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#### CENTER FOR ENERGY EFFICIENCY

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#### Reform of the housing and utility sector: Are we doing wrongly what we have devised or have we wrongly devised what we are doing?

#### (Ten moot points)

During the past years reform of the housing and utility sector has been energetically debated. Our success or failure in combating poverty directly depends on its progress. This explains why debates on ways for implementing reform have got such a bright social and political coloring during all of the latest elections. Opinions differ as to what reform of the housing and utility sector means. Reform slogans, once articulated, have often been repeated and even translated into practice without much thought about their meaning. Some of those slogans have been pronounced so often that their meaning seems obvious. But reform would not move forward dynamically. What are the reasons? Are we doing wrongly what we have devised or have we wrongly devised what we are doing?

I think the latter is the case. To substantiate my position, I have picked up 10 points believed to be "indubitable" and challenged them. I will start with consumers and then pass over to suppliers.

# Point 1. "Uniting in partnerships of housing owners is the only instrument for harmonizing the interests of private owners of residential apartments."<sup>1</sup>

The "market" for many housing and utility services manages to do without scales and without buyers. Services to the population are handed out. The population is stripped of elementary "market rights": people cannot control the volume and quality of provided services, bargain on their prices and cannot even refuse to consume them, while consumption levels remain unknown and, perhaps, unchanged. For many types of services even suppliers cannot realize the principle of "get as much as you have paid for." There is no clarity in who buys services: a household, a housing company, a housing maintenance administration or a municipality. Moreover, clarity is lacking about what particular product is purchased: resources for which consumption norms are fixed (in Gcal, liters, cubic meters, kWh) or comfort parameters on the basis of which the very fact that services have or have not been provided and quality of work of housing and utility sector enterprises is estimated (temperature and humidity in certain premises, operation of water supply facilities, whether or not streets are lit and clean, etc.). In fact, it is a market where it is clear who pays, but it is not clear who makes decisions to buy.

<sup>&</sup>lt;sup>1</sup> «Энергосбережение в жилищном фонде: проблемы, практика и перспективы». Справочник. ДЕНА и Фонд «Институт экономики города». М., 2004. р. 29.

The reason behind the failure to reform the housing and utility sector during the past decade is that the buyer has not been formed and has not been prepared to act in the market. This is the reason behind the fact that the housing and utility sector has not turned into a market sector of the economy and administrative methods of management still prevail there. It is not clear as to where the market methods of management should be applied and who should make decisions to respond to market signals.

The main objective of the sector's reform is not just altering the proportions in the payment for services between the population and the budget and turning consumers into buyers enjoying market rights.

There is a range of problems related to the transformation of consumers into buyers. More than 80 percent of Russia's population live in multi-apartment houses, but any organizational and legal base is lacking for separate households to enter direct and equitable contract relationships with service providers. Households are isolated and, therefore, cannot effectively protect their interests in court in case of disputes with service providers. Households cannot control the quantity and quality of certain utility services they get. Mechanisms are lacking that would let the population control production costs of service providers. There is no competition in the utility services market. Growing tariffs charged for utility services prompt households to reduce consumption; but the existing billing system (electricity bills are the only exception) does not let them benefit from more efficient utilization of energy and water. A shift to full compensation of costs encourages heat and water suppliers to overstate costs and make the burden heavier for municipal and family budgets. This makes it impossible to move towards eliminating poverty, which is one of Russia's three most important strategic goals at the current stage.

It has been announced that unification of apartment owners into housing societies is the only instrument for coordinating their interests. But for numerous reasons, housing societies have developed very slowly<sup>2</sup>. By the way, housing societies only embrace an insubstantial share of housing in Russia and many other countries. In particular, in Western Germany only 4 percent of the population live in housing societies and 17 percent in Eastern Germany<sup>3</sup>, while in Scandinavia up to 20 percent of households live in housing societies and cooperatives and in the United States, up to 7 percent. In Sweden, 18 percent of the population reside in cooperative housing, and there is a total ban on the privatization of separate apartments there<sup>4</sup>. Housing societies and cooperative housing are an important, yet not the only and prevailing form of coexistence of households. Commercial multi-apartment houses are more widespread, with households renting housing in them.

If through titanic efforts, only one percent of the population have joined housing societies -this "only variant" -- it is clear that this not a variant at all. Therefore, I cannot agree with the first point.

<sup>&</sup>lt;sup>2</sup> According to L.N. Chernyshev, the share of the population having united in housing societies, housing cooperatives, and youth housing cooperatives had grown by a mere 1.9 percent between 1990 and 2001 – from 3.7 to 5.6 percent. Реформа ЖКХ - что же сделано на самом деле. «Энергосбережение», №4, 2002. According to S.B. Sivayev, a total of around 5,000 housing societies have been formed in Russia, embracing only 1 percent of the total area of residential premises. Аналитический доклад. Практика реформы жилищно-коммунального хозяйства. Фонд «Институт экономики города». М., 2003.

<sup>&</sup>lt;sup>3</sup> See «Энергосбережение в жилищном фонде: проблемы, практика и перспективы». Справочник. ДЕНА и Фонд «Институт экономики города». М., 2004.

<sup>&</sup>lt;sup>4</sup> Е.С. Шомина. Жилищное движение в Швеции. Журнал руководителя и главного бухгалтера ЖКХ. №1, part II, 2002, pp. 37-40.

