанова НКРЕ від 13.07.2010 р. № 812 // Офіційний вісник України. – 2010. – № 50/1. – С. 1680.
14. Про затвердження Міжгалузевих норм споживання електричної та теплової енергії для установ і організацій бюджетної сфери України. Наказ Державного комітету України з енергозбереження від 25.10.1999 №91 // Офіційний вісник України. – 2000 р. – № 12. – С. 492.
15. “Енергобаланс” – електронна система щоденного моніторингу споживання енергоносіїв. – Режим доступу: http://www.auc.org.ua/sites/default/files/slavuta_201222.pdf.
16. Міська система раціонального використання енергоресурсів. – Режим доступу: http://www.auc.org.ua/sites/default/files/konotor_energo.pdf.
17. У соцмережах українців закликають бойкотувати російські товари // *Тиждень*. – 15 серпня 2013р. – Режим доступу: <http://tyzhden.ua/News/87066>.
18. Про встановлення тарифів на електроенергію, що відпускається населенню. Постанова НКРЕ від 23.04.2012 № 497 // Офіційний вісник України. – 2012. – № 32. – С. 432.
19. Вітрух І. Державне регулювання паливно-енергетичного комплексу як елемента конкурентної політики / Вітрух І., Лакомська Н., Вітрух П. // *Збірник наукових праць “Ефективність державного управління”*. – 2011. – № 28. – С. 125–133.
20. Цьонь О. Система енергетического менеджмента для управления энергией в зданиях. Презентація. – 2012 – 44 с. – Режим доступу: <http://www.inogate-ee.org/ru/kb/konkretnye-primery/1168>.
21. Пойлов О.А. О диагностическом аудите системы энергетического менеджмента бюджетных учреждений г. Каменец-Подольского / Пойлов О.А. – Львів, 2012. – 33 с.

1. Pro zatverdzhennia Derzhavnoi prohramy aktyvizatsii rozvytku ekonomiky na 2013-2014 roky (2013, April 5). *Ofitsiinyi visnyk Ukrainy*, 24, 11. 2. "Naftogaz": z travnia tsina na gaz dlia naselennia zroste na 50% (2014, March 26). *Bbc.co.uk*. Retrieved April 1, 2014 from http://www.bbc.co.uk/ukrainian/news_in_brief/2014/03/140326_hk_gas_praise.shtml. 3. Kotler, P. (1971, November-December). *De-marketing, yes, de-marketin*. *Harvard Business Review*, 49 (6), 74–80. 4. Mochernyi, S.V.(2000). *Ekonomichna entsyklopediia: u triokh tomakh*. T.1. Kyiv: Akademiia. 5. The "3P" Paradigm: Prevention, Protection, and Prosecution. (2010, June 14). *State.gov*. Retrieved April 5, 2014 from <http://www.state.gov/documents/organization/144603.pdf>. 6. 3Ps project: Prevention, Protection, Prosecution. (n.d.). *Ikwro.org.uk*. Retrieved April 5, 2014 from <http://ikwro.org.uk/ourservices/how-we-spend-the-money/3ps-project-prevention-protection-prosecution>. 7. Four "Ps": Prevention, Protection, Prosecution, Partnerships. (n.d.). *State.gov*. Retrieved April 5, 2014 from <http://www.state.gov/j/tip/4p>. 8. Roets, C. (2013) *Black generation Y students' attitudes towards the demarketing of smoking and alcohol consumption*. *Vanderbijlpark: Vaal Triangle Campus of the North-West University*. 9. Kovalev, V. A. (2013). *Demarketing: oksymoron ili strategicheskii paradoks?* *Marketing I marketingovye issledovanuya*, 02(104), 146–151. 10. Hudyt'skyi, V. (2013, November 15) *Zolochiv- na drova?* *Gazeta.dt.ua*. Retrieved April 16, 2014 from http://gazeta.dt.ua/energy_market/zolochiv-na-drova-.html. 11. Pro zatverdzhennia tekhnichnoho rehlamentu enerhetychnoho markuvannia elektroobladnannia pobutovoho pryznachennia (2010, January 22). *Ofitsiinyi visnyk Ukrainy*, 1, 174. 12. *Achieving energy efficiency through behaviour change: what does it take?* (2013). *Luxembourg: Publications Office of the European Union*. 13. Pro zatverdzhennia rozdrubnykh tsin na pryrodnyi haz, shcho vykorystovuietsia dlia potreb naselennia, *Mizhnarodnoho dytiachoho tsentru "Artek" I Ukrainskoho dytiachoho tsentru "Moloda hvardiia"* (2010, July 14). *Ofitsiinyi visnyk Ukrainy*, 50(1), 1680. 14. Pro zatverdzhennia Mizhhaluzevykh norm spozhyvannia elektrychnoi ta teplovoi enerhii dlia ustanov I orhanizatsii biudzhetnoi sfery Ukrainy (2000, April 7). *Ofitsiinyi visnyk Ukrainy*, 12, 492. 15. "Enerhobalans" – elektronna systema shchodennoho monitorynhu spozhyvannia enerhonosiiv. (n.d.). *Auc.org.ua*. Retrieved April 25, 2014 from http://www.auc.org.ua/sites/default/files/slavuta_201222.pdf. 16. Miska systema ratsionalnoho vykorystannia enerhoresursiv (n.d.). *Auc.org.ua*. Retrieved April 25, 2014 from http://www.auc.org.ua/sites/default/files/konotop_energo.pdf. 17. U socmerezkhakh ukraintsiv zaklykaiut boikotuvaty rosiiski tovary (2013, August 15). *Tyzhden.ua*. Retrieved April 25, 2014 from <http://tyzhden.ua/News/87066>. 18. Pro vstanovlennia taryfiv na elektroenerhiiu, shcho vidpuskaietsia naselenniu (2012, May 4). *Ofitsiinyi visnyk Ukrainy*, 32, 432. 19. Vitruk, I., Lakomska, N., and Vitruk P. (2011). *Derzhavne rehuliuвання palyvno-enerhetychnoho kompleksu yak elementa konkurentnoi polityky. Efektyvnist derzhavnogo upravlinnia*, 28, 125–133. 20. Tsion, O. (n.d.). *Sistema energeticheskogo menedzhmenta dlya upravleniya energiy v zdaniyakh*. *Inogate- ee.org*. Retrieved April 26, 2014 from <http://www.inogate-ee.org/ru/kb/konkretnye-primery/1168>. 21. Poylov, O. A. (2012). *O diagnosticheskomykh audite systemy energeticheskoho menedzhmenta byudzhetnykh uchrezhdeniy g. Kamenets – Podolskogo*. *Lviv: Envidatec-Ost*.