Mummy, Mummy, Where Did We Get This Project From — Sorry, I Mean This Public Debt?

RES Foundation
Partnerships for Resilience

How local energy ideas become national priorities, international loans and obligations for citizens

HOUSES AND NEIGHBOURHOODS
Energy efficiency

BUILDINGS AND DISTRICT HEATING
Public ESCO

SOLAR THERMAL
Solar heat and seasonal storage

INDUSTRIAL HEAT SOURCE
Industry and waste heat

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HOW TO USE THIS GUIDE

Five questions that hold a project together

This guide does not judge on individual projects. It is designed as a tool for checking the public trail of decisions that allocate hundreds of millions of euros of public money belonging to present and future generations to local energy projects: what can we establish as fact from publicly available data, what rests on assumptions, and what is impossible for the public to confirm based on the available sources?

1 WHY THIS?		What problem are we solving, and who declared it a priority?
2 WHY THIS PARTICULAR APPROACH?		What alternatives were compared, and within what framework?
3 WHY PAYS, WHO BENEFITS?		What is the total cost, who repays the loan, and who retains the benefits?
4 WHO BEARS THE RISK?		Who owns the assets, who is responsible, and who pays if the plan fails?
5 HOW DO WE KNOW IT WORKED?		Who measures the results, and will the data be public?

KEY POINT — The absence of a publicly available answer is not proof that a document or analysis does not exist. However, without public access, it is impossible to verify the quality of a decision made in citizens' name and paid for with their money.

PART I

How We Agree on What Matters

Serbia formally has a planning system that gives legal form to the processes through which society decides what matters[1]. The Development Plan of the Republic of Serbia and the Spatial Plan of the Republic of Serbia are meant to be the foundations of that system. Yet, the foundations were not laid: the Development Plan has not been adopted, and neither has the new Spatial Plan. In practice, national priorities are set through less transparent channels: sectoral programmes, international financing arrangements and project lists developed behind closed doors. There is no nationally agreed direction of development, established in the manner prescribed by law and approved by citizens' representatives in the National Assembly of the Republic of Serbia. Consequently, the publicly funded energy projects discussed in this guide cannot contribute to such a direction.

In this setting, we ask whether we can at least reconstruct the path by which a project starts from a public problem, becomes a priority for loan and donor financing, and ultimately creates public debt.

1 https://pravno-informacioni-sistem.rs/eli/rep/sgrs/skupstina/zakon/2018/30/1/reg

NATIONAL AND LOCAL: WHO DECIDES ON HEATING?

Around three quarters of households in Serbia arrange their own heating, while approximately one quarter use district heating. Under Serbian law, that quarter of households receives a utility service legally declared as sevice of general interest. Both private and municipal choices have public consequences for air quality, health, energy use and poverty.

When the improvement of a local system or private buildings becomes the subject of sovereign borrowing or international donor financing, local and private needs become national obligations. But did these obligations really emerge from a process involving local plans, national development and energy policies, public debate and proper professional scrutiny?

THE SEQUENCE THAT SHOULD BE VISIBLE

A public project should begin with a problem that has been identified and assessed. An objective should then be set, the available solutions compared, a project selected, and only then should financing be sought. In practice, this sequence is often not visible. Projects are shaped according to the readiness of their documentation, negotiations with banks, or through grants and loans. We often learn that a project exists ,or that it is a national priority, only when the state borrows to implement it.

> KEY POINT — A clear administrative trail is not the same as public choice, but without it even ex-post scrutiny is impossible.

THE DECREE AS AN ILLUSTRATION OF CLOSED PUBLIC CHOICE

The Decree on Capital Projects governs the content, preparation, appraisal, readiness assessment and selection of capital projects, the monitoring of its implementation, performance reporting, evaluation of effects, and the management of public funds.[2] It illustrates how institutions can reduce public decision-making to an administrative procedure. Forms and other documents are entered into the Ministry of Finance's centralised information system, PIMIS, during the preparation, appraisal, selection and monitoring of capital projects. The Capital Investment Commission, a working body of the Government, adopts the Single Project Pipeline (SPP), as well as lists of projects under preparation and prepared projects; projects are appraised and ranked in accordance with the prescribed procedure. Yet the existence of this administrative trail does not make the process open to the public. The entire procedure can be, and is, conducted without public participation and without publishing project ideas, alternatives considered, analyses, scores or reasons for decisions.

The Decree claims to rely on a planning system that the Government itself has left incomplete. The law required the Government to submit a proposed Development Plan of the Republic of Serbia to the National Assembly no later than 1 January 2020, but neither the Development Plan nor the new Spatial Plan has been adopted. When the Commission confirms that a project is "aligned" with planning documents in such a system, a formal compliance check cannot make up for the absence of fundamental development priorities adopted by parliament.

If information and decision-making are closed, citizens' constitutional rights to be fully and promptly informed and to participate in the

2 https://pravno-informacioni-sistem.rs/eli/rep/sgrs/vlada/uredba/2023/79/1/reg

management of public affairs are put at risk. The planning system's rules on transparency, analysis, consultation and public debate are pushed aside, and the rights guaranteed by the Aarhus Convention are undermined where projects affect the environment. An administrative trail may perhaps show that forms were exchanged; by itself, it cannot show that the problem, alternatives, costs, risks and distribution of benefits were subject to genuine public choice.

The current Decree was published in September 2023 and most of it began to apply in November, while the decisions establishing the Commission and Sub-Commission were published at the end of December that year.[3] We do not assess the projects in this guide through the prism of that regulation. We use it as supporting evidence that the state envisaged an internal decision trail, and ask why even that trail is not publicly available. The draft new Decree of August 2026 does not change this assessment: it directly refers to the "reporting to the public" for the first time, but still does not guarantee publication of the documents and reasons needed for genuine scrutiny.[4]

> KEY POINT — Government decisions that can be amended even at a telephone session cannot be the sole framework for setting priorities that bind future generations.

