



Qaderdan Rural Technology
Development Workshop
ورکشاپ انکشاف تکنالوژی محلی قدردان

COMPANY PROFILE

2023



COMPANY INFORMATION

REGISTERED NAME: Qaderdan Rural Technology Development Workshop

FOUNDING YEAR: 2003

HEAD OFFICE: District 5, Sarmyasht, Kabul, Afghanistan

AISA LICENSE #: D-20830

LICENSE HOLDERS: Habib Ur Rahman Qaderdan (President)

D-U-N-S NUMBER: 850457071



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ABOUT US

QRTDW has been a leader in Renewable Energy Solutions in Afghanistan since 1992. We deliver services, products and applications to promote and enable sustainable and environmentally sound development. Through constant innovation, persistence, and demonstrated lobbying, we work every day to popularize renewable energies in Afghanistan and globally.

We are the only company in Afghanistan engaged in manufacturing solar, wind and hydropower systems and components. We develop new technologies at our research and development centre to address the urgent needs of the population and manufacture them for use throughout the country.

QRTDW is your innovative partner for design, manufacture, installation, operation and maintenance of renewable energy solutions throughout Afghanistan. We have a holistic approach to solving problems and prove it through our long track record of success and customer satisfaction.



OUR MISSION

We try to transform people's lives by minimizing their energy consumption and reducing their environmental footprint. We know that improving the lives of those we serve also helps make our company more valuable for all our clients and customers.



OUR VISION

At QRTDW, we are always looking for better ways to serve our customers and promote renewable energy development for the benefit of all of humanity.



OUR VALUES

We value our people and our country. We firmly believe that honourable goals require an honourable approach to reach them. We refuse to compromise the integrity of our people and work to achieve short-term gains. We trust in God and this trust guides us through our daily work at QRTDW.

BOARD OF DIRECTORS

The Board of Directors (BOD) of QRTDW sets high standards for the Company's employees, managers and directors. They maintain and promote positive and continued relationships not only with the management team but also with strategic partners and stakeholders. They boost business development for QRTDW with various clients and stakeholders. The BOD oversees the management of QRTDW's business.



HABIB UR RAHMAN QADERDAN
Founder and Chief Executive Officer

Born in Afghanistan in 1957, Mr. Qaderdan has lived in Afghanistan and Pakistan and travelled to numerous countries. With double majors in Electrical and Mechanical Engineering from Kabul University in Afghanistan, Mr. Qaderdan has more than 40 years of experience in renewable energy systems including solar, wind and hydropower. As a pioneer in innovative product design and manufacturing, he has developed new technologies and innovated in existing technologies, which break frontiers and enhance the quality of life in the region.



RAFAAT M. B. LUDIN
Partner and Chief Innovation Officer

Born in Afghanistan in 1963, Mr. Ludin has lived in Afghanistan, Pakistan, Germany, Saudi, Arabia and Turkey and has travelled to more than 50 countries. With an Executive MBA from the University of California in Irvine (USA) and a Bachelor of Science in Electrical Engineering with emphasis on Power Engineering from the University of Applied Sciences in Darmstadt, (Germany), Mr. Ludin has more than 30 years of experience in organizational development, change management, capacity development, SixSigma, LEAN Management, engineering management and high-end negotiations including in mergers and acquisitions. He is fluent in five languages and has a basic working knowledge of three languages.



SULTAN MAQSOOD FAZEL
Partner and Chief Operating Officer

Born in Afghanistan in 1974, Mr. Fazel has lived in Afghanistan, Pakistan and UK and travelled to more than 15 countries. He has a Master's Degree in Human Resource Management from Westminster University in the UK and an Executive MBA from Preston University, Peshawar, Pakistan. Mr. Fazel has more than 25 years of experience in the international context, in areas of the renewable energy sector, policy development, human resource management, organizational development and engineering operations.

IN BRIEF



SHORT HISTORY

QRTDW has thus far delivered more than 5 MW of solar, hydro and wind power to various provinces of Afghanistan. This has earned us the reputation of being one of the most experienced renewable energy companies in Afghanistan. We are the national experts in solar, hydro and wind power, covering the complete value chain from initial assessment and system sizing to design, procurement, installation, commissioning, operation and maintenance of such systems.

QRTDW's leadership and team, have pioneered the renewable energy sector in Afghanistan. They were the first to introduce solar and wind power, convert traditional water mills into micro hydropower systems and innovate in alternative technologies such as solar cookers, solar fruit dryers, solar home heating systems, solar fruit dryers, solar refrigeration systems, etc.

