







Two 110/20 kV Substations – Maiwand and Pushmol

SEPS Kandahar Substations and Electrical Transmission Projects, 110/20 kV Substations at Pushmol and Maiwand, Kandahar Province, Afghanistan

- Voltage Rate 110 kV to 20 kV
- 2 × 4 MVA, 50 Hz, Power Transformers
- Main Bus & Transfer Bus system
- 2 Incoming/outgoing 110 kV & 5 outgoing 20 kV feeders

Client: US Army Corps of Engineers (USACE)
Prime Contractor: Assist Consultants Inc.

- Jun. 2016 to Dec. 2017 (scheduled)
- Maiwand and Pushmol, Kandahar Province, Afghanistan



This is a project that will upgrade the high voltage power system in Kandahar, Afghanistan. Maiwand and Pushmol substations each shall have two 110 kV line bays, a 110/20 kV transformer rated no less than 20 MVA, a 20 kV yard with indoor switchgear. The objective of this project is to provide a cost effective, reliable power system for the distribution of electric power in Kandahar Province. Each substation shall be designed to support a 20 MVA transformer.

Novin Simia performed the erection, installation, testing and commissioning services for Maiwand and Pushmol substations

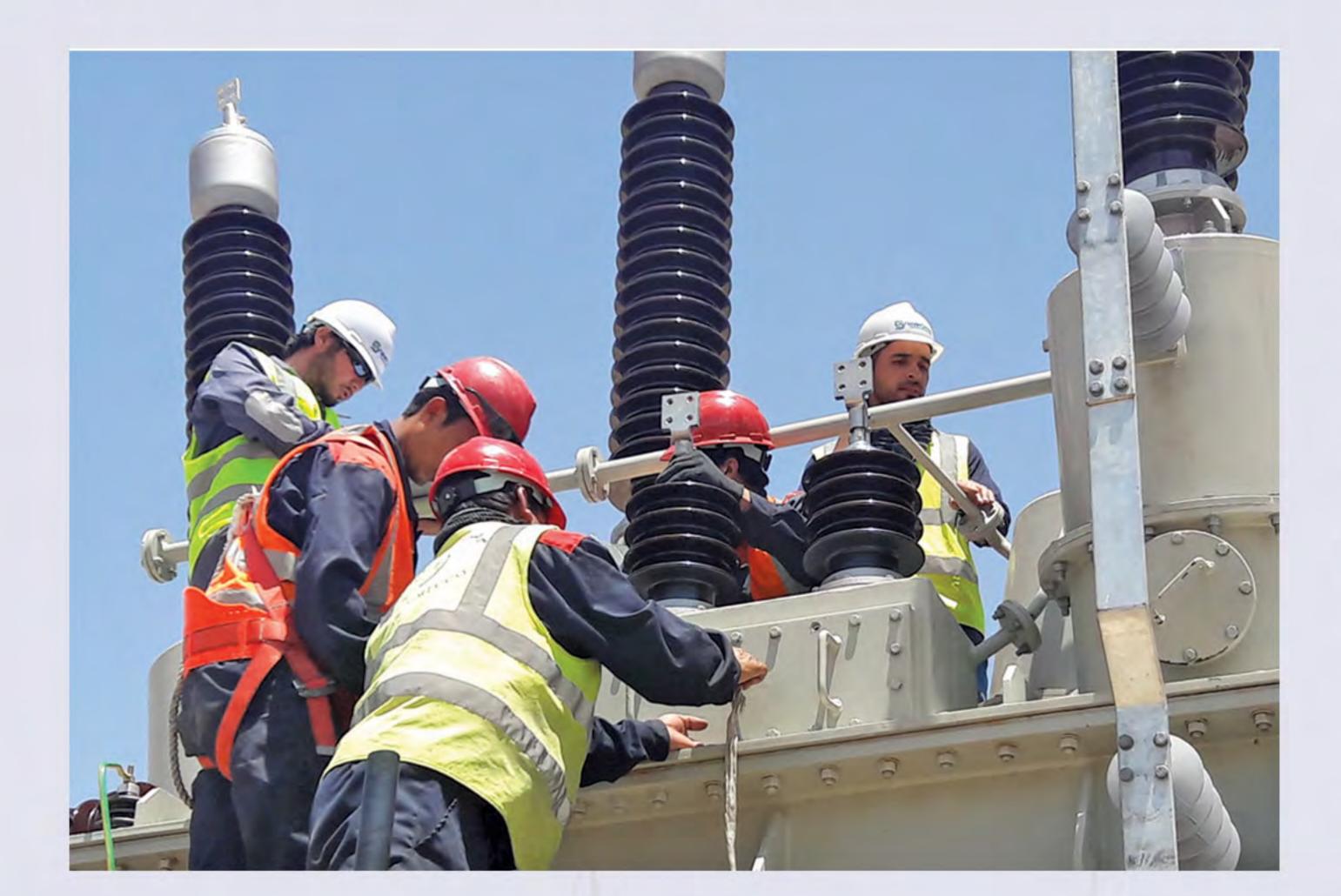
220/20 kV Asqalan Substation

Northern Electrical Interconnect (NEI) Project, Asqalan Substation, Kunduz, Afghanistan

