Information Paper

Power System Transmission and Distribution Equipment and Material Suppliers in Central Asia

Disclaimer: Companies identified in this Information Paper are examples of potential suppliers and manufacturers that exist within Central Asia. DLA and USACE are not specifically endorsing, directing or encouraging the use of any specific company identified in this information paper. Identified companies should not be considered to have been vetted or approved by DLA. Any business relationships entered into between a contractor and these manufacturers and suppliers are at the sole risk of the companies involved in the business transaction.

Background

DLA and USACE jointly conducted a series of site visits to suppliers and manufacturers of construction materials and equipment in Central Asia (Kazakhstan, Uzbekistan, and Kyrgyzstan) between March and December 2010. The site visits were conducted by the combined team of USACE Engineers and DLA Procurement experts. The team met with more than 30 potential construction material and equipment suppliers and visited their production facilities when possible.

All of the suppliers and manufacturers produce products to GOST standards and some also produce products to European standards for export to Europe.

The team was impressed by the production capacity and product quality they observed during the site visits. The team also believes most of the companies visited have the capacity to produce satisfactory materials and equipment capable of meeting construction specifications and requirements in Afghanistan.

Electrical Equipment Manufacturers and Suppliers in Central Asia

The companies identified below are the electrical equipment manufacturers and suppliers visited by the team. There are additional manufacturers and suppliers of electrical equipment and material in the region identified on the "CAS Yellow Pages" which are not listed below. The information in this paper is based on what the companies provided to the team at the time of visit and the teams observations during the site visits. Copies of the company's business cards are provided when possible. Additional company contact information can be found on the "CAS Yellow Pages".

1. Electrical switch gears and control panel manufacturers:

Electro Shield - Large electrical switch gears, control panels, breakers, modular substations and boxes, both low and high voltage. The company has a large manufacturing facility with extensive machine shop and metal working capability in Tashkent. They currently provide equipment to the Afghan Ministry of Electricity. All electrical equipment is built to GOST standard and company is 50% French owned. They are a potential source of supply for large electrical projects in Afghanistan. Equipment is not UL certified and is unlikely to be since all the electrical systems in the region use the GOST standards. The company does not manufacture transformers. Company has an in house

electrical engineering design office that can determine exactly which equipment should be purchased based on the system design drawings.



Schneider Electric – Electrical switch gears, breakers and other components. The company is a leading global manufacturer of electrical system components headquartered in France. They are the parent company of Square-D. They only manufacture a limited number of products within Kazakhstan and import most of their products from European manufacturing facilities. All of the equipment they sell within Central Asia meets IEC and GOST electrical standards. They can provide technical oversight of equipment installation through their Technical Assistance Office in France. They do not currently assemble switch gears in Kazakhstan but are considering adding the capability if they can identify sufficient demand. Currently, they assemble panel boards and SM6 units in Kazakhstan. They have existing switch gear products that include an automatic transfer switch.

Spetselectra LLP – Producer of modular substations. The company began building the shelter and switch gears for 250kVA substation and below in 2007. They buy locally manufactured transformers. It takes them 70 days from time of order to completion of the units. The shelters are steel frame with cast in place concrete walls, roof and floor. Max capacity of current facility is 12 units per month.



2. Transformer Manufacturers:

Alageum Electric – Produces a wide variety of high voltage electrical equipment for substations to include transformers. The company is also one of the main power transmission construction contractors in KZ and could be a potential subcontractor for substation construction in AFG. They produce approximately 70% of the domestic transformer demand within Kazakhstan and they export approximately 50% of their annual production. They produce approximately 750 transformers per month. Factory is in southern KZ. They have supplied transformers to AFG in the past, but not within the last ten years.



Aziya Elektro Energiya - Transformer manufacturer. They manufacture medium voltage transformers in new and impressive product facilities. The transformers are all manufactured to GOST standards. The company General Director wrote the text book used for teaching transformer design in Uzbekistan.



Chirchik Transformer Plant - They make mid and high voltage transformers for use at power plants and hydroelectric dams. Some of the transformers were enormous, weighing over 68 tons. They have a huge facility as well with extensive metal working equipment. The transformers are all manufactured to GOST standards.



Oremi – Produces transformers and other electrical transmission equipment to include micro hydroelectric power systems, transformer substations, voltage regulators, and electrical motors. Currently exports primarily to Russia but also to other CAS countries. Produces transformers from 25kVA to 630kVA but are capable of producing 1000kVA and 1500kVA if a sufficient number are ordered. Should a requirement develop for micro hydroelectric power stations this company may be an ideal source. They have designed, built and installed the systems in rural mountain villages in KRG.



3. Wire and Cable Manufacturers

Deutsche Kabel (DKG) - Manufactures wire products to include cables, wires, concertina wire, gabion baskets, welded wire mesh, and nails. They are in the process of expanding and plan to begin production of geotextile products. Their electrical wire products, both aluminum and copper, are CE certified and produce to GOST and IEC standards. They are attempting to obtain UL certification of their wire, but have been unable to get UL to come perform the required technical audit of their process. The company has a large contract with Bosch to export electrical cable to Europe. The company has significant capability to produce a wide variety of steel, copper, and aluminum wire products for use in a wide variety of applications. The company is 98% owned by a German firm.



Pavlodar City Cable – Power cable manufacturer. The company can provide a wide variety of electrical power cables (more than 8,000 types of cable) based on GOST and IEC standards to include high voltage transmission conductors. They only require approximately two weeks notice to initiate order production for most of their product line. The production facility was not visited and is located in Eastern Kazakhstan. The DLA/USACE team visited the Almaty Distribution Center which has a wide variety of cable in stock.

Hi-tech Kabel (htk) - The company produces a wide range of power cable and wire, both aluminum and copper. They also produce high voltage conductor. Their electrical wire products are CE certified and produce to GOST and IEC standards. The facility had good equipment and clearly appeared capable of meeting technical specifications. The company has the only certified lab for testing high voltage conductor in UZ. The testing lab is outfitted with German test equipment made by High Voltage. They are in the process of installing a fiber optic cable manufacturing line.



Kazelectromash – Produce electrical wire and cable and construct high voltage power transmission lines and substations. The company is also one of the main power transmission construction contractors in KZ and could be a transmission line installation subcontractor in AFG. The company produces 286 types for wire and cable to include both interior electrical wire and high voltage transmission conductor. The company is a potential source for interior electric wire. The team did not visit their manufacturing facility.



All questions and requests for additional material regarding information contained in this information paper should be directed to LTC John Hudson at 703-767-1159 or john.hudson@dla.mil.