3 https://www.rtv.rs/sr_lat/politika/vlada-donela-odluku-o-osnivanju-komisije-za-kapitalne-investicije_1505514.html
4 https://www.mfin.gov.rs/propisi/nacrt-uredbe-o-kapitalnim-projektima

PART II

The EU and International Financial Institutions: Money, Standards and Influence

Serbia finances capital projects in the energy sector with loans from international financial institutions and grants from the European Union, alongside technical assistance and project preparation paid for by donors. The EU, the EBRD, the EIB, the World Bank, the WBIF and bilateral donors are therefore not merely sources of money: these institutions also influence which projects are considered ready, reform-oriented or "green".

Their involvement can bring more stringent standards, better preparation, more favourable financing, oversight and knowledge. But it must be preceded by processes that ensure money follows priorities society has already selected publicly and through an appropriate procedure. Projects must not become priorities merely because they have entered an international financing pipeline.

THREE DECISIONS THAT SHOULD NOT BE CONFUSED

National priority. The state decides, through the proper process, that a project is important and ranks it against other needs.

Public borrowing. The Republic or another public entity accepts a loan and the obligation to repay it.

European grant. The EU/WBIF approves non-repayable funding under its own procedure and criteria.

Different actors take these decisions at different times. If the processes are not transparent, we cannot see how the decisions are connected or who checked the public interest at each stage.

> KEY POINT — The question is not whether Serbia should use European funding and loans from international banks. The question is: for which projects, on whose decision, and subject to what public scrutiny?

PART III

Due Diligence and Public Participation

A large public project does not become a good project merely because it has entered a strategy, received a loan from an international bank or secured an EU grant. Before decisions become difficult to reverse, it must be established whether the chosen solution is technically feasible, financially justified, environmentally acceptable, socially fair, legally workable and institutionally sustainable. This is the essence of due diligence.

Due diligence cannot replace public choice. A bank can check whether a project can be financed, a consultant can check the technology, and a ministry can check the budgetary effect. None of these actors can decide alone whether that particular project is the best use of public money.

WHAT MUST BE CHECKED?

For energy projects, scrutiny must connect the problem and the alternatives with technical feasibility, life-cycle costs, emissions, energy

use, tariffs, ownership, contracts, public finances, social effects and measurable results. Analysis of alternatives must precede the choice of technology, location and financing. Identifying risks, and who owns those risks, is essential to implementation and accountability.

THE MINIMUM PUBLIC DOSSIER

It is not realistic for every commercial record or contract to be published in full. But the public must receive enough information to understand what is being purchased with its money, why, at what price, with which risks, and against which measures of success. The final 20 questions in this guide turn that minimum into a practical checklist.

WHEN IS PARTICIPATION EARLY ENOUGH?

Disclosure and public participation are not the same. If the technology, location, financing structure and key contracts have already been fixed by the time a debate takes place, the public may comment on how the project will be implemented, but not on whether that project should have been selected in the first place.

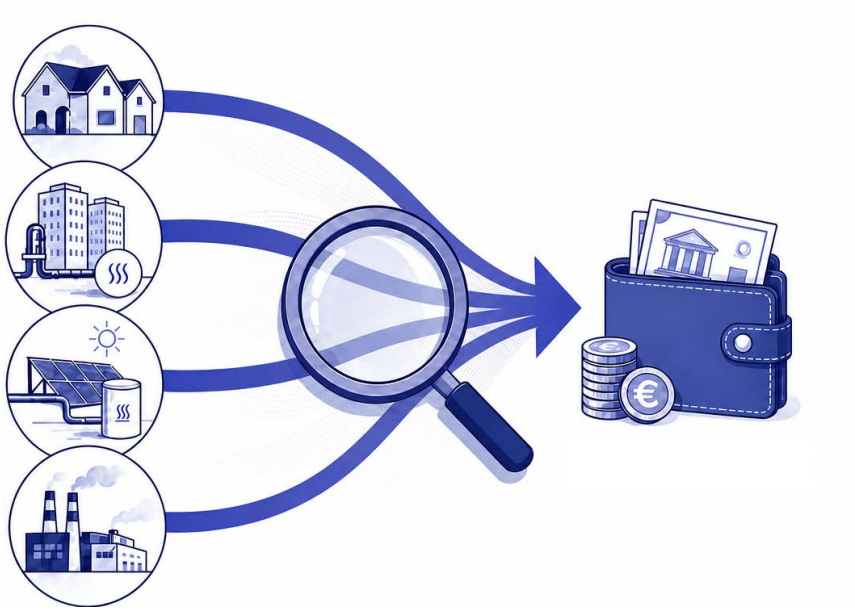
> KEY POINT — Public participation does not mean commenting on a solution that has already been selected. It means having an opportunity to influence the choice of solution.

PART IV

Four Projects, Four Paths to Public Money

The four cases concern the energy transition, but differ in their technology, size and mode of financing. For this guide, the central question is how clearly we can trace the path from a publicly recognised problem to a project, a priority, financing and measurable public benefit.

Transparency is not an ornament added to a project. It is how the project's purpose, distribution of benefits and resilience to risk are tested.



CLEAN ENERGY FOR (SOME) CITIZENS

Mummy, Mummy, where did we, or rather, they, get all these large gas boilers from

SURCE is a project of the World Bank and the Republic of Serbia intended to increase household investment in energy efficiency, sustainable heating and rooftop solar power in participating local government units. In 2022, the World Bank approved a USD 50 million loan for the project, which is implemented by the Ministry of Mining and Energy. Implementation takes place through local governments and public calls for citizens and businesses.[5]

Of the four cases, this programme path is the easiest to reconstruct. Household energy efficiency and improved heating had been publicly recognised as problems and priorities before the loan arrangement. The public-interest question therefore concerns who actually benefits from the project, and what results it achieves in terms of energy savings and reductions in greenhouse-gas emissions.

