



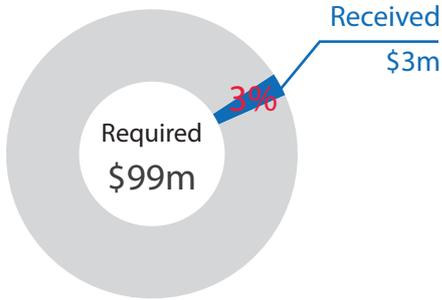
Energy End of 2017 Dashboard



Inter-Agency
Coordination
Lebanon

The end year dashboard summarizes the progress made by partners involved in the Lebanon Crisis Response and highlights trends affecting people in need. The Energy Sector in Lebanon is working to: OUTCOME 1) Increase energy production through implementation of renewable energy sources; OUTCOME 2) Reduce energy demand due to implementation of energy efficient initiatives; OUTCOME 3) Improve access to electricity through Rehabilitation and Reinforcement works on the Transmission and Distribution networks; OUTCOME 4) Enhance capacity of MoEW to plan, budget and oversee energy sector initiatives.

2017 funding status as of 31 December 2017

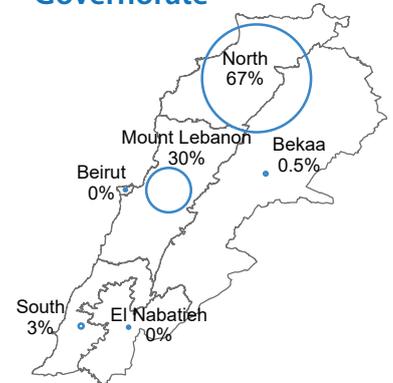


Targeted population groups

3,000,000 (People in Need)

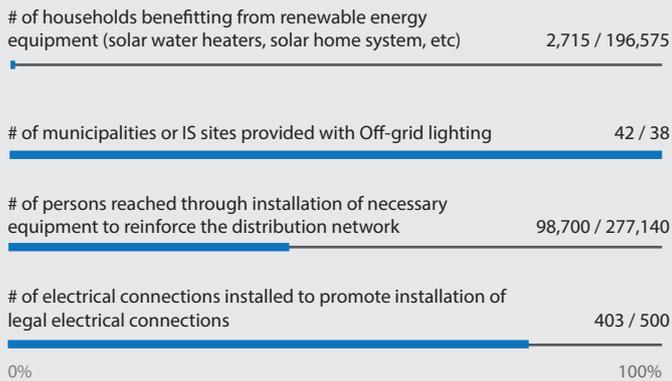


Breakdown of Beneficiaries Governorate

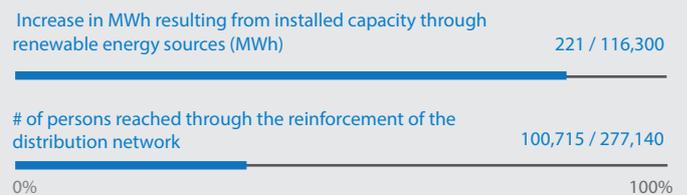


Progress against targets

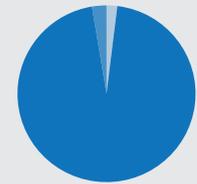
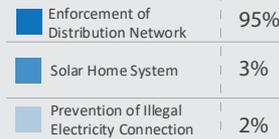
Key Achievements



