

Professional Paper – Stručni rad

ANALYSIS OF THE SERBIAN PUBLIC PRIVATE PARTNERSHIP PROJECTS IN THE FIELD OF ENERGY EFFICIENCY

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ABSTRACT

Energy efficiency is one of the priorities defined in the Energy Sector Development Strategy of the Republic of Serbia. For the successful realisation of any strategy, including energy sector development strategy, it is necessary to allocate financial resources. In the times recession and limited state budgets, it became necessary to look for new modalities in an era of increasing demand especially where financial resources are limited. One of the models often utilized by the public sectors across the world is Public-Private Partnership (PPP).

The purpose of this paper is to identify potential difficulties in the preparation and contracting of PPP projects in the field of energy efficiency in Serbia, considering the fact that only a limited number of public contracts have been signed and much more have been approved as a PPP project proposal. Considering the findings of the research, energy efficiency has proven to be one of the key drivers for the development of PPP projects in Serbia. The projects in the area of energy efficiency experienced an exponential increase in the past period, although difficulties were identified with their preparation and contracting.

Keywords: energy efficiency, public – private partnership, projects.

INTRODUCTION

Investments in social and economic infrastructure are of crucial importance for achieving faster economic and social development. According to the analysis conducted by the Vienna Institute for International Economic Studies on the infrastructure investments in the countries of the Western Balkans, investments into transport infrastructure, education and energy can significantly contribute to the increase of the economic growth rate, and the creation of new jobs (Holzner, Stehrer & Vidovic, 2015).

The transition period in Serbia has been lengthy and the privatization processes have not yet been completed. The prolonged recession exacerbates the many challenges Serbia is facing. All this present obstacle to paving the way to the desired accession to the European Union. In order to prepare for the challenges of deeper integration with the EU member countries, the Republic of Serbia is actively negotiating and working on harmonizing numerous legal and institutional regulations.

The European Union prioritises the energy sector. Hence Serbia has committed to harmonizing this area through negotiating chapter 15. The importance of energy for Serbia was recognised in 2006 when the Treaty establishing Energy Community came into force, and was confirmed through the Stabilisation and Association Agreement signed by the Republic of Serbia. To fulfil its EU obligations and to ensure systemic change, Serbia had to set long-term development goals which have been documented in the various sector policies, such as the Energy Sector Development Strategy of the Republic of Serbia until 2025, with projections up to 2030, which identifies energy efficiency as a key goal.

For the successful realisation of any strategy, including energy sector development strategy, it is necessary to allocate financial resources. For example, in order to achieve the required standard of energy efficient behaviour, it is very important to allocate financial resources for raising awareness

about the energy and environmental culture and simultaneously to invest in ways that will encourage change in the behaviour of users, producers and consumers. In the times recession and limited state budgets, i.e. Local self-government budgets, it became necessary to look for new modalities in an era of increasing demand especially where financial resources are limited.

One of the models often utilized by the public sectors across the world is Public-Private Partnership (PPP). Different PPP models have been adopted around the world. For the purposes of this paper, this model can be described as the public sector's business model, i.e. where public sector, using a commercial agreement, cooperates with the chosen private partner in areas that are usually in the jurisdiction of the public sector. PPP can be related to project development, construction of facilities, infrastructure management, and providing services to citizens etc

Energy efficiency (EE), coupled with a larger degree of use of renewable energy sources, is one of priorities defined in the Energy Sector Development Strategy of the Republic of Serbia until 2025 with projections until 2030 (Official Gazette of RS, no. 101/15). Improving energy efficiency both in production sectors and in energy consumption sectors has been recognized as one of the key elements of the energy policy of the Republic of Serbia. It contributes to the security of energy supply, reduction of energy consumption in the private and commercial sector, growth of industry competitiveness and improved standard of living.

