

## Tailored approach underpins successful delivery of complex PFS for Turkish mining company

By effectively overcoming challenges spanning language, location, geography and time, RPMGlobal's tailored approach to the PFS resulted in a positive outcome for all stakeholders



### Overview

Elektrik Üretim A.Ş. (EÜAŞ) is the largest electric power company in Turkey. As a leading organisation in electricity generation, the state-owned company is responsible for the production of electricity in public power plants to support the socio-economic growth and development of the country. In line with the country's domestic energy strategy, EÜAŞ was studying the option to develop an 1,800 MW power plant approximately 25 kilometres northwest of the town of Elbistan. The company engaged RPMGlobal to complete a pre-feasibility study (PFS) which encompassed the preparation of an optimal development schedule and mine plan for the project.

### Case Study

Company	Elektrik Üretim A.Ş. (EÜAŞ)
Project	Afşin-Elbistan
Commodity	Coal
Expertise & Services	Consulting & Advisory services
Location	Turkey



## Challenge

RPMGlobal was presented with numerous challenges in completing the PFS. From an engineering standpoint, the obstacles related to the combination of complex geological conditions and hydrology which created a challenging geotechnical operating environment. The high volume project— which is an economic imperative aimed at meeting the country's energy demands— required an experienced Consulting & Advisory team that could provide trusted advice and engineering solutions. This included international best practice in terms of production and safety.

As the chosen vendor to undertake the PFS, RPMGlobal had to effectively overcome the following challenges:

- The ability to bring together a global team of subject matter experts that could resolve complex deliverables over different time zones and international borders.
- The need to reconcile the requirement for best practice designs against regionally available equipment and skills.
- Combination of aggressive geotechnical and hydrology issues which also required the relocation of two rivers.
- Sourcing resources to a remote location.
- Large-scale nature of the project, including the pit design which required three simultaneously operating bucket wheel excavators and a truck and shovel coal mining fleet.
- Optimising pit designs to deliver an economically viable project within the context of high capital equipment and dewatering requirements.

## Approach

A consortium of RPMGlobal's Consulting & Advisory team together with German engineering firm, MIBRAG and Turkish partner ARDEF, was identified as the preferred project partner to deliver the PFS. The team have deep domain knowledge of the local mining sector, leveraging their strong local partnerships which enabled the consortium to understand the intricacies of the client's needs. Combined with the scale and reach of RPMGlobal's international expertise, the consortium was able to overcome the aforementioned challenges by delivering a tailored approach to the project.

Specifically, RPMGlobal adopted a strategic approach that would ensure the successful completion of the study in the following ways:

- Deployed resources and personnel from across the globe to deliver a sophisticated level of project management.
- Provided innovative and cutting-edge solutions to solve complex geotechnical and hydrology problems.
- RPMGlobal leveraged its strong relationships by partnering up with MIBRAG and ARDEF to provide high-level, local advice for the client.
- Coordinated multiple technical teams across different countries to provide quality advice and solutions.

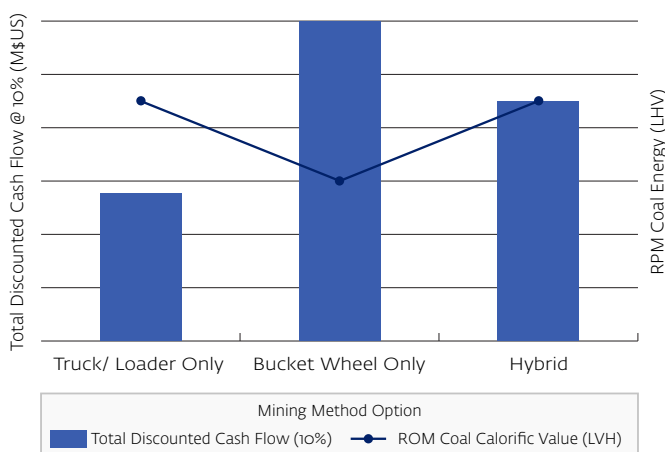
## Impact

RPMGlobal's dedicated project team was able to successfully navigate an array of challenges to deliver value to EÜAŞ to in the following ways:

- Robust mine design rendered as part of the PFS outcome.
- Delivery of large scale dewatering and geological plans.
- Demonstrating long term value through a hybrid mine plan comprising conventional excavators and bucket wheels.
- Ensuring the correct coal specifications are mined and fed to the thermal power plant throughout the mine life
- PFS outcome demonstrating RPMGlobal's ability to draw on worldwide knowledge and expert experience.

The cross-collaborations between RPMGlobal and its local German and Turkish partners underpinned a successful result for the large-scale study. By effectively overcoming challenges spanning language, location, geography and time, RPMGlobal's tailored approach to the PFS resulted in a positive outcome for all stakeholders.

### Mining Method NVP and ROM Coal Quality



The options analysis assessed the economics, the risks and blended coal quality being fed to the thermal power plant in determining the preferred option.