Intermediaries certainly cannot be avoided on the 'household-housing society' stretch. As mathematicians say, there is an endless number of intermediate variants. It is not even certain that the housing society is the ultimate point on the stretch, a target and the most effective system for bringing households together. The reasons behind slow development of housing societies in Russia have been insufficiently analyzed even by those who energetically promote their development. The following reasons have been cited particularly often: the absence of a housing management market, lacking incentives for owners to manage residential houses themselves, sluggish promotion efforts (actually, had advantages been obvious, hearsay would have done its job), bureaucratic obstacles, and citizens' belief that someone would come and do everything for them<sup>5</sup>. In reality, the main problem is the lack of culture of housing communities in multi-apartment houses and of the experience of making joint decisions concerning their management.

The fact that this culture is lacking is the result of purposeful social policy. For many years, only two forms of Soviet citizens' active social life were welcome -- family and work collective. Territorial self-organization only existed in the form of housing committees during the first years of Soviet power. But it was destroyed later as housing management was centralized. It was at that time that the housing problem spoiled Muscovites, as writer Mikhail Bulgakov put it. It later spoiled the population of the whole country. The population's move from huts and shacks and shared apartments into private apartments in the 1960s and 1970s ruined the remains of the feeling of territorial collectivism. A longed-for private apartment has become the "primary cell" for the accumulation of private property. In a hut or shared apartment, that was just impossible for reasons all those who lived in such conditions know well enough. Towards the end of the shared apartment/hut hell period, the reaction was a family's isolation within the walls of a multiapartment house in line with the "my home is my fortress" principle. It became possible to freely discuss problems in kitchens. The emergence of a separate isolated "cell" for accumulating personal wealth and expressing personal views was the beginning of the twilight of communist ideology's influence. It took only 20 years of mass relocation of people from huts and shared apartments into their own apartments for the ideology to collapse. Perestroika and the Soviet Union's disintegration were the results of moving people first to "Khrushchev" plain blocks of houses and then critical pressure of the private initiative towards the expansion of a private living space outside the "Khrushchev" houses and land plots with an area of six-hundredth of a hectare, which it was so hard to get. "Khrushchev" blocks of houses and the hedging off of one's living space from the rest created a problem to be dealt with in the course of reform in the housing and utilities sector after 1993.

The culture of housing communities in multi-apartment houses in Russia is underdeveloped. The communal rural culture has failed to strike root on the urban soil. In villages, even today, both your acquaintances and those you do not know greet you, but not those living in the same house you live in. There is a substantial social and institutional inertia in the evolution of housing communities. It cannot be ignored. In France this culture was in the making for 150 years<sup>6</sup>. The willingness to "compress time" and make everyone leap into housing societies does more harm than good, and causes the greatest problem for the housing management system -- mistrust. It is like trying to jump over an abyss in two leaps.

The problem of ownership of housing is not a key problem if the interests of residents are harmonized in terms of its management. For example, in Sweden there is a strong movement of tenants, rather than owners of housing, which is one of the mainstays of civil society in that

<sup>&</sup>lt;sup>5</sup> See «Энергосбережение в жилищном фонде: проблемы, практика и перспективы». Справочник. ДЕНА и Фонд «Институт экономики города». М., 2004. Examples of effective work of housing societies in the book are very rare and unimpressive.

<sup>&</sup>lt;sup>6</sup> Е.Н. Шебаршила. Жилищная политика Франции — объединения совладельцев жилья. «Журнал руководителя и главного бухгалтера ЖКХ». №2, part II, 2002, pp. 24-25.

country<sup>7</sup>. Demand for self-organization in communities has not been realized in this country -- not for lack of registered owner relationships, but for lack of appropriate organizations and traditions. This culture starts gradually developing. As the first steps, for example, territorial self-government bodies<sup>8</sup> are being formed, including house committees and managers which gradually turn into schools of management and cultivate good-neighborly relationships, the ability to jointly resolve simple household problems such as work acceptance after major repairs of a house or improvement of areas near the house, discussions of maintenance plans for a residential house and monitoring of their observance, control of financial flows, providing information to residents, etc.

One possible simple form of self-organization of the population is free association of households within one house (not necessarily all households in it) to form a society for payment for utility services that would sign a contract with the energy services provider for the maintenance of the building's engineering facilities with a maximum level of efficiency of services provision and required comfort parameters. Those societies hire an energy services provider for the latter to provide high quality utility services with minimal costs. This changes the system of payment for utility services. Society members pay the provider for the comfort level. The provider implements a range of energy saving activities and pays to suppliers for consumed services, with their volume measured by metering devices. The provider's objective is effective maintenance of utility systems in the house and, via a relatively simple system of discounts, encouraging citizens to increase the efficiency of utilization of resources in their apartments.

The payment society-services provider scheme has six main blocks: the initiators of the payment society's formation; households united in a payment society at a building level; the private sector represented by housing and/or specialized energy services providers; the payment society support center; the public sector represented by the city administration; heat and water suppliers. It is a Lego set, with various combinations of elements, and the society-provider structure may evolve in line with the principle "from simple to complex". In other words, there are many instruments for coordinating the interests of private apartment owners. Housing societies are not a panacea.

## Point 2. In the West, they pay 25 percent of family income for housing, and we should pay the same

Tariffs for housing and utilities services have grown. People ask: When will this end? Private businesses having moved into the housing and utilities sector have a different question: To what level is it possible to raise tariffs to recoup investment? The proposed answer was: Payment for housing and utilities services should be at around 25 percent of the income of Russians. The limit was set in 1993. Later it was cut down to 22 percent. In December 2003 52 out of Russia's 89 regions adopted the federal standard for the share of the population's incomes to be paid for housing and utility services. In many regions, it was at between 17 and 21 percent and only seven regions fixed the level at a "humane" up to 15 percent.

