

ENERGY



KEY FINDINGS

- **96% of Syrian refugee households have some access to electricity**, mainly from the electricity grid and through diesel generators.
- **Electricity from the grid covers only 55% of the daily needs**, on average leaving 11 hours of power cuts nationally. As a result, 60% of households resort to accessing electricity through diesel generators, which bears an environmental as well as a financial cost.
- Over half of households pay for their electricity grid bill directly to the landlord or it is already included in their rent, while 33% pay directly to Electricité Du Liban, EDL. For 14% of households, no-one is collecting electricity bills.
- The use of renewable power, including solar panels and biomass/ biogas, remains negligible in all governorates.

ACCESS TO ELECTRICITY

Overall, 96% of households have some access to electricity, while 4% report having no access.

Access to any type of electricity is more challenging for those living in non-residential and non-permanent shelters. There are no major differences in access between women-headed and men-headed households.

Figure 1: Access to electricity

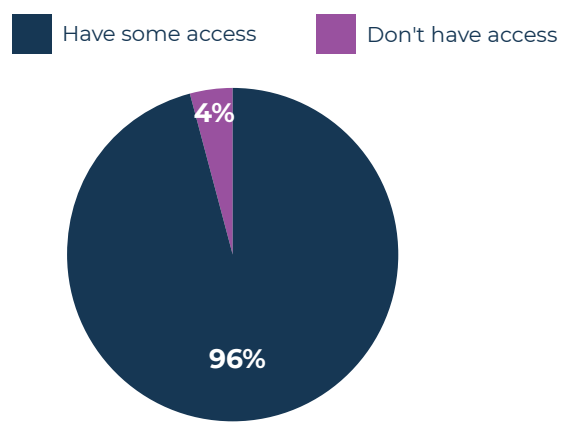
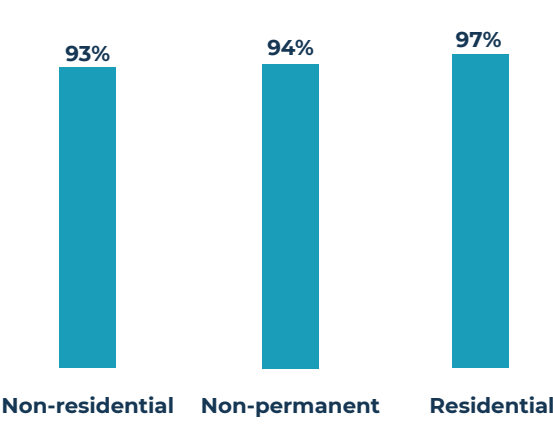
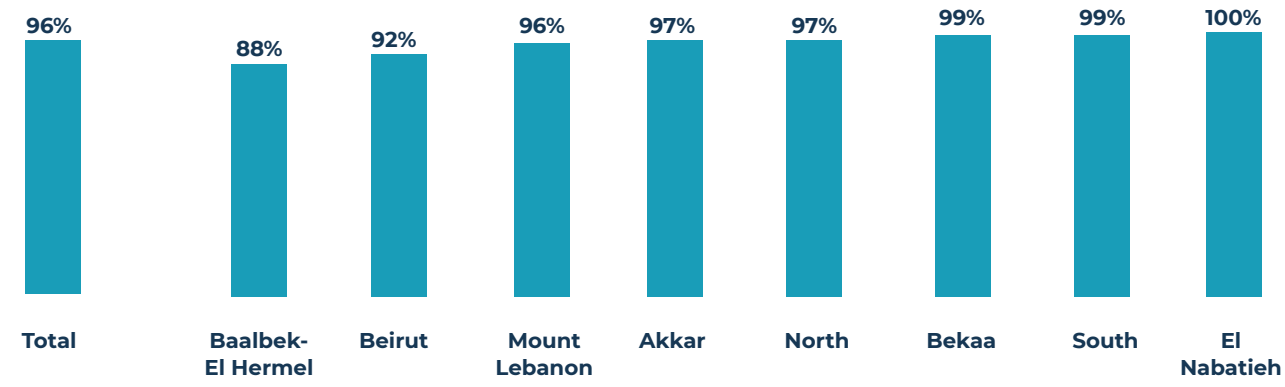


Figure 2: Access to electricity per shelter type



Looking at access to electricity per geographical area, Baalbek-El Hermel scored as the governorate with the lowest access at 88%.