The households most in need of support often have the least money of their own, the least information and the least administrative capacity to apply. Due diligence must therefore establish not only the number of households supported, but also their social profile, the actual savings achieved and the distribution of benefits.

Project reports claim that installing new gas boilers in heating systems reduces greenhouse-gas emissions.[6] What we know about how Serbian households heat their homes, and about the methodology used to calculate emissions reductions, gives us serious reason to

5 https://www.cistaenergija.rs/

6 https://www.cistaenergija.rs/wp-content/uploads/2026/07/Implementation-Report-Public-Call-2-2023.pdf

question claims that introducing gas heating is an effective means of reducing greenhouse-gas emissions. This is not a secondary issue while the Republic of Serbia is negotiating a valuable loan with the same lender for the construction of gas infrastructure.[7]

We believe the public benefit would be greater if good answers were available to questions that matter for assessing the project's benefits and risks. We suggest that the public also seek answers to the following:

- Does support actually reach the households that need it most?
- How can we verify the calculations of savings and emissions reductions published in project reports?
- Is public support for installing new natural-gas boilers in households a public-policy priority in 2026?

> LESSON — A transparent project origin is not enough. We must also examine where the public benefit goes. Reports in which project implementers assess the project's own results are not an acceptable means of independently confirming implementation outcomes.

7 https://energetskiportal.rs/srbija-i-svetska-banka-pripremaju-gasni-program-vredan-milijardu-evra/

PUBLIC ESCO - A GOOD IDEA, BUT HOW ARE BENEFITS AND COSTS DISTRIBUTED?

Mummy, Mummy, where did we, or rather they, get the new façades, insulation and control valves from?

The Public ESCO programme was conceived as a major programme for the energy renovation of multi-family residential buildings connected to district-heating systems. It envisages financing thermal insulation, improving internal installations and moving to consumption-based billing.[8]

The planned value of the programme was approximately EUR 64.5 million, through a combination of EBRD loans and grants from the EU and other donors.

It is not easy to determine the degree of ownership that local governments and district-heating utilities have over the project. On the other hand, the Ministry of Mining and Energy and the Government of the Republic of Serbia have included the project in strategic and programme documents several times. Money from the Serbian state budget borrowed from an international financial institution, together with donor-country budget funds, is being invested in the private property of better-off households. Owners bear a smaller share of the cost under terms that are not available to other citizens.

Borrowing for this project was provided for in Serbia's 2025 budget.[9] It was not included in the 2026 budget,[10] but appears again in the proposed 2026 supplementary budget.[11]

8 https://javniescosrbija.com/

9 https://www.paragraf.rs/propisi/zakon-o-budzetu-republike-srbije-1.html

10 https://www.parlament.gov.rs/upload/archive/files/cir/pdf/zakoni/14_saziv/2209-25.pdf

11 https://www.parlament.gov.rs/upload/archive/files/cir/pdf/predlozi_zakona/14_saziv/400-2691_26.pdf

We believe the public benefit would be greater if good answers were available to questions that matter for assessing the project's benefits and risks. We suggest that the public also seek answers to the following:

- Should the selected target group be a public-policy priority for a programme that includes 50% subsidies?
- How are costs, grants, savings and tariff risks distributed?
- Why was borrowing for this project not provided for in the 2026 Budget Law, although it had been provided for in earlier years and appears again in the proposed 2026 supplementary budget?
- Is public money being used to increase the value of private property, and if so why — and what tax consequences will this have?
- Are the expected benefits explained sufficiently and accurately?
- Is control at individual heating units really a prerequisite for consumption-based billing, as associated documents claim?
- Were decisions about the project, the selection and characteristics of buildings, and financing sufficiently transparent?

> LESSON — A project can be well programmed while the fair distribution of public money remains unresolved.

NOVI SAD - THE PROJECT IS VISIBLE, BUT THE PUBLIC CANNOT EASILY TRACE HOW IT MATURED

Mummy, Mummy, where did we, or rather they, get the largest pool of heated water in Europe from?

Novi Sad's solar thermal project envisages the construction of a large heat-production system for district heating. In the configuration approved by the EBRD, the project includes solar collectors, seasonal heat storage with a volume of approximately 870,000 m^3, a heat pump and an electric boiler. Financing is structured as a sovereign loan of up to EUR 105 million to the Republic of Serbia for a project whose final beneficiary is the Novi Sad District Heating Company, followed by a WBIF/EU grant of EUR 24.95 million.

Unlike some other large public investments, this project has a long local trail over time. What is harder to reconstruct is how the specific technical solution was selected, how and whether alternatives were examined, and how the project moved from a local idea to an investment for which the Republic of Serbia borrows and the European Union provides a grant.

In 2020, the Government of Austria financed a pre-feasibility study through the EBRD's ReDEWeB programme. We also found that in 2021 the Faculty of Technical Sciences (FTN) participated in preparing a document described in different sources either as the "Development Strategy of the Novi Sad District Heating Company" or the "Development Strategy of Novi Sad's District Heating System until 2030". We found no trace of that document having been adopted by the City or by a company body. The district-heating company's 2021 annual report does not mention the Strategy and does not yet include a solar thermal project as a development direction.

In July 2022, Novi Sad's General Urban Plan already referred to that Strategy, but still presented solar thermal conditionally: "if the City opts" for such a technology, land east of the combined heat and power plant could be used. On 24 October 2022, the company's Supervisory Board adopted the Long-Term Business and Development Strategy 2022–2033, in which the project - under the name "BigSolar"- became Strategic Objective 1. The City Assembly approved that plan on 25 November.

The FTN document, which we did not find as a formally adopted act, continued to be used as a strategic reference, while the concrete institutional commitment of the company and the City was documented later.