- Voltage Rate 220 kV to 20 kV
- 1×25 MVA, 50 Hz, Power Transformer
- Double Bus system
- 6 Incoming/outgoing 220 kV & 4 outgoing 20 kV feeders

Client: US Army Corps of Engineers (USACE)
Prime Contractor: Assist Consultants Inc.

- Nov. 2016 to Sep. 2017 (scheduled)
- Asqalan, Kunduz Province, Afghanistan



Asqalan Substation (220 kV system voltage) is being expanded to install a new transformer bay. The design utilizes the substation's existing space reserved for a future 220 kV bay and is expanding the substation yard to replace that existing reserved space. The substation expansion also includes design of a new 20 kV yard with indoor switchgear, connection to one 220/20 kV power transformer rated 25 MVA, one 20 kV line bay.

This project included the 28 km of double circuit 20 kV power distribution lines. The power distribution lines run from Asqalan Substation to the ANSF 209th Garrison and ANSF Border Police (BP) Airport Security.

This work is defined as the management, material, labor, and equipment to construct the facilities and related structures in accordance with the Scope of Work, the Technical Requirements/specifications, commercial terms, construction procedures, quality and safety norms and Client's requirement. Part of the work is provision of Spare parts as required by Client for all systems described above.



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Test & Commissioning of Substations

Novin Simia team of specialists provides efficient erection, testing and commissioning services of power transformers up to 220 kV and 110 kV. We are confident of commissioning jobs of any magnitude at highest level of complexity. Due to our access to advance technology, support of expert technical team and portable test instruments for testing and commissioning of electrical power system, we commission the project in the most efficient way and least timeframe. Furthermore, Novin Simia render this High Voltage Substation Erection, Testing and Commissioning Services to the clients at market leading rates. We own brand new professional testing devices in order to perform testing services necessary for commissioning of any substation project. In addition, our team of experts were received first class training abroad and are fully capable to operate such advanced testing devices.

These include erection and test services of electrification work of all equipment in substations such as power transformers, circuit breakers, disconnect switches, current transformers, capacitance voltage transformers, HV surge arresters, power cables and fiber optic cables.

- Switchyard Equipment Tests
- Power Transformer Tests
- Secondary Protection Relay Tests
- Launch Tele-communication and SCADA System









Novin Simia also has expertise in perform main earth grid, exothermic weld, test ground hole and tests on Transmission lines. Our team also do secondary protection relay tests, install and run telecommunication equipment and DCS/SCADA systems.

Our team of skilled engineers and technician carry out the services as per the requirements of the clients within the stipulated time period. Our professionals work with the clients in a coordinated manner to understand their specific requirements and offer them the best solutions that perfectly meet their needs.

Transformer Installation and Testing at Gardez Substation

220/20 kV, 16 MVA Transformer Substation at Gardez, Paktia Province, Afghanistan

- Voltage Rate 220 kV to 20 kV
- 2 ×16 MVA, 50 Hz, Power Transformers
- Double Main Bus & Transfer Bus system
- 1 Incoming 220 kV & 4 outgoing 20 kV feeders

Client: US Army Corps of Engineers (USACE)

© 25 Sep. 2016 to 2 Feb. 2017

Gardez, Paktia Province, Afghanistan

Novin Simia team successfully installed, vacuum, vacuum filling and also tested two 16 MVA Power Transformer such as: Insulation resistance test, Turn ratio test on all tap, Dynamic Resistance OLTC Test, Static Resistance Test, Winding Resistance Test, Continuity Test and Power Transformer Oil Test for this substation project.



Electrical works at Shindand Airbase

Design and Implementation for multiple task orders

Novin Simia was actively involved in rehabilitation and re-construction of Shindand Airbase since April 2008, working as the electrical sub-contractor with multiple General Contractors both Internationals and Nationals.

Task Orders 1 to 5

Another example of project experience of Novin Simia in power distribution tasks is the implementation of 17 km MV underground grid along with 18 set compact transformer station. Novin Simia was the electrical subcontractor to KAM Construction (General Contractor) in order to complete this task order for the project which was funded by US Army Corps of Engineers. The completion of this project was very important to provision and enhancement of the security to one of the key tactical air base facilities in Afghanistan.

