ENERGY

This chapter analyses the access to electricity by Syrian refugee households in Lebanon. It also assesses the hours of electricity supplied by the national grid versus private diesel generators.

KEY FINDINGS

- Like 2019, 96% of Syrian refugee households had some access to electricity, mainly from the electricity grid and through diesel generators.
- In 2020, the average hours of supply by diesel generators exceeded the hours of supply by the electricity grid. Electricity from the grid covered only 45% of the daily needs in 2020 (down from 55% in 2019), on average leaving 13 hours of power cuts nationally.
- Increased reliance on diesel generators where the average hours of electricity supply from generators increased from 7 hours in 2019 to almost 13 hours in 2020.
- On average 5 hours 25 minutes of electricity outage a day (up from 3 hours in 2019).
- Forty-two percent of households paid for their electricity grid bill directly to the landlord or it was already included in their rent, while 43% paid directly to Electricité Du Liban(EDL) For 13.5% of households, no one was collecting electricity bills.
- The use of renewable power, including solar panels and biomass/ biogas, remained negligible in all governorates.

ACCESS TO ELECTRICITY

Overall, 96% of households had some access to electricity, while 4% reported having no access. Female-headed households had a slightly lower access (93%).

Figure 1: Access to electricity

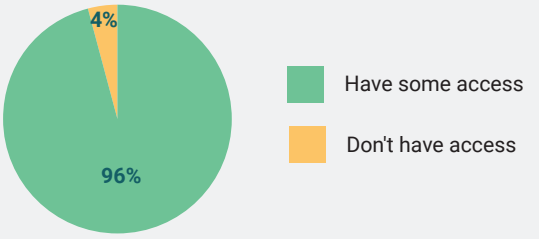
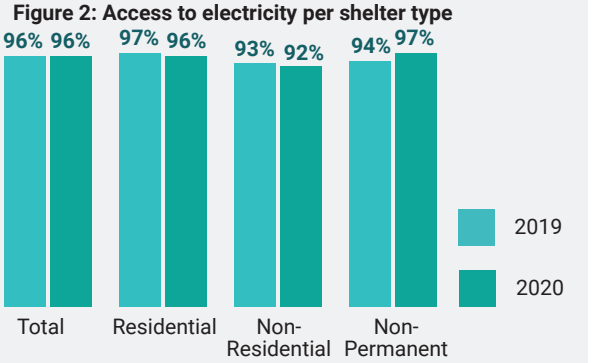
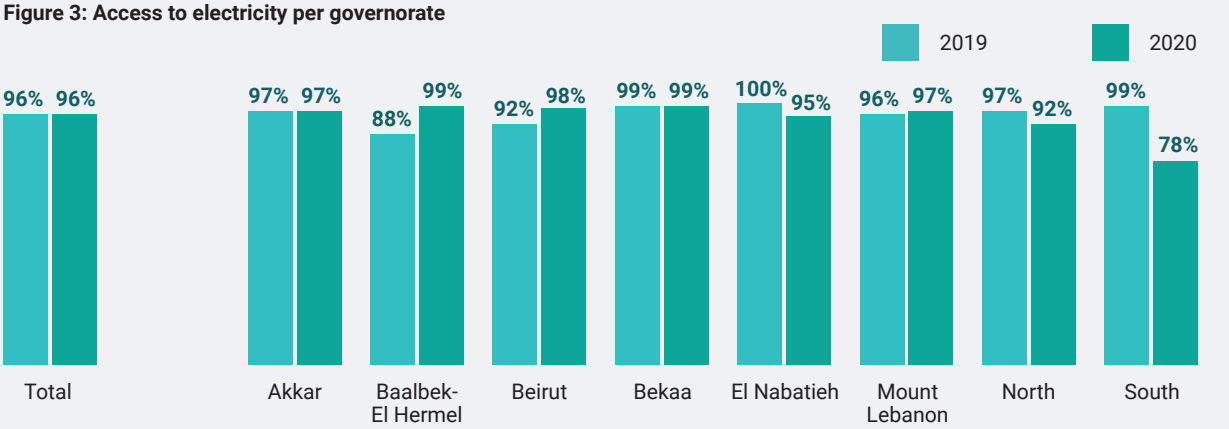


Figure 2: Access to electricity per shelter type



Looking at access to electricity per geographical area, the South scored as the governorate with the lowest rate at 78%.