In December 2023, the project was also included in the City of Novi Sad Development Plan 2023–2030. The solution formally planned by the City at that time differed from the project the EBRD would approve one year later: the solar field was approximately five times larger, the heat pump had a capacity of 80 MW, expected solar-heat production was about 140 GWh a year, and the estimated emissions reduction was around 40,000 tonnes of CO_2 annually. The Plan again referred to FTN's 2021 Strategy, without mentioning the company planning documents approved by the City.

According to available information, a new feasibility study was prepared between November 2023 and September 2024. It significantly redefined the project: the collector field was reduced from approximately 200,000 to 38,600 m^2; heat-pump capacity fell from 80 MW to 17 MW; expected solar production declined from approximately 140,000 MWh to 29,000 MWh a year; and a 60 MW electric boiler was added. The complete feasibility study is not publicly available, so the public cannot see the alternatives analysis or the reasons the solution

in the City of Novi Sad Development Plan 2023–2030 was changed. At the same time, the project was being positioned nationally. The Economic Reform Programme adopted on 28 December 2023 did not include it. On 8 February 2024, the Ministry of European Integration announced that Novi Sad's solar thermal project was one of eight project ideas selected by national commissions for submission to the WBIF. The decision or list itself, the criteria, scores, ranking and comparison with other candidates are not publicly available.

The Integrated National Energy and Climate Plan of the Republic of Serbia for the period until 2030, with a vision until 2050, adopted in July 2024, also did not single out the Novi Sad project as a separate investment[12] The new Energy Development Strategy, adopted by the National Assembly on 27 November 2024, explicitly linked the development of solar heat with Novi Sad.[13] The idea of using solar energy, a heat pump and heat storage thus gained a clear national strategic basis shortly before the EBRD approved the loan.

The EBRD approved a loan of up to EUR 105 million on 4 December 2024, and the Loan Agreement was signed on 27 December. The National Assembly ratified the Agreement on 13 March 2025. Members of Parliament received a very brief project description in the explanatory memorandum to the bill. In the publicly available parliamentary materials, we did not find the feasibility study, an alternatives analysis, or any other project documentation that would allow the investment decision to be independently examined.

12 https://www.mre.gov.rs/tekst/1115/-integrisani-nacionalni-energetski-i-klimatski-plan-republike-srbije-za-period-do-2030-sa-vizijom-do-2050-godine.php

13 https://www.mre.gov.rs/tekst/8334/-strategija-razvoja-energetike-republike-srbije-do-2040-godine-sa-projekcijama-do-2050-godine.php

After loan approval, signing and ratification, further information relevant to the project's assessment emerged. The amended Starting Points for the Energy Infrastructure Development Plan of May 2025 mentioned, among other things, an internal rate of return of around 2% and a negative net present value. On 1 July 2025, the European Commission proposed the project for the first investment package under the EU Reform and Growth Facility through the WBIF, after which the WBIF approved a grant of EUR 24.95 million.

Six months after the Loan Agreement was signed and three months after parliamentary ratification, authors from FTN and the Novi Sad District Heating Company presented the integration of the solar thermal system and seasonal heat storage in greater detail to a professional audience at the TOPS 2025 conference in June. The published paper uses results from the feasibility study prepared within the same project process. More detailed professional communication came only after the key financial and political decisions had been taken, while the broader public, in whose name the Republic borrows, still did not have access to the same analytical basis.

Figures that are difficult to verify

Some of the project parameters stated publicly are not easy to confirm or check.

The EBRD documentation states that approximately 29,000 MWh of solar heat will be produced annually. At one point, the document links that amount with approximately 20% of Novi Sad's district-heating demand. Adding the effects of the solar collectors, heat pump and electric boiler gives approximately 119 GWh of heat a year. Neither figure represents 20% of demand. The publicly available documentation does not explain how the estimate of approximately 20% was reached.

Statements by representatives of the Ministry of Mining and Energy and the Energy Strategy Implementation Programme also refer to sustainably produced heat covering more than 30% of Novi Sad's heating needs and to waste heat and renewable heat accounting for 31% of the district-heating mix.

The electric boiler is expected to use almost 40,000 MWh of electricity described as surplus generation from renewable energy sources. Publicly available documents do not show the model used to estimate this amount. Nor do they explain the future business model: from whom the district-heating company will buy electricity, at what price, how it may participate in the balancing-services market, who assumes balancing responsibility, and what happens if the expected amount of cheap or "surplus" electricity is not available.

The documentation also refers to an approximately 95% reduction in emissions within the project boundary, but the baseline scenario is not presented in enough detail for the calculation to be repeated independently. It records an increase in emissions outside the project boundary and, with the current power-sector mix, the possibility of a net increase when emissions associated with electricity use are included. Some baseline values attributed in project documents to the National Energy and Climate Plan could not be confirmed in that source.

The EBRD also expects an average 6.2% reduction in energy-production costs. Such a result may be possible, but the public does not have a model that would allow it to test the relationship between natural-gas savings, electricity costs, capital costs, depreciation, financing and the future tariff.

This is especially relevant given the size of the investment. The loan is approximately equal to half of the district-heating company's total book assets and roughly twice the book value of its existing plants and equipment. The questions of who will own the new infrastructure, where it will be recorded and who will manage assets financed by the Republic of Serbia's public debt are therefore not accounting details. A detailed timeline of publicly available information on key points in the development of this project is provided in ***Annex 1*** to this document. The Annex also contains links to the relevant websites.

Questions that publicly available documentation still does not answer clearly

We believe the public benefit would be greater if good answers were available to questions that matter for assessing the project's benefits and risks. We suggest that the public also seek answers to the following:

Project selection: Who compared the solar thermal solution with alternatives for decarbonising Novi Sad's district-heating system, at what point, and where is that analysis available?

Project change: Which analytical parameters led to the solution formalised in the City's 2023 Development Plan being changed during the 2023–2024 feasibility study?

Due diligence: Who independently checked the accuracy of the key technical, energy, climate and business assumptions used to approve the loan and grant?

