Energy Pioneers

Iran’s Power Industry Analysis

Investment Risks & Opportunities in Post-Sanctions Era

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Preamble

Iran’s electricity sector lies on the verge of a major transformation as the country is re-emerging from decades of sanctions and is positioning itself as an important recipient of foreign investment and finance. **Iran’s Power Industry Analysis** is the Energy Pioneers’ comprehensive report on challenges, opportunities and objectives of Iran’s long isolated electricity sector in the post-sanctions era. By incorporating the perspectives of policy-makers and executives, together with the new legal, fiscal and political reforms, the report aims to provide a unique assessment on how Iran’s power industry will evolve in the post-sanctions period to respond to the country’s economic growth and strategic planning.

Our aim was to provide a timely assessment and reasonable foresight to both international energy entities interested in enriching their research and analysis on Iran’s power sector, as well as investors keen to contribute to the development of this strategic industry.

What sets this report apart from similar reports is that it extensively delves into the development and operation of Iran’s electricity sector covering the period between 2006 and 2015 by exclusively relying on the latest data and statistics published by stakeholders and relevant energy organisations within Iran. Focused both on the current trend and short- to mid-term outlook of the sector, the report draws its specialised analysis partly from the information and data collected from Iran’s Ministry of Energy (MoE), the Iranian Electricity Syndicate (IES), Tavanir Co. (Iran’s Specialist Electricity Holding Company) and Parliament Research Centre, and partly from our specialists’ knowledge and expertise.

Executive summary

In the last two decades, Iran's power industry has undergone a major transformation to respond to its growing domestic needs, intensified industrialisation, and electricity export ambitions. Despite the adverse impact of sanctions, lack of technology, chronic mismanagement, and financial challenges, the electricity sector has continued to meet the country's fast-paced growing power demand, albeit in an inefficient and uneconomic manner facing occasional blackouts during peak demands. In the last eight years in particular, under severe constraints of capital and investment, the industry has gradually weakened; the growing number of incomplete projects and the decline in the number of new projects lagging behind the rising demand is clear evidence of this exhaustion. Nevertheless, given that removal of sanctions has now become imminent, and with a pro-reform, pro-foreign investment government in office, the electricity industry is poised to expand rapidly in the years ahead, not to mention the significant role that the country's massive gas reserves can play in accelerating such an expansion.

Investment opportunities for improving energy efficiency and sustainability in Iran's vast power industry are staggering, especially when taking into account the fact that the country has been in the status of isolation for nearly a decade. In anticipation of a favourable investment environment, MoE has launched a comprehensive plan for optimising and resolving the industry's widespread infrastructural problems, as well as reducing the considerable inefficiencies across all segments of the electricity value chain. The government is keen to keep up with the tremendous changes in the international energy industry, and acquire the much-needed investment and technology to increase energy efficiency, and utilise the vast untapped renewable energy potential. Due to its enormous size, it is hard to perceive that Iran's power industry could expand and reach its full capacity without foreign investment. As such, within the last year alone, MoE has introduced a number of projects worth $28 billion to attract foreign investment in the next 10 years. Moreover, as Iran encourages schemes to balance supply and demand in support of growth, energy security, electricity exports, and environmental objectives, a huge market for renewable energy and energy efficiency is created, supported by various attractive regulatory measures. However, although senior officials have broadly introduced opportunities in the power sector, they have offered less detail on the fiscal and contractual terms based on which these investment opportunities are expected to be seized.

Iran's economy

Iran's economy is characterised by a large hydrocarbon sector, a diversified industrial base, and small-scale agriculture and services sectors. Iran has the 18th largest economy in the world, standing between Turkey and Australia, and the 2nd largest in the Middle East, according to the International Monetary Fund's April 2015 World Economic Outlook. Nevertheless, the Iranian economy has struggled and contracted severely in the last decade, partly as a result of tightening economic sanctions and isolation from the international banking system, and widespread mismanagement and weak economic policies initiated under the former government.

Since the inauguration of President Rouhani's government in August 2013, and the coming into power of highly experienced technocrats, Iran has been moving towards a more pragmatic set of policies, both on economic and political fronts. On the political side, reaching a nuclear deal with P5+1 after almost 15 years of disputes has marked the imminent removal of sanctions which could facilitate Iran's return to the international fold. The political breakthrough has set in motion a new climate of cooperation as well as creating new possibilities and opportunities for the resurgence of Iran's economy.

Removal of sanctions will have a huge impact on the financial sector, as the Iranian banks will reintegrate with the international financial system. This primarily removes the troublesome transactional obstacles that traders, investors, businesses and industries have been facing over the last few years, while allowing conventional debt market products to emerge. Moreover, as foreign investments, considered as a catalyst for technological shift in industrial-based sectors, influx into the country, it can considerably impact the efficiency and productivity of non-oil sectors. Subsequently, this will stimulate further investment and productivity in manufacturing and industrial bases, as transaction costs will become lower due to higher efficiencies in various sectors of the country. Removal of sanctions will arguably release around $80-100 billion of the country's financial assets, which the government has pledged to channel into reviving domestic industries, which have lost financial and technical strength in the last decade.