In 2018, QRTDW embarked on the design and construction management of utility-scale solar power mini-grid by designing a 600kW and a 1 MW solar power utility with associated transmission and distribution systems for households and businesses in Parwan and Kandahar. These systems were equipped with containerized 2.5 and 3.5 MWh of Li-Ion Battery Energy Storage Systems (BESS), which were to be pioneered in Afghanistan. QRTDW is presently partnering with global leaders in solar power to participate in tens of megawatts of PPA solar projects in the country.



QUALITY CONTROL

Our promise to our clients is that we will exceed your expectations for cost effectiveness, quality and delivery time. This means that we have to do things right when no one is looking. QRTDW, therefore, sees quality not merely as an act but rather as a habit and approach to doing business.

Renewable energy projects rely on high-quality products, equipment and top-of-the-line services throughout the evolutionary lifespan of a system, from inception to design, engineering, supply, installation, testing, commissioning, operation and maintenance. QRTDW's products have always maintained high reliability and performance based on our commitment to our quality-first policy. In addition to the manufacturer warranty, QRTDW offers its product warranties that vary from product to product and signals our trust in the quality of our products while always ensuring the satisfaction of our clients.



OUR CAPABILITY AND EXPERTISE

QRTDW's technical platform covers the following areas:

MANUFACTURING

QRTDW has a 2000 m2 manufacturing facility that enables it to manufacture most of the components of the solar as well as hybrid systems, including poles, racking systems, battery banks, electrical enclosures, and other metal components. The factory also manufactures windpumps, solar cookers, solar hot-water systems, solar fruit dryers and many other products.

SYSTEM OPERATION & MAINTENANCE

QRTDW's competent and experienced technicians and engineers ensure operational integrity, low cost and sustainable performance for hydro, solar and wind power systems throughout Afghanistan. Small and large facilities, centrally located and dispersed throughout the country, QRTDW will be able to ensure that your needs for fast, effective and efficient operation and maintenance are met.

PARTS WAREHOUSE

QRTDW maintains a warehouse with various renewable energy components and parts, including hydro, wind and solar systems, batteries, electronics and other components. It also has the capacity to manufacture custom-made parts for utility clients such as large hydropower systems manufactured by the Soviets and the Germans and installed as early as the 1930s in different parts of Afghanistan.

SYSTEM INSTALLATION

QRTDW has a strong team of specialists with experience in solar, wind and hydropower installation, commissioning, testing and associated works. Our experiences stretch more than 30 provinces throughout the country, including under challenging security conditions.

CONSTRUCTION

QRTDW has a competent team of engineers and site personnel that allows it to manage site civil and electrical works for system installation, including pole foundations, underground piping and wiring, etc.

PROJECT MANAGEMENT

QRTDW's project management capabilities are evidenced by numerous certificates provided by its clients including the US Army Corps of Engineers, USAID, GIZ, AKF and others..

OUR FOCUS

SOLAR SYSTEMS



SOLAR POWER SYSTEMS

QRTDW develops, designs, supplies, installs and operates high-efficiency solar power systems for residential and commercial use. We offer rooftop, hybrid, off-grid and on-grid systems to ensure that your energy needs match your budget and your needs.

We have experience with solar power systems with up to 5MW of installed capacity and 100MW of design capacity. We manufacture solar system accessories such as pole mounts tracking systems, ground and roof-mounted racks, insulated battery boxes, etc.

Our systems are factory wired for plug-and-play on-site, thus minimizing opportunities for defects and maximizing cost efficiency. We innovate so that you can benefit.

We are also the pioneers in the rooftop domain and are the most trusted rooftop solutions provider in Afghanistan. We are excelling across the solar value chain right from manufacturing solar products to executing rooftop solutions for residential, commercial and institutional clients. We are a partner of choice for hundreds of residential and commercial customers. Our delighted customers are a witness to our quality & excellence in execution.



SOLAR WATER HEATERS

QRTDW designs, manufactures, and installs high-efficiency rooftop and stand-alone solar-powered hot water systems for residential and commercial use. The systems can heat water up to 95°C and are manufactured with capacities of 100 litres and higher. If you want an alternative to cheap and often unreliable Chinese products and want accessible repair and service representatives for years, chose Afghan-made solar water heaters from QRTDW.