Figure 3: Access to electricity per governorate

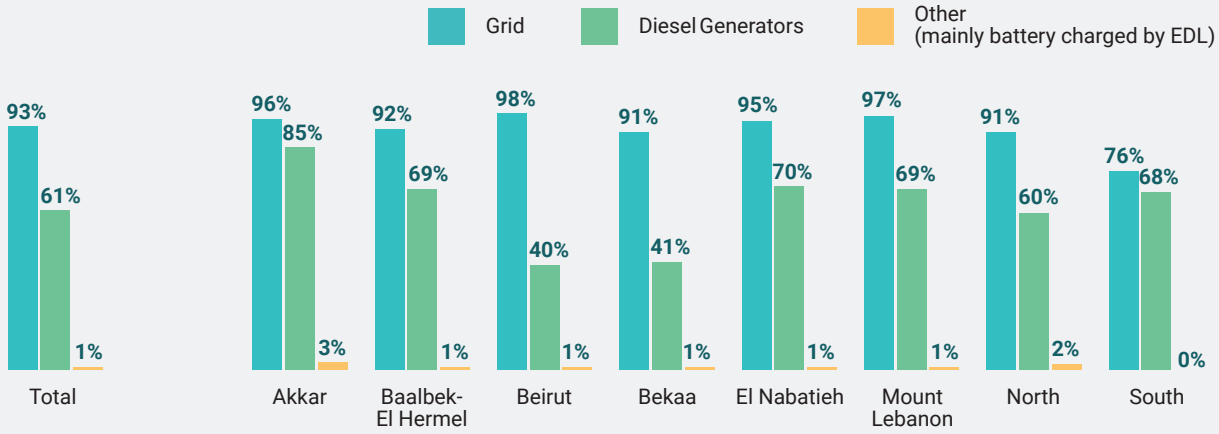


SOURCES OF ELECTRICITY

When considering the sources of electricity, 93% of households had access to the grid. Households living in non-residential and non-permanent shelters had less connection to the grid (88% and 89% respectively). While over 90% of households could access electricity from the gird in most governorates, in the South accessibility was only 76%.

Access to diesel generators was lower at 61% and varied significantly per governorate ranging from 85% in Akkar to 40% in Beirut and the Bekaa. The use of renewable power, including solar panels and biomass/ biogas, remained negligible in all governorates.

Figure 4: Source of electricity per governorate



HOURS OF ELECTRICITY BY SOURCE

In 2020, the average hours of supply by diesel generators exceeded the hours of supply by the electricity grid. Out of a 24- hour window, refugees were able to access, on average, 10 hours and 48 minutes of electricity from the grid (45% of daily need, down from 55% in 2019) and 12 hours and 48 minutes of electricity from diesel generators (54% of daily need, up from 28% - 6 hours and 42 minutes - in 2019), while they experienced a power cut throughout 23% of their day (5 hours and 24 minutes, up from 3 hours 9 minutes in 2019).

Power cuts, on average 5 hours and 24 minutes per day, were the highest in non-residential shelters (6 hours and 45 minutes per day).

In Beirut and the Bekaa, the hours of electricity accessed from the grid remained notably higher. In contrast, the South and Akkar experienced a much lower supply of electricity from the grid, which was supplemented by higher energy sourcing from generators.

Due to reduced hours of supply by the grid, refugee households increased their reliance on diesel generators, especially in governorates where the hours of supply from the grid were low.

