Best Prospect Sectors for U.S. Exporters in Morocco

Renewable Energy:

Because it lacks its own resources of hydrocarbons, Morocco is heavily dependent on fuel imports. As a result, the government recently built on different strategic advantages to elaborate a new vision for its energy market development: proximity to Europe with an existing power connection through Spain and being an active member of the Mediterranean Union. The union's 6 major projects include the Mediterranean solar plan. The goal of this project is to turn the Southern Mediterranean countries into producers of solar energy and then circulating the resulting electricity through the Euro-Mediterranean region. The long term strategy will allow Morocco to become an exporter of green energy as well as a green technology development platform in the MENA region. The energy trading dynamics are also called to change as private high energy consumers will be investing in renewable auto-production.

Morocco is the only North African country with no known substantial fossil fuel deposits. As Morocco's energy supply depends heavily on imports (97%), in 2009 the Moroccan government adopted a strategy based on an accelerated development of its renewable resources. The energy plan expects to increase the renewable share of installed capacity in electricity generation to 42% by 2020 as opposed to 30% in 2009 (of which 24% is from hydroelectric plants).

Morocco's geography and topography provide abundant renewable energy resources:

• Wind resources at a speed reaching 10m/s capable of generating as much as 25GW (Morocco Wind Atlas, CDER, 2007).

• Solar captivity up to 5.7 kwh/m2/day and 3000 hours of sunshine yearly.

• Biomass resources can produce more than 950 MW.

Morocco's electric power production is insufficient to meet a demand that has been increasing at an average annual rate of 8% for the past five years. In 2008, Morocco had an installed capacity from renewable energy of 1.903 GW, of which 90% is large-scale hydroelectric plants. Of the remainder, 82% is wind parks, 12% thermo-solar plants, 5% photovoltaic solar installations and the rest micro-hydroelectric plants and biomass treatment plants. By the end of 2010, this renewable energy installed capacity will increase by 950 MW thanks to the completion of several projects (Tanafnit El Borj

hydroelectric, 40 MW; Aïn Beni Mathar thermo-solar plant, 452 MW of natural gas combined cycle and 20 MW of solar; Tangier wind park, 140 MW, Tarfaya wind park, 300MW).

Morocco has a well defined energy strategy for 2009-2020 that aims at to 1) improve security of supply through a more diverse energy mix, 2) increase access to electricity with more competitive pricing, and 3) promote regional integration through increased openness to Euro-Mediterranean power markets. These objectives are supported by two new institutions, the Agency for Development of Renewable Energy and Energy Efficiency (ADEREE) and the Moroccan Agency for Solar Energy (MASEN), and by a $1 billion Fund for Energy Development.

L'Office National de l'Electricité (ONE), a state owned company, is the principal entity in Morocco's electricity sector, with a monopoly on transmission and the largest in-country distribution grid. Unlike transmission activity, power generation in Morocco has been extended to private companies since 1990. Today, IPPs are responsible for approximately half of power production in Morocco. Therefore, IPP developers are the key buyers of equipment. However, ONE remains the sole buyer of electricity production as well as the entity to which IPP assets are transferred after the end of the concession period.

(See the Country Commercial Guide for Morocco for more details.)

Links:

Moroccan Ministry of Energy, Mining, Water and Environment: www.mem.gov.ma

Office National de l'Electricité: www.one.org.ma

Moroccan Agency for Solar Energy (MASEN): http://www.masen.org.ma/

Building & Construction

The building and construction sector continuously contributes 4.5% of the GDP and ranks second in the country's foreign investments. In 2009, the construction sector represented a $33.5 billion market. Government infrastructure projects such as highway and road construction, harbour and airport extensions, private tourism projects, construction of new schools and hospitals, low-cost housing and resorts that combine conference facilities, villas and hotels, all contribute to the building and construction sector growth.

To reach its objective of becoming an international hub and also meet the domestic demand for infrastructure, the Moroccan government plans to invest, by 2015, more than $15 billion to upgrade its basic infrastructure of roads, ports and airports. The demand for transportation services increases at an annual rate of 7-

8%. In 2010, the semi private company, Autoroutes du Maroc (ADM), in charge of highway development, completed the construction of approximately 750 miles of highway to connect major Moroccan cities. In 2011 alone, the Moroccan Ministry of Equipment and Transportation will invest $1.7 billion to develop the road infrastructure, including highway systems in the regions of Rabat, Tit Mellil and El Jadida-Safi.

