

About us

Nengfu Electrical is a company specializing in providing efficient and reliable electrical system solutions and engineering services. We seize opportunities in the development of new power systems and drives digital transformation across the energy sector.

PROJECT BACKGROUND

To meet the growing demand for urban wastewater treatment capacity, a large modern wastewater treatment plant (WWTP) is planned for construction in the Aktobe region of Kazakhstan. To ensure stable operation of all equipment throughout the plant, a comprehensive power supply system must be established to provide reliable power and monitoring for all process equipment, automation systems, and emergency systems.

1. Power Supply Scheme

Voltage levels: 35/10/0.4 kV



NENGFU'S CONTRIBUTIONS

2. Substation Configuration

Main Substation (35/10 kV):

Equipped with two 6300kVA oil-immersed transformers installed in a modular KTPM-35/10 substation;

Fitted with high-voltage switchgear (KRU-D40/10 kV) and microprocessor-based protection units;

Integrated with fire protection, lighting, heating, and remote monitoring systems.

Compact Substations (10/0.4 kV):

Three BMTS compact substations are planned:

BMTS No.1: 2×2500 kVA

BMTS No.2 & No.3: 2×1600 kVA each

The above-ground section includes 10 kV/0.4 kV switchgear; the underground section is used for cable entry. Each substation is equipped with microprocessor protection units, vacuum circuit breakers, dual power supply switching systems, and flood prevention designs.