Figure 5: Hours of electricity by source (out of a 24-hour window)

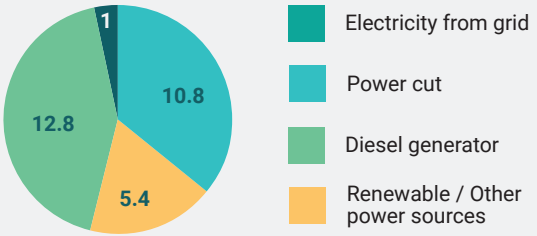
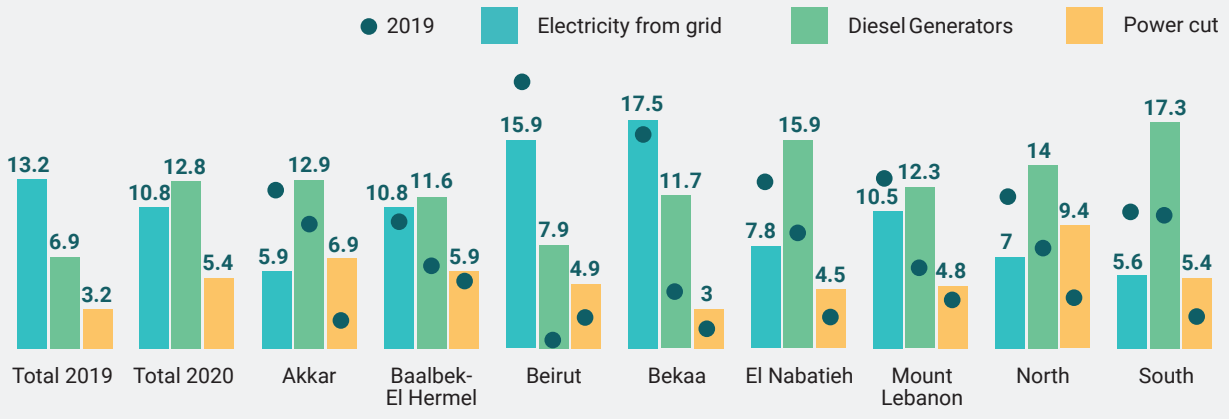


Figure 6: Hours of electricity per day per governorate



ELECTRICITY BILL COLLECTION

Collection of bills by EDL increased from 33% in 2019 to 43% in 2020.Forty-two percent of refugee household EDL bills were either collected by the landlord (26%) or were already included as part of the rent (16%). No bills were collected from 13% of households.

Like 2019, the highest rate of collection of bills by EDL was reported in Beirut (54%), El Nabatiyeh (51%) and Mount Lebanon (50%) while the lowest was in Akkar (33%).

Figure 7: Electricity bill collections

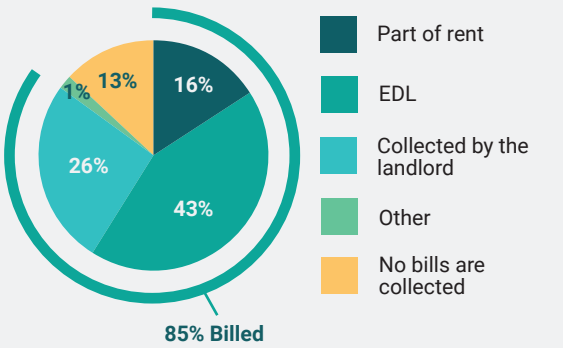
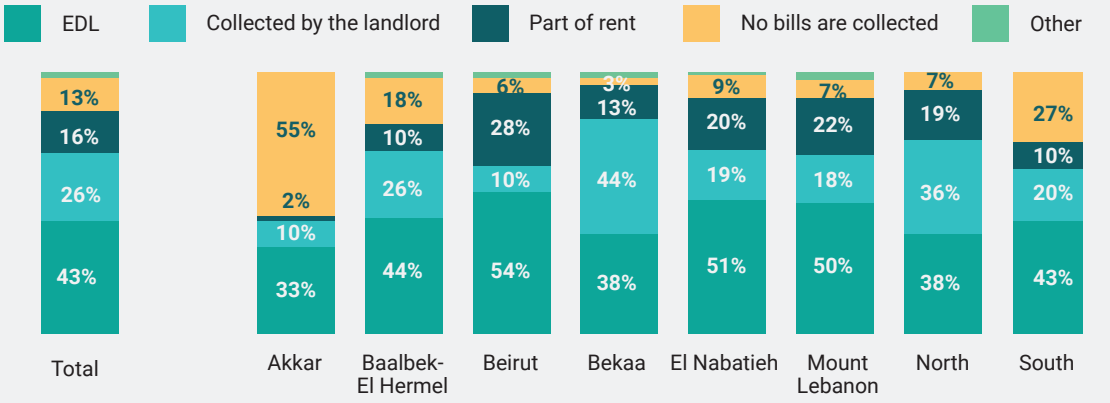