The Client – US Army Corps of Engineers – put this news in its website as turning over a milestone project. "Our mission is to turn projects over and it is always a great thing to cut a ribbon on a facility with the quality products that were produced here," Mathew Walden, resident engineer and contracting officer for the project told the audience gathered for the ceremony at one of the site's guard towers.

Task Order 6

The most recent task order under progress by Novin Simia in Shindand Airbase is Installation of 12 km MV underground cable 2500 kVA, 200 kVA, 16 set compact transformer stations. This project features power generation facility and power distribution network for Shindand Airbase in its entirety – completely one of a kind.

- 16 Set Compact Transformer Station
- 12 km MV underground cabling

Client: US Army Corps of Engineers (USACE) and US Air Force Center for Environment and Excellence (US AFCEE)

- Apr. 2008 to Apr. 2014
- Shindand Airbase, Shindand Herat Province, Afghanistan



Novin Simia demonstrated professionalism, exemplary performance and superb skills during the project in Shindand, Afghanistan.

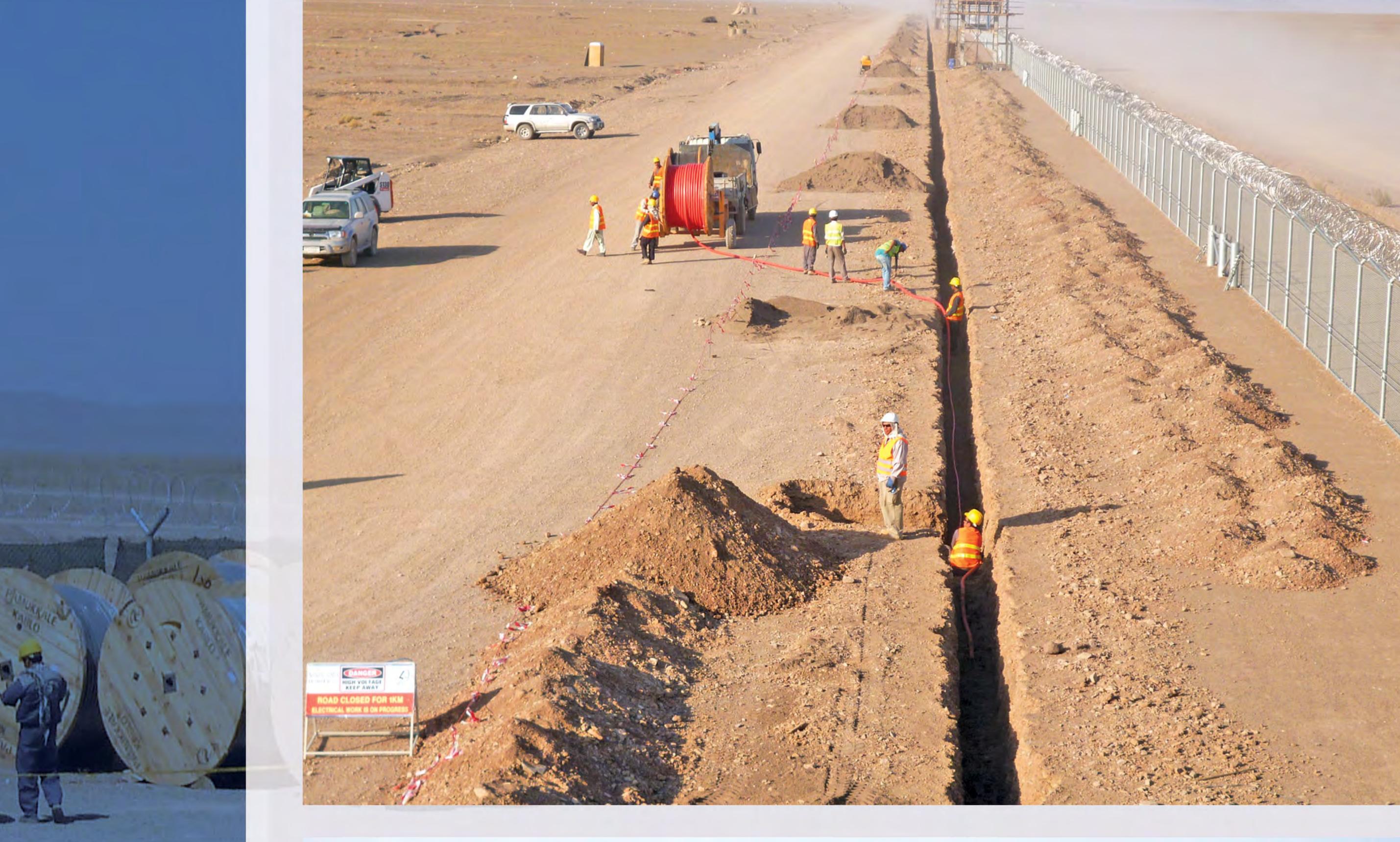
Cpt. (P) Sean C. Burnett, United States Army Officer in Charge Shindand RO