Prioritisation: How did the project become a nationally prioritised investment and a candidate for a European grant, and why did earlier key national programme documents not identify it as an investment?

RGF/WBIF: Why was the project not included among the indicative infrastructure projects in the Republic of Serbia's Reform Agenda, although the grant was later financed through the RGF/WBIF?

Financial justification: How should the IRR of approximately 2% and the negative NPV in the later-published Starting Points be interpreted, and which analysis justifies public financing of the project?

Electricity: From whom will the district-heating company purchase electricity for the heat pump and electric boiler, under what arrangements, and who bears the risk if the expected quantities of cheap or "surplus" renewable electricity are not available?

Emissions: What is the project's estimated net emissions effect once emissions associated with Serbia's electricity mix are included?

Land: On whose land will the collector field, storage and other facilities be built, and have all property-law prerequisites been resolved?

Technology risk: What are the risks and mitigation measures for seasonal heat storage on a scale substantially exceeding existing reference projects in Europe?

Ownership: Who will own the new infrastructure, and how will it be recorded in relation to the Republic of Serbia, the City of Novi Sad and the Novi Sad District Heating Company?

Public debt and implementation: When is the first disbursement expected, which conditions precedent must be met, and which of them have already been met?

Final beneficiary: How will the investment, financing and future operating costs affect the heating price paid by users?

> LESSON — The inconsistencies identified and limited availability of data do not show that the project is unjustified. They show that the publicly available documentation does not allow the project-selection process to be independently reconstructed or the key energy, climate, financial and ownership assumptions underlying the Republic of Serbia's borrowing and the European Union's grant to be verified.

SMEDEREVO — A SOLUTION TO A KNOWN PROBLEM THAT ARRIVED BY AN UNKNOWN ROUTE

Mummy, Mummy, where did we, or rather they, get a completely new district-heating system running from neighbor's yard from?

This project is part of a broader programme to improve air quality in Serbia, financed through a loan arrangement with the EBRD and prepared with technical assistance from SIDA. One component concerns using waste heat from the steelworks owned by HBIS GROUP Serbia Iron & Steel d.o.o. Smederevo (HBIS) in Smederevo's district-heating system. The project concept is to use heat generated by the industrial process to heat the city, with natural gas as backup capacity. It is presented as a measure to reduce local pollution and fossil-fuel consumption in heating, but the available public documentation does not allow key technical, financial and environmental assumptions to be independently verified.

The documents of different actors that we reviewed do not reveal an uninterrupted path from initiative to project decision. They show the following sequence: in 2021, HBIS publicly expressed interest in using its waste heat to heat the city; during 2023 and 2024, the City of Smederevo developed a different solution in its planning documents; in late 2024, the EBRD included industrial waste heat in a sovereign-borrowing project; the Republic of Serbia signed the Loan Agreement on 11 June 2025; and the first formal City act we found that explicitly identified the use of waste heat from HBIS as an objective was adopted on 24 June 2025.

HBIS in 2021: the company publicly expresses its interest

The earliest public trace of this initiative that we found is an HBIS Serbia announcement of 9 November 2021.[14]

In the text entitled *HBIS Serbia's Interest Is to Improve Its Environmental Impact*, the company stated:

"Since the end of the previous heating season, company representatives have offered the City of Smederevo an opportunity to work jointly on the pollution caused by fuel-oil boiler houses, by using surplus heat from the factory to heat buildings. We proposed a feasibility study into heating the city, or parts of it, with the waste heat available within the steelworks."

This announcement establishes that HBIS had an interest in and willingness to have the project considered, and claimed that it had proposed to the City both the use of surplus heat and preparation of a feasibility study. The published text does not give the date or form of the offer, the identity of its recipient in the City administration, the City's response, or information on who would commission and finance the study.

The City in 2023: the Development Plan envisages a different solution

On 22 September 2023, the City Assembly of Smederevo adopted the City of Smederevo Development Plan for 2022–2029. It is the City's overarching development document and was prepared through working groups, partnership forums and a public debate held from 15 May to 5 June 2023.[15]

14 https://hbisserbia.rs/interes-hbis-serbia-je-poboljsanje-uticaja-na-zivotnu-sredinuu/

15 https://smederevo.ls.gov.rs/wp-content/uploads/2023/09/Plana-razvoja-grada-Smedereva-za-period-od-2022.-do-2029.-godine.pdf

The Plan describes the district-heating system, the boiler houses operated by the public utility Grejanje, the boiler houses of public institutions, and the use of fuel oil. However, it does not include the proposal to use waste heat from HBIS.

As a measure for replacing fuel-oil boiler houses, the Plan envisages construction of a municipal heating plant whose primary fuel would be natural gas, while pellets and wood chips might be considered as alternatives. The sources of finance identified are the City budget, loan and donor funds, and funds from the competent ministry. The City is designated as the lead institution and the public utility Grejanje as one of the participants.

The City thus recognises the same problem , fuel-oil boiler houses and air pollution, but does not identify HBIS waste heat as the solution.

The City in 2024: the Urban Development Strategy follows the Development Plan's solution

On 11 June 2024, the City Assembly adopted the Urban Development Strategy of the City of Smederevo.[16] Its preparation included workshops, a public forum, identification of project ideas and a public debate.

The document states that in 2022 Smederevo began preparatory activities for building a natural-gas heating plant in the old industrial zone. It gives a preliminary capacity of 36 MW, with the possibility of adding another 36 MW, and envisages connections for large consumers, public buildings and some existing boiler houses.

16 https://www.euproplus.org.rs/uploads/files/885-613-strategija-razvoja-urbanog-podrucja-grada-smedereva.pdf

This document also does not identify the use of HBIS waste heat among its development measures or strategic projects.

Both the Development Plan adopted in September 2023 and the Urban Development Strategy adopted in June 2024 therefore described the existing heating problem and preparations for a new municipal gas-fired heating plant. We did not find a documented transition from that solution to the project for using waste heat from the steelworks.