Outcomes

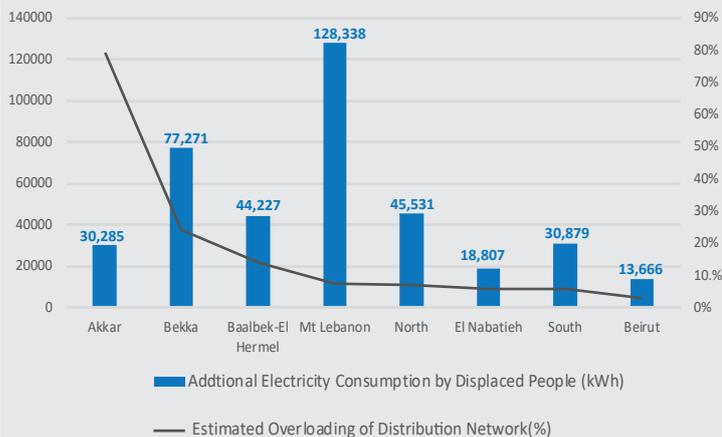


of Beneficiaries per Intervention

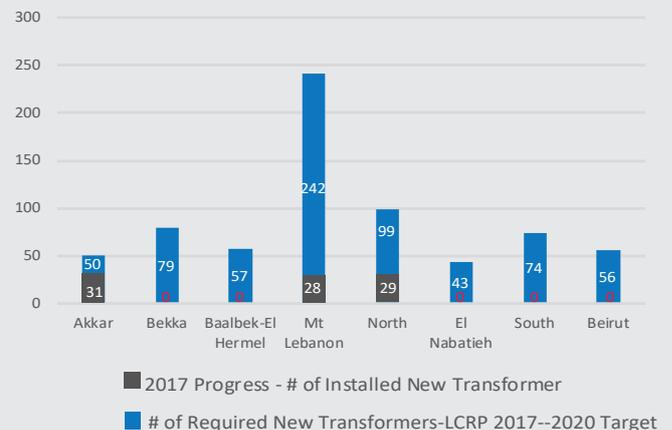


Analysis

Impact of Syrian Crisis on Lebanese Electricity Network (MoEW & UNDP, 2017)



Progress vs Needs of Intervention Per District



KEY ACHIEVEMENTS

•The Energy sector invested approximately 5 million USD in 2017 from \$4.6m of carry-over from 2016 and \$2.6 m received in 2017.

•In 2017, the Energy Sector laid out 4 key Outputs under the LCRP and reached 114,290 persons out of 1,119,172 target population.

-2,715 households in 6 Cazas (Aakar, Baalbek, Chouf, El Nabatieh, Metn, Miniyeh-Danniyeh, Sour, Trablous, West Bekaa) now use Pico Solar PV system to light their homes. (Output 1.1)

-In total 42 municipalities have the access to off-grid solar street lighting (Output 1.1).

-Approximately 98,700 individuals are now benefiting from the improved quality of grid electricity through the reinforcement of distribution network in 11 Cazas (Aakar, Aaley, Baabda, Baroun, Chouf, Jbayl, Koura, Miniyeh-Danniyeh, Trablous, Zgharata) (Output 1.4)

-EdL is now capable of recovering cost from 403 households through the establishment of legal and proper electrical connection at the household level (Output 1.4).



Facts and Figures

Power generation required to cater the daily needs of displaced Syrians	486 MW
Power added to the grid since 2010	715 MW
Percentage of energy supplied to displaced Syrians out of total energy supplied in Lebanon	33%

KEY CONTRIBUTIONS TOWARDS LCRP IMPACT(S)

The overarching objective of the Energy Sector is to improve access to electricity at agreed minimum standards to households affected by the Syrian crisis and across sectors providing vital services. It aspires to provide electrical services to Lebanese hosting communities and displaced Syrians in an equitable manner while also reducing the negative impact on the environment and limiting the fiscal impact on the Lebanese Government and consumers. This objective is summarized in the following impact statement:

Impact 1 - By the year 2020, all vulnerable populations in Lebanon will have an improved, equitable and gender appropriate access to Electricity in terms of quality, quantity and sustainability.

By enhancing electrical services and capacity at the national and local level in a sustainable manner, the Energy sector contributes to the LCRP's third objective of supporting service provision through national systems, and the fourth objective of reinforcing Lebanon's economic, social and environmental stability.

In 2017, five partners actively implemented projects in the Energy sector under LCRP. Across four different outputs defined in the 2017 response plan, the projects implemented by these partners focused on installation of renewable energy equipment (Output 1.1: Increase in electricity production through implementation of renewable energy) and rehabilitation of the electric distribution networks (Output 1.4: Improve access to electricity through implementation of reinforcement and rehabilitation works on the distribution network).

In terms of the installation of renewable energy, the off-grid street lighting has been installed in 42 municipalities, where it was found that street lighting was limited, or the available public infrastructure has fallen into disrepair before the intervention. While increasing the production of renewable energy, the street lighting plays an important role in reducing crime and vandalism, and making residents and pedestrians feel safer during the night. 2,715 rural households in 6 Cazas (Aakar, Baalbek, Chouf, El Nabatieh, Metn, Miniyeh-Danniyeh, Sour, Trablous, West Bekaka) now use Pico Solar Systems (SHS), small-scale DC current solar system, to light their homes during power outages.