Figure 3: Access to electricity per governorate

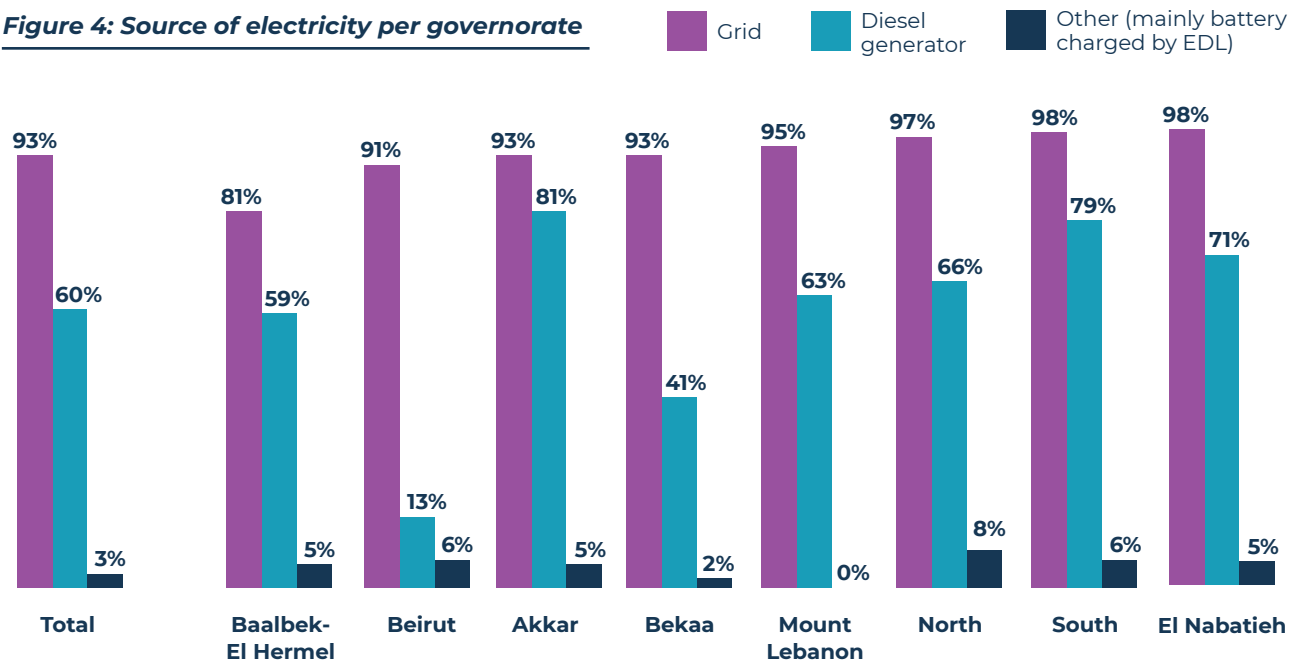


SOURCES OF ELECTRICITY

When considering the sources of electricity, 93% of households have access to the grid, with the lowest access reported by those living in non-permanent shelters (86%) as well as the most vulnerable households (92%). While access to diesel generators is lower at 60% on average and remains to be more challenging for those living in non-permanent shelters, only 48% of whom have access.

The 2019 results show that significant regional disparities relating to the source of energy should also be noted. While over 90% of households are able to access electricity from the grid in most governorates, in Baalbek-El Hermel accessibility is only 81%. Access to generators varies widely, ranging from 81% in Akkar to 13% in Beirut. The use of renewable power, including solar panels and biomass/biogas, remains negligible in all governorates.