In order to achieve the adopted strategic goal of improving EE, a number of measures need to be carried out, the realization of which requires the preparation of a set of activities as well as planning financial sources for these activities. The modest budgets of (most) local self-government units leave little possibility of self-funding, which presents an additional obstacle to stimulating EE improvements. For that reason, local self-government units increasingly resort to using external funding, such as special purpose republic and provincial funds, or donation programs and loan facilities. In order to qualify for such funding, the local self-government units need to participate in a transparent manner, to public calls organized by donation programs or competent ministries, i.e. to enter into a loan arrangement through public procurement. Regardless of the type of the potential source of funding, the local self-government units are required to submit their requests in the form of a project proposal. The term "project" should be interpreted in the broadest sense, as part of a series of planned and coordinated activities performed to achieve both specific and general project goals within a realistic timeframe. In addition to compliance with the procedural steps of submitting the project, the most important requirement is to ensure that the project proposal is in accordance with local, provincial and national strategic documents and that it is feasible with funds utilized in an efficient manner.

This project funding method whilst increasingly popular in local self-government units, primarily because of the availability of individual donator development grant programs, also became popular with republic and provincial bodies. However, local self-government units in Serbia still do not fully grasp the techniques of project planning and preparation, nor can they successfully manage the project management cycle. Too often projects are prepared only when there is an available donation program or a call at republic or provincial level. Thus, a significant number of local self-government units apply for funding but unsuccessfully. This needlessly burdens already very meagre personnel and financial resources. Even if the signing of the agreement and the implementation of the project even happens, planning is often coordinated in a very "ad hoc" manner, reducing the efficiency and effectiveness of the project. Given this, it is imperative that such projects will require additional skills and know-how and certainly in the area of energy.

Energy projects require specific expertise and can be very demanding, both in the technical sense and in terms of personnel. They are often accompanied by complex execution of works, and, upon their completion, are supposed to secure realistic revenue savings. This makes the analysis of project effects even more complex. When the trend of introducing a private partner through a PPP model is considered as well, it is clear that the preparation of projects in the field of energy efficiency poses a severe challenge for local self-government units. Data of European PPP Expertise Centre (EPEC) show that in the Western Balkans region, there are repeated difficulties in preparing and contracting PPP projects. Namely, as identified in the 2014 EPEC Study, the region continues to be characterised by a high PPP failure rate, especially during the preparation and tender phases. The

average PPP failure rate in the region was estimated to be approximately 50% (European PPP Expertise Centre, 2018).

The purpose of this paper is to identify potential difficulties in the preparation of PPP projects in the field of EE in Serbia. The paper is an attempt to investigate and analyse difficulties, and an attempt to propose measures for improving and overcoming the identified issues. In addition, the research also reflects the social importance of raising awareness on the imperative to improve energy efficiency; one of the key objectives of the Republic of Serbia's energy policy defined in the main strategy documents.

METHODOLOGY

The analysis was conducted using the following methods - description method, analysis, synthesis and statistical method, as well as interview method – survey (questionnaire). Data collection for the analysis was carried out on two levels. On the national level, publicly available data on the number of PPP project proposals approved by the competent Republic Authority - the Commission for PPP were collected and analysed. Then, approved PPP project proposals in the field of EE were analysed in particular. Furthermore, for the purpose of reviewing the status of these projects in the contracting process, the data from the Public Procurement Portal were analysed.

On the local level, an e-survey was produced, and then distributed to all 12 local self-government units in Serbia which initiated PPP project proposals in the area of EE and which succeeded to conclude public contracts with the selected private partner. The questionnaire used for the requirements of the research in question consisted of 18 open-ended and closed-ended questions. When answering closed-ended questions, the respondents chose one of the given answer alternatives, the one that corresponds with their attitude and opinion. When answering open-ended questions, the respondents had an option of writing their own answer, i.e. the requested information. The filling of the questionnaire took 30 minutes. In accordance with previously defined problem of the research, and based on the overview of the relevant bibliography and earlier research conducted so far, the following two hypotheses were made:

Hypothesis (H0): There are difficulties in contracting of PPP projects in the field of EE.

Hypothesis (H1): There are difficulties in the preparation of PPP projects in the field of EE.

FINDINGS OF THE SURVEY

According to the Report on the Operation of the Commission for Public-Private Partnership of the Government of the Republic of Serbia (Commission for Public-Private Partnership of the Republic of Serbia, (CPPPRS), 2017), in its meetings, the Commission reviewed a total of 86 PPP project proposals, with or without concession elements, and the Commission issued a positive opinion for 56 out of the reviewed 86 projects for the period 2012-2018. However, a detailed search of the Commission's internet web page (CPPPRS, 2017), showed that, at the link to "Opinions of the Commission" (CPPPRS, 2017), a document titled "Proposals of Public-Private Partnership Projects with or without concession elements which received a positive opinion from the Commission for PPP" was published, which includes 73 projects which received a positive opinion, and at the same link, in "html" format, a list of 85 projects which received a positive opinion has also been published. Additionally, it was established that a single project appeared on the list twice. For the purposes of analysing the projects in the field of EE approved thus far, the list of 84 projects which received a positive opinion from the Commission was taken into consideration.