Figure 8: Bills collection by governorate



In 2020, there was an increase in the percentage of refugees living in non-permanent shelters (informal settlements). One-third of refugees living in non-permanent shelters (informal settlements) were paying the EDL electricity bills to the landlord (directly or part of the rent) and only 20% were paying directly to EDL staff compared to 38% of those living in residential shelters.

Of the 43% of households where EDL directly collected the bills, 69% paid monthly, whereas 30% paid every two months, with only 1% having settled their bills every 6 months.

Refugee households more frequently tend to pay the landlords directly for the electricity grid, whereas 78% paid their bills every month.

Table 1: Electricity grid connection - frequency of payment

	Payment to EDL staff			Payment to landlord		
	Every month	Every 2 months	Every 6 months	Every month	Every 2 months	Every 6 months
Total	69%	30%	1%	78%	19%	3%
Akkar	38%	60%	1%	96%	2%	2%
Baalbek-El Hermel	91%	8%	1%	68%	24%	8%
Beirut	63%	37%	0%	68%	32%	0%
Bekaa	83%	16%	1%	91%	5%	4%
El Nabatieh	48%	46%	6%	55%	40%	5%
Mount Lebanon	64%	36%	1%	72%	27%	1%
North	66%	32%	2%	69%	31%	0%
South	81%	17%	1%	84%	12%	4%

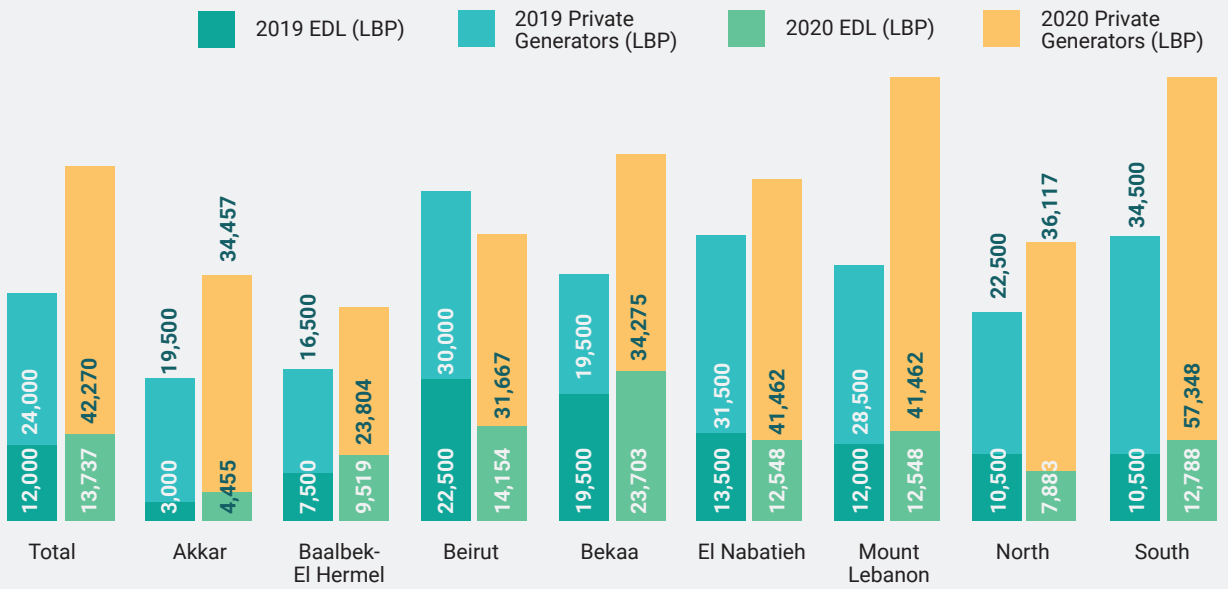
Percentage calculated out of those who have access to EDL electricity and have their bills collected by EDL or Landlord.