The EBRD in 2024: the project appears in an international financing arrangement

On 8 October 2024, the EBRD published information about the Serbia Air Quality Improvement Project.[17] Its Board of Directors approved the project on 11 December 2024.

The project provides a loan of up to EUR 50 million to the Republic of Serbia for decommissioning fossil-fuel boiler houses and investing in new heat sources in several cities. The Ministry of Environmental Protection implements the project.

In the public version of the EBRD Board Report, Smederevo appears as the largest individual sub-project by capital expenditure.[18] The document states that industrial waste heat will be used alongside a new 18 MW gas-fired backup source.

At the same time, the document contains numerous redactions, information has been hidden. The cost of the Smederevo sub-project

17 https://www.ebrd.com/home/work-with-us/projects/psd/55263.html

18 https://www.ebrd.com/content/dam/ebrd_dxp/documents/project/55263/serbia-air-quality-improvement-project.pdf

and parts of the financial and economic analysis are redacted. The public version does not disclose the total annual quantity of heat planned for Smederevo, the structure of investment costs, or the assumptions underpinning the analysis.

The EBRD states that SIDA supported project preparation with up to EUR 300,000 for a feasibility study, concept designs and environmental and social impact assessments. It does not identify the contractor, the timing of the work, the specific scope for each city, or where the results can be found.

By the time the EBRD project was approved, we had not found a public act of the City of Smederevo in which the City selected the use of HBIS waste heat instead of the gas-fired heating plant described in its planning documents.

The loan is signed before the City decides to prepare the detailed regulation plan

On 11 June 2025, the Loan Agreement and the Project Agreement for the Air Quality Improvement Project were signed at the Government of Serbia.[19]

The Loan Agreement was signed by the Minister of Finance on behalf of the Republic of Serbia and the EBRD's Director for the Western Balkans. The Minister of Environmental Protection signed the Project Agreement. The Ministry of Finance listed Smederevo among the cities covered by the project and industrial waste heat among the sources in which the funds would be invested.

19 https://www.mfin.gov.rs/sr/aktivnosti-1/u-vladi-srbije-potpisani-ugovori-o-projektu-unapreenju-kvaliteta-vazduha-1

Thirteen days later, on 24 June 2025, the City Assembly of Smederevo adopted the Decision to Prepare a Detailed Regulation Plan for the construction, reconstruction and modernisation of the district-heating network and facilities in Smederevo. The Decision was published in the *Official Gazette of the City of Smederevo*, No. 3/2025.[20]

This is the first formal City act we found that explicitly identifies the use of waste energy from industrial production at HBIS for Smederevo's district heating as an objective.

The Decision cites the General Regulation Plan for the urban area of Smederevo as its higher-level planning basis. It does not cite the 2023 Development Plan, the 2024 Urban Development Strategy, the feasibility study, any decision selecting this technical solution, the EBRD Board Report, or the Loan Agreement.

The Decision does not explain which earlier document or process produced the objective of bringing HBIS waste heat into the municipal heating system.

The Loan Agreement was ratified by the National Assembly on 22 October 2025.[21]

The project in Serbian national documents

The project to use HBIS waste heat for district heating in Smederevo is not identified in the Air Protection Programme of the Republic of Serbia 2022–2030, adopted on 8 December 2022, although that document recognises heating and emissions reductions as important areas

20 https://smederevo.ls.gov.rs/wp-content/uploads/2025/09/3-2025.pdf
21 http://demo.paragraf.rs/demo/combined/Old/t/t2025_10/MU_010_2025_001.htm

for action.[22] It is not mentioned in the Economic Reform Programme 2024–2026, adopted on 28 December 2023, or the Integrated National Energy and Climate Plan, adopted on 25 July 2024,[23] which provides a framework for decarbonising heating.

The project is not identified in the Environmental Protection Strategy until 2033, adopted in 2026. That Strategy mentions HBIS in a different context, land contamination.[24]

The first national planning document reviewed that explicitly refers to using HBIS waste heat to heat Smederevo is the Energy Development Strategy Implementation Programme 2026–2028, published on 25 March 2026. The project's absence from earlier documents does not demonstrate that technical preparation had not taken place. It does mean that those publicly available documents do not reveal when the project became part of state planning or on the basis of which decision.

Information that becomes public in 2026

The Energy Development Strategy Implementation Programme 2026–2028, published on 25 March 2026, provides additional information on the Smederevo sub-project[25]:

- an estimated value of EUR 32.771 million;
- construction of a heat source within the HBIS site;
- a new gas-fired boiler house and district-heating network;

22 https://www.ekologija.gov.rs/dokument/zakoni-0-2/

23 https://www.mre.gov.rs/tekst/1115/-integrisani-nacionalni-energetski-i-klimatski-plan-republike-srbije-za-period-do-2030-sa-vizijom-do-2050-godine.php

24 https://www.eupropisi.com/dokumenti/SG_071_2026_005.docx

25 https://www.mre.gov.rs/tekst/15194/-program-ostvarivanja-strategije-razvoja-energetike-republike-srbije-do-2040-godine-sa-projekcijama-do-2050-godine-za-period-od-2026-do-2028-godine.php

- decommissioning 26 fuel-oil boiler houses;
- the public utility Grejanje and the competent City authority as participants;
- the Ministry of Environmental Protection as the authority responsible for monitoring and reporting; and
- project completion by 2030.

The 2026 draft detailed regulation plan describes a network approximately 14.5 kilometres long, a capacity of 49.2 MW and DN400/560 pipes at the source within the HBIS site, the connection of 26 boiler houses, and a new 18 MW gas-fired boiler house.[26]

These documents disclose technical and financial information that was not included in the City's decision to prepare the detailed regulation plan.

What remains unavailable in the public domain is the commercial and operational relationship between the district-heating system and HBIS: whether the waste heat will be given or sold, how its price will be set and indexed, what quantities and availability will be guaranteed, and who pays if industrial production stops or changes.