In that sense, in comparison to the total number of projects approved by the Commission, 31 of them were in the field of EE improvement. The most common types of projects in the field of EE which were approved by the Commission were replacement of street lighting, and improvements to heating systems. As stated before, out of total 31 approved PPP projects' proposals, 12 project proposals entered the tender phase, selected private partner and signed the contracts which are also published on the Public Procurement website, i.e. in the Public Contract Registry, pursuant to the competent law and the accompanying bylaws.

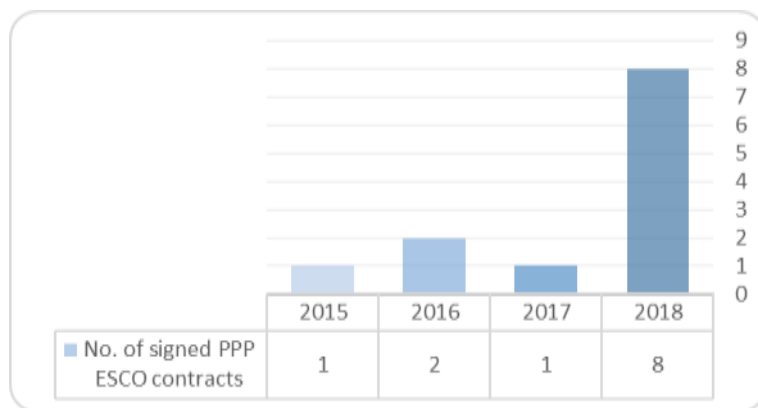


Figure 1. Number of signed PPP ESCO Contracts

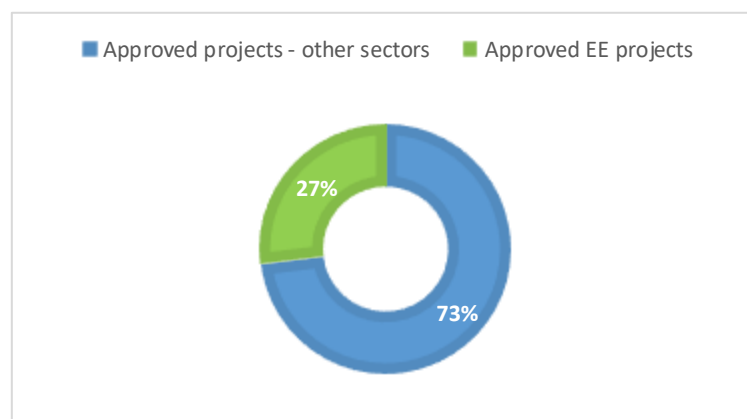


Figure 2. PPP project proposals approved by the PPP Commission

Likewise, if we are to observe the municipalities and the cities in which EE segment PPP project proposals had been approved, we can reach a conclusion that smaller communities (group of municipalities of up to 30,000 residents) initiated the projects more actively. This group includes as many as 20 municipalities, which is more than a half.

The above-stated data clearly show that the PPP model is still at the initial level of acceptance in Serbia. Namely, the 84 initiated, prepared and approved PPP project proposals for the period 2012-2018 represent a rather small number of projects. Out of the 84 aforementioned projects, 27% refer to the area of EE improvement, which is also not an encouraging data. Out of 31 approved project proposals in the field of the EE, 12 public contracts were signed, i.e. nearly 40% of the projects currently have the status of a signed public contract which was also published in the Public Contract Registry, pursuant to the competent law and the accompanying bylaws (Figure 1 & Figure 2). According to the hypothesis (H0), there are difficulties in the contracting process of PPP projects in the field of EE, and the analysis of the collected data confirmed the hypothesis. Namely, according to the presented data, as much as 60% of 31 approved PPP projects in the EE area are still without a signed contract, which directly indicates that there are some difficulties in private partner procurement. High percentage of approved proposals for PPP projects in the area of EE, which have not been agreed, indicates that there are difficulties at public partners' side in regard to project preparation, public procurement implementation, and contracting of these PPP projects.

