



Strategic paths for managing the transition towards renewable energy in Palestine

Executive summary

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Palestine relies almost entirely (87%) on electricity imported from the Israeli Electricity Company, which increases economic dependency and burdens the Palestinian government due to the Israeli company's control over supplies and their incompatibility with local needs. The Palestinian government seeks to develop the regulatory framework and policies and improve the sustainable energy sector in cooperation with local authorities, private sector representatives, and international institutions. The government adapted strategies to diversify electricity sources and reduce imports by 50% by 2030 and build an integrated transmission system. Despite the preparation of multiple plans and strategies, including the Energy Sector Strategy (2021-2023) and the National Renewable Energy Strategy (2020-2030), the sector faces major challenges due to geopolitical restrictions and gaps in the complex legislative environment, which affects the structure of the sector, increasing its complexity and hindering investment in it.

Through conducting interviews and meetings with relevant institutions and specialists, four main pillars of the electricity sector were identified: energy sector management and governance, energy supply, energy demand, and sustainability. This paper focuses on the first pillar, which is the management and governance of the energy and renewable energy sector, due to the necessity of formulating a vision that brings together the viewpoints of the partners regarding the structure of the energy sector in Palestine. This was done through a set of interviews and consultations between partners that led to identifying internal challenges such as updating the legislative environment and external challenges such as geopolitical restrictions, with the aim of emphasizing the importance of developing a clear and consistent vision for the structure of the energy sector, and coming up with joint recommendations that are placed in the hands of decision-makers, stakeholders and international partners. The policy paper proposes a different approach, which is a global approach known as Transition Management, which provides scope for developing several parallel strategic paths to enable institutions to work on different goals at the central and decentralized levels in the short, medium and long term, which suits the nature of renewable energy projects and the policies, legislation and infrastructure they require.

Transition Management Approach: Promoting Energy Sector Development in Palestine

The study proposes a transition management approach that combines centralization and decentralization. The centralized approach focuses on long-term infrastructure reforms, such as unifying electricity distribution, establishing an electricity transmission system, and connecting governorates. This approach requires government coordination to ensure stability and security, especially in political negotiations related to interconnection with neighboring countries. At the same time, the parallel decentralized approach relies on empowering the private sector and local authorities to implement energy projects quickly, especially in marginalized areas. This combined approach allows for rapid results and meets immediate energy needs, which encourages local investment and enhances competition and innovation.

To develop the energy sector, centralized and decentralized paths must be integrated into a unified framework. This framework enhances cooperation between government and local entities and ensures inclusive decision-making with stakeholder participation. This approach enables Palestine to benefit from the advantages of centralization and decentralization, which contributes to achieving energy security and stability in the long term. The transition

management approach addresses the regulatory and governance challenges associated with solar energy projects and enables Palestine to overcome geopolitical obstacles and move towards a prosperous energy future. Achieving a unified vision for the energy sector structure enhances confidence among consumers, ensures the sustainability of the sector, and attracts investments, enabling Palestine to adapt to technological developments and ensure its long-term growth.

Public Sector Priorities in the Medium and Long Term

- 1- **Establishing a unified vision for the energy sector:** Energy sector management partners and stakeholders at the national level should prioritize developing a clear and consistent vision for the structure and governance of the energy sector. This unified vision should consider both centralized and decentralized approaches, taking into account the challenges posed by the occupation. This vision will provide guidance and direction to all stakeholders and help attract investment and international support.
- 2- **Expanding and diversifying electricity supply:** The growing demand for energy is putting pressure on the Palestinian government to find viable and diverse alternatives to provide a continuous supply, including reducing dependence on energy imports and promoting the use of renewable energy. The Palestinian Energy and Natural Resources Authority, in cooperation with partners, aims to reduce dependence on electricity imports by up to 50% by 2030. This goal requires institutional and regulatory changes to support local electricity generation from diverse sources such as solar energy and natural gas, infrastructure development, and the use of modern technology. The electricity system in the West Bank and Gaza Strip is highly dependent on the Israeli electricity system, which requires Israeli approval to establish new lines and increase supply capacity. Israeli imports can be reduced by supporting renewable technology with appropriate public-private sector trade arrangements and political will to enhance the sustainability of the energy sector. To address energy security in the West Bank and Gaza, there are options to expand and diversify electricity supply. Electricity imports from Jordan and Egypt can be increased in the short term despite challenges related to reliability and net lending mechanism. Importing gas for power generation is also a practical solution, along with developing the solar energy potential in the West Bank and implementing energy efficiency measures. Improving energy transmission requires developing the infrastructure to efficiently deliver electricity from the points of generation to demand centers. Implementing these options can improve energy security in Palestine and achieve greater financial and operational independence. Strengthening the electricity sector will help reduce the burden on government revenues, enhance economic performance, and ensure the financial sustainability of the Palestinian economy.
- 3- **Measures to address net lending:** Finding solutions to the net lending challenge in the Palestinian energy sector requires an integrated approach that addresses both symptoms and root causes. By unifying distribution to reduce losses and promoting open generation to increase local production, Palestine can make significant strides in reducing net lending. One of the most important relatively quick measures is the implementation of solar energy projects. According to the MAS Institute's 2022 study "Assessing the Impact of Solar Energy Projects on Revenues and Net Lending," Palestinian revenues are four and a half times higher when generating electricity locally from solar power plants through power purchase agreements compared to the cost of importing electricity from the Israeli

Electricity Company. This positive difference supports the transition to sustainable energy and presents it as a strategic priority for Palestinian decision-makers.