Morocco continues to upgrade its railways system to offer modern trade routes to passengers and goods throughout Morocco. The National Office for Railways (Office National des Chemins de Fer "ONCF") operates 100 trains per day and estimated that the transport of passengers reached 30 million passengers in 2010. Morocco recently signed a $2.4 billion contract with the French firm Alstom for the first phase of a high speed train system, which will include infrastructure, equipment and trains, and connect Casablanca to Tangier by 2015. Additional segment will be opened for bid in the next two-three years. By 2030, ONCF will issue tenders to connect, in less than 4 hours, Tangier to Agadir via Rabat, Casablanca, Marrakech and Essaouira, then Casablanca to Oujda via Meknes and Fez.

In large cities, municipalities are constructing tramways to meet their daily urban transport requirements and curb the use of cars and buses that pollute the environment. In 2007, two tramway lines between Rabat and Sale ($450 million) were started and will transport 400,000 people by the end of 2010. Several extensions to these first two lines are in the planning stages. In 2010, Casablanca started an 18-mile tramway line to be operational in 2012. This project will cost a total of $760 million and is to be financed with $142 million from the municipal budget and loans for the remaining portion. Casablanca has longer term plans for 48 miles to link Casablanca, its suburbs and a 13-mile metro line. These projects will be awarded through international tenders. Other large cities, such as Agadir, Fez, Marrakesh and Tangier also plan to build light metro lines and trams.

With an urban population growth of 4% per year, a need to decongest urban areas and meet the demand for property, the government began a New Cities program aimed at creating 15 new cities by 2020. Under the New Cities program, the government provides land to the public at competitive prices and tax incentives to developers who commit to build 500 low-cost units within five years. To help Moroccans access property, the government established three funds that grant loans at advantageous rates to government employees (Fogaloge-Public Fund), to teachers (Mohammed VI/FOGALEF Fund) and to low-income or temporarily employed people (FOGARIM Fund). Two new cities started in 2004, Tamansourt near Marrakesh, and Tamesna, near Rabat, will provide 88,000 and 54,000 units, respectively, for a total investment of $7.2 billion.

In 2009, the government launched the construction of Ch'rafate, a new city in Tangier, which will provide 30,000 housing units for an investment of $2.9 billion. A further investment of approximately $1.9 billion will build 130,000 low-cost houses priced at approximately $16,887 per unit by 2012. Due to the success of these cities, the government allocated $18 million for studies on additional projects.

Despite the efforts of the government of Morocco to accelerate the production of low cost houses, only 110,000 units are built annually -- not enough to meet demand. To deal with the housing shortage by 2014, Morocco needs to build approximately 158,500 units annually.

To meet demand in the education sector, the Ministry of Education, under its 2009-2012

Emergency Plan began to build 4,774 new schools and extend 187 existing schools. To encourage construction of private schools, Morocco also established the "Fonds de Promotion de l'Enseignement Privé (FOPEP) to co-finance the construction of private schools. The private sector is also negotiating with the Indiana State University to build an American university in Casablanca.

Morocco has very aggressive plans in the tourism sector. It aims to make the country a leading destination, which requires the construction of new facilities, as well as renovation and equipping of existing facilities in order to meet international standards. The Moroccan Government is also implanting "Green Building". In 2008, Morocco created, under its "Green Morocco" program, a special agency, Marchica Med, to develop the lagoon of Marchica, located in the north of Morocco, near Nador. The Marchica lagoon project is located on 10,000 acres and is estimated at $4.6 billion. The investment will cover the construction of "Atalayoun City", an international resort using wind and solar energy, 650 residential villas, a 370-room hotel, 2,230 apartments, a golf academy, sports and leisure infrastructure, two marinas and shops. Marchica Med is slated for completion in 2014, and will be followed by the construction of the Sea City (Cité des Mers) on 37 acres, which will include hotels, 320 villas, 193 apartments and two marinas. In 2015-2020, the Moroccan Government plans to develop the Flamenco Bay (Baie des Flamands) and build, on 190 acres, marinas, golf and resorts.

Although there is significant competition in the Moroccan building and construction sector, U.S. firms will find excellent opportunities to provide building methods that guarantee safety, and provide short delays in delivery at a lower cost. Currently, Moroccan traditional building methods result in long delays and consequently higher costs, hampering access to property for mid-range income families. U.S. building methods that provide housing at affordable prices have a market with the middle and high-income households. In the tourism sector, U.S. firms will find substantial

opportunities to participate in turnkey projects that meet international standards, including a wide range of luxury hotels and resort facilities.

(See the Country Commercial Guide for Morocco for more details.)

Links

Ministry of Housing: http://www.mhu.gov.ma

Federation of Builders: http://www.fnbtp.ma, http://www.fnpi.co.ma/

International Building and Public Works Trade Show (Salon international du Bâtiment et

des travaux publics), November 21-25, 2012, Casablanca http://www.sib.ma/

Safety & Security

Safety and security grew in importance in all key industry sectors in Morocco as a result of increased security incidents and concerns in recent years. The market for equipment and services, which was negligible a few years ago, is expected to increase by 20% in the next five years. As local production is nonexistent, imported safety and security products supply nearly 95% of the entire market.

