



## Applying Blue Ocean Strategy to Renewable Energy Companies in Afghanistan

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### Abstract

*Blue Ocean Strategy refers to the process of creating new, uncontested market spaces that make competition irrelevant by offering unique value propositions and pursuing differentiation and low cost simultaneously. This approach focuses on innovation and tapping into markets where demand is not yet established (Kim & Mauborgne, 2005). In other words, the Blue Ocean Strategy is a business model which focuses on creating entirely new markets, called "blue oceans," where there is no competition. INSEAD professors Chan Kim and Renee Mauborgne in their book Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant introduced the concept of Blue Ocean Strategy in 2005. In contrast to "red oceans," where businesses vie for a restricted market share, blue oceans offer space for innovation and expansion. In these markets, companies have the choice and freedom to set prices, reduce marketing costs, and shape industry standards due to minimal or no competition. For instance, Ford's Model T, made cars affordable, Apple's iTunes, popularized legal digital music downloads, and Netflix's streaming service, transformed entertainment (Young, 2022). We should keep in mind that blue ocean strategy has risks because it needs entering unknown markets, and introducing new products. So if businesses want to succeed, they must look into their position, get to know about the needs of customers, and make sure their ideas are carefully moving ahead. Although there are challenges pursuing blue ocean strategy, a great and well-structured blue ocean strategy can bring about noticeable success (Young, 2022).*

### Understanding Afghanistan's Business Landscape

Afghanistan's decades of continuous war and chaos have severely damaged almost everything. Many infrastructures, like schools, universities, hospitals, and other public and private sectors, have been destroyed or fired. Insecurity, political instability, conflicts, and ongoing chaos have had a negative impact on the start and growth of businesses in Afghanistan, which in fact, hindered investment (Sial, 2021). Corruption, poor governance, and inadequate infrastructure, particularly in transportation, energy, and irrigation, further limit economic

activities. For example, damaged irrigation systems have weakened agricultural productivity, a sector employing 70% of the population. Additionally, reliance on foreign aid and challenges such as illiteracy, brain drain, and a lack of skilled labor exacerbate the country's economic struggles (Sial, 2021).

Despite these challenges, Afghanistan has major opportunities. The strategic geographical location of Afghanistan for being at the crossroads of South and Central Asia has made it as a trade center. Modernizing agriculture with better irrigation and farming methods can increase productivity and cut down on imports. Regional cooperation in transport and energy trade could also enhance global market integration. If the government invests in education and skills properly, the growing youth population of Afghanistan are capable to run and support emerging industries. However, the fulfillment of these prospects relies on stable politics and efficient governance (Sial, 2021).

Since businesses in Afghanistan face many challenges, looking for new ways to grow them is important. Therefore, the Blue Ocean Strategy helps by focusing on creating new markets instead of competing in existing ones. It can guide companies to meet local needs, use new technologies, and serve untapped customers, benefiting both businesses and communities.

### **Applicability of Blue Ocean Strategy in Afghanistan**

Application of the Blue Ocean Strategy (BOS) seems easy in Afghanistan because the country has many unique challenges and opportunities. Education, healthcare, technology, agriculture, and energy are the main sectors that are underdeveloped and underserved. So having these challenges in hand, we can have and create plenty of opportunities in the market to reach out to the needs of people, without facing traditional competition. In other words, problems such as infrastructure, security, and lack of equipped industries have made the competition so low, and in contrast, they have increased the opportunities for innovation and founding new market spaces.

Afghanistan's young, dynamic, and entrepreneurial population is ready and interested in embracing new ideas and technologies, which matches well with the BOS approach to boosting creativity and innovation. The country also faces critical local needs in areas like education, clean water, energy, and healthcare, and BOS can help businesses design solutions that not only generate profit but also contribute to social development. Moreover, with growing access to mobile phones, the internet, and renewable energy, Afghan businesses can leverage emerging technologies to introduce new solutions in areas like e-commerce, telemedicine, and mobile banking. Overall, BOS enables Afghan businesses to create value for both customers and society, promoting economic and social growth. One of the areas that the application of the Blue Ocean Strategy is successful is "Renewable Energy."

### **Renewable Energy in Afghanistan**

Afghanistan has the great potential for renewable energy, including hydro, solar, and wind power. Benefiting from plenty of territorial and natural resources, Afghanistan has more than 300 days of annual sunshine and abundant water resources for hydroelectricity. Despite that, due to years and decades of conflicts and political turmoil in Afghanistan, the population could utilize the country's mentioned resources, particularly, they didn't have access to reliable electricity.

Nearly 70% of Afghans, particularly in rural areas, depend on expensive and polluting energy sources like diesel generators, firewood, or kerosene (UNDP, 2021; FAO, 2019). Renewable energy is an option that offers a sustainable alternative that can bridge the energy gap, decrease environmental degradation, and support Afghanistan's socio-economic development.

The implementations of great projects like the Bamiyan Solar Power Project, funded by the New Zealand government, have already proved the viability of off-grid solar systems by providing 16-hour power to over thousands of residents and businesses in remote areas (Crown Battery, 2021). Similarly, other initiatives like the FAO's solar-powered irrigation systems have improved agricultural productivity by replacing diesel pumps, reducing costs, and supporting sustainable farming (FAO, 2019). These efforts reinforce the significant role of renewable energy in dealing with Afghanistan's energy challenges and fostering development.