As a part of its preparation for the post-sanctions economic environment, the Iranian government has introduced various reform and regulatory frameworks, such as Article 12 of the Elimination of Barriers to Competitiveness and Promotion of Financial System (2015), aimed at stimulating and promoting the private sector and liberalising the market – an important and timely development for Iran's economy. These associated positive momentums and developments, have led the country's key economic stakeholders, especially the business community, to react positively, while it has equally revived the confidence of international investors for returning to the Iranian market.

Statistically, according to the World Bank 2015 projection, the Iranian economy will receive a boost by removal of sanctions, and its GDP is likely to grow by 5.1% in 2016-17 and 5.5% in 2017-18 respectively. The inflation has sharply declined from a monthly rate of 45.1% in June 2013 to 13.7% in December 2015. Central Bank of Iran (CBI) has also predicted that by March 2017, the inflation will eventually reach a single figure. While one should take into account the recessionary impact of low oil prices and stagnant demand in domestic markets, the anticipated economic improvement can potentially set the Iranian economy on a path of mild growth, as it could mitigate the risk of capital being negatively offset by currency depreciation or price inflation.

Even though the economic prospect of the country is no longer as dim as before, the economic outlook could be affected by many factors beyond the economic research and data analysis; the country has been suffering from nearly a decade of complete isolation. Both domestic and international economic experts agree that restoring economic normalcy and a return to medium-growth scenarios in Iran will require time – potentially three to four years before economic and legal institutions necessary for sustainable development and growth could emerge. Therefore, to a large extent, it depends on the ability of policy-makers not only to maintain the new paradigm of economic management, which includes an emphasis on the pivotal role of the private sector and the minimisation of the role of the state in the economy, but also the ability to carry out major steps to liberalise the market, stabilise the economy and business atmosphere, and mitigate risks of investment, in order to make it appealing enough for both domestic and foreign investors.

SWOT analysis

Strengths
▪ A diversified and multi-billion dollars industrial base economy
▪ Reliable supply of clean fuel from abundant natural gas resources
▪ Over 500 equipment manufacturing companies and 200 contractors engaged in the field of electric engineering, consultancy, and power plant construction
▪ Large reserves of copper, aluminium, zinc, and polymer as some of major raw materials required in the electrical industry
▪ Strong track record in dam building and power plant construction
▪ Geopolitical and geographical advantages: vicinity to regional markets of Afghanistan, Armenia, Azerbaijan, Iraq, Pakistan, Turkey and Turkmenistan
▪ Extensive national grid, semi-integrated with immediate neighbors
▪ Abundant pool of young, skilled, dynamic and qualified professionals
▪ Support of short- and long-term economic goals and development plans; i.e. Five-Year Economic Development Plans, the 2025 Development Outlook and policies of Economy of Resistance
▪ Strong and experienced private sector
▪ High solar insolation and wind density attitudes
▪ Effective regulatory and policy frameworks offering incentives to promote renewable sources of energy
▪ Plans for expansion and development of electricity industry in parallel with the development of oil and gas sectors as anchors of Iran’s regional ambitions

Weaknesses
▪ Inefficient energy infrastructures and systems resulting in massive energy and economic losses
▪ Lack of modern technology and outdated capital stock
▪ Insufficient investment capital primary as a result of US and international sanctions
▪ Subsidised electricity prices: a large gap between retail prices and total costs of production and distribution
▪ Non-payment by some state industries and companies
▪ Dependence on government funds: annual budget deficit of around $5 billion equivalent to half of the annual expenditure of the industry
▪ Dependence on Ministry of Petroleum for fuel supply and some development initiatives
▪ Complicated management structure and decision-making process at organisational level
▪ Heavy bureaucracy and complex state regulations
▪ Weak process planning, project execution and human capital management
▪ Ministry of Energy reputation loss as a result of huge non-repaid debts
▪ Potential competing role of state-institutional companies
▪ High cost of development of renewable energy

Opportunities

- Comprehensive plans in place for diversification of power generation capacities
- Considerable untapped potential for enhancing efficiency and energy saving from power generation to consumption
- Significant expansion of industrial sector and the requirement for substantial investment in the electricity sector
- Market expansion opportunities in neighboring countries
- Potential transformation into the region’s energy hub, connecting Caspian littoral states with the Persian Gulf states through a dependable transit corridor
- Favourable geographical position and climatic conditions for development of renewable energy sources

Threats

- Overshadowing role of the government and existence of opaque interest groups
- Government’s high levels of debt to the private sector, contractors, consultants, manufacturers and a number of leading Iranian Banks
- High local interest rates on loans, making repayments cumbersome
- Possible US and international sanctions snapback
- Water scarcity
- Subsidies and low electricity prices
- Regional political turmoil and security risks

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