For the purpose of conducting the analysis on PPP project proposals in the field of EE collected on the local level, a questionnaire was used as the basic survey method.

The sample consists of all 12 local self-government units in Serbia which initiated PPP projects in the area of EE and which concluded public contracts with the selected private partner. Those local

self-government units are: Kladovo, Mali Idoš, Irig, Plandište, Veliko Gradište, Vlasotince, Nova Crnja, Petrovac na Mlavi, Pirot, Ada, Žabalj and Topola. These 12 local self-government units make up a representative sample, as a set with the same initial and final bases. Namely, these local self-government units went through and reached the same phases in the sense of project cycle stages, and the Figure 3. below shows the scope of the activities they completed within that cycle. It needs to be mentioned that these are long-term agreements of an average of 13 years, and that all sampled local self-government units reached phase 4 – agreement realization (contract management):

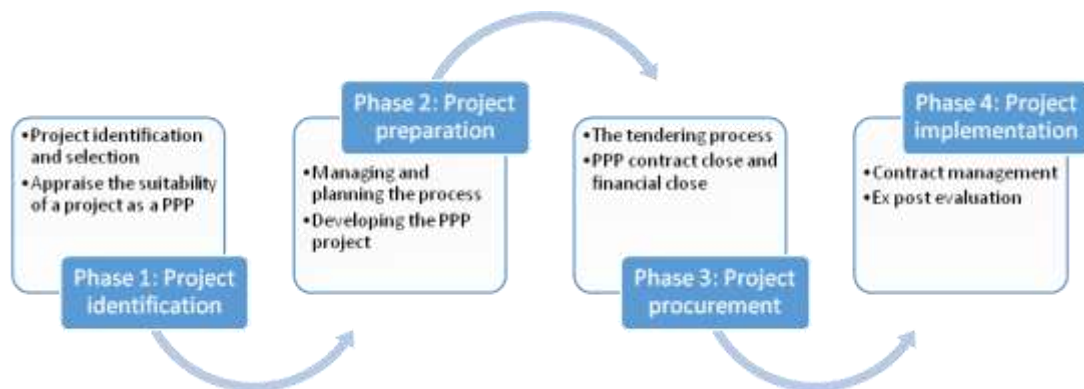


Figure 3. Phases in the PPP Project Cycle

Also, the biggest part of local self-government units included in this research were local self-government units in the category of 30,000 residents. The answers submitted to these local self-government units were provided by the representatives appointed by the Mayor during the initiation of the PPP project as members of the municipal team of experts for preparation and realization of the PPP, by local self-government governance members and by experts in the relevant area hired as external consultants of the local self-governments. For that reason, the respondents are considered eligible to answer the questions from the questionnaire. The respondents occupy the following positions in the local self-government: city manager for energy, assistant to the Mayor, President of the Procurement Committee, local economic development coordinator, manager of the department for economic & commercial development and diaspora, public procurement advisor, development associate, employee at the normative and property & legal affairs department, energy efficiency external consultant hired by the local self-government. Data collected through the questionnaire have been automatically processed via survey e-app (Google Forms).

There were 83% of the sample responded to the pre-set questionnaire, therefore the data are considered relevant. Nearly half of the respondents, 45%, answered the question “How did you learn about the public-private partnership concept?” with the statement that they went through some form of training, i.e. that they had participated at a panel about PPP. About 27% of them learned about the PPP concept through their competent ministry, and the same percentage of respondents heard about the PPP from the potential private partner. High percentage of as much as 81.8%, resulting from the answer to the question about the existence of initiatives for starting PPP projects, confirmed the reports that the PPP model is very attractive to decision-makers. There were 9.1% of respondents who answered with “no” and “I do not know”.

Areas in which the representatives of the local self-government units-respondents were mostly interested were: heating supply, public lighting, and waste management.

In 80% of cases, the local self-government was officially the initiator, and in 20% of cases the private partner was the initiator of the PPP project proposal. In all sampled local self-government units, potential financing sources were considered before the decision on launching a PPP was made.