- 56 Set Compact Transformer Stations
- 42 km MV Underground Cable
- 11 km LV Underground Cable
- 15 Set Generators installed



In my 35 years of providing professional construction management services to this industry around the world, these guys (Novin Simia) are among the best I have ever worked with.

Bob Harvey Construction Manager PRI/DJI Tetra Tech







Aino Mena Township Power Distribution

- 230 Sets Pole-Mounted Transformers
- 150 km Low Voltage ABC Cable
- 70 km Medium Voltage Overhead Line
- Installation of 5000 Concrete Power Poles
- 85 Set Compact Transformer Station
- 32 km Medium Voltage Underground

Client: AFCO International

- Jun. 2012 to Dec. 2014
- Aino Mena, Kandahar, Kandahar Province, Afghanistan

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We have always been completely satisfied by Novin Simia's performance. They do an excellent job, are always punctual, and offer the most competitive rates.

Rahmatullah Dilsoz, Office Manager, AFCO International

Novin Simia was the prime contractor to design and implement the power distribution network in Aino Mena Township in Kandahar for 23,000 (twenty-three thousand) housing units in approximately 20,000 (twenty thousand) hectares area of construction. Major items in the scope of this project were to implement 70 km medium voltage overhead line distribution, 32 km Medium Voltage Underground, 160 km low voltage ABC cable distribution system and installation of 230 pole mounted transformers. Novin Simia deployed its professional and experienced cadre of personnel including engineers, technicians and skilled labor to proceed with the implementation of this project in rapid pace.



Electrical Works for Afghanistan National Police (ANP)

City power connection to CTC/PD9 facilities in Kabul with capacity of 2000 kVA. Provision, manufacturing and installation of 20/15 kV MV Panels, 3200 A ATS, Main Distribution Panels, 600 kvar Capacitor Bank, 2000 kVA Transformer and MV overhead lines.

Design and implementation of electrical power system for ANP training facility in Herat –Installation of 2 MVA generator along with ATS.

Design and implementation of electrical power station of Camp Gibson in Kabul –installation of 2 x 1250 kVA generator sets.

Client: DynCorp International LLC

- Mar. 2008 to Jul. 2010
- Kabul and Herat Cities, Afghanistan

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We want to thank you for being a key member of DynCorp Supply Chain and value proposition to our customers. Novin Simia continues to play a key role in aiding our ability to perform and effectively execute on our many programs across the globe.

Gary Bailey
VP Subcontractor Performance Management
DynCorp International.







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PRODUCTION

Novin Simia Production division manufactures compact transformer stations, medium and low voltage switchboards (distribution and control), automatic/manual transfer switch panels, meter boxes, capacitor bank panels, and cable management systems (cable tray, cable ladder and cable rack). Customers include a wide range of industry and utility operations, plus commercial and residential buildings.



MANUFACTURING FACILITIES

Novin Simia established two manufacturing facilities in Kabul and Herat Cities of Afghanistan. Both of these facilities are fully functional with high quality manufacturing equipment installed.

Each facility's footprint is suitable for quality and automated manufacturing equipment such as CNC punching machine and also well suited for bulk volume production.

Our facilities are located close to multiple custom points which will enable us to rapidly import required raw material and/or goods.

Having these two fully functional manufacturing facilities, strategically located in Kabul and Herat, Novin Simia is capable to respond to any Client's bulk-volume-request in rapid time.