SOLAR WATER IRRIGATION

QRTDW develops, manufactures, supplies and installs mobile and stationary solar irrigation and water supply systems that operate at almost no cost. Our mobile irrigation systems are sized for 2 and 4 inches and can irrigate 2 to 30 hectares of land, while the stationary systems can be designed as per your needs.

We use top-quality solar panels, pumps and components, ensuring our system's reliability and longevity.

We provide a two-year warranty and accessible service personnel for the life of the pump.

If you choose to protect your environment and save money, while increasing your profit margin, QRTDW will help you with our systems.



SOLAR HEATED BATH

QRTDW designs, manufactures, and installs solar-heated bath systems for residential and commercial use. The systems can heat water up to 95°C and are manufactured with capacities of 200 litres and higher. The solar heating bath is an alternative to "Hamam". They can be placed in one's compound and can be used by multiple individuals for bathing during the day. They are also ideal for construction sites, manufacturing facilities and comparable commercial applications. They are manufactured with different capacities at QRTDW's manufacturing facility. If you want an alternative to a cheap and large water bathing system and want accessible repair and service representatives for years, chose Afghan-made Solar heated Baths from QRTDW.



SOLAR FRUIT DRYERS

QRTDW develops, designs and manufactures different types of solar fruit dryers:

1. Tunnel solar fruit and vegetable dryers:

With 4 to 18 meters sizes and capacities of 50 to 300 kg. The solar-powered tunnel dryers dry fruits and vegetables in 2 to 6 days during the drying season. Our dried products are clean because they operate in a controlled environment. Our dryers are self-certified for compliance with safety, hygiene and technical reliability standards. Our systems are affordable, technically sound and manufactured with care and attention to longevity. Call us and you will be able to double your revenue from fruit and vegetable production.

2. Box Solar Dryers

They allow clean and fast drying of fruits and vegetables for residential and small-scale commercial customers. Each enclosed dryer has a capacity of up to 50 kg of fresh fruits and up to 30 kg of vegetables that are dried in 2 to 4 days during the drying season. The box dryers are made of insulated steel, are mobile and most suitable for female income generation activities. QRTDW's innovation is here to serve you, so make the best out of it.

3. Containerized solar fruit and vegetable dryers for commercial use

The dryers are built with repurposed 20-foot containers and are portable. Each dryer can dry up to 1 ton of fresh fruits that are dried in 3 to 7 days during the drying season. We also manufacture systems for year-long fruit and vegetable drying. Because of its fully enclosed design, the system produces clean dried vegetables and fruits that reduce processing costs and maximizes their attractiveness. QRTDW offers this solution for communities and businesses that save them cost and time.



SOLAR SPACE HEATING

QRTDW designs, manufactures and installs solar home heating systems for residential and commercial use. The systems can heat up a room to 15°C during the winter. They can only be used during the day on sunny days and are a great supplement to an existing gas or electric space heaters to minimize energy costs. They are manufactured with different capacities at QRTDW's manufacturing facility in Kabul.



SOLAR COOKER

For more than twenty years, QRTDW has been manufacturing parabolic-type solar cookers that enable boiling water, and cooking rice, meat, beans and other food types in as little as half an hour. The cooker concentrates the sun's heat under the pot to act like fire. Food can thus be prepared at no cost and no harm to your health and the environment will occur. Let QRTDW help you save money, time and your health.

OUR FOCUS *(Continues)*

OTHER PRODUCTS AND SERVICES



MICRO HYDRO POWER

QRTDW designs, manufactures, installs and operates micro-hydro power systems in different sizes for different applications, including:

- Cross-flow turbines with a capacity of up to 500 kW
- Propeller turbines with a capacity of up to 100 kW
- Kaplan turbine with a capacity of up to 300 kW
- Penstock of various thicknesses and diameters as required; including sluice gates and radial gates

Our systems are designed and manufactured from A to Z in Afghanistan and qualify for promotion as Made-in-Afghanistan. We provide up to five years' warranty for our equipment. We also offer services for the operation and maintenance of any size of the hydro plant. We make use of our waters and you reap the benefit in your home, in your business, and local schools, clinics and manufacturing facilities.

We also design, install, test and commission large hydropower systems where we import major components from other countries.



WIND TURBINE AND WIND PUMP

QRTDW designs, manufactures, supplies and installs wind turbine components for power generation and wind pumps for water supply and irrigation. Our wind turbines have capacities of up to 10 KVA and are imported from the most reliable international suppliers. Our Poldaw Wind Pumps can pump from up to 189 meters as much as 700,000 litres of water per day.

