IFC International Finance Corporation WORLD BANK GROUP

PPP PROJECT BRIEFS

Belgrade Waste-to-Energy

Turning Europe's largest landfill into clean electricity and district heating.



340,000
TONNES OF WASTE
treated annually

30 MW
ELECTRICITY
for 30,000 homes

€280M
TOTAL FINANCING
IFC, MIGA & climate funds

FIRST
GOLD STANDARD WtE
in Serbia

For four decades the Vinča landfill on the outskirts of Belgrade absorbed more than 10 million tonnes of untreated waste, venting landfill gas, catching fire repeatedly and leaching wastewater into the Danube and the groundwater. In 2015 the City of Belgrade asked IFC's Transaction Advisory team to structure a PPP to design, build, finance and operate a modern waste-to-energy facility and remediate the site.

The 25-year concession was awarded in September 2017 to Beo Čista Energija d.o.o. — a consortium of Veolia, ITOCHU and Marguerite Fund II. The facility became operational in February 2023 and now converts up to 540,000 tonnes of waste a year into 30 MW of electricity for some 30,000 households and up to 56 MW of thermal energy heating 60,000 households in winter.

DONORS BMF ROCKEFELLER SECO

THE CHALLENGE

Legacy dump site

Over 10 million tonnes of untreated waste accumulated at Vinča across four decades.

Gas and fires

Methane from rotting waste polluted the air and caused numerous landfill fires.

Water contamination

Wastewater was released into the Danube and contaminated groundwater.

No treatment capacity

Belgrade lacked infrastructure for its 600,000 tonnes of annual municipal waste.

EU accession duties

The landfill model was incompatible with Serbia's obligations as an accession country.

IFC'S ROLE

1. **Structure & Advise**
   Mandated in 2015 to run legal, technical, financial and environmental due diligence for the concession.
2. **Validate & Improve PPP Law**
   Serbia had a new and untested PPP law and regulatory framework. IFC worked closely with authorities to test the law and suggest modifications that would strengthen it and make it more effective.
3. **Design the Transaction**
   Design an innovative PPP structure for Serbia's first-ever large-scale PPP project, able to attract experienced international operators.
4. **Run a Transparent & Competitive Tender**
   IFC helped the City successfully plan and implement a competitive tender process, demonstrating the workability of Serbia's new PPP law and regulatory framework.

TRANSACTION STRUCTURE

A 25-year PPP awarded to Beo Čista Energija d.o.o., a special purpose vehicle formed by Veolia, ITOCHU and Marguerite Fund II. The private operator finances, designs, builds and operates the facility, converting municipal solid waste into renewable electricity and district heating.

Design, Finance & Build → **Operate the WtE Facility** → **Deliver Power & District Heat** → **Remediate the Legacy Landfill**

- Capacity of up to 340,000 tonnes of municipal solid waste per year.
- A companion plant recycles some 200,000 tonnes of construction and demolition waste annually.
- Gold Standard Carbon Credit Accreditation — a first for a WtE facility in Serbia.

Bidding: launched competitively in 2015 — 11 consortia submitted qualifications, five progressed to competitive dialogue, and one final bid was entered in July 2017. Veolia replaced Suez in 2022 on acquiring its international assets.

KEY OUTCOMES

210,000 t	30 MW	56 MW	540,000 t	120 jobs	EU path
CO_2e emissions avoided each year	electricity for ~30,000 households	heat for ~60,000 households in winter	waste treated yearly, incl. 200,000 t recycled	permanent, plus ~600 during construction	a pillar of Serbia's EU accession & infrastructure overhaul

PROJECT AWARDED September 2017 to Beo Čista Energija d.o.o. (Veolia, ITOCHU, Marguerite Fund II) — operational since February 2023.

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