Analysis of consumer spending in western countries has allowed finding out three important things<sup>9</sup>. First, all actual and estimated payments for rent, repairs, housing maintenance and utility services in the European Union and the United States amount to 21 percent of family income on

<sup>&</sup>lt;sup>7</sup> For details see Подробнее см. Е.С. Шомина. Жилищное движение в Швеции. «Журнал руководителя и главного бухгалтера ЖКХ». №1, part II, 2002, pp. 37-40.

<sup>&</sup>lt;sup>8</sup> See the Law of the Ryazan Oblast on territorial public self-government in the Ryazan Oblast. Закон Рязанской области «О территориальном общественном самоуправлении в Рязанской области». Журнал руководителя и главного бухгалтера ЖКХ. №4, part 1, 2002, pp. 41-48.

<sup>&</sup>lt;sup>9</sup> For details see И. Башмаков. Рост тарифов имеет пределы. «Ведомости». Aug. 28, 2003. р. A4.; И. Башмаков. Сколько стоят услуги ЖКХ? «Энергетическая эффективность», issue 39, 2003; И. Башмаков. Пороговые значения способности и готовности населения оплачивать жилищно-коммунальные услуги. «Вопросы экономики», №4, 2004.

average. The share has been very stable. During the past 42 years the Americans have grown 2.5 times richer, while the share of incomes paid for those services has not changed. The gap between 20 percent of the poorest and 20 percent of the richest population groups in European nations ranged from five times in Denmark to 14 times in Portugal, while the share of housing rent, maintenance and services was the same for families in various income groups in all countries. It has not depended on income levels. In the structure of consumer spending, there are dynamic components (for example, as incomes grow, the share of spending on foodstuffs substantially decreases and the share of spending on entertainment and tourism grows) and very stable ones, such as spending on housing, utility services and transport. The share depends on a type of family - the number of family members, the level and nature of employment -- but it has remained stable on average for the whole income group and the whole nation.

Second, the share of spending on housing and utility services may be defined with respect to gross incomes or after-tax incomes or to consumer spending (less savings). With taxes and then savings deducted, the share grows. In western countries, only 81 percent of gross incomes is used for consumption. For the United States, the share of available income was 19 percent and 15 percent of pretax income, which is substantially lower than 21 percent.

Third, the structure of housing costs. Data concerning housing costs for western countries includes: actual housing rent costs; estimated housing rent costs for owners of housing (they are not actual costs, that is an estimate which shows how much a family would have paid had it rented, rather than owned housing); housing maintenance and repair costs; costs of water supply, sewerage, garbage removal and other services and energy supply costs, including electricity, heat energy, gas, liquid and solid fuel for individual heating in residential houses. Only the latter three (maintenance, current repairs and utility services) are directly comparable with Russian statistics related to the population's spending on housing and utility services. The main difference is estimated and actual rent costs.

When analogous data is accurately compared, with parameters taken into account in Russia analyzed, it turns out that the share of spending on housing and utility services was 5.5-6.6 percent in the United States during the past 42 years. It has never diverged by more than 0.5 percent from the average. This means there is a threshold indicator.

In the European Union, the share is 5.6 percent on average, ranging from 4 to 9 percent from country to country. The differences have been due to the structure of housing ownership and energy prices. The lowest share of housing owned by tenants and the highest prices are in Denmark, Germany and Austria. The share of spending on housing and utility services is the highest in those countries. Available data for Eastern European nations is limited, not too reliable and it is hard to compare it. In those countries, the share of spending on housing and utility services ranges from 4 to 11 percent.

In Russia, like in other countries, the share is similar for various income groups. So the population's maximum ability and readiness to pay for housing and utility services is attained at the utmost (for low income layers) share of spending on housing and utility services in their incomes of 10-15 percent, with spending on housing and utility services amounting on average to 6 percent of average incomes of the population. The estimate is accurate if the collection rate is 95 percent.

## Point 3. Higher tariffs for housing and utility services do not reduce payment collection rates<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Теория и практика реформы жилищно-коммунального комплекса. Фонд «Институт экономики города» М., 2003, р. 66.

In Russia, effective demand for housing and utility services is not determined by their consumption level. It rather depends on the payment collection rate. It is the worsening of the payment discipline as prices grow (provided that other terms are equal) that indicates to negative price elasticity. Tariff-income ratios, rather than just tariffs are a key factor for payment discipline. Econometric analysis for a number of cities shows that elasticity ratios for payment collection are negative in tariff-income terms, while they are substantial in absolute terms and statistically significant<sup>11</sup>. Statements about non-elasticity of payment for housing and utility services are groundless.

Fully in line with the economic theory, consumers' reaction to price hikes is negative and substantial. When tariff rates go up one percent, payment collection rates go down 0.2 percent in Norilsk and one percent in Vorkuta. The intensity of reaction of the level of payment discipline is higher in Vorkuta, because indicators of the ratio of payment for housing and utility services to average incomes and the basic subsistence level have exceeded threshold levels there.

Dependence of the payment collection rate on the share of spending on housing and utility services is shown in Fig. 1. Below the first threshold of the population's readiness and ability to pay for housing and utility services, elasticity of payment discipline is negative in price terms, yet moderate in amounts. Beyond the threshold, it reaches the level of -1, that is growth in the tariff-income ratio by 1 percent leads to a 1-percent reduction in the collection rate. That actually means that the provider of housing and utility services reaches the maximum level of the population's ability to pay and further growth in tariffs only leads to the growth of debts, which it is impossible to collect. Or rather additional costs of debt collection grow too high, substantially exceeding extra revenues. By the way, the same happened to the income tax.