Without that contractual model, the future price of heating cannot be checked. Savings on fuel oil may exceed new capital and operating costs, but the outcome depends on the price of waste heat, backup gas, ownership, depreciation and financing costs.

26 https://drive.google.com/drive/u/0/folders/1y5e33Cn9YAv09y9zP02CkKwInOHR6SCs

The scale of the investment makes these questions more important. An investment of approximately EUR 32.8 million is roughly nine times the total assets of the Smederevo public utility Grejanje, nineteen times its non-current assets, and about twenty-three times the current book value of its plants and equipment.[27] It may fundamentally alter the company's assets, costs and business model.

A separate technical trail: the 2022 study and the TOPS 2025 paper

A paper presented at the TOPS conference held from 1 to 5 June 2025 refers to a 2022 Delta Inženjering study entitled *Feasibility Study for Heating the City of Smederevo with Waste Heat from HBIS GROUP Iron & Steel d.o.o., with Concept Design*.

The study was not found among publicly available documents. The TOPS paper examines five options and identifies the use of 45 MW of waste heat from the converter steel plant as the most favourable. For that option, it gives annual heat production of 138 GWh, an investment cost of EUR 15.590 million, and an annual emissions reduction of approximately 36,000 tonnes of CO_2.[28]

The paper was presented only a few days before the Loan Agreement was signed. However, the documents we found do not establish whether the Delta Inženjering study resulted from HBIS's 2021 offer, whether it was commissioned by the City, HBIS or another actor, or whether it was connected with the preparation of the EBRD project and the Sida-funded assignment.

27 https://fin.apr.gov.rs/JavnaPretraga/Home/DownloadDocumentFile?barcode=7100259399733&xrnd=-CMfkiYhgcmTENCbfo2-SVo9ZF5ke2-nmczdDErLXpo

28 https://www.toplanesrbije.org.rs/uploads/ck_editor/files/Zbornik%20radova%20TOPS%202025%2C%20word.pdf

We believe the public benefit would be greater if good answers were available to questions that matter for assessing the project's benefits and risks. We suggest that the public also seek answers to the following:

The HBIS offer: When, in what form and to whom within the City was the HBIS offer mentioned in the announcement of 9 November 2021 delivered?

Ownership of the 2022 study: Did the City respond to the offer, and do minutes, correspondence, agreements or other records of that communication exist? Who commissioned and financed Delta Inženjering's 2022 study, and did it result from the HBIS proposal?

The link between the 2022 study and the EBRD project: Is there a connection between HBIS's 2021 offer, Delta Inženjering's 2022 study, the SIDA-funded assignment, and the project approved by the EBRD?

City ownership of the solution: Why do the 2023 Development Plan and the 2024 Urban Development Strategy envisage a new municipal gas-fired heating plant rather than the use of HBIS waste heat? When and by which act was it decided to abandon the solution described in those documents and prepare a project with a heat source at HBIS? Who represented the City in preparing the sub-project approved by the EBRD in December 2024? Who decided on the choice of solution before the loan was signed, and in what process could the City, the public utility Grejanje, system users and the public consider that choice? On the basis of which local act was Smederevo included in the project and preparations for sovereign borrowing before the decision to prepare the detailed regulation plan? From which document or process did the objective in the City's decision of 24 June 2025, to use HBIS waste heat, originate?

Decision-making at national level: Which documents on the technical solution, costs, benefits and risks were available to the Government

when it signed the Loan Agreement on 11 June 2025? Were risks related to the EU's steel-import policy, the EU's carbon-border policy and the security of natural-gas supply, selected as the backup fuel, specifically considered? In which process were these risks considered, how was their possible impact assessed, and which measures were envisaged to prevent adverse consequences?

How much heat, and at what price: How much HBIS heat does the feasibility study plan to use? On what terms will HBIS supply heat: at what price, in what guaranteed quantity, over what period, and with what liability for production interruptions?

A detailed timeline of publicly available information on key points in the development of this project is provided in ***Annex 2*** to this document.

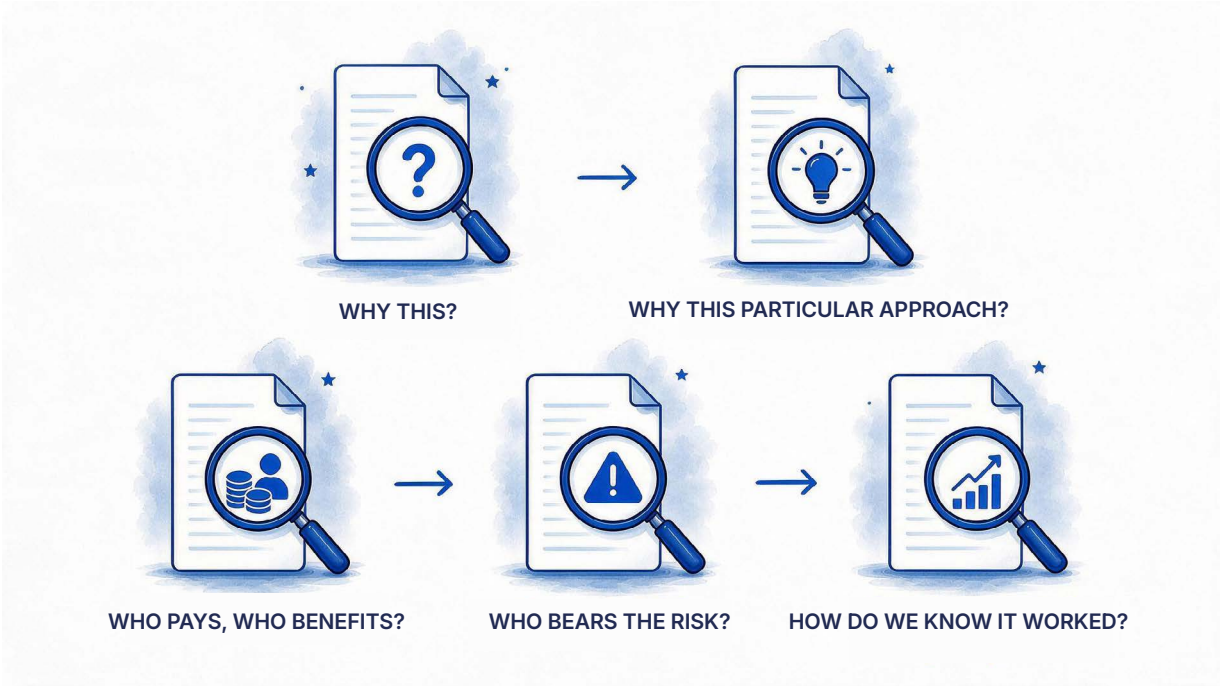
> LESSON — Using waste heat can be an excellent solution. A public system must not become dependent on an external source without publicly understandable rules on price, quantity and interruption risk.

