

Public Service Obligation System Principles

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Abstract: This paper tries to model the public passenger transport system in the railroad traffic from the aspect of the PSO obligation – the Public Transport Obligations, defined by a Regulation enacted by the state level of authority, in accordance with the EU Parliament Regulation 1370/2007/EC. The paper focuses on the aims of the Regulation which regulate the PSO principles, system financing, compensation and subsidies systems. It also establishes the conditions and trends in EU countries. There is also stress about the structure of expenses and income in the exploitation process in relation to the need for subsidies by local authorities for the transport of passengers.

Key words: Regulation, PSO- Public Transport Obligation, trends, expenses, income.

INTRODUCTION

Under the conditions of free market functioning in the sector of passenger public transport, operators/carriers would not undertake the obligation to provide services that are not cost effective. However, if those services are in general public interest, competent authorities at state and regional level have to ensure the services whereby they introduce and apply various regulations and instruments such as the obligation to provide non-commercial transport service.

It should be emphasised that regulation of the European Union (abbreviated the EU) reserves the right to impose the obligation of public transport service, but with the obligation to conclude suitable contracts with operators which define terms of transport and appropriate compensation for the provision of passenger public transport service. (abbreviated PSO). Such mechanism of ensuring passenger public transport service is named “Public Service Obligation” (abbreviated PSO), while the Law on Railroads in Serbia calls it “Public Transport Obligation” (abbreviated PTO).

Therefore, different countries (central, regional or city authorities) apply different models of awarding contracts depending on the institutional framework, available financial resources as well as the form and level of railway system restructuring. Differences are evident in several elements of awarding contract, out of which the most important ones are the following:

- services covered by PSO,
- market openness,
- method of awarding the contract,
- shared risk for revenues and costs,
- ownership over the means of transport,
- contract duration,
- use and control of budget resources for passen-

ger public transport/passenger service obligation.

The development of transport as a part of technological process is a common requirement for quality life of the society and economic development. In all economically developed countries, transportation system structure is evident. This fact indicates that planned and conscious development of transportation system must be a part of economic policy of a country [1]

PSO PRINCIPLES OF PASSENGER SERVICE OBLIGATION SYSTEMS

PSO PRINCIPLES - BASIC ASSUMPTIONS

Two basic notions that are included in the new passenger public transport system are: *Public Service Obligation – PSO* and *Public Service Compensation*. Definitions of these notions are as follows¹:

- *Public Service Obligation – PSO* means a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward;
- *Public Service Compensation* means any benefit, particularly financial, granted directly or indirectly by a competent authority from public funds during the period of implementation of a public service obligation or in connection with that period;

General aims of the regulation regulating the Public

¹ Definition of the above stated terms are given in EU Regulation 1370/2007/EC (Regulation on public passenger transport services by rail and by road and repealing Council Regulations No 1191/69 and 1107/70).

Service Obligation - PSO principles are the following:

- The regulation aims to oblige authorities to stop granting subsidies without control for the needs (the passenger transport) that can be satisfied solely by the market (the so-called profitable operators) and for the activities for which the market can ensure services at lower prices when applying the principle of open access and where there is a fair competition in place. These subsidies (but also the exclusive rights) are deemed to be sources of discrimination among operators.
- Only those needs that cannot be satisfied by the “strength of the market” (the so-called unprofitable transports), mainly due to the fact that they do not ensure profitable business, justify granting subsidies, however under the strict control and after the tendering procedure. Exempted may be passenger service obligation by rail so that Regulation 1370/2007 allows direct grant of the service contract on PSO.

Specific objectives and the concept of the new regulation are reflected in the following aspects:

- It is necessary to identify transport services in the general public interest and it is evident that an operator (or operators in another region) who is providing the service may not accomplish their own economic interest without compensation.
- Granting the competent authority (state, regional or city authority) the power to impose an obligation for an operator to provide such services (Public Service Obligation – PSO), which ensures the public interest protection.
- It is necessary to protect the commercial interest of operators in the way that PSO would get an appropriate compensation which is determined by specially defined methodology.
- It is necessary to protect the interest of the competition and the market principles so that the compensation granted to the operator must not be excessive, but to cover clearly and transparently presented costs of the provision of PSO and a reasonable (acceptable) profit, otherwise other operators (carriers) would be in an unfair position on the transport market;
- Mutual rights and obligations of the competent authority for the implementation of PSO and the operator must be defined by a CONTRACT.