EXPENDITURE ON ELECTRICITY

Like 2019, out of all visited households, 30% reported an expenditure on electricity from the grid (EDL) in the last 30 days, whereas 40% had an expenditure on generators during the same time period.

Taking into consideration all households (including those who spent zero), the average amount spent on electricity from the grid was LBP 13,737 (LBP 12,000 in 2019) per family monthly, whereas the average amount spent on generators was LBP 42,270 per family monthly, almost double the amount reported in 2019 (LBP 24,000).

Figure 10: Average amount spent on EDL and private generators - all households (including those who spent zero)



Looking only at of households who had expenditure on EDL (30% of households), the average amount spent was LBP 42,440 compared to LBP 64,612 for households who had expenditure on private generators (40% of households).

ENERGY SOURCES FOR COOKING

The main energy source used for cooking remained gas, as reported by 98% of households:

	Gas	Wood	Oil	Other	No source was used
Total 2020	98%	2%	1%	0%	0%
Total 2019	98%	2%	2%	1%	0%
Akkar	98%	2%	1%	0%	0%
Baalbek-El Hermel	98%	4%	1%	0%	0%
Beirut	98%	0%	0%	2%	2%
Bekaa	98%	1%	2%	0%	0%
El Nabatieh	98%	5%	1%	1%	0%
Mount Lebanon	99%	1%	0%	0%	0%
North	98%	2%	1%	0%	1%
South	95%	3%	0%	0%	4%
Residential	99%	1%	1%	0%	0%
Non-residential	97%	2%	0%	0%	2%
Non-permanent	97%	5%	1%	0%	0%

ENERGY SOURCES FOR HEATING

Oil (e.g. furnace oil) remained the number one source of heating for refugees reported by 39%; this source of energy for heating was used mostly in informal settlements where it was reported by 61% of households. The use of wood for heating has increased to 17% (12% in 2019) and was mostly used by households living in informal settlements.

	Oil (e.g. furnace oil)	Wood	Electric powered heater/cooker	Gas	None	Other
Total 2020	39%	17%	13%	10%	24%	3%
Total 2019	40%	12%	16%	11%	20%	5%
Akkar	65%	24%	3%	6%	7%	1%
Baalbek-El Hermel	81%	21%	2%	1%	1%	?
Beirut	1%	?	32%	11%	54%	5%
Bekaa	72%	34%	1%	1%	1%	1%
El Nabatieh	32%	33%	7%	20%	8%	12%
Mount Lebanon	14%	5%	26%	13%	44%	3%
North	21%	11%	18%	24%	25%	3%
South	7%	11%	11%	11%	56%	7%
Residential	33%	10%	18%	13%	20%	3%
Non-residential	37%	17%	8%	12%	28%	4%
Non-permanent	61%	40%	2%	2%	30%	1%