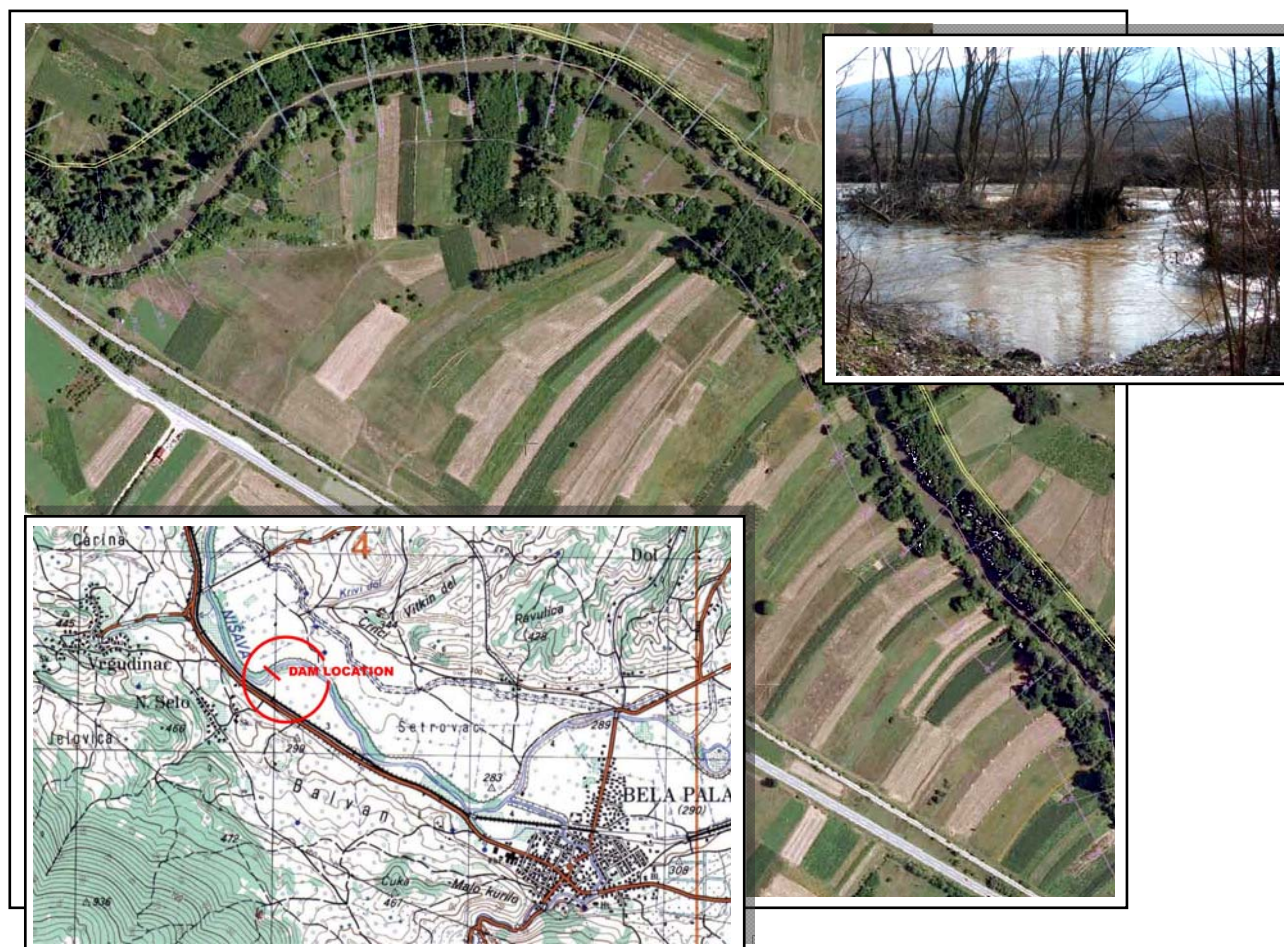


## HPP AND DAM VRGUDINAC



Contract title: **FINAL AND DETAIL DESIGN FOR HPP AND DAM VRGUDINAC**

Location/River: Bela Palanka town / Nisava River – SERBIA

Employer: “Power Gen” Ltd. Beograd SERBIA

Commencement date: 2012.

Completion date: 2014.