Figure 4: Source of electricity per governorate

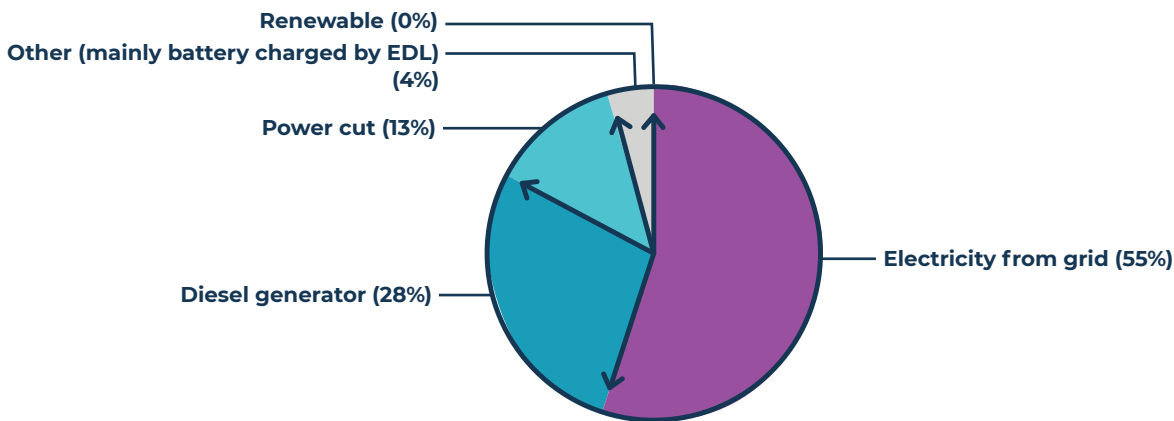


HOURS OF ELECTRICITY BY SOURCE

Out of a 24 hour window, refugees are able to access, on average, 13 hours and 12 minutes of electricity from the grid (55% of daily need), 6 hours and 42 minutes of electricity from diesel generators (28% of daily need) and 54 minutes of electricity from other sources (4%), while they experience a power cut during 13% of their day (3 hours and 9 minutes).

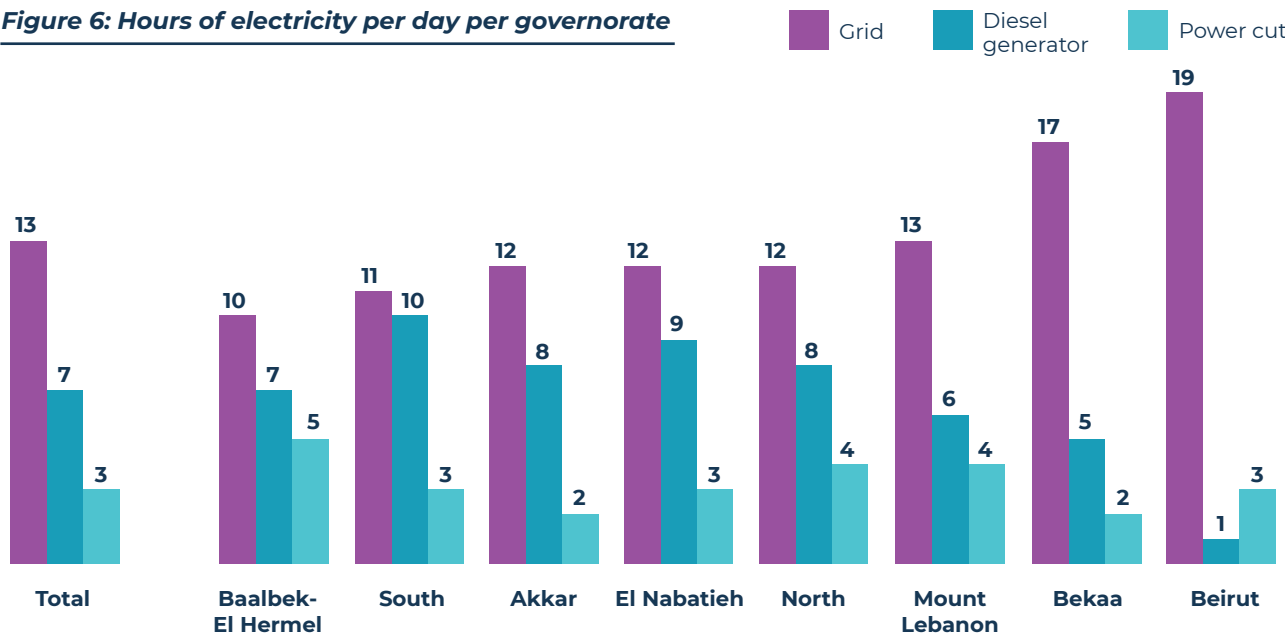
Power cuts, on average 3 hours and 9 minutes per day, are the highest in non-residential shelters (3 hours and 27 minutes per day) and among the most vulnerable households (3 hours and 30 minutes per day compared to 2 hours and 27 minutes per day for those least vulnerable).