- 4- **Accelerating reforms and integration:** Actively pursuing reforms that began in the electricity sector since 1995 and formed the basis of modern strategies, including merging service providers into local authorities and finding mechanisms to encourage them to join with distribution companies to further strengthen the sector and improve operational efficiency.
- 5- **Developing energy security strategies:** including diversifying energy sources, enhancing energy storage capabilities, and exploring opportunities for regional cooperation in the energy field. These strategies will enhance resilience and reduce dependence on external energy supplies.
- 6- **Addressing geopolitical constraints:** Working more with international bodies, especially in the field of overcoming geopolitical constraints imposed by the Israeli occupation that hinder the development of energy infrastructure. Therefore, cooperation with relevant international bodies must be made to support innovative solutions and pressure the Israeli side to allow the construction of transmission lines across Area C.
- 7- **Adopting unified technical and commercial standards for quality in the renewable energy sector, and diligent follow-up at the national level; to ensure compliance with these standards.** Many developers are currently building solar systems without national planning and without adhering to clear standards, which disrupts the grid and causes negative impacts. Therefore, all renewable energy developers need to follow unified technical and commercial standards to safely feed the Palestinian grids.
- 8- **Encourage renewable energy investments:** Encourage private sector investments in renewable energy projects at the local and regional levels. Facilitate the creation of favorable conditions for the adoption of renewable energy, such as simplified licensing processes, financial incentives, and capacity building programs.
- 9- **Unify and adhere to the principles of commercial agreements between the public and private sectors, such as power purchase agreements.** The fair distribution of responsibilities and duties among the parties to the agreement ensures at least: (1) bearing the legal and financial consequences in the event of continued failure to achieve the performance indicators and obligations under the agreement, (2) legal and financial consequences for not receiving the electricity produced by the station without justification, (3) protecting the agreement from changes in the renewable energy laws in Palestine that may negatively affect the interests of the parties to the agreement, (4) agreeing on sovereign guarantees from a governmental body pursuant to Cabinet Resolution No. 11/2015.
- 10- **Rebuilding the energy sector in Gaza:** One of the main priorities of the Palestinian government is to rebuild the energy sector in Gaza by rebuilding the electricity distribution network that was severely damaged and installing renewable energy sources with storage systems to ensure the continuity of providing basic services such as hospitals, schools, water and sanitation facilities.

The Role of the Private Sector in Electricity Generation

Enabling and encouraging private sector participation is very important and central to achieving diversification in electricity generation in the West Bank and Gaza Strip. Although gas-fired power plants create an attractive opportunity for investors, they face multiple barriers related to the sector's creditworthiness, gas infrastructure, discharge of the produced energy, and the occupation's control over natural gas supplies, and the refusal to allow Palestinians to extract it. On the other hand, solar photovoltaic systems have attracted the interest of the private sector, whether systems linked to homes and public facilities (health, education, water and wastewater), or commercial and industrial consumers. To ensure a favorable investment environment, policies and initiatives must be developed that reduce risks and enhance incentives, with a focus on technical and procedural interventions to achieve the desired results.

To encourage private sector participation in energy generation, it is essential to maintain an open and competitive environment that encourages their active participation. It is recommended to keep the energy generation sector accessible to the private sector and promote competition to attract investments and transfer knowledge. Historically, power generation projects in Palestine have been successful through public-private partnerships, with joint ventures in renewable energy plants. The renewable energy investment promotion framework includes three levels: reducing technical and financial risks, addressing procedural aspects of project development, and creating supportive policies and regulations. These efforts contribute to enhancing local generation capacity, reducing the ongoing electricity crises, and providing effective incentives to ensure sustainable investment in Palestine.

Unified Electricity Distribution in Palestine: A Practical Approach to Enhancing Reliability and Performance

The energy sector in Palestine faces significant challenges due to the geopolitical division of territories, cities, and communities. To achieve effective unification of electricity distribution, the five existing distribution companies and more than 130 local authorities operating across 114 connection points in three main areas in the northern, central, and southern parts of the West Bank can be gradually merged. This approach requires a comprehensive national dialogue with communities, local authorities, and stakeholders to understand their needs and concerns and ensure their participation. The benefits of unification include reducing technical complexity and administrative costs, improving efficiency and performance in electricity distribution, and better resource allocation and planning. This approach contributes to a coordinated response to emergencies and enhances reliability for consumers.

Unifying electricity distribution across three regions enhances resilience and reliability in the Palestinian energy sector, through improved coordination and cooperation between regions, better management of resources, exchange of expertise and mutual support during emergencies. This approach strengthens energy infrastructure and ensures a fair and inclusive distribution system that benefits all communities and regions in Palestine, paving the way for sustainable development. The proposal takes into account the geopolitical constraints imposed by the Israeli occupation, and strikes a balance between unification and respect for local dynamics, which enhances the stability of the financial sector and its growth prospects, and attracts private sector investment and international donor support.

Local Authorities as a Key Partner for the Transition to Renewable Energy

Local authorities play a vital role in providing a wide range of services and contribute significantly to achieving the government's vision for the Sustainable Development Goals. However, their responsibility for providing vital services such as electricity supply remains complex and challenging, especially since some of these authorities still manage electricity services despite the transfer of this responsibility to distribution companies under the General Electricity Law (2009). Accordingly, the role of local authorities in the short term is to cover their consumption by increasing the amount of renewable energy, especially rooftop solar and solar farms. Investing in renewable energy projects requires transparent and regular financial performance to secure financing and guarantees. Renewable energy projects need large roofs and lands, which local authorities can provide. In the medium term, they must improve their networks, join distribution networks, and improve electricity bill payments to reduce net lending.