Investments cost: 5,000,000.00 Eur

Hydrology data

Average discharge 40 m<sup>3</sup>/s  
PMF flood 980 m<sup>3</sup>/s

Dam

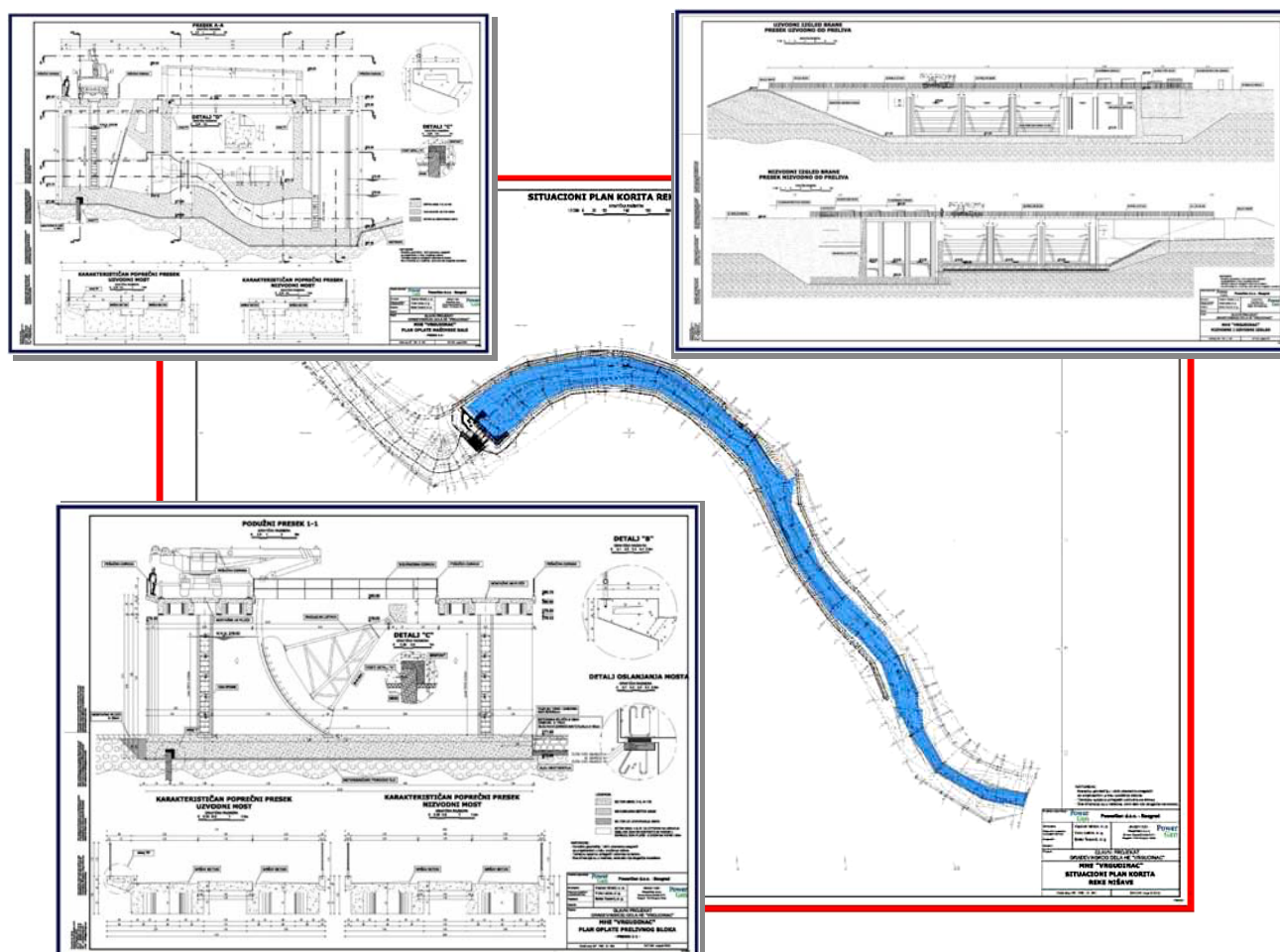
Type Concrete gravity, fill dam  
Height 13.00 m  
Crest length 120.00 m

Spillway

Type Gated (radial gates) / 3 bays

HPP

Installed capacity 1.80 MW (3 units)  
Turbine type Kaplan (S-type)



**Description of the Project:** Location of designed Vrgudinac Dam is on river Nisava, in Serbia. The main purpose of Vrgudinac reservoir is power generation and flood control for downstream area.

Vrgudinac Dam, 13 m high, is designed as a concrete gravity dam and fill dam. The reservoir is formed by levee on both sides of the river. Three gated spillway bays with stilling basin have sufficient capacity to convey the maximum designed flood with retention in the reservoir storage available. Appurtenant structures includes, power intake with penstock and fish track. Designed power station has the installed capacity of 1.80 MW with discharge of 40 m<sup>3</sup>/sec.

**The Services Provided:** Preparation of Final and Design with Tender Documents have been the most essential goals of the Project, including the following specific Consulting Services:

- Determination of General Layout, optimization and engineering design of the Dam, Appurtenant Structures and HPP
- Preparation static, stability and dynamic analyses
- Preparation formwork drawings
- Preparation reinforcement drawings
- Implementation of Cost Estimate with Construction Time Schedule for civil works stage
- Preparation of Tender Documents for civil works.