The reinforcement of distribution networks is one of the key interventions to improve the quality of electricity. The current distribution networks are overloaded and damaged due to a sudden surge of population connecting to the electricity network. Rehabilitation of existing equipment or installation of new transformers and relevant parts was conducted in the vulnerable communities, and approximately 98,700 individuals are now benefiting from the improved quality of grid electricity. Through a project that aims at the prevention of illegal connections, EdL, the national utility company, is now able to recover costs from 403 households in the Bekaa, Akkar, Baalbek and North region.

Overall, the Energy Sector reached 114,250 population out of 1,119,172 target population. Notably, all projects under the Energy Sector are coordinated closely between the agency/NGO, MoEW, EdL and the local authorities in line with the national plan. In addition to this, MoEW and EdL have continued its own effort to implement the national plan on electricity, and 715 MW of electricity generation capacity has been added since 2010 while an additional 486 MW is needed to cover the demand of the 1.5 million displaced Syrians.

⚡ CHALLENGES

The main challenge of the sector remains to raise funds and to advocate for the importance of this sector. In addition to this, the understaffing in the governmental institutions is also a critical challenge given the increased service demand due to the crisis. Electricity in Lebanon remains a controversial issue: the challenges that the sector faced prior to the Syrian crisis have been severely exacerbated by the extra consumption of electricity, causing more losses to the Government and to the Lebanese population, which makes the fundraising for the Energy Sector more challenging. Since the overall funding situation is expected to worsen in the coming years, the Energy Sector needs to use its limited funds more strategically to achieve the sector's expected impact. This may include better private-public partnerships to mobilize private capital through blended financing, reducing risk, or providing project support. It is also critical to strengthen the energy-related investment climate and attract private and international financial institutions. To this end, the sector's major challenges are further prioritization of activities and strategic positioning of its roles in the context of both the LCRP and the national policy paper for electricity.

⚡ KEY PRIORITIES AND GAPS FORESEEN - 1ST QUARTER 2018

The interventions in the LCRP Energy sector will have both direct and indirect benefits for the vulnerable communities while also contributing to the implementation of national plans. Improved electricity quality and supply will benefit not only vital services such as hospitals and schools, but also the business climate in Lebanon because an unreliable electricity supply and high production costs have significantly hampered local economic development and job creation in Lebanon. Last year, the rehabilitation of distribution network reached more than 90,000 beneficiaries. Considering these gaps and benefits, the sector's key priority for Q1 2018 is further reinforcement and upgrading of the distribution network in critical areas. Although large funding gaps remain in the sector, the Energy sector will address this challenge through more effective advocacy and coordination with the other sectors and stakeholders including development actors.

⚡ CASE STUDY

The projects on reinforcement of distribution network illustrates how the Energy sector responds to the crisis while also improving the long-term resilience and sustainability of Lebanese systems in close collaboration with the national partners.

The study by MoEW and UNDP identified key interventions to overcome these problems while ensuring those are technically, financially and environmentally sustainable. One of these activities is the reinforcement of electricity distribution networks. The energy supply-demand gap in Lebanon is not only due to a deficit in power generating capacity, but also due to excessive losses from the transmission and, more acutely, from the distribution network. Technical losses from the transmission and distribution (T&D) networks in Lebanon are approximately 15%, as



opposed to international benchmarks like OECD countries where losses stand at approximately 6%. Transformers are a key component of the Distribution network. Adding and upgrading transformers will improve the efficiency of the power supply by 1 to 2%.

Based on this assessment, several implementing actors, such as UNDP and Mercy USA, have installed transformers in vulnerable localities in coordination with the Ministry of Energy and Water and the national electricity utility, Electricité du Liban (EDL).

The installation has improved the quality of electricity supply at household-level and mitigated the overload on the Distribution network. The benefits of the project are felt by local people. "Electricity is a main factor for activating industrial, economic, and agricultural trading work. The installation of new transformers will enable people to save money, especially that the cost of Kilowatt supplied by the government is cheaper than that of private generators," the head of Barja municipality says and continues:

"The residents reacted positively, particularly in the neighborhood of Jal Al-Bir, after their long suffering from weak status of electrical supply from the nearest transformer (almost 800 meters away). However, now, and after the installation of the new transformer, the electricity reaches their homes on a regular basis without interruption. This project is the most beneficial and successful because electricity is as essential to the people of Barja as water."