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



In Beirut and the Bekaa, the hours of electricity accessed from the grid are notably higher, corresponding to a lower number of hours of electricity sourced from generators. In contrast, the South experiences a much lower supply of electricity from the grid, which is supplemented by higher energy sourcing from generators.

Figure 6: Hours of electricity per day per governorate



ELECTRICITY BILL COLLECTION

For over half of refugee households (52%), bills for electricity from the grid are either collected by the landlord (29%) or are already included as part of the rent (22%). EDL collects bills directly from almost one third of households (33%). No bills are collected from 14% of households. The highest rate of collection of bills by EDL was reported in Beirut (55%) and El Nabatiyeh (53%) while the lowest was in Akkar (11%) and North (26%).

Figure 7: Electricity bill collections

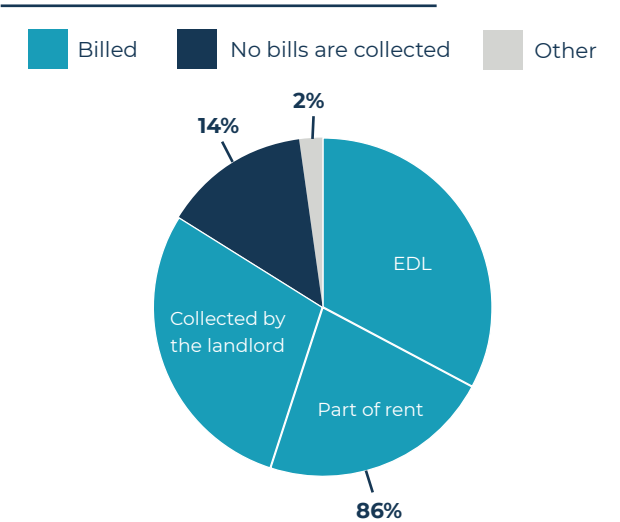
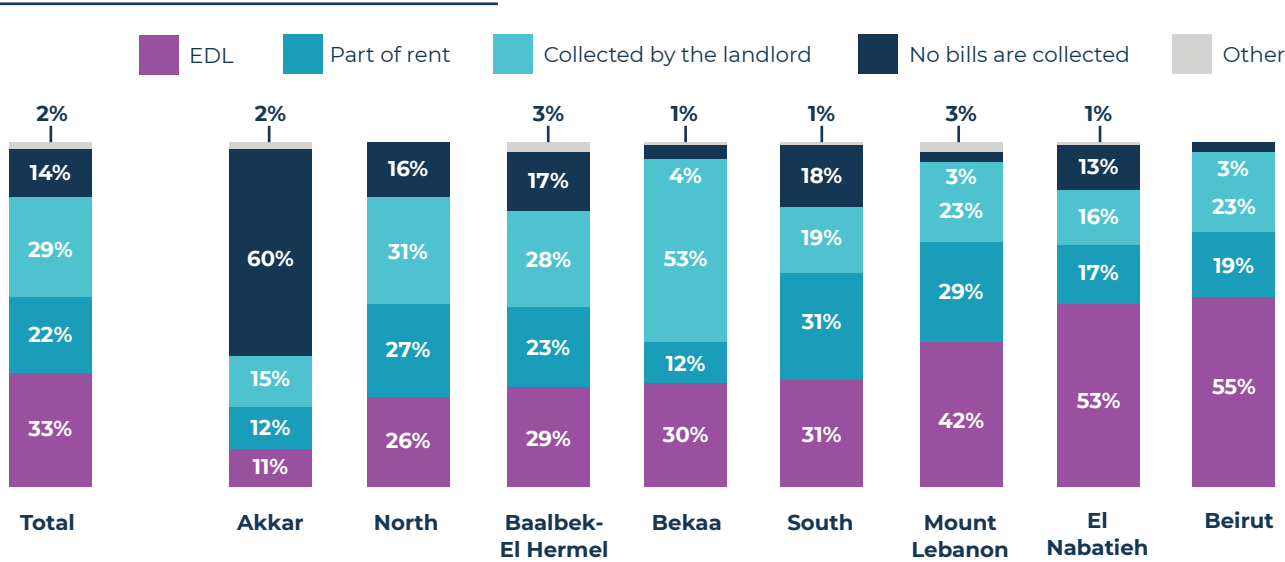