The European Union regulated the system of PSO by Regulation No 1370/2007/EC, and pursuant to the said regulation the compensation for the provision of PSO amounts to [6]

$$C = C - E - R + RP$$

where:

C - means operator’s operating costs of the provision of PSO,

E - means effects achieved by the award of the Contract on PSO,

R - means revenue from direct sale of tickets,

RP - means reasonable profit defined by the Contract on PSO.

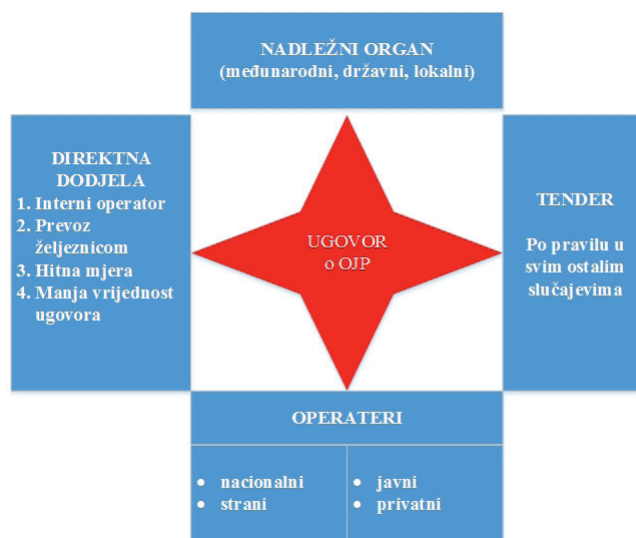
It should be emphasised that a ten-year transitional period has been envisaged (until 2019), and all countries are obliged to provide the Commission with a progress report within the six months following the transitional period (2015). [2]

Competent authorities that can be local, state or even international award Contracts on PSO directly or through public tendering procedure (picture 2.3). In the case of a direct award of public service contracts, the competent authority shall make public the following information within one year of granting the award:

1. name of the contracting entity,
2. duration of the public service contract,
3. description of the passenger transport services to be performed,
4. description of the parameters of the financial compensation,
5. quality target (punctuality, reliability and other),
6. applicable penalties and bonuses,
7. conditions relating to essential assets.

8. PSO essentially means A CONTRACT ON PUBLIC SERVICE OBLIGATION. Regulation 1370/2007/EC stipulates the contents of the contract which must cover the following items:

- Precisely defined obligation of the transport that the operator should fulfil,
- Parameters and the methodology based on which the COMPENSATION shall be calculated,
- Arrangements for the distribution of costs and revenues
- Duration of the contract.



Picture 2.3 Principles of the award of a contract on PSO

Middle column:	Left column:	Right column:
COMPETENT AUTHORITY (international, state, local)	DIRECT AWARD 1. Internal operator 2. Rail transport 3. Urgent measure 4. Small value contract	TENDER As a rule in all other cases.
PSO CONTRACT		
OPERATORS national foreign	public private	

In addition to these mandatory elements, the contract content may include: control over the execution of the contract – form and dynamic of reports, measures to penalise deviations from the contract, etc.

INTEGRATED PUBLIC TRANSPORT SERVICES

One of the most significant features of regional and suburban corridors is that PSO on these corridors is often provided by a number of operators providing different forms of traffic. In recent years, it has been a tendency that under such conditions the transport market is offered an integrated transport mode. The main aim of integrated system of PSO is to ensure, through united functioning of various systems, a higher level of the transport service quality and to increase accessibility of the region. [3]

Based on the definition of the integration of the system, PSO can be observed from three aspects, some authors consider these to be the minimum, namely:

- physical-network integration, which refers to the integration with several types of passenger transport;
- tariff, which presumes the use of a single ticket in vehicles of all operators that are taking part in the PSO;
- logical-informative, which refers to provision of full information to public transport users,
- in addition to the three above indicated integration levels, a “wider integration” is mentioned in relevant literature as the highest integration level.