You choose to harvest wind for your good and we will make it happen for you.



BIO GAS

QRTDW designs and constructs fixed dome-type biogas plants with different capacities ranging between 4 to 50 cubic meters. Our services include training users and system operation and maintenance. The methane gas produced can yield sufficient gas to cater to the needs of the households and offer high-value slurry for agricultural use. For converting cow dung into cooking, heating and lighting gas, call QRTDW.



RAM PUMP

Afghanistan is an ideal place for ram pump technology and its thousands of valleys are perfect for use of ram pumps. This technology does not require fuel or other types of energy. They operate at almost no cost. The pump simply uses the momentum of a relatively large amount of moving water to pump a relatively small amount of water uphill.

We manufacture a variety and sizes of ram pumps at our manufacturing facility in Kabul. We provide a two-year warranty for the ram pump. If you want to double your income and increase the greenery without spending any money on operating costs, QRTDW will help you with our systems.



FUEL EFFICIENT COOKING STOVES

QRTDW develops, manufactures and supplies various types and sizes of fuel-efficient cooking stoves, heaters, and ovens. Our products are third-party certified for fuel efficiency and conform to the highest performance standards. Our services include training about its effective use.



CELLULAR LIGHTWEIGHT CONCRETE (CLC) BLOCKS

QRTDW is licensed to produce cellular lightweight concrete blocks with high thermal and sound insulation. CLC blocks are tongue and groove shaped with high structural integrity that requires no mortar. CLC blocks will save between 15% to 20% of construction costs, save energy for heating and cooling and provide a comfortable living space. QRTDW is your path to CLC.



STABILIZED CONCRETE EARTH BRICK (SCEB)

QRTDW has an exclusive license to market the GreenMachine and other SCEB machines manufactured locally and to produce stabilized compressed earth bricks (SCEB) with high thermal insulation. SCEB is tongue and groove shaped, does not require mortar and reduces construction costs by 30%. QRTDW is your path to SCEB.



TECHNICAL SKILLS DEVELOPMENT

QRTDW offers extensive certificate training programs to young Afghans in renewable energy technologies such as wind, solar and hydropower. It also offers training courses for manufacturing CLC bricks, SCEB bricks, wood-saving cooking stoves and ovens and other technologies. Training instructions are offered at the QRTDW facility and the project sites.

QRTDW is intent on transferring skills from local and international experts to young Afghans to make a difference in their lives. QRTDW is here where you are. So, will you find it and make the best out of what it has to offer you?



MANUFACTURING STEEL STRUCTURES

QRTDW has more than 25 years of experience in manufacturing different types of steel structures including but not limited to:

- Cell phone towers
- The pre-fabricated truss as per the design
- Different kinds of connexes and other structures
- Different types and sizes of small to large tankers
- Frame structures for solar, hydro and wind power including battery banks of different sizes and shapes
- Security & sliding gates, all kind of metal windows, doors, etc.
- Brass, steel, copper and aluminium casting (any size)

Your orders are welcome, our quality is guaranteed and our prices are competitive.

STRATEGIC PARTNERSHIP



QRTDW's competent Afghan-based team along with our Asian, European and American partners ensure the reliability and cost-effectiveness of our products and services. Our joint initiative with our strategic partners enabled us to accomplish and maintain project management and implementation needs to the highest standards required by the client. Our partners include:



SEI Professional Services
Engineering a World Powered by Solar Energy

FICHTNER



OUR CLIENTS



QRTDW's project management experience in the design, installation and operation of thousands of megawatts of solar, hydro and wind power systems for our institutional as well as private clients has found significant praise. Some of our clients include:



PAST PERFORMANCES

The below TABLE highlights some of QRTDW's notable experiences with various clients