Fig. 1. The population's readiness and ability to pay for housing and utility services thresholds. "Bashmakov wing"

<sup>&</sup>lt;sup>11</sup> For details see И. Башмаков. Пороговые значения способности и готовности населения оплачивать жилищнокоммунальные услуги. «Вопросы экономики», №4, 2004.

Average levels of the population's readiness to pay for housing and utility services range from 5 to 7 percent of the population's total incomes. Within this range, the curve of dependence crosses a 95 percent level of payment discipline. The level of 100 percent is actually unattainable in any country. Well-off Russian citizens also pay up to 6 percent of their incomes for housing and utility services, even if they fully cover the costs of housing and utility services. This is a rigid and stable proportion in the structure if consumer spending not only in Russia. Only with this share it is possible to keep the level of payment discipline at 95 percent, with tough measures taken against debtors. If the desired level of payment discipline is lower, for example, 90 percent, 8 percent of the population's incomes spent on housing and utility services is a threshold level.

The analysis leads us to a simple, yet important recommendation: it is only possible to mark up tariffs for housing and utility services until payments for those services reach 6 percent of the population's average incomes and/or 15 percent of the basic subsistence level. According to Russian statistics, a family spends around 5.2 percent of its income on average on housing and utility services in Russia. This roughly corresponds to the level in Western Europe and the United States.

### Point 4. Markups of tariffs for housing and utility services are not decisive for identifying the number of low-income families claiming housing subsidies<sup>12</sup>

This can only be true if Russian residents are absolutely irrational in economic terms or subsidies are so small that they are negligible for low-income families or there is extremely uneven income distribution among the population with two clear groups of those with very low incomes and those with very high incomes. In Russia, none of those factors is present. The number of households getting housing subsidies depends on the level of those applying for them, which, in turn, depends on whether the population gets sufficient information on the terms for granting subsidies, the amount of subsidies and their significance for family budgets, time to be spent for registration of documents, the terms of debt repayment for getting subsidies, the intensity if work with debtors, the attitude to disclosure of information on incomes and the social status of those with low incomes and many other factors, as well as the throughput capacity and scheme of work of the subsidy issue system. As of the end of 2003, 11 percent of the Russian population received housing subsidies. By the way, the share is similar in the United States.

A cross statistical analysis in Russian regions shows that there is a clear positive dependence (see Fig. 2). It is somewhat indistinct because the shadow economy share is high in certain regions, which distorts income estimates, and data is lacking on payment collection in each region (many low-income families do not get subsidies, while they also have also refused to pay for housing and utility services).

<sup>&</sup>lt;sup>12</sup> С.Б. Сиваев. Аналитический доклад. Краткая версия. «Практика реформы жилищно-коммунального комплекса». Фонд «Институт экономики города» М., 2003. р. 6. The title of the report's full version is «Теория и практика реформы жилищно-коммунального комплекса»



Fig. 2. Dependence of the share of those getting subsidies on the housing and utility services payment-to-tariffs ratio for Russian regions in 2003

Econometric analysis shows that the short-term elasticity of the number of households getting subsidies is 0.3 in Vorkuta and 0.6 in Norilsk for the average amount of subsidies. Average subsidy amounts depend on tariffs for housing and utility services, the terms for granting subsidies and a breakdown of those having applied for subsidies by income levels. High elasticity rates indicate that consumers with low incomes are *very sensitive to price changes*. Besides, the number of subsidy recipients and the amount of subsidies are *very elastic* with respect to the toughness level of measures taken against debtors.

Particularly intense growth in the number of subsidy recipients occurs after markups of tariffs for housing and utility services or after attempts intensify to make debtors repay their debts. Before that happens, part of the population does not pay for housing and utility services and does not apply for subsidies, but households become subsidy recipients after attempts intensify to make them repay debts through debt rescheduling. Tougher measures against debtors push beyond the solvency threshold those who did not pay for housing and utility services before, while higher tariffs do the same to those who paid old tariffs, but cannot cope with the new rates.

## Point 5. Completing the transition to full payment of costs by consumers for housing and utility services is a top priority

Reform of relationships in the housing and utilities sector is often reduced to reform of proportions of payment for housing and utility services. There has been much talk about the need to shift to full payment by consumers of costs of housing and utility services<sup>13</sup>. This year the Russian population will spend more than 550 billion rubles on housing and utility services. Despite the government's huge efforts, the population's share in payments for those services has grown slowly, while the government has been unable to substantially cut budgetary expenditures on the housing and utilities sector or finance all costs in full measure. The main reason is very high and rapidly growing costs in the housing and utilities sector against the gloomy background of slow growth of real incomes of the population and redistribution of collected tax revenues in the center's favor, thus limiting revenues of municipal budgets. In 1998, the population was to cover 50 percent of all costs of housing and utility services, 53 percent in 2000, 58 percent in 2001, and 67 percent in 2002. But as a result of benefits, housing subsidies and nonpayment before 2001 the population

<sup>&</sup>lt;sup>13</sup> С. Сиваев. Аналитический доклад. Практика реформы жилищно-коммунального хозяйства. Фонд «Институт экономики города». М., 2003. р. 5.

failed to cover even half of costs of housing and utility services, and in 2004, with account of the actual level of payment discipline (87 percent), will cover up to 65 percent.