PRINCIPLES OF PSO ORGANISATION IN EUROPE

Generally, most countries have effectively applied the legal EU framework for daily activities of their public rail services. Some other countries, dominantly the new EU Member States from Central and Eastern Europe apply this framework only formally. Although the EU, through the European Commission defined standards for this problem, passed unanimously adopted Regulation, it was obvious that harmonisation of rules may not be applied without taking into consideration the specific political and economic context of each Member State, which is the main reason for the existing set of

differences in national legislation, mode and level of the application of the regulation and the models being applied. Analysis of the general situation of the application and organisation of PSO in the EU, in particular in the selected Member States was carried out on the basis of the document *CER (2011)*.

SITUATION AND TRENDS IN EU MEMBER STATES

In the year 2011, these two models coexisted in the EU and both models allow development of the competition among the operators. In other words, these models do not exclude each other but they are complementary methods for the introduction of competition. The concept of regulated competition should be applicable to services requiring a contractual basis with the authorities due to the existence of PSO. The competition level in such regulated market depends on how effectively contracts are awarded. Competition is strongly developing throughout the EU and it is based on tenders and negotiation procedures. It is considered that this trend would continue, ensuring that the sensitive issue of financing the contracts is properly treated.

General framework for public services

Similar schemes for the organisation of public rail passenger services are applied in countries that were the subject of this research. There are three categories:

- public services provided solely at national level (central authority level),
- public services provided at regional and local level and
- public services provided through collaboration of national and local authorities.

Determination of the public service obligation requirements

Generally, public service obligation means “a requirement defined or determined by a competent authority in order to ensure public passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent (or under the same conditions without award)”. In other words, the activity of the public transport service as rule is commercially unprofitable.

Regulation 1370/2007 provides a very general definition of public transport services: they cover the “services of general economic interest”, under the condition that they are public and contracted on “non-discriminatory basis and continuously”. However, national state authorities are free to decide which services fall under this category.

Main public service obligations that are currently required from the operators in the EU include:

- Tariff obligations covering tariff allowances for

certain categories of passengers. In certain cases the law leaves certain level of freedom to the operator to increase the tariff. In principal, limitation is that railroad companies may not increase their prices above the level determined by the authority;

- Service frequency includes services between big cities, during the peak times;
- Requirements relating to quality are explicitly included in the part relating to PSO or indirectly through the "Bonus-penal" system. This is a very important aspect of economic implication of the contract since quality has its price, so the price should be negotiated between the parties.

Quality requirement usually include:

- Punctuality;
- Booking of tickets/seats;
- Services for passengers with reduced mobility;
- Information to passengers at stations, on trains or general information;
- Requirements relating to the sale of tickets at railroad stations and on trains;
- Hygiene on trains;
- Number of unoccupied seats in peak hours and outside the peak hours;
- Attendance and appearance of the staff on trains;
- Characteristics of the rolling stock;
- Marketing possibilities of PSO / availability at certain level of tariffs;
- Reliability of the service -including efficient traffic of the planned train schedule and the obligation of substitution in the case of failure of the means of transport.

PUBLIC FUNDING OF - PSO

Financial aspect of the public service obligation is the essence of the problem, both from the business/economic and from the political perspective. Its content is dictated by the political decisions based on the national and/or decentralised social protection and the policy relating to environmental protection. In theory, these political objectives should be supported by an appropriate financial construction. Very often, short-term budget discretion has a significant impact on railway traffic. [4]

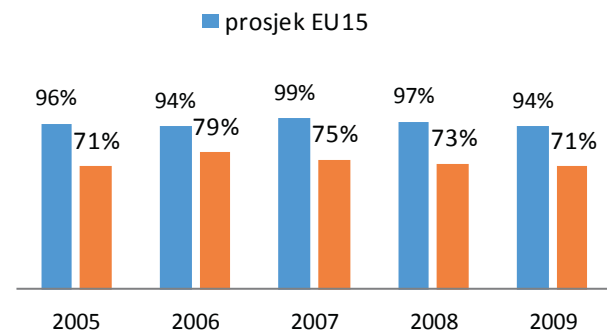
The main principle laid down in Regulation 1370/2007 is that costs incurred from public service obligation must be adequately compensated: no over-compensation or under compensation is permitted. These principles can be read in the said Regulation, and/or:

- This Regulation lays down the conditions under which competent authorities, when contracting for public service obligations, **compensate** public service operators for **costs incurred** and/or

grant exclusive rights for the provision of the service (Article 1(1), paragraph 2).