PROJECT	CLIENT	SCOPE	STATUS	REFERENCES
MOORA Education Complex Solar System	The Asia Foundation	Supply, installation, commissioning and O&M of 250 KWp hybrid solar power system including battery storage system with interface communication and energy management system	Feb 2021 - ongoing	Mark Dsouza Director - Procurement 0795944284 mark.dsouza@asiafoundation.org
PARSA Solar System	PARSA (NGO)	Supply, installation, testing and operation and maintenance (3 years) of 41 KWp hybrid solar power system	Jan 2021 - Mar 2021 completed	Fowzia Procurement Department 0788564017 rfp@afghanistan-parsa.org
Solar Fruit Dryer	UNDP	Fabrication, Supply, Installation, Testing and Commissioning of 25 tunnel type solar fruit/vegetable dryers with drying capacity of 30kg	2021 completed	Ram Gobinda Yadav Chief Technical Adviser +93 (0) 728959597 ramgobinda.yadav@undp.org
Procurement and Supply of Solar PAPI light system for three airports	Afghanistan Civil Aviation Authority In joint venture with ETC.	Procurement, Supply & Installation of Hybrid Solar Powered PAPI Light System for 3 Airports	2020 - 2021 completed	Abdul Ghafoor Ishaqzai Procurement Department abghishaqzai@acaa.gov.af abdulghafoor.ishaqzai@gmail.com
Procurement & Supply of Solar PV Power System at 6 VSAT sites	Afghanistan Civil Aviation Authority in joint venture with ETC.	Supply, installation, commissioning and O&M of 6 VSAT sites which each one has 59.4KWp hybrid solar power system including battery back system. Total capacity 356.4kW.	2020 - 2021 completed	Abdul Ghafoor Ishaqzai Procurement Department abghishaqzai@acaa.gov.af abdulghafoor.ishaqzai@gmail.com
Solar Fruit Dryers	Afghans for Tomorrow	Supply, delivery and installation of 10 tunnel type solar fruit/vegetable dryers with drying capacity of 30kg	Nov 2020 completed	Negina Yari, Director negina@afghans4tomorrow.org.af +93798649261 +93700706480
Youth Entrepreneur Program	GIZ/ESIP	Developing customized training material for Technical Renewable Energy, Energy Efficiency in Buildings and Entrepreneurship and leadership programs and finally provided training in renewable energy programs	2020 - 2021 completed	Mohammad Hamid Abidy Procurement Department mohammad.hamid.abidy@undp.org Tel: +93 (0) 728 999759 Cell : +93 (0) 729907826
Solar Fruit and Vegetable Dryers	Relief International	Manufacturing and delivery of tunnel solar fruit/vegetable dryer	Jan 2020 completed	Sahar Qasimi Procurement Department sahar.qasimi@ri.org
Box Type Solar Fruit and Vegetable Dryer	Afghans for Tomorrow	Supply, deliver and installation of five box-type solar dryers with drying capacity of 50kg	Dec 2019 completed	Negina Yari, Director negina@afghans4tomorrow.org.af +93798649261 +93700706480
Tunnel Type Solar Fruit and Vegetable Dryer	Afghans for Tomorrow	Supply, deliver and installation of five tunnel-type solar dryers with drying capacity of 30kg	Dec 2019 completed	Negina Yari, Director negina@afghans4tomorrow.org.af +93798649261 +93700706480
WB/IFC Energy Access Program	IT Power (ITP)	Assessing the Energy Access Space in Afghanistan and Developing an Energy Access Program funded by IFC	Oct - Dec 2018 completed	Akanksha Chaurey PhD CEO, ITP India Tel: +91 (11) 4600-1191/92 akanksha.chaurey@itpower.co.in
Solar Project	UNDP	Design, procurement, commission, O&M, supervision of 1 MW (Kandahar) and 600kW (Parwan) solar power systems including associated transmission and distribution systems for 2500 HH and 700 businesses.	2017 - 2018 completed	UNDP Procurement Team Qais Yusoufzai qais.yuosofzai@undp.org
Tunnel Solar Fruit and Vegetable Dryer	DAI/RADP-E	Supply, delivery and installation of tunnel solar fruit/vegetable dryer with drying capacity of 250-300kg Size (Width=2m, Length=18m) Nangarhar province	Mar - Apr 2018 completed	Hayatullah Safi Contracts Manager +93799 836 501 Hayatullah_safi@dai.com
Containerized Solar Fruit and Vegetable Dryer	DAI/RADP-E	Supply, delivery and installation of containerized solar fruit/vegetable dryers with drying capacity of 1.5 Ton Size (20' x 7'9" x 7'7") Maidan Wardak, Ghazni and Logar provinces	Mar - May 2018 completed	Hayatullah Safi Contracts Manager +93799 836 501 Hayatullah_safi@dai.com