Calls for rapid transition to fully covering the cost of housing and utility services proceeds from the assumption that there is no limit to the population's ability to pay for housing and utility services and that the costs of housing and utility services are justified -- in forms of reports concerning housing and utility services, they are denoted precisely as "economically justified costs". Had points 3 and 4 been right, that would have meant that there is no limit to the population's payment ability. Therefore, it would have been possible to shift the whole burden of payment for housing and utility services on the population, while not fearing payment defaults and growing budgetary allocations for subsidies. The authorities' indecision would have been the only problem.

But both points are wrong. Moreover, it follows from the analysis given above that the Russian housing and utilities sector has used wrong indicators for managing redistribution of the burden of payments between the population and the budget. Rather than the share of costs covered by the population, the key parameter is the ratio of spending on housing and utility services to average incomes or to the subsistence level budget. Costs and incomes vary in regions. In regions with low incomes and high costs, Russians cannot and should not pay 22 percent of their incomes for housing and utility services.

The main reason behind absurdly high costs of housing and utility services and the state's huge financial commitments in the housing and utilities sector is its low energy efficiency! More than 85 percent of the cost of housing and utility services provided to the population are directly or indirectly linked with financing heat, electricity, gas and water supplies and maintenance of engineering infrastructure of buildings and structural elements with the purpose of improving their heat protection (repairs of roofs, joints, doors, windows, etc.)<sup>14</sup>. Low energy efficiency increases costs, while growing costs lead to social tensions, thus making it impossible to shift the burden of full payment for housing and utility services on the population. Virtually everywhere the costs could be cut by 25-50 percent if there is commitment.

The structure of a market (including a system of contracts for fixing tariffs and payment for housing and utility services) where a shift to 100-percent payment is being accomplished can only lead to one result -- uncontrolled escalation of prices for low-quality services. If the whole burden of payment for services is shifted to residents and subsidizing ends, municipalities lose any economic incentives for engaging in projects that would reduce utility costs. They are only interested in cutting down housing subsidies then. As for suppliers of resources, their ability to shift ineffective costs on to the population would grow.

Two-thirds of boiler houses have the efficiency rate lower than 80 percent, one-third lower than 60 percent and one of every ten boiler houses has the efficiency rate under 40 percent. Losses in 70 percent of Russian heat supply systems range between 20 and 60 percent. Who should pay for this low efficiency? Financial responsibility for low efficiency of energy utilization in the housing and utilities sector should be shared between the population and the state. The state and local government bodies should be responsible for the efficiency of the systems for energy and water supply to a residential house. The population should be responsible for the efficient use of resources in their houses. In 2002 the population paid around 50 percent of the cost of heat supply services, but actually received only 50-70 percent of the heat energy norm<sup>15</sup>.

<sup>&</sup>lt;sup>14</sup> For details see И. Башмаков. Энергоэффективность, издержки и реформа ЖКХ «Новости теплоснабжения», №5, 2003, pp. 6-12.

<sup>&</sup>lt;sup>15</sup> С.И. Круглик. Анализ прохождения отопительного сезона субъектами Российской Федерации в 2001-2002 гг. «Журнал руководителя и главного бухгалтера ЖКХ». №6. 2002; А.Я. Шарипов. Энергосберегающие

With full observance of efficiency standards at all stages of production, transportation, distribution and end consumption, the cost of heating per square meter would be 30-70 percent of the current actual level. That is, a majority of the population already pay more than 100 percent of the cost of heat supply services under normal efficiency levels.

The population should in the future fully pay the cost of utility services *in line with municipal efficiency standards, rather than the actual existing levels of inefficiency*. It is inadmissible to shift on consumers payment for above-norm losses of fuel, energy and water during their production, transportation and distribution. Consumers, even organized consumers, cannot influence the efficiency of resources utilization in production and transportation systems. This is the municipalities' sphere of responsibility. But consumers should be responsible for effective use of resources in their residential houses. This will encourage them to organize themselves and pick, on a competitive basis, entities that would engage in the maintenance of engineering systems in their houses.

If the level of the population's ability and readiness to pay for housing and utility services is limited at a certain moment and supply costs are substantially higher, transition to 100-percent payment is tantamount to the emergence of a huge debt of the population for housing and utility services and an increase in the share of housing subsidies in payments for housing and utility services. Low income families account for more than 50 percent of the debt and it is impossible to collect those debts, even if they face the threat of being moved to other housing. Bad debts have only rarely been written off in this country. When the share of payments for housing and utility services jumps higher than 10-15 percent of family incomes, measure to enforce debt repayment cannot improve payment discipline (see Fig. 1). For example, after tariffs were steeply increased in Vorkuta, the collection rate decreased in 2003 even though energetic and tough efforts were exerted to collect debts via courts. In 2003 Vorkuta courts considered 2,845 cases on nonpayment for housing and utility services and 60 individuals were moved out of their homes. Any city with huge and growing debts of the population if not attractive for private businesses, and promoting competition in the housing and utilities sector is impossible there. Huge debts serve as disincentives for consumers and service providers. The city will eventually have to repay the population's debts (or offset them by transferring a substantial share of municipal property). Besides, housing subsidies provided to low-income people from the budget will have to cover at least 10-20 percent of all costs of housing and utility services.