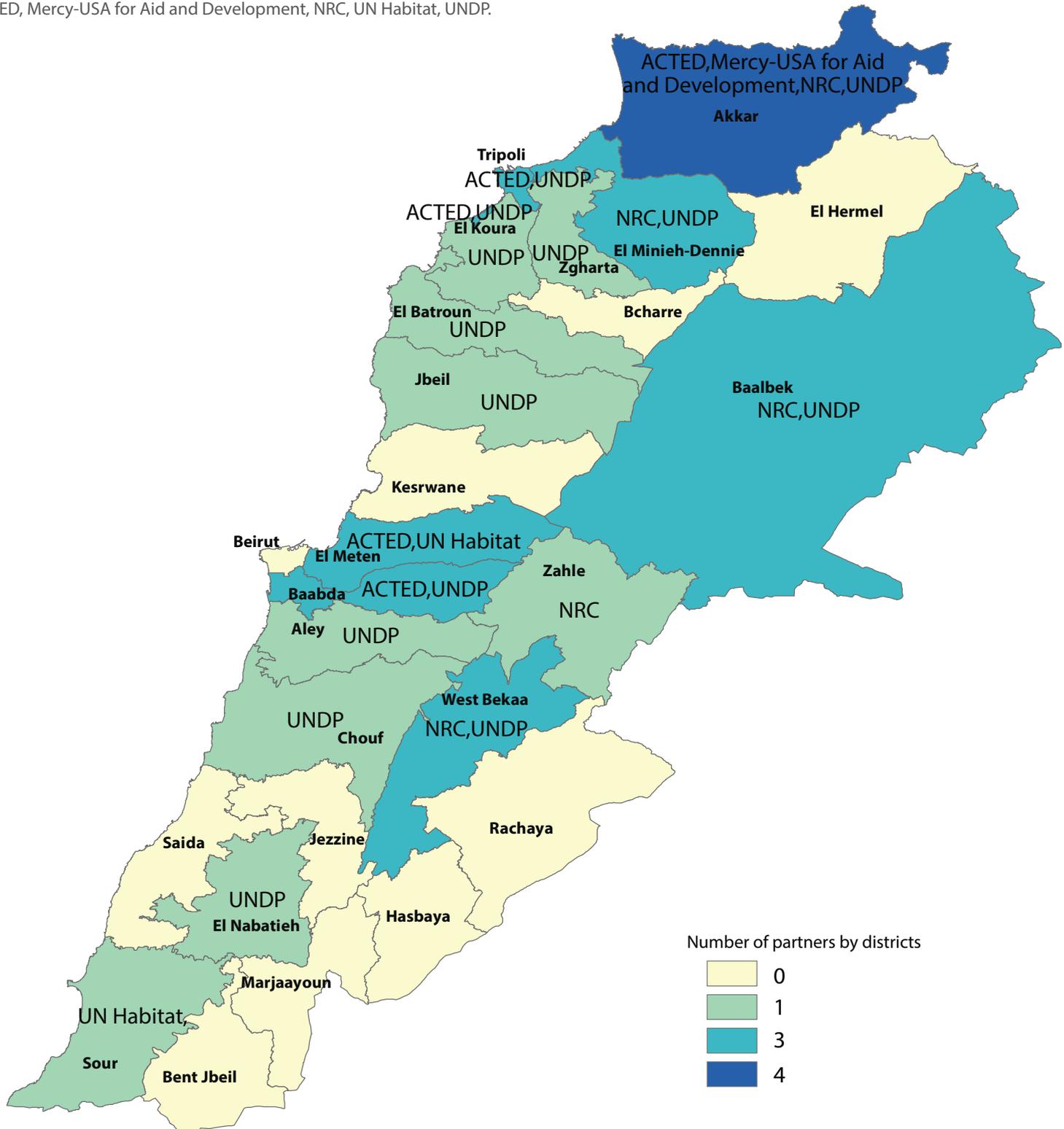
Such projects illustrate how the Energy sector responds to the crisis while also improving the long-term resilience and sustainability of Lebanese systems in close collaboration with the national partners.



Organizations per district

The achievements described in this dashboard are the collective work of the following 5 organizations:

ACTED, Mercy-USA for Aid and Development, NRC, UN Habitat, UNDP.



Note: This map has been produced by UNDP based on maps and material provided by the Government of Lebanon for Inter Agency operational purposes. It does not constitute an official United Nations map. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.