As the most frequent reason for entering a PPP, 36.4% of respondents who stated that it is more beneficial to enter a PPP, because the conditions of the model are more favourable than those found

in conventional financial institutions. Furthermore, 27.3% of respondents stated lack of technical, financial and HR capacities for providing the service in which the PPP is initiated as the most common reason for entering the PPP model. The same percentage of respondents (27.3%) stated the answer “other”, and only 9.1% stated lack of capabilities for the local self-government unit to apply for a loan as the reason for entering the PPP.

The largest number of respondents (72.2%) had no problems in appointment of municipal project team, while 27.3% stated that there were problems.

A very high percentage (80%) of the respondents stated that they hired external consultants for the production of economic efficiency analysis, while in 20% of cases, the analysis was conducted by the human resources within the local self-government units.

Little over a half of them, 54.5% of respondents to be precise, used services of external authorized project designers during the preparation of technical documentation for PPP projects, and the same percentage (54.4%) used external consultants for public procurements as expert aid in preparing the entire tender documentation and the other accompanying documents pursuant to the Public Procurement Law. On the other hand, 45.5% of respondents prepared the documentation for public procurement procedures pursuant to the Public Procurement Law with the help of the team of experts within the local self-government units.

In 72.7% of cases, the respondents stated that they financed the preparation of the complete project documentation for the PPP with the funds from the local/provincial/republic budget, while a very small percentage (18.2%) stated that they used funds from an international donation. There were 30% of respondents who were well-familiar with the project cycle management, and the same percentage stated that they are familiar with the concept partially. Precisely 40% of local self-government representatives stated that they were not familiar with the project cycle management concept.

The necessity of educated decision-making authorities in the local self-government, who recognized the importance, advantages and disadvantages of the PPP projects was stated as the most frequent answer among the respondents, and 63.6% of them finds that to be the primary prerequisite for initiating the PPP model project. After that, the respondents said in 18.2% cases that the existence of a clear definition of risk which would be acceptable to both sides as a prerequisite for starting the implementation of a PPP project, and an identical percentage (18.2%) cited the existence of an internal project team.

According to the hypothesis, there are difficulties in the preparation of PPP projects on a local level in the area of EE. The results of the questionnaire indicate that those difficulties occur due to poor HR and technical capacities, and considering the high percentage of respondents who stated that key steps in preparation of the project documentation and tender documentation pursuant to the Public Procurement Law, as well as analysis were prepared by external consultants. Lack of knowledge about the concept of “project cycle management” in almost a half of respondents (40%) creates difficulties in the preparation of EE segment projects as well. Lack of knowledge about project cycle management diminishes the efficiency of this concept in its practical application.

According to the hypothesis (H1) that there are difficulties in the preparation of PPP projects in the field of EE, and the analysis of the collected data confirmed the hypothesis.

CONCLUSION AND RECOMMENDATIONS

Energy efficiency, coupled with a larger degree of use of renewable energy sources is one of priorities defined in the Energy Sector Development Strategy of the Republic of Serbia until 2025 with projections until 2030 (RS Official Gazette, no. 101/15).

According to an Annual Report on Implementation of the Energy Community Secretariat for 2017/2018, implementation of the energy efficiency sector of Serbia has advanced well. Serbia has developed an enabling legal framework for energy performance contracting (incl. a rulebook with model contracts) and a number of projects in street lighting, buildings, and district heating have been implemented together with energy service companies (ESCOs), (Energy Community Secretariat, 2018). In practical terms, out of 31 approved PPP project proposals in the field of EE, 12 ESCO projects have been tendered and are currently in different phases of implementation.

However, different research indicates that the public sector in Serbia is facing challenges in terms of its capacities. As stated before, the entire Western Balkans region is characterized by difficulties in preparing and contracting PPP projects. Namely, as identified in the 2014 EPEC Study, the region continues to be characterized by a high PPP failure rate, especially during the preparation and tender phases. The average PPP failure rate in the region was estimated to approximately 50% (European PPP Expertise Centre, 2018). In addition, a group of authors in their research published in “Towards EU Integrations. Improvement of the Public-Private Partnership legal and institutional framework in Serbia” points at insufficient capacities of public partners in Serbia (Vlašковић, Žarković, Sredojević, Mijačić, 2018).