### ***Applying Blue Ocean Strategy to Renewable Energy in Afghanistan***

Using the Blue Ocean Strategy and applying it to companies working on renewable energy in Afghanistan involves creating new and uncontested markets for renewable energy. Considering Afghanistan's energy challenges and untapped potential, here's how BOS can be applied:

**Target Underserved Areas with Off-Grid Solutions.** One of the current challenges of rural areas and communities of Afghanistan is lack of access to electricity because of limited grid infrastructure. In other words, over 70% of Afghanistan's rural population lacks access to electricity due to limited grid infrastructure. Renewable energy companies can address this by offering off-grid solar or wind-powered solutions, such as affordable solar home systems, micro-grids, and pay-as-you-go solar panel setups. For example, a company can give a pay-as-you-go solar panel system that includes LED lights, mobile charging ports, and small appliances. This setup will let the households in rural areas to have access to electricity without the need for large upfront payments, making it cheaper for low-income families. A company like M-Kopa Solar in Africa has successfully implemented this model, which could be adapted for Afghanistan. Also, off-grid solar systems eliminate the need for expensive grid expansions while providing reliable electricity to remote communities.

**Combine Renewable Energy with Livelihood Solutions.** Unreliable access to energy and limited tools to earn income are two challenges that many households and small businesses face in Afghanistan. Considering these two issues, companies should handle both issues or challenges at the same time by combining renewable energy with livelihood-enhancing solutions. For instance, farmers throw away costly diesel pumps, and instead use solar-powered pumps to irrigate their crops and fields with greater efficiency and at an affordable cost. Hence, this leads to increased agricultural productivity and income. Similarly, solar-powered refrigeration units can help entrepreneurs in rural areas to preserve spoilable goods like dairy, fruits, and vegetables, reducing waste and expanding market opportunities. This approach moves the focus from simply providing energy to empowering livelihoods, offering a unique value proposition. It decreases operational costs, boosts productivity, and increases income while promoting environmental sustainability. By dealing with everyday needs and enabling communities

to improve their economic outcomes, this strategy creates a new market space, aligning well with Afghanistan's reliance on agriculture and small-scale trade.

**Renewable Energy for Urban Innovations.** Experiencing the lack or shortage of energy and blackouts is very common in urban areas of Afghanistan, particularly cities like Kabul, Herat or Konar, which disrupts people's daily life and business operations. Renewable energy companies can create new rooftop solar panel systems for homes and small businesses, enabling them to generate and store their own electricity. Moreover, energy-efficient building designs and integrated storage systems can enhance sustainability and reduce reliance on the unreliable power grid. These innovations not only provide practical solutions to persistent energy issues but also establish a new, uncontested market for renewable energy adoption in Afghan cities, aligning well with the needs of businesses and urban residents.

**Hybrid Renewable Energy Systems for Reliability.** Since climate change or weather variability like cloudy and harsh winters affect the reliability of renewable energy systems such as solar and wind in Afghanistan, Companies can introduce hybrid systems combining solar, wind, and battery storage to ensure consistent power. These systems can serve households, small businesses, and essential services like health clinics and schools, providing uninterrupted energy year-round. Projects like the Dar-i Noor Hybrid Mini-Grid in Nangarhar Province illustrate how hybrid solutions can enhance energy reliability while supporting economic activities (UNDP, 2021).

**Offer Clean Cooking Solutions.** Almost many houses and families in Afghanistan fire wood and coal for cooking. This leads indoor air pollution, deforestation, and health problems caused by smoke inhalation. By combining renewable energy with clean cooking technologies to create sustainable and healthier options we can resolve the problems up to some levels. For instance, using solar cookers, we can utilize the energy of the sun to cook food without producing harmful emissions, while biogas stoves can utilize organic waste to generate clean-burning fuel. Sticking to these solutions, we can reduce dependency on wood and coal, helping to preserve nature, trees and improve air quality in homes. By offering cheap and accessible clean cooking options, this approach not only resolve critical health and environmental challenges but also creates a new market for innovative energy products tailored to the needs of Afghan households.

**Raise Awareness and Build Capacity.** A lack of awareness about renewable energy benefits limits its adoption in Afghanistan. Companies can collaborate with NGOs and schools to run educational campaigns showcasing how solar and wind energy save money, improve health, and protect the environment. Capacity-building initiatives, such as training local technicians for system installation and maintenance, can create jobs and ensure long-term project sustainability. For example, the Bamiyan Solar Power Project trained local technicians, boosting employment while maintaining renewable energy systems (Crown Battery, 2021).

**Leverage Mini-Grids for Energy Access.** Mini-grids powered by hybrid systems, such as solar-hydro, address energy needs in areas where extending the national grid is

impractical. The Dar-i Noor Hybrid Mini-Grid in Nangarhar Province supplies electricity to 18,000 people, including schools, health clinics, and SMEs, creating economic opportunities and improving quality of life (UNDP, 2021). These mini-grids reduce air pollution and health hazards from diesel use while fostering energy independence.

### **Challenges and Considerations in Implementing BOS in Afghanistan**

Despite its promise, implementing Blue Ocean Strategy in Afghanistan presents challenges that require careful planning. Regulatory restrictions resource constraints, and the security situation pose risks that businesses must navigate. Securing resources for new ventures, especially in high-risk environments, can be difficult, making partnerships and funding from international organizations crucial. Additionally, Afghan entrepreneurs must deeply understand local needs to ensure that new offerings are both practical and culturally accepted.

### **Conclusion**

Renewable energy companies in Afghanistan use the Blue Ocean Strategy to overcome competition by offering creative solutions to the country's energy challenges. We can improve living conditions, support economic growth, and encourage sustainable development using solar-powered water pumps, community microgrids, and clean cooking stoves. The strategy focuses on creating value in underserved markets, helping Afghanistan transform its renewable energy sector. Solutions such as off-grid solar systems, mini-grids, and solar irrigation tackle energy shortages while boosting social and economic progress. By using its natural resources and expanding successful projects, Afghanistan can build a sustainable energy future, improve livelihoods, and increase resilience (UNDP, 2021; FAO, 2019).

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