- Public service contracts and general rules shall determine the arrangements for the **allocation of costs** connected with the provision of services (Article 4(1) c refers to "mandatory content of a public service contract and general rules").
- In order to avoid "pre-compensation" or under-compensation", quantitative financial effects on the network of the operator should be taken into consideration when calculating the net financial effect of the compensation (Annex indent 3).
- Public service costs **must** be balanced with the operating costs and compensation paid by competent authorities.

The gathered data indicate that in practice too many countries still under-compensate the public service obligation - PSO. The data presented in the picture 3.1 shows that on average only 71% of net costs connected with PSO were compensated by the competent public authority in Central and Eastern Europe in the year 2009. Even in EU15, where it is often assumed that operators are paid full compensation for the provision of the public service, data has shown that this is not the case. In the year 2009, on average 94% net costs that are connected with the provision of the public service obligation was compensated by the governments of EU15. It should be recalled that the year 2009 was the year when public budgets were quite tight due to the economic crisis.



Picture 3.1 Average public compensations in EU15 and EU13 (% in differences between the costs and revenues from the sale of tickets)

The question of a "reasonable profit" is also very significant, but it is not clearly determined in Regulation 1370/2007. It obviously depends on the degree of risk faced by an operator, and in practice it should be the subject matter of negotiations between the parties. "A reasonable profit" is envisaged in most contracts.

The problem of under-compensation

The data indicate the public service obligation in EU is not adequately compensated which has brought unacceptable losses which made the operators to take

short-term loans. 70%-75% of the loss suffered by the operators at this moment is being compensated by competent authorities in referent countries. This turns into a significant deficit: one country has stated the deficit of about 100 million € per year. Financial pressure caused by the economic crisis reduced the available resources in the public budgets. The result is that ministries in the countries of Central and Eastern Europe have reduced their budgets for public service contracts for about 50%, without any reduction of the level of the service required by the governments.

The phenomenon of under-compensation has many negative implications to the operation of an operator, but also to the organisation and implementation of the public service obligation system – PSO, out of which the following are most important ones:

- **Certain obligations are only implicitly and not explicitly required by competent public authorities:** railway companies sometimes continue providing the services that are not covered by the service contract concluded with competent public authorities in anticipation of political problems in case they cease to provide the services,
- **Compensation through commercial revenues:** losses are compensated through the allocation of revenues from rail freight to passenger public transport, which may affect the commercial sustainability of freight traffic. While this could be the commercial choice of healthy railways, it is not in accordance with the law if it is imposed by a competent public authority or where inactivity of the authority leaves no choice to the railway company concerned,
- **Quality implications:** railway companies, in particular but not limited to the new member states, suffer from a chronic inability to renew their rolling stocks. Average age of the rolling stock that is used for the public transport services in new member states is 30 years, which tells the passengers enough about the quality of the service.
- **Low availability of the rolling stock:** establishment of a rolling stock is expensive to manage because of running malfunctions and spare parts shortage. This is reflected in the offered capacity.
- **Change of the type of transport:** low reliability and quality of the service result in the change of the type of transport to environmentally worse types, such as road transport.
- **Competitiveness:** all above stated difficulties are reflected in the general competitiveness of railway companies in relation to new providers of the service or to those undertakings that receive an adequate compensation.

Any tendering procedure for the provision of the public service for which it is clear in advance that it would be under-compensated cannot be successfully carried out in any possible way. [5] The tendering procedure may be finished formally, but positive effects of the tender for the market may occur only when there is more than one offer. From economical point of view there are obvious solutions to this problem.

PUBLIC SERVICE OBLIGATION – PSO PRINCIPLES IN THE REPUBLIC OF SRPSKA

Under the current conditions, when it comes to PSO, the most usual forms of service are suburban bus lines that do not fall under the competences of local authorities, but under the competence of the Ministry of Traffic and Communications. Pursuant to actual regulation, the Chamber of Commerce has been entrusted the role of an arbitrator. With regard to the current method of registration of lines and timetables in the territory of the region (municipality) and/or given that passenger transport is “de facto” managed by operators (carriers), the option of the impact of the local self-government (municipality) to ensure for their citizens a functional and quality transport are very limited or even generally disabled.