PAST PERFORMANCES *(Continues)*

PROJECT	CLIENT	SCOPE	STATUS	REFERENCES
Parwan Solar Project	AAEP (USAID Contractor)	Design of 5kW solar system including installation, supply and sourcing, manufacture of mechanical components, operation and maintenance and O&M training	Jan 2016 completed	Terry Hutchens +93 (0) 728 370 501 terery.hutchens@ag.tamu.edu
DUDA solar system	City Wall Dubai Int'l Group funded by DAI	Design of 11.28kW solar system including design, supply, manufacturing of steel structure, sourcing of materials, installation, commissioning and O&M as well as O&M training	Aug 2014 completed	Shahzad Aryobee + 93 (0) 781 812 222 shahzad.aryobee@citywall-int.com
Etisalat Solar System	Etisalat Telecom with IHFD	Design, supply, installation, commissioning, operation and maintenance of 40 solar power systems each with capacity of 6 kW (total 240 kW) in 15 provinces to retrofit cell towers with solar power. This included poly type frame structure with ATS system via generator synchronization	2012 - 2014 completed	Mohammad Al Hammadi +93 (0) 786 000 067 malhammadi@etisalat.af
Consultancy - Solar Project	USACE/IHFD	Consultancy service for survey, design, supervision, and installation of 240 kW solar projects in AFG for ETISALAT.	2012 - 2013 completed	Rafaat M. B. Ludin CEO & President - IHFD +1-720-670-6814 rludin@ihfdllc.com
22 Bunker Renewable Energy Project (solar & wind)	US Army Corps	Design, supply and installation of 50 kW solar hybrid system including supply and installation of 4kW wind turbine with its accessories including satellite linked web based monitoring system (SCADA system).	2010 - 2012 completed	Elizabeth Chien +1-540-662-5663 Elizabeth.A.Chien@usace.army.mil Bryce Bishop +1-540-686-4730
22 Bunker Renewable Energy Project (solar & wind)	US Army Corps	Operation and maintenance as well as measurement and verification of 50kW solar project including monitoring & validation of alternative energy with weekly reporting to USACE, including based on well maintained and managed SCADA data system.	2013 completed	Elizabeth Chien +1-540-662-5663 elizabeth.A.Chien@usace.army.mil
Micro Hydro Power	GIZ/IDEA	Assessment of 600 Micro Hydro Power Projects in Badakshshan Province	Oct - Dec 2017 completed	Ali Maher 0796 799 997 ali.maher@giz.de
Naghlu Spare Parts	DABS	Supply of Electrical Spare Parts for Naghlu Dam	Dec 2014 - Jan 2015 completed	Khalid Khursand
Mahipar Spare Parts	DABS	Supply of Rings and other accessories and spare parts for Mahipar Dam	Dec 2014 - Jan 2015 completed	Khalid Khursand
Micro Hydro Power (Zamankhil village and Neyazi village of Parwan and Panjshir provinces)	Raztanha Construction Company (RCPCM)	Survey, Feasibility study, procurement, manufacturing and installation of 2 propeller and cross flow turbines with total capacity of 210kW and survey, feasibility study and manufacturing of 2 electrical load controller each with 250 kW including transmission and distribution lines from power house to villages.	2009 completed	Haji Fahim +93 (0) 700 222 238 CDC Representative Raz Mohammad +93 (0) 777 012 449
Micro Hydro Power (Panjshir and Bamiyan provinces)	Asian Development Bank	Feasibility study, design, supply, manufacturing and installation of 75 kW and 47kW cross flow turbines including installation of electrical load controller, transmission line from power house to villages and training of villagers for O&M of MHP plant.	2009 completed	Shanker Lal Vaidya +977 984 1209736 edspl@ntc.net.np
Micro Hydro Power (Uruzgan Province)	GIZ (previously GTZ - German Development Cooperation Office)	Survey, feasibility, design, supply, installation and manufacturing of 10 cross flow and propeller turbines with total capacity of 120 kW including installation, commission, transmission of lines and provision of O&M training.	2009 - 2010 completed	Thomas Gross GTZ/UNDP consultant Thomas.gross@entech.ch +41 71 228 10 20 Mr. Maximin ADDRA Infrastructure Coordinator +93 (0) 706 677 894 Maximin.addra@gtz.de
Consultancy for Micro Hydro Project	UN-Habitat	Consultancy for Monitoring, verification, evaluation and quality control of plant materials of 120 micro hydro plants in Parwan, Bamiyan, and Banjshir provinces	2009 completed	Mr. Najib Amiri Head of Habitat NSP program najib.amiri@unhabitat-afg.org

LEADERSHIP

EXECUTIVE

Leadership mindset continues to define QRTDW as we move the renewable energy sector in Afghanistan forward. As the pioneers of renewable energies in Afghanistan, we feel the weight of our responsibility to lead by example, with our employees, with our clients, in our country and globally. We define greatness with a sense of dignity and honour and it is in this sense that we see our leadership in enabling the sustainable growth of both in this industry.