So, this fifth point is also wrong. It is necessary to work up and realize in *any* municipality a *balanced schedule* for increasing the population's share in payments for housing and utility services, which would take account of growing incomes of the population and their ability to pay 6 percent of their incomes for housing and utility services. It should also take account of intense cost reduction efforts, as in many cases those costs are overstated. An increase in the share of costs covered by the population can also occur without increasing actual payment rates, through reduction of costs and tariffs. By the way, it turned out that tariff hikes have not served as an incentive for the formation of housing societies.

## Point 6. The introduction of personified social accounts will facilitate self-organization of the population and competition in the housing and utility sector

The attention paid to the introduction of personified banking social accounts is obviously disproportionate to the importance of this measure. It is expected that it will help solve a wide

технологии в системах коммунального теплоснабжения. «Журнал руководителя и главного бухгалтера ЖКХ». №7, 2002; В.И. Ливчак. Энергоэффективные здания в московское массовое строительство. «АВОК» №1, 1999. И. Башмаков. Точный уровень потерь не знает никто. «КоммерсантЪ», Nov. 18, 2002.

range of problems in the housing and utility sector: facilitate self-organization of citizens, reduce subsidies in the housing and utility sector, increase public control over the quality and quantity of services rendered by the housing and utility sector, make the budget policy more transparent and so on<sup>16</sup>.

This measure may lead anywhere but not to self-organization of citizens or competition in the housing and utility sector. Lower-income sections of the population are already receiving personified subsidies. Currently subsidies are calculated individually but transferred directly to housing and utility enterprises. Changing this scheme by transferring subsidies to an individual account through a bank using a uniform bill that cannot be altered to reflect utility services that have not been rendered will not provide the consumer with additional instruments to control the quality and quantity of services. However this will only make the payment process more costly and complicated. Today 11 percent of Russians, who cannot be considered the most active part of the population, receive subsidies. They cannot organize other households for joint action to change the servicing of their houses. The assertion that the transfer of subsidies to citizens' accounts will discipline the budget may prove correct only after budgets have stopped delaying wages to teachers and doctors. Nor is this measure an obvious means of reducing budget costs incurred by housing subsidies because they may be misused or their transfer from personal accounts may be delayed.

## Point 7. Mass introduction of metering devices will turn the consumer of utility services into the buyer

One of the ways to turn the consumer into the buyer is to install metering and control devices. However, it's more complex than it may seem to be. To begin with, it is necessary to decide what the buyer of housing and utility services receives: resources (Gcal, liters, cubic meters, kWh) or comfort. The ultimate service for which we need resources is comfort. If a certain amount of "hot" water heated to 25 degrees Celsius runs in a thin streak though a meter installed in a flat, and the tenant has to spend an hour to fill the bathtub, he will pay for this "service" according to the readings of the meter, but this will not give him comfort. Maybe one should buy comfort at the same time too?

But that will require a company to service the whole house: it will buy resources from suppliers according to the readings of the meters installed in the house, and, using its own technologies, convert them into comfort that it will then sell to citizens. This can be done by different organizations, and this will cardinally change not only the definition of utility services but also the methods of measuring the services rendered to citizens. The parameters of comfort are measured by other means: temperature and humidity, water quality and pressure in water intake devices, lighting and reliability, and lastly the degree of the residents' satisfaction.

Another question is, Do we deal with a collective buyer or an individual one? And if it is a collective buyer, how big is the collective? Today it's the whole city, and this is why services are paid for according to average city consumption norms. But it's too big a collective. Any individual efforts to use resources thriftily are not noticeable in it. It would be more rational to use as a collective one building or one central heating point that services a group of buildings. In this case metering and control devices must be installed at the central heating point and residential houses with big heat consumption. It would not be rational to install such devices in houses with low heat (up to 0.25 Gcal/hour) and water consumption because their maintenance costs will by far exceed possible effects from their installation. In other words, there is no need to install meters everywhere.

<sup>&</sup>lt;sup>16</sup> Д.П. Гордеев, Т.Б. Лыкова, М.С. Румянцева. Оплата ЖКУ с использованием социальных счетов в рамках эксперимента. Журнал руководителя и главного бухгалтера ЖКХ. №2, part 1, 2003, pp. 20-25.

If it's an individual buyer, it is necessary to install water and heat meters in every flat. In new residential houses, every flat should have water consumption control devices. However, there is no need to install such devices in existing residential houses on a priority basis. There are practically no studies exploring the level of consumption that depends on:

- $\Rightarrow$  the organization of consumers (household, associated households, a housing company, an energy services provider, housing maintenance administration, municipality);
- $\Rightarrow$  the quality of housing and utility services and the cost of compensation for their bad quality (the use of electrical heaters, the purchase of bottled drinking water, etc.);
- $\Rightarrow$  a system of contractual relations and the structure of tariffs (heat generation and transportation tariffs, intra-house heating system maintenance tariffs);
- $\Rightarrow$  consumption control (average city norm, metering device for a group of houses, a metering device for one residential house, a metering device for one flat);
- $\Rightarrow$  methods of billing based on the readings of house meters (proportional to living area and the number of people registered, proportional to indirectly measured amount of resources consumed: distributors or proportionators for heating, as well as special calculation ratios);
- $\Rightarrow$  billing and payment methods;
- $\Rightarrow$  the severity sanctions against debtors for housing and utility services and the extent to which such sanctions may be used.

Therefore the thesis about the need to introduce market relations in the housing and utility sector is not supported by a proper evaluation of market instruments as a means of changing the consumer's behavior.