Naturally, the function of the public transport may not be privatised, but for the execution of the function, as a public service, the responsibility lies on each unit of the local self-government.

Establishing legal frameworks and normative regulations of the activity of passenger public transport requires determination of the subjects or basic holders, who define the interaction between the **public transport function** on one hand and the **operator carrying out the transport of passengers** on the other hand. The **public transport function** presumes determination of legal regulations and procedures, which enable the establishment of transport system that would meet the needs of the process of social reproduction and all the needs in daily functioning of citizens. However, it should be emphasised that the actual legislation in the Republic of Srpska, even in BiH, do not allow implementation of the stated necessary requirements for the establishment of an efficient and satisfactory transport system.

Passenger transport presumes the full realisation of the scheduled timetable on the entire network of lines. It is clear that the function of the public transport has an accentuated social (holistic) character in the process of social reproduction, first of all the local self-government since the urban and suburban passenger public transport in its essence must be functional in the space and the time, and efficient in the peak time. Requirements so defined are contrary to cost-effectiveness and profitability. Therefore, a functional public transport that is not cost-effective and profitable contributes

the development of self-government to a much greater extent than the amount of resources for subsidising a part of the costs not covered from revenues from the tariff.

The existing concept of the urban and suburban public transport on territories of the local self-governments is left to sole interests of the operators. In order to create preconditions to change the current conditions and move a step forward towards a better transport system from the aspect of passenger transport many changes should be implemented, first of all in legislation (Law on passenger transport by road and in Regulation on harmonisation and registration of timetables).

One of the main obstacles for the improvement of PSO on the territory of a certain local self-government is in that the existing legislation does not allow a change of a route line and its length, as well as the inability of making a comprehensive proposal for a network line by the local-self-government. A more significant improvement of the offer and the quality of the service would be achieved by such a comprehensive proposal for the network lines and timetable implemented in the territory of the local self-government and the competent authority commission (chambers of commerce) should harmonise with the same comprehensive proposal of neighbouring local self-government units.

However, the existing Regulation takes into account, first of all, a mutual harmonisation among operators/carriers whereby it is presumed that operators would propose the lines which they evaluate to be profitable.

Simultaneous planning and defining the network of local and regional lines result in that there is no meaning and need to introduce any protected times. The protected times in the current state of things have not brought any good results, since the public transport is not carried out after the registered timetables which means that operators "protect" themselves on their own in the manner that they do provide all of their registered departures². Limited length of lines cause numerous disadvantages when it comes to the technology and organisation of PSO, which first of all refers to: unsustainable transport organisation, poor utility of infrastructure facilities, disabling safe and functional change for passengers from one line to another, impossibility of using several lines with changes, impossibility of changing the traffic regulation, incompatibility with other traffic sub-systems, etc.

The competence of regulatory bodies (chambers) is not in the function of consistency of the network of lines but of protecting the formal boundaries of municipalities. This illogical thing should be corrected by amending and modifying the two Regulations so that true needs/demands are harmonised between the unit

of the local self-government and the competent body authorised by the Ministry, and only after that ensure harmonisation among the operators (*Simeunović 2010*). The aim is to achieve the main purpose of harmonisation of timetables in order to achieve maximal satisfaction of citizens and passengers so that the local self-government units and competent authorities could manage the functional process among different sub-systems of the public transport, which has become a mass phenomenon in the developed EU states and the world, and that is missing today in the public service obligation system – PSO in the Republic of Srpska and Bosnia and Herzegovina.

Local self-government (actually, this is about municipalities) adopt, as a rule, Regulations on subsidising the costs of transport of regular pupils of primary and secondary schools in their respective territories. This regulation lays down general and special requirements that subsidised participants must meet, namely:

1. General requirements

- that they are registered as regular students of primary or secondary school which is in the territory of the subject municipality,
- that the distance between the departure station and their school is above 4 km³,
- that they commute to school every day either to attend classes or practical teaching.

