

**WEPP-PROJECT CHINA**

# Metering Systems under pressure

The West-to-East Natural Gas Pipeline Project (WEPP) is one of the country's largest engineering projects. The 4200-km pipeline will transfer 12 billion cubic meters of natural gas annually from the western gas fields to the Yangtze River Delta with China's most vibrant city Shanghai. The total investment amounts to more than US\$ 26 billion. This pipeline is one of the key factors in an attempt to serve the increasing demand for energy and, on the other hand, to fulfill the ambitious plan of increasing the share of gas from 2% to 15% within the next decade.



The first stations were shipped to China in June, 2003. The last stations had all left Europe by the end of July 2004. All stations were shipped to Shanghai and, when the civil engineering work had been completed, transported to their final destination. At the request of the customer, our Chinese workforce, located in Beijing and Shanghai, monitored the progress of the pipeline on site. They commissioned the stations and trained the customer's employees in the operation and handling of the equipment and how to put it into operation. Up until now, 12 stations have been commissioned and 10 of them are working 'under pressure'.

As a result of the successful cooperation, we have been awarded contracts to supply systems and components for further projects such as: Yunan Branch Pipeline Project (YBPP) and Zhong Wu Pipeline Project (ZWPP).

YBPP is a branch line of WEPP from the city Xuedian, is 200 km long and is to supply gas to the region of the city Zhumadian. The capacity of the pipeline is 1.6 billion cubic meters per year. ZWPP is a project of Petro China. The starting point is Zhongxian and the pipeline ends in Wuhan, including three branch lines.

Metering skids with ELSTER TRZ-IFS turbine meters and FLOW COMP F1 gas-net flow computers were supplied.

Throughout the duration of the projects our Beijing team worked closely together with the customer. By joining the forces of the different specialists from within the ELSTER-AMCO Group, we managed the projects successfully and got the stations 'under pressure'. We look forward to more opportunities to supply our customers with solutions from under one roof.

PETER SKIRRAT, ELSTER GERMANY [skirrat@elster.com](mailto:skirrat@elster.com)



On October 1st, 2003, the eastern part of the pipeline was put into operation following a large ceremony. The gas was transported to Shanghai from the Shanganning field. One year later, the western part was put into operation and since then gas from the Talimu field has also been fed into the pipeline.

ELSTER-AMCO, as a system provider, together with IGA Netherlands and FLOW COMP, supplied in total 22 metering systems. The turbine metering stations are equipped with ELSTER TRZ-IFS turbine meters, G160 up to G650, to ensure that the results remain stable and reliable with a high repeatability. FLOW COMP's F1 gas-net flow computers are mounted into a cabinet including a power supply (UPS) and communication components.

The stations are designed for a working pressure up to 100 bar, flow rates at base conditions from 4,000 up to 56,000 m<sup>3</sup>/h and dimensions from 3 to 6 inches.