HABIB UR RAHMAN QADERDAN
Fonder and Chief Executive Officer

Throughout his experience as the CEO of QRTDW, CTO of IHFD, and Alternative Technologies Director of the Agency for Rehabilitation and Energy Conservation in Afghanistan (AREA) he has worked tirelessly to innovate and enable Afghans to benefit from wonderful technologies. Since the 1990s, Mr. Qaderdan has pioneered the following technologies:

- First-time installation of wind pump for rural water supply in Afghanistan.
- First-time establishment of wind pump factory and production of wind pumps in Afghanistan.
- First-time establishment of production centres for micro hydro power equipment.
- Rural electrification by converting water mills to micro-hydro power plants.
- First-time design and construction of biogas plants in Afghanistan.
- First-time production of parabolic solar cookers in a dedicated factory in Afghanistan.
- First-time production and operation of A10 cross-flow turbine in Afghanistan
- Development of new and innovative propeller turbine for electric power generation.
- Development of water lifts operating with muscle power.

Eng. Qaderdan has authored a book titled "biogas technology" published by ACBAR library and has been an editorial member of various publications such as Progress Monitor (AREA) and Purmakhtag Magazines (ADA).



RAFAAT M. B. LUDIN
Partner and Chief Innovation Officer

Mr. Ludin has pursued a career in international business, stretching over more than 30 years and covering the areas of renewable energies, product safety certification and real estate development. Since 2007, he has been an entrepreneur working to enhance the quality of life in developing countries including Afghanistan. His company, Ludin Consulting, LLC, is a provider of advisory services, assessments, surveys and studies on different topics covering the corporate, government and non-governmental sectors throughout the world.

Mr. Ludin has published two books. During the 1990s his short story titled "Tears of Anguish" was published and received some local attention. His most recent book, "... And the Sun Will Rise From The West" was published in 2016 and is now being taught at the University of Colorado in Denver in a number of courses. Mr. Ludin has also authored dozens of white papers, articles and technical papers that have been published in various outlets.

Among Mr Ludin's many publications are handbooks on organizational sustainability, entrepreneurship, leadership, building energy efficiency, and solar systems. His extensive knowledge of fundraising and creative funding models has led him to publish a step-by-step fundraising training manual for The Colombo Plan in Afghanistan and a manual for innovative funding models for Afghan Institute for Civil Society (AICS).



SULTAN MAQSOOD FAZEL
Partner and Chief Operating Officer

Serving in various institutions, Mr. Fazel played a strong role in building the capacities of Afghan aid agencies enabling them to understand Afghanistan's national strategies/plans and to lobby the Government to include civil society perspectives in the development of policies and development priorities. He has conducted consultancy works with various government agencies as well as for-profit and nonprofit entities. He is an experienced organizational assessment expert, a highly efficient organizational development specialist and a trained human resource development specialist.

Mr. Fazel uses his experience in Afghanistan, Pakistan, UAE, Libya and Europe to blend a strong understanding of the investment environment with the context of planning for business operations in challenging environments to achieve extraordinary outcomes.

With more than twenty years of experience in developing and implementing communication strategies and marketing plans for private corporations and non-profit and semi-governmental organizations, Mr. Fazel is an authority in outreach to businesses, donors, NGOs and general consumers.

As CEO of IHFD Afghanistan, Ludin Consulting, QMC and COO of QRTDW, Mr. Fazel has demonstrated a keen understanding of high-level strategic and operational issues and is a strong leader in innovation and organizational management.

LEADERSHIP (Continues)

MANAGEMENT



HABIB RAHMAN RAHMAT
Senior Energy Expert

Mr. Rahmat was born in Kabul, Afghanistan. He graduated from the Engineering Faculty of Kabul University in 1984. He has received training in Planning Rural Development "The Sphere Project", Report and Proposal writing, Disaster Management, General Management, Projects Management, Procurement Law and Impact Evaluation. He has worked with The World Bank Group, has served in different capacities as UNDP's Deputy Program Manager, USAID's Inter-Ministerial Coordinator for the Government of Afghanistan, Project Management Director at RGM International, the National Advisor in Energy, Energy Efficiency & Policy to the Ministry of Water and Energy (MEW) of Afghanistan.