It is quite possible that after a meter has been installed in a house and the actual amount of resources consumed by the house has been determined, the installation of such devices in each flat will prove unproductive. It is also possible that consumers who have meters in their flats may economize at the initial stage but then will not change their behavior or will change it insignificantly. In this case a costly program of installing meters in each flat will not benefit a collective consumer as much as devices for the whole house will. By the way, France is only beginning to install water meters in each flat in multi-apartment houses. In the US flats are usually not equipped with water and gas meters and often they do not have even electricity meters. Flat meters are most commonplace in Germany where the state provides fantastic, by Russian standards, financial support for the modernization and installation of metering devices in residential houses<sup>17</sup>.

Utility systems in multi-apartment houses are built in a way that will make a transition to individual heat consumption measuring and billing very costly and will not solve all problems because it will still be necessary to pay for utility services in common spaces within a house. In the case of heating, it's 30-50 percent of all consumption. Given stringent financial restrictions, it would be reasonable to combine collective (per building) resource consumption measuring and individual (per flat) comfort measuring devices as well as the consumption of resources and the organization of new billing mechanisms.

<sup>&</sup>lt;sup>17</sup> See for details «Энергосбережение в жилищном фонде: проблемы, практика и перспективы». Справочник. ДЕНА и Фонд «Институт экономики города». М., 2004. pp. 43-45.

## Point 8. In order to improve housing and utility sector management, it is necessary to separate the functions of the client from the functions of the contractor

In keeping with this recommendation, many cities have created "client services". However, this did not lead to real market changes in the housing and utility sector. In fact, it could not lead to any changes. The very way the task is formulated is paradoxical: the housing and utility sector is much more complex than a two-polar "client-contractor" model. At each level of management in the housing and utility sector there are the client's functions (management) with regard to one group of market agents and there are the contractor's functions (performer) with regard to another group of market agents. The question is how to build a rational management system in the housing and utility sector. There are many options. One of the most popular of them is delegated management and management companies. The whole world uses pragmatic approaches: management mechanisms are reformed according to the objectives to be achieved in a concrete place, not by "one size fits all" models<sup>18</sup>. It should be noted that institutional mechanisms are not exported. They must be adapted.

There are several dangers here. First, delegating management functions does not mean distancing oneself from management. After all, the mayor is responsible for reliability, cost and quality of work in his city's housing and utility sector. The question is what part of management functions he is ready to delegate, and who and how will control the work of management companies. If the city's housing and utility department has created an effective management system and the city can create conditions for the financial stability of enterprises, there is no need to delegate management in this city. Management and control have a price and efficiency. A comparative analysis of the results and costs will make it possible to determine whether management functions should be delegated or not. In France, where management functions have been delegated for a long time, the first system of criteria for evaluating the efficiency of utility enterprise management will be offered only in 2004. In other words, it is still impossible to assess the efficiency of management companies and therefore compare them with each other.

A thorough risk analysis will show whether a management company dodges risks. If all management functions are delegated only to one company, competition in the housing and utility sector becomes questionable. Indeed, a private management company does not have to distribute work among contractors on a competitive basis and it may further delegate management functions to contractors as it sees fit.

An ideal mechanism for areas that do not have collective consumers of housing and utility services may be as follows. All housing owners empower the housing and utility department to represent their interests. The department then acts as the owner of housing and utility systems and performs its functions by signing contracts for the management of housing, preparing financial plans for housing companies, determining their production objectives and the price of individual works, as well as municipal quality standards for housing companies by using quantitative and qualitative performance indicators. Prices for individual works are the same for all housing companies and are relatively stable. There should be a system of indicators to evaluate individual housing companies. As a result, it is possible to identify residential houses (a residential block) that are serviced by the least efficient companies and submit them to a tender. This will break monopoly on servicing areas. In addition, all or part of work connected with major repairs may be distributed on a competitive basis through an effective acceptance procedure so that housing companies do not have to eliminate defects made by others at their own expense. The use of a prototype of this

<sup>&</sup>lt;sup>18</sup> See Финансирование создания и модернизации инфраструктурных объектов транспорта и коммунального хозяйства. Министерство строительства, транспорта и жилищной политики Франции. Управление международных и экономических связей. Париж 2002. Published in Russian, p. 29.

mechanism in Norilsk in 2003 allowed the city to join a small group of Russian cities where a system of management helped reduce costs in the housing and utility sector.

Competition in the housing and utility sector means that the buyer will be able to choose the supplier. In other words, it's not only a question of choice but also of who is the buyer and who will choose. Now the supplier is chosen at best by the municipality. If there is a collective buyer, he makes the choice because citizens have to pay more and more for housing and utility services.

It is clear that the housing management market cannot be formed overnight. It takes time. It is necessary to form demand for these services and supply, there needs to be trust between the supplier and the buyer, and it is necessary to introduce "market rules". All this requires time and effort to overcome social inertia and mutual mistrust built over years within the "citizens -- authorities -- housing and utility enterprises" triangle, as well as step-by-step measures to move from the simple to the complex.

#### Point 9. Only private business can cardinally improve the housing and utility sector

This thesis is one of the most popular in the housing and utility sector. The government has failed, and municipalities have not been very successful, so, let us try and attract private business into this sector. There are two other theses to counter this one: "private monopoly is no better than the state one" and "the rules of work in the market are more important than the operator's form of ownership". Let's discuss how these theses work in the heating market.