2. Special requirements (not applicable in all municipalities)

- that they come from families whose members (parents, brothers, sisters) receive financial support,
- that they come from families whose members (parents, brothers, sisters) receive care allowance and assistance from another person or a group,
- that they are classified in the category of children with special needs,
- that they come from families with more than four children.

The contract determines: the number of departures, departure time, traffic route and the amount of monthly fare. In most cases, this transport is provided only on working days. Some municipalities provide incentives for the transport carried out only on lines and routes/distances where there are no interested passengers for the registration of the respective municipality lines. Contracts are concluded for each school year on the basis of personal requests and at the requests submitted by respective local community.

The Department of Economy, Finance and Social Affairs in each municipality is responsible for the implementation of these Contracts, as a rule, and those

²Excuses are different, usually absurd and unacceptable, such as non-existent failures and fuel shortage.

³This distance is commonly applied, but the distance is not uniformly determined so that municipalities decide at their discretion.

departments establish a Commission to analyse the demands for the transport of pupils and the commission is obliged to monitor the realisation of the public service obligation – PSO provided by operators as well as to control invoices arising from the service provision.

When it comes to secondary school pupils, the municipalities, in accordance with their budget facilities, may pass a Decision to subsidise the costs of transport of special category pupils referring to the following:

- secondary school students, category of socially vulnerable families and single parents,
- secondary school students from the families of war invalids falling under the category I to IV, families with more than four children living in the territory of the given municipality who attend the school as regular students in other municipalities, provided that the courses they study are not provided by secondary schools in the territory of the municipality,
- students that come from families of fallen fighters and belong to socially vulnerable families who attend the school as regular students in other municipalities, provided that the courses they study are not provided by secondary schools in the territory of the municipality.

The above presented system of subsidising the public service obligation refers exclusively to transport by bus. Subsidising of passenger transport in the above indicated method, or in any other form does not exist. The Railway Company, *Željeznice Srpske* (ŽS) receives financial aid from the budget which is divided between both undertakings and the infrastructure and the operation (this implies passenger and cargo transport). Some special methodologies based on which compensation level is determined and the obligation of an undertaking providing passenger transport services are not being applied. ŽS are obliged to deliver annual report on the operation and/or the achieved revenues, on one hand, and on costs of the operation, on the other hand. It should be emphasised that there is no clearly expressed and defined methodology by means of which costs of an operation are determined.

CONCLUSIONS

The Regulation 1370/2007, the repealing Regulation 1181/69, has resulted in the application of new principles of PSO in the passenger public transport system. This Regulation clearly and unambiguously determines the Public Service Obligation – and the Public Service Compensation. The European Union has regulated by the new system of PSO the compensation for the provision of PSO, in principal the problem of non-profitable service of the local, i.e. suburban or regional passenger transport has been resolved.

Regulation 1370/2007/EC lays down mandatory content of public service contract that includes the following items:

- Clearly defined public service obligation which the public service operator is to comply with,
- The parameters and methodology on the basis of which the compensation payment is to be calculated,
- Update and distribution of costs and revenues,
- The duration of the contract.

This paper obviously shows that it is necessary to provide a rational selection of criteria for the model solutions to the problem of under-compensation of operators for the provision of passenger transport service. It is necessary to allow comparisons of the variants of the solution to the problem of under-compensation to the operator, whereby the existing differences in the size of operators, economic power of the state (region), number of inhabitants, network infrastructure development etc. are not taken into account. This means that it is necessary to ensure that the value criteria includes an acceptable imprecision in the form of a total error, which would ensure reliability of results. The selected criteria should cover the entire field of occurrences, i.e. their identification should ensure the selection of those criteria that substantially affect the selection of the most favourable variant. The result of the selection of these criteria mostly affects the output results of the model applied to evaluate the balance sheet of the operation of the operator providing passenger service, i.e. operating costs are reduced and revenues from the sale of tickets increase.

From all the above stated it becomes clear that public service obligation – PSO is not fully implemented. Hence it is necessary to undertake some of the following activities to ensure that the model of integrated system of passenger service obligation is in place and/or implemented in practice:

- Conduct a study of the system and feasibility study,
- Take a comprehensive survey of potential passengers with special review of the employees, students and in particular motorised population with the aim of knowing the conditions for the transition to the public service obligation system.

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