Mr. Rahmat is a well-known and well-respected authority in the energy sector in Afghanistan. His lexikonian knowledge of production capacities, transmission systems and distribution systems as well as his strategic understanding of the complex supply and demand situations of the energy sector in the country has been an asset to QRTDW and his previous firms/organizations. His practical experience in rural development, multi-sector field management, monitoring and evaluation of refugee emergency relief assistance in Pakistan and with IDPs in Afghanistan, including campsite planning, shelter design, water & sanitation, food distribution, vocational training, income generation training, etc. place him firmly among the well-rounded experts of Afghanistan.

Mr. Rahmat has also been trained in strategic planning, general management, award of grants to local NGOs, energy audit and environment protection management (India, 2009), partnership with NGOs, and monitoring & evaluation, which provides him with a strong basis for a technical and scientific approach to issues of relevance in Afghanistan's energy sector.



MUJEEB RAHMAN
Senior Project Manager

Mujeeb is an experienced leader, enthusiast, and creative guru. Driven by professionalism, he believes and takes pride in providing the best services possible. As a manager, his goals include creating readiness to meet the diverse demands of the clients. After earning his Honours Degree in Mechanical Engineering from the University of Hertfordshire, he entered the world of renewable energies to explore his passion for technology, creativity and business growth. He has gained professional experience working at different firms in the UK, Australia, and Afghanistan.

Despite his success in the renewable energy sector, he also established a marketing and business consulting firm in Afghanistan where he led a creative team, enthusiastic intellectuals, and pragmatic designers to provide solutions that ignite and affirm the relationship between an organisation and its audience. He aimed to be ultimately inspired by collaborating with clients who valued a competitive edge in the marketplace by clearly delivering their vision to their audience because he believes that elevated positioning, economic success and market presence for companies come through a work culture that is developed from strategic thinking, an intelligent approach, creative insight and a passion for craftsmanship.



K. MOHAMMAD KARYAR
Senior Design Expert

Mr. Karyar graduated from the Engineering Faculty of Kabul University in 2000. Mr. Karyar has more than 20 years of experience in design, civil engineering, renewable energy and general electrical design works. He has received numerous pieces of training in construction project management and design works and has played a positive role in modern design works in Afghanistan. Mr. Karyar has worked in various organizations during the 20 years of his tenure. He served in the following companies/institutions:

- QRTDW as Consultant in renewable energy design and reticulation expert
- Appleton Consulting Services as Design Manager
- Rahmat Sadat Construction & Design Company (RSCC) as Senior Project Manager
- AEC International as Water Supply Design Engineer
- United Nations FAO as Irrigation Design Engineer
- United Nations WFP as Program Assistant
- United Nations WFP as Food Aid Monitor
- UNOPS-Kandahar as Monitor for DAMS
- ASP -Afghan NGO as Site Engineer
- University Lecturer-Faculty of Engineering Kabul University as Lecturer.

Throughout his experience as a Design and Project Manager, Mr. Kayar has worked with innovation and greatly contributed to the success of the company he worked with.



HASEEB RAHMAN
Business Development Manager

Mr. Rahman has a Bachelor's degree in Business Administration from the American University of Afghanistan, one of the leading universities in Afghanistan, which he finished at the top of his class. He is an expert in business development, strategic development, organizational reengineering, and business process refinement. Mr. Rahman has developed significant skills in leadership, communication, troubleshooting, time management and networking. In 2016, using his honed skills, he established his firm and led two major projects employing more than 75 people, which he successfully sold.

Mr. Rahman was the first Afghan to participate in the Global Entrepreneurship Summit in the United States, representing Afghanistan. He is a certified trainer for the production of Cellular Lightweight Concrete Blocks and an active contributor to the training and capacity development of Afghan engineers, technicians and tradesmen in all issues related to environmentally sound technologies.



SHAKIB AMIRI
Admin and Finance Manager

Mr. Amiri was born in Kabul province, He received his bachelor's degree in Business Administration from Pune University, Pune India, with a specialization in Service Marketing. He is fluent in three languages. He has extensive experience in Finance, Tax and Marketing sectors and has worked with many different countries in Afghanistan in the past few years. He is a member of the Afghanistan Tax Accountants Union and has cooperated with different companies in the tax and marketing sectors.



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