Until recently, European firms have dominated the market and have taken advantage of opportunities to provide equipment and services. The competitiveness of U.S. imports is enhanced in part by reduced or zero customs duties (derived from the U.S.-Morocco Free Trade Agreement) and by a low dollar value compared to the Euro.

Moroccan airports, seaports, border crossings, buildings and national security agencies have started upgrading their security systems. In addition, agreements with the United States and other countries require upgrades at airports and seaports. Morocco's geographic location as a gateway to Europe also requires the protection of borders and checkpoints against illegal immigration, human trafficking and narcotics.

Best prospects include all security and safety equipment and related solutions for seaports, airports, border crossings, security and safety agencies such as the police, and buildings. The growing Moroccan safety and security market presents tremendous opportunities for products such as metal detectors, personal access checking systems, walk-through scanners, monitoring and surveillance systems, intrusion detection systems, motion sensors, video cameras, fire prevention and control equipment, alarm equipment for building safety, emergency evacuation

systems, radio communication systems, training and services for security equipment, airport specific equipment such as luggage screening devices, biometric systems for access control to secure areas at airports and harbors, and non-intrusive inspection equipment for containers, seaport cargo, etc.

In 2007, Morocco signed an open-skies agreement with the EU. By integrating Morocco's flights with European airspace, Morocco becomes a platform for African countries that do not offer direct flights to Europe, the United States and the Middle East. Morocco also agreed to implement a new system based on satellite and digital technologies (CNS/ATM).

Under its 2008-2012 Development Plan, the Office National des Aéroports (ONDA) (National Airport Authority) will continue to develop new and expand existing airport s

capacity. In 2009, ONDA invested approximately $179 million in the extension of airports, $36 million in air navigation equipment and $87 in safety and security equipment. During the 2010-2012 years of its Development Plan, ONDA will invest approximately $580 million to expand and equip the existing airports with the following systems:

- fences
- cameras
- luggage screening
- passenger and cargo screening
- radar extension
- radio navigation
- radio communication
- telecommunications
- fire-fighting systems

Moroccan ports handle more than 95% of Morocco's foreign trade. Among the 33 ports under the supervision of the regulator, Agence Nationale des Ports (ANP) and operated by the semi public company Société d'Exploitation des Ports (SODEP, also called Marsa Maroc), Casablanca port is one of the largest in Africa and handles more than 38% of the country's overall imported and exported goods.

To benefit from its strategic geographical location as a gateway to Europe and Africa and become an international logistic platform, the Moroccan government

initiated major reforms to improve the competitiveness of its ports. These reforms continue to create opportunities for U.S. suppliers as the Moroccan ports are brought into the international sphere of regulations and agreements. The Moroccan Government, through the ANP, will invest approximately $355 million in 2011-2015 to upgrade the ports infrastructure along its expansive Atlantic coastline. ANP has begun the construction of a third container port in Casablanca. In 2011-2012, ANP will launch the construction of a new port in Safi that will be used to import coal for the National Office of Electricity's thermal station, scheduled to open in 2014, and extend the terminals in Agadir and Nador. ANP will allocate 20% of the total budget to procure the following equipment:

a) VTS for the 4 ports of Casablanca, Agadir, El Hoceima and Nador, by the end of 2011

b) Container scanner for the port of Casablanca, by 2011

c) Video surveillance

d) Access control

e) Related information systems

f) Terminal operating systems

(See the Country Commercial Guide for Morocco for more details.)

Water Management

Water supply in the urban area is quasi-universal while in rural areas, access to potable water has reached more than 90% in 2010, compared to 14% in 1995. The less developed area of urban sanitation faces challenges as only 70% of the urban population is connected to sewage systems. It is estimated that urban wastewater will increase from 600 million m3 in 2005, to 900 million m3 in 2020. Currently, wastewater is either discharged into the ocean with only physical treatment or is concentrated in regional basins.

Morocco has developed several models for water management through the construction of dams, large reservoirs and water transfers. Though not yet fully implemented, Law 10-95 of 1995 allows for the establishment of river basin agencies to protect water resources, measures to promote water use efficiency, better allocation of water resources and protection of water quality through the application of user-pays and polluter-pays principles.

To meet expected demand growth for waste water management, Morocco launched the National Sanitation Program (NSP) in 2006. The Program's objective is to develop and improve wastewater collection and reuse to 60% and increase the rate of sanitation access to 80% in urban areas. The Program will cover 10 million people in 260 cities and towns by the year 2020, at an estimated cost of $5.5 billion. The Prime Minister announced that a total of 79 wastewater treatment plants will be carried out by 2012, worth over $3 billion.

(See the Country Commercial Guide for Morocco for more details.)