Herat Manufacturing Facility

- 5000 m² (53,820 ft²) Land Parcel
- 1600 m² Factory Area
- 240 m² Office Space
- Located in Herat Industrial Town
 Near Herat Interantional Airport

Kabul Manufacturing Facility

- 4100 m² (44,132 ft²) Land Parcel
- 1600 m² Factory Area
- 250 m² Office Space
- Located in Pol-e Charkhi Industrial Parks,
 Near Kabul Interantional Airport
- 12,000 m² Land Parcel possesed for future development at Sanaya Sabz Industrial Town, Barkiab, Kabul

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MANUFACTURING EQUIPMENT

Novin Simia uses high quality equipment and machinery in order to deliver high quality and safe products. Main equipment are provided from Europe. Following is list of main equipment, which Novin Simia uses for its production in Kabul and Herat:

- CNC Punching Machine
- Hydraulic Press Brake
- Hydraulic Swing-Beam Shear
- 6-Stage Pre-treatment System Painting System
- Electrostatic Powder Painting Equipment
- CNC Laser Labeling Machine
- Busbar cutting, bending and punching machine
- Routine Test Lab facility per latest IEC codes
- Painting Lab facility per ISOcodes
- Air Compressor

APPLICABLE STANDARDS & TYPE TESTS

Novin Simia manufactures its products as per International Electrotechnical Commission's (IEC) Standard. Other Standards being applied for our products are UL, National Electrical Code (NEC), or NFPA 70 and National Electrical Manufacturers Association (NEMA). Details of Standard references for each product is mentioned in our "Product Data" package.

The most important factor of each manufactured product for Novin Simia is its quality and that it meets the applicable standards and the Client's expectation. Our extensive experience in production industry and using quality equipment, enable us to meet this highly important objective.

Our products are successfully type tested in Internationally Recognized Laboratories and successfully obtained UL, CE and TUV certifications.

PAINTING LINE

Novin Simia uses electrostatic powder painting mechanism which is the applicable and standard method for coating metals in electrical industry. Using this approach results a hard finish that is tougher than conventional paint. The powder coating process involves three basic steps: part preparation or the pre-treatment, the powder application and curing.

Novin Simia uses 6-stage cleaning and pre-treatment using 6 tanks each with 3000 lit capacity. Tanks are equipped with hot water heat exchange mechanism. Economical design has been considered and the energy cost is significantly lowered using charcoal as the fuel for the boiler. The line is designed for both mild steel and galvanized steel; it is equipped with phosphate tank which uses zinc phosphate for non-galvanized product. Chromate in the final tank of surface conditioning which causes the best paint stickiness to the surface.

Curing Oven has indirect furnace; hot air circulation results the uniform heat distribution in the oven.

Using thermocouple permissible range of temperature in furnace and curing oven is controlled.







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OUR PRODUCTS

Novin Simia manufactures quality, standard and tested products in following four categories

- Compact Transformer-Station (25 kVA to 2500 kVA)
- Medium Voltage Products
- MV Withdrawable Switchgears
- Medium Voltage Switchboards (12 kV to 36 kV, 400–1000 A, GIS/AIS)
- MV Metering Switchboards (3.6 kV to 36 kV)
- MV Automatic and Manual Transfer Switch Panels (12 kV to 36 kV, 630–1250 A)





Low Voltage Products

- Low Voltage Control and Protection Switchboards for Substation (Up to IP 65 and 4000 A)
- Low Voltage Switchboards (Distribution, Control and Protection up to IP 65 and 4000 A)
- Low Voltage Meter Boxes (Up to IP 65)
- LV Automatic and Manual Transfer Switch Panels (Up to IP 65 and 4000 A)
- LV Capacitor Bank Panels with Automatic Controller (Up to 1200 kvar)