Results of the research imply that there are difficulties in preparation of PPP projects due to poor HR and technical capacities at public partners, and considering the high percentage of respondents who stated that key steps in preparation of the project documentation and tender documentation pursuant to the Public Procurement Law, as well as analysis were prepared by external consultants. The fact that the Government of the Republic of Serbia decided to extend the effectiveness of the Law on Determining the Maximum Number of Public Sector Employees until the end of 2019 will contribute to further deterioration of already weak capacities of the public sector for preparation of PPP projects. The specificity of these projects, especially projects in the area of EE, requires human resources with high level of expertise that local self-government units cannot hire through conventional employment contracts due to imposed employment restrictions. This results in the fact that certain operational activities of local self-government units are being “outsourced” to external consultants specializing in various areas.

On the other hand, the popularity of PPP projects in the area of EE is growing. This is supported by the fact that more than 80% of respondents stated that there had been initiatives for starting PPP projects. Insight into the Public Contract Registry on the Public Procurement website proved that as many as 8 public contract were concluded in 2018, much more than in previous year when only one public contract was signed in 2017. The increasing popularity of this model was also the result of the fact that the competent Ministry of Mining and Energy prepared an accompanying Rulebook, as well as contract models based on establishment of PPP, with the support of the European Bank for Reconstruction and Development (EBRD). However, the individual good practice examples of different state institutions cannot replace the role and jurisdiction that the Commission for PPP has in this area. The Commission, unfortunately, is without the capacities to operationally support the numerous jurisdictions assigned, even though it was the beneficiary of various donor programs intended to strengthen it in the previous period.

Based on conclusions and findings resulting from the analysis, the following recommendations are given:

- **Proper selection of organizational and HR resources for PPP project management.** There is a certain number of improvements that local self-government units can, with varying levels of success, implement without any bigger additional expenses. Project management in general is a rather complex activity for the majority of employees at local self-government bodies, especially PPP projects. However, most local self-government units have units for project management, most often as a part of an office for local economic development (LED), which may understand the concept of PPP, and in short time adopt necessary know-how related to the PPP, if they already do not possess some. In addition, it is possible to use functions of the regional development agency – a structure which is in majority of cases founded with the financial aid from the European Union, and in which the majority shareholders are local self-government units from a particular territory. These structures are in fact the first attempts of institutionalization of cooperation of the public, non-governmental and private sectors in Serbia. Among other things, the purpose of founding these structures is provision of support to local self-government units for the preparation of projects.
- **Education.** One of the most important recommendations is continuous education of the employees at local self-government units. Special training programmes for local self-government units which have not had attempts of initiating PPP so far and which do not

have sufficient level of knowledge on this concept, or the capacities for realization, ought to present fundamentals of the PPP concept, where the model will be presented in a simple and an illustrative way. The local self-government units that have already prepared or that are preparing PPP projects require training in regard to cooperation with a private partner after the signing of the contract and joint management of the project. Risk management has to be an important segment of training, as well as conceptualizing and management of more complex projects, which require more engagement on the part of the local self-government and which provide greater benefits. Educational sessions can be organized by the state or the organizations as Standing Conference of Towns and Municipalities (SKGO), NALED or Chambers of Commerce.

- **Informational campaigns about PPP.** This activity should contribute to additional popularization of the PPP concept, foremost among the decision-makers and the employees at local self-government units. Media presence, round tables and public debates should raise the level of information public and private sectors get on the possibilities of the PPP model, examples of good and bad practices, as well as the information the public gets in regard to the effects of the PPP projects.
- **Establishing a forum** to exchange knowledge and share experiences in the development and implementation of PPPs for the benefit of public authorities across Serbia.
- **Harmonize the inconsistencies between the Law on PPP and concessions and the Public Procurement Law**

Finally, it should be emphasized that, considering the findings of the research, EE has proven to be one of the key drivers for the development of PPP projects in Serbia. The projects in the area of EE experienced an exponential increase in the past period, although difficulties were identified with their preparation and contracting. Good examples from this area should be transferred to other sectors, where it is legally possible to form these types of partnerships.

However, there should be caution in implementation of this concept so that it does not turn into a political tool for saving local public enterprises with poor operational performances.

This research has some limitation that need to be addressed by conducting further research. Further analysis of the data available would likely yield additional themes. For example, further research might be focused at analyzing particular factors which caused that some projects did not reach the public contract signature (and registration in the Registry).

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