PART V

The Public Project Dossier

20 QUESTIONS BEFORE A PROJECT BECOMES PUBLIC DEBT

A large project is not necessarily bad because we cannot easily find answers in public domains to some questions. But the more expensive, long-term and risky it is, the more complete the public trail of the decision must be. A good dossier allows the path to be reconstructed from problem to solution, from solution to priority, from priority to money, and from money to real public benefit.



A. WHERE DID THIS PROJECT COME FROM?

1. What specific public problem does the project solve?

Was the problem previously documented with data, or is it clearly formulated for the first time only in the documents justifying the project?

2. Where was that problem previously recognised as a priority?

Which local or national planning document, programme or decision shows that solving the problem was important before a source of finance was found?

3. Who first proposed the specific solution, and when?

Was it a city, a public utility, a ministry, a consultant, an international bank, a donor, or someone else?

4. How did the project become a national priority?

Is there a decision of the Capital Investment Commission, a place on the SPP, or another document showing when the project was selected, against which criteria, and in comparison with which other projects?

B. WHY THIS PARTICULAR SOLUTION?

5. Which alternatives were considered?

Not only variants of the same technology, but also other ways of solving the problem - including a smaller investment, phased implementation or postponing the investment.

6. Why was this option selected?

Is there a comparable analysis of the investment and operating costs, benefits, emissions, risks and duration of different alternatives?

7. Which key assumptions drive the analytical result?

For example: the future price of gas and electricity, the quantity of waste heat, renewable-energy production, heat-pump efficiency, equipment life, number of users or savings.

8. Can an independent person repeat the basic calculation?

If a document claims that a project provides 20% of energy, reduces costs by 6%, or cuts emissions by 95%, have the baseline, data and method from which the result follows been published?

Example from this guide - Novi Sad: *29 GWh of solar heat does not explain the published claim that the project would provide almost 20% of system demand.*

C. HOW MUCH DOES THE PROJECT COST, AND WHO ACTUALLY PAYS?

9. What is the total life-cycle cost?

Not only the initial investment, but also interest, maintenance, electricity or fuel, equipment replacement, management, land and future refurbishment.

10. Where does the money come from?

What shares are provided by a loan, a grant, the national or local budget, the public utility's own funds, and users' own money?

11. Does the loan decision depend on a grant that has not yet been approved?

If the grant does not arrive, or is smaller than expected, who covers the difference and is the project still financially justified?

Example from this guide - Novi Sad: *the loan decision preceded approval of the WBIF grant.*

12. How will the project affect users' bills and public budgets?

Is there a model showing the effect on the tariff, the public utility's operations, the local budget and the Republic's budget? An investment may reduce the price if operating savings exceed the new costs of capital, depreciation and energy — but this must be demonstrated with figures.

D. WHO OWNS THE ASSETS, AND WHO BEARS THE RISK?

13. Who will own the new assets?

The Republic, the city, a public utility, a private partner or someone else- and through which legal instrument will ownership be regulated?

14. How will the new assets be recognised and depreciated?

In which entity's balance sheet will they appear, when, and with what consequences for costs and the regulated price?

15. Who bears the key risks if the project does not work as planned?

Who pays if construction becomes more expensive, production is lower, fuel or electricity costs more, the technology underperforms, or the project is delayed?

16. Which external partners, markets and contracts must perform for the project to work as planned?

If the project depends on a private heat source, an energy supplier, the electricity market, balancing services, a system operator or another partner, the public should know the essential commercial terms: who supplies energy or services to whom, who pays whom, how the price is set, which quantities are guaranteed, and who bears the risk if market or technical conditions differ from expectations.

Examples from this guide - Novi Sad: *electricity procurement, aFRR/mFRR balancing services, and almost 40 GWh of alleged "surplus" electricity.* ***Smederevo:*** *the price, quantity and availability of HBIS waste heat, and the risk of interruption.*

E. WHO CHECKED THE PROJECT, AND CAN WE CHECK THE CHECK?

17. Who performed the key analyses, and who paid for them?

Who prepared the feasibility study, cost-benefit analysis and other reviews? This is particularly important if the same institution prepares the project, finances consultants, provides the loan and helps obtain the grant.

18. What did due diligence cover, and what did it conclude?

Can the public see at least a summary of the technical, financial, environmental, social and legal review and the key risks identified?

19. When did the public first have a real opportunity to influence the choice?

Was it before the solution and financing were selected — or only after the loan had been agreed and the technology chosen, when a spatial-planning or environmental procedure remained as the last formal opportunity to comment?

20. How will we know whether the project succeeded?

What are the baseline data and measurable targets, who monitors them, will the results be public, and who will verify several years after completion whether the promised benefits were achieved?

FINAL NOTE — When a document has not been published, the correct conclusion is not “it does not exist”, but “it is not publicly available and therefore cannot be independently verified”.

A good project stands up well to good questions. Good questions help deliver good energy.

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