The heating market is a tidbit, one of the biggest mono-product markets in Russia. Annual sales in this market amount to about \$30 billion. But there is no national heating market. It is divided at least into 50,000 local markets. Another feature of this market is a great potential for cost reduction. Costs may be cut by \$10 billion just by increasing energy efficiency. That's how much operating companies that are entering this market may make in profit. If we assume that the average recoupment period for energy saving investments in this sector is five years, the market for energy saving equipment, materials and effective operation methods may be estimated as a minimum at \$50 billion. Therefore, the ratio for the Russian heating market appears to be 30:10:50. This means that in order to earn \$10 billion a year by cutting costs in a \$30-billion dollar market, it is necessary to invest \$50 billion in energy saving technologies.

State and private partnership is often based on the idea of attracting private financial resources into the housing and utility sector. The company Russian Utility Systems (RKS) has only promised to attract \$500 million in the next seven years for the modernization of the Russian housing and utility sector. But already now overall investment in the modernization of the heating systems exceeds \$500 million. And yet many measures propose to overhaul existing inefficient systems without changing the heating concept.

In order to invest and get a good return, it is necessary to change the system of relations in the heating market. Such reform is gradually gaining momentum. There are different forms of relations in the market: private, lease of municipal property by private companies, lease of private property by municipality, municipal operators of municipal property. And yet there is no reason to say that one of these forms is better than another. Responding to a question whether there was evidence that a private operator was using the system more effectively than a municipal one (the rules of work in the market being the same), participants in the International Energy Agency workshop on centralized heating policy in 20 transition economies could not give an affirmative answer, just as French delegated management specialists could not<sup>19</sup>. However everyone agreed

<sup>&</sup>lt;sup>19</sup> Д. Жордан и Д. Леви. Семинар «Ключевые проблемы партнерства власти и бизнеса в коммунальном секторе». Голицыно. April 6, 2004.

that private companies were more flexible in terms of retaining and attracting clients and more committed to meeting the needs of end users. Everyone also agreed that "private monopoly is not better that the state one" and that "the rules of work in the market are more important than the operator's form of ownership". It is not incidental that all private Russian operators in the housing and utility sector pay attention not so much to the implementation of projects as to the development of reasonable "market rules".

Municipal companies work quite effectively in the Scandinavian housing and utility markets. They privatize heating systems gradually. In Sweden, the share of municipal property decreased from 100 to 62 percent in 1990-2002. Part of the systems were acquired by German and Finnish companies<sup>20</sup>. Many East European countries, such as the Czech Republic, Lithuania, Hungary, Poland and Estonia, attracted private operators. Russia did the same, allowing a score of companies, whose names contained the word "utility", to enter the heating sector.

Municipalities, as the owners of heating infrastructure, are allowed to attract operators on a competitive, long-term contractual basis (long-term lease with a right to make changes). It is necessary to develop a "menu" of standard forms for such contracts. Long-term lease contracts should determine guarantees and responsibility for compliance with regional and municipal heating system reliability and operation standards. In Lithuania, private operators control 42 percent of the market. Municipalities sign contracts with them, which determine maximum costs, technical efficiency parameters for heating systems, the quality of service and the satisfaction of clients, fixed asset safety guarantees, and environmental restrictions<sup>21</sup>.

The following entities are allowed to compete for the right to manage heating systems: municipal unitary enterprises, joint stock companies (with the participation of municipal capital) set up with municipal unitary enterprises, and private management companies. The form of ownership is not as important as is the confidence that heat supplies will be reliable and effective. Private companies have yet to prove that they can work more efficiently than municipal ones. It's just that the conditions for comparing the results of their work will be different. Municipal unitary enterprises have had to deal with a tide of non-payments while private companies often take over heating systems with strict payment discipline.

#### Point 10. The housing and utility sector is a tiny island of socialism

If socialism is understood as an ability to efficiently manage a collective economy, this thesis is totally wrong. The housing and utility sector is a tiny island, to be more precise a huge island of individualism where households cannot yet start manage their houses collectively. In fact this thesis means the use of administrative methods of management in the housing and utility sector and a lack of confidence in a market response both from the producers and consumers of housing and utility services. As for the producers, with the lax payment discipline in the state over the last 10 years, it was practically impossible to manage them by economic methods. There can be no market economy without money. Read Adam Smith, David Ricardo or Karl Marx.

If the consumer is meant, we pointed out above that even though he has not yet formed completely as the customer, he has made a clear and correct market response. The problem is that his buying capacity was perceived wrongly. In other words, the housing and utility reform has done little in terms of creating a normal structure of the market of housing and utility services. But if we have not organized the market, how can we use market management methods?

<sup>&</sup>lt;sup>20</sup> Yu. Zema. Development of Ownership Structures in District Heating. Presented at IEA workshop "District Heating Policy in Transition Economies". Prague. February 2004.

<sup>&</sup>lt;sup>21</sup> A. Greim. Dalkia Group. Presented at the IEA workshop "District Heating Policy in Transition Economies". Prague. February 2004.

Given considerable differences in the organization of the housing and utility sector in individual localities and the need for flexible implementation of housing and utility reform, it is necessary to prepare a "menu of managerial decisions on the housing and utility reform". It is very tempting but wrong to reform everyone the same way. We still think that there should be some magic simple solutions to the housing and utility sector problems. But there is none! The task of reforming the housing and utility sector is as challenging as the implementation of complex space programs! A sincere desire to "make it better" by using simple solutions always produces "as always"-type results. Any effective mechanism is a comprehensive mechanism that organically combines social, economic, financial, organizational, information and technical elements. Each of them has its own inertia characteristics and the extent to which it can change. If even one of them is ignored, the mechanism will not work. New mechanisms in the housing and utility sector should be built and serviced in a new way. We must understand clearly when we implement wrongly what we planned, and when we planned wrongly what we try to implement.

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