Cable Management Products

- Cable Tray Systems
- Cable Ladder Systems
- Cable Rack Systems

Our Products for Substations

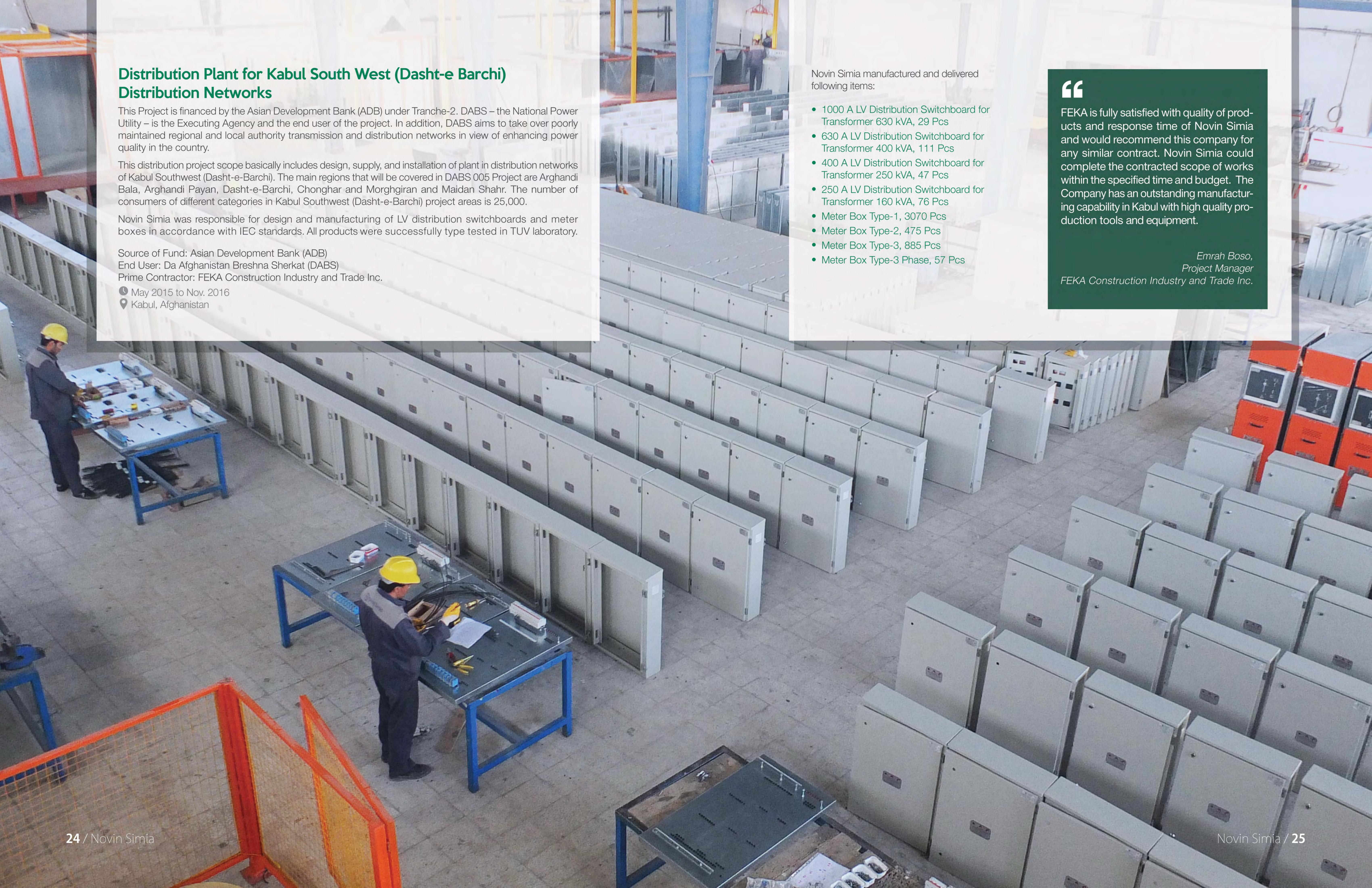
Novin Simia manufactures control and protection panels for distribution substations which includes:

- AC Distribution Switchboards
- DC Distribution Switchboards
- Bay Marshalling Kiosk Panels
- Junction Boxes
- Feeder Pillar Panels

- Bus Bar Protection Panels
- Cable Ladders & Cable Racks

Our products are designed and manufactured in custom built assemblies as per specification and requirement of project. The solutions from Novin Simia for energy automation offer a multitude of standardized configurations and functions for many typical tasks.

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Our Products for Da Afghanistan Breshna Sherkat (DABS)

Novin Simia manufactures electrical products in high quality and in accordance with International Standards such as but not limited to IEC. Hence, our products were accepted and used in numerous projects both in public and by private sector projects all over Afghanistan.

We are honored to mention that DABS, as the Nation Power Utility – accepted and used our products. Moreover, Novin Simia have manufactured products directly for DABS under multiple contracts.

Manufacture and Procurement of 250 Units LV Distribution Switchboards

Novin Simia designed, manufactured and delivered 250 units of LV distribution switchboards to DABS consisted of following items:

- 1250 A LV Distribution Switchboard for Transformer 800 kVA, 10 Units
- 1000 A LV Distribution Switchboard for Transformer 630 kVA, 50 Units
- 630 A LV Distribution Switchboard for Transformer 400 kVA, 80 Units
- 400 A LV Distribution Switchboard for Transformer 250 kVA, 80 Units
- 250 A LV Distribution Switchboard for Transformer 100 kVA, 30 Units

Manufacture and Procurement of LV Distribution Switchboards and Electrical Accessories

Novin Simia designed, manufactured and delivered 181 units of LV distribution switchboards (200-1250 A) and procured electrical accessories to DABS.

Client: Da Afghanistan Breshna Sherkat (DABS)

Jul. 2014 to Dec. 2014

• Kabul, Afghanistan





Manufacture and Procurement of Distribution Switchboards and Meter Boxes

Utilizing its manufacturing facility in Herat, Novin Simia completed following items for DABS in Herat. Design, manufacture and testing of LV distribution switchboards, procurement and supply of transformers, LV circuit breakers, load breaking switch/fuses and accessories for overhead transmission lines. Furthermore, and as part of another task order, Novin Simia manufactured and procured of 800 Units LV meter boxes. All items were accepted and used by Da Afghanistan Breshna Sherkat in Herat, Afghanistan.

Client: Da Afghanistan Breshna Sherkat (DABS) - Herat

- Nov. 2015 to Feb. 2016
- Herat, Afghanistan

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Novin Simia's actions and professionalism reflected great credit upon their company and Da Afghanistan Breshna Sherkat.

Yousuf Anwari, Procurement Director Da Afghanistan Breshna Sherkat

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Electrical Works at Ministry of Defense

Design, manufacture, procurement and installation of main distribution panels and all panel boards for the headquarter building of Ministry of Defense in Kabul. Additionally, the company procured and installed transformers for the building.

- Distribution Transformers, 2500 kVA, 15/0.4 kV, 3 Pcs
- MV Distribution/Protection Panels
- MV Automatic Transfer Switch Panels
- 4000 A Main LV Distribution Panel (26 Cell)
- Power Transformers' Enclosures/Canopies
- LV Capacitor Banks, 650-1000 kvar
- LV Distribution and Control Panels, 40–3200 A

Client: ITSI-Gilbane

Project Owner: Ministry of Defense, Government of Afghanistan

- May 2011 to Dec. 2012
- Ministry of Defense, HQ Building, Kabul, Afghanistan

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You (Novin Simia) have supported us with on-time deliveries, quality service, hassle free administration and competitive pricing, which have our company returning again and again to Novin Simia as a supplier who we can rely upon to give us good quality equipment and timely service at a fair price.

John H. Eckford Jr., Sr. Subcontracts Administrator, ITSI-Gilbane



Installation of Pad-mounted Transformers in Camp Zafar

Manufacturing and installation of 2 set 100-500 kVA 15/0.4 kV compact transformer station in 207th ANA Brigade – Camp Zafar in Herat

Client: Technologists Inc.

Project Donor: US Army Corps of Engineers (USACE)

Jan. 2010 to Dec. 2011

207th ANA Brigade, Herat, Afghanistan



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Novin Simia is an honest and dedicated company. Their hardworking and positive attitude has contributed greatly to their Company and our organization, and we have found them a great company for all electrical works.

Mohammad Rafi Azimi Admin Deputy Director, Technologists Inc.



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Vision Novin Simia technologies RENEWABLE ENERGY issues. PV-Solar Wind Farms Objectives 30 / Novin Simia

RENEWABLE ENERGY

The dwindling fossil fuel resources, and their associated greenhouse gas emissions that significantly contribute to the global warming, are encouraging nations to move toward Renewable Energy Sources (RES). Among the RES, Photovoltaics (PV) systems are one of the most economically viable options. In the recent years, economy of scale and subsidizes from the governments have considerably reduced the cost per MWh of PV systems, and it can even compete with the conventional technologies, such as Coal and Nuclear.

In some situations, such as Afghanistan where the transmission and distribution networks are not well developed, investment in PV system is more beneficial than the centralized conventional technologies

In Afghanistan, approximately a quarter of the population is connected to the national grid and have access to electricity. Nonetheless, the Afghanistan National Grid, which consists of North East Power System (NEPS), South East Power System (SEPS) and some other islands can be considered as one of the most unreliable systems in the world with lots of power quality issues.

As a result, to increases the citizens' access to electricity, the Government of Afghanistan (GoA) and its international partners are planning to promote PV systems across the country. Thus, Afghanistan is one of the most suitable countries to start a renewable energy business.

Novin Simia Group will be actively involved in Afghanistan Renewable Energy projects, by having technical relationship with international companies who have qualifying experience on design, implementation and commissioning of renewable energy projects around the world. We also assigned a dedicated team of skilled personnel for renewable projects.

Novin Simia

CLIENTS AND RECOMMENDATIONS

Our products and services have been used/installed in many major projects funded by variety of donors, and for several Clients/Customers including but not limited to Government of Afghanistan - Ministry of Energy and Water and Da' Afghanistan Breshna Sherkat (DABS) -, US Army Corps of Engineers (USACE), Asian Development Bank (ADB), and private sector.





BACCII (AFGHANISTAN MARKE ENERGY UNION Afghanistan Industrial Association









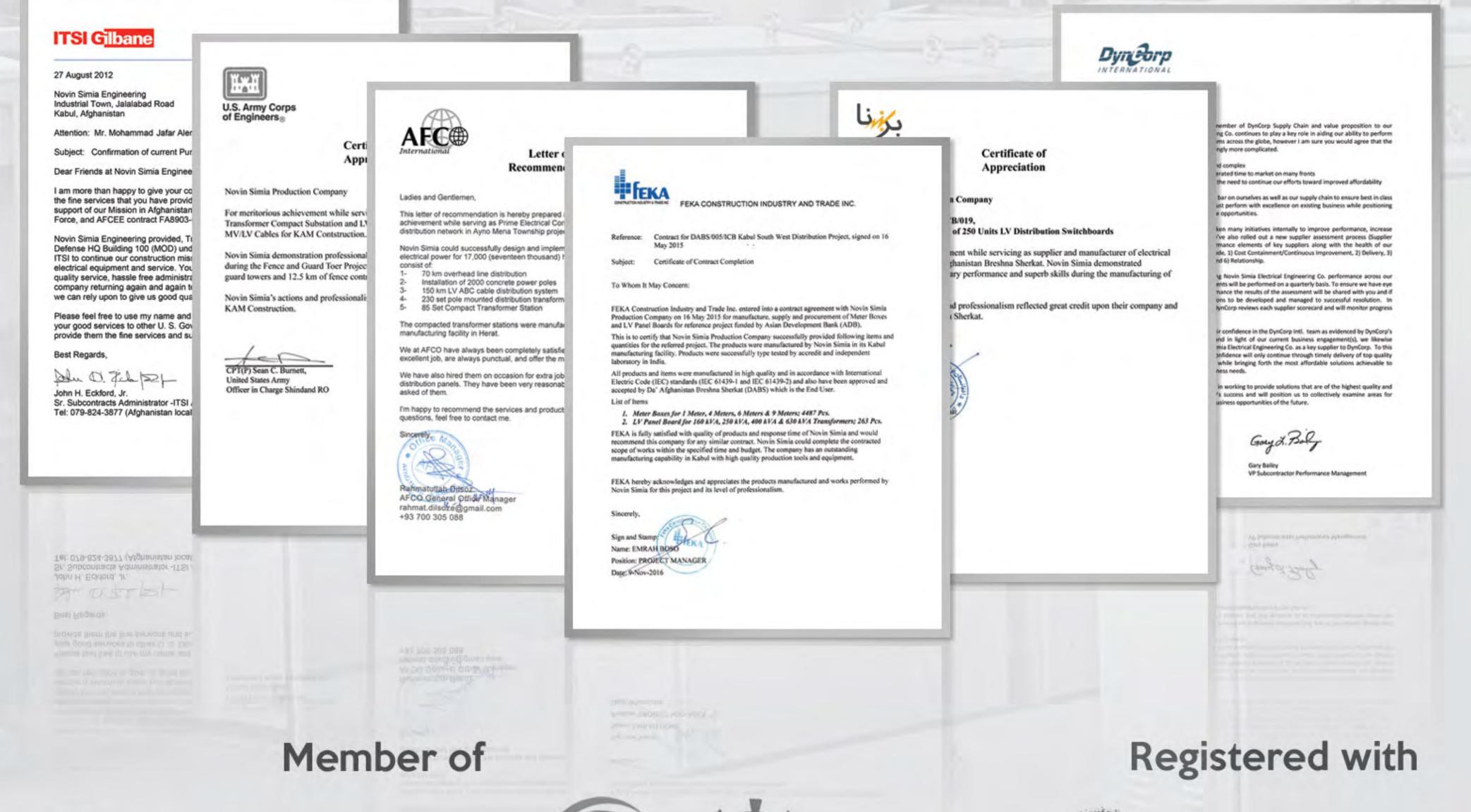






SYSTEM FOR AWARD MANAGEMENT DEB





TYPE TEST CERTIFICATIONS

Our products are type tested in Internationally recognized laboratories and successfully obtained UL, CE and TUV certifications.



Novin Simia started its business in 2004 from Herat, Afghanistan. Since its establishment, Novin Simia successfully completed multiple projects throughout the Country. Since then Novin Simia developed and increased its production capabilities and successfully opened its second production facility in Kabul in 2008.

The company is experienced working with variety of donors, clients, customers and companies both internationally and locally. Our experience portfolio covers several projects successfully completed and handed-over to the National Power Utility. Moreover, Novin Simia's products used in projects funded and executed by International aid organizations such as Asian Development Bank, US Army Corps of Engineers (USACE), US Air Force (AFCEE). Furthermore, Novin Simia worked with international companies including DynCorp International, Environmental Chemical Corporation (ECC), Innovative Technical Solutions Inc. (ITSI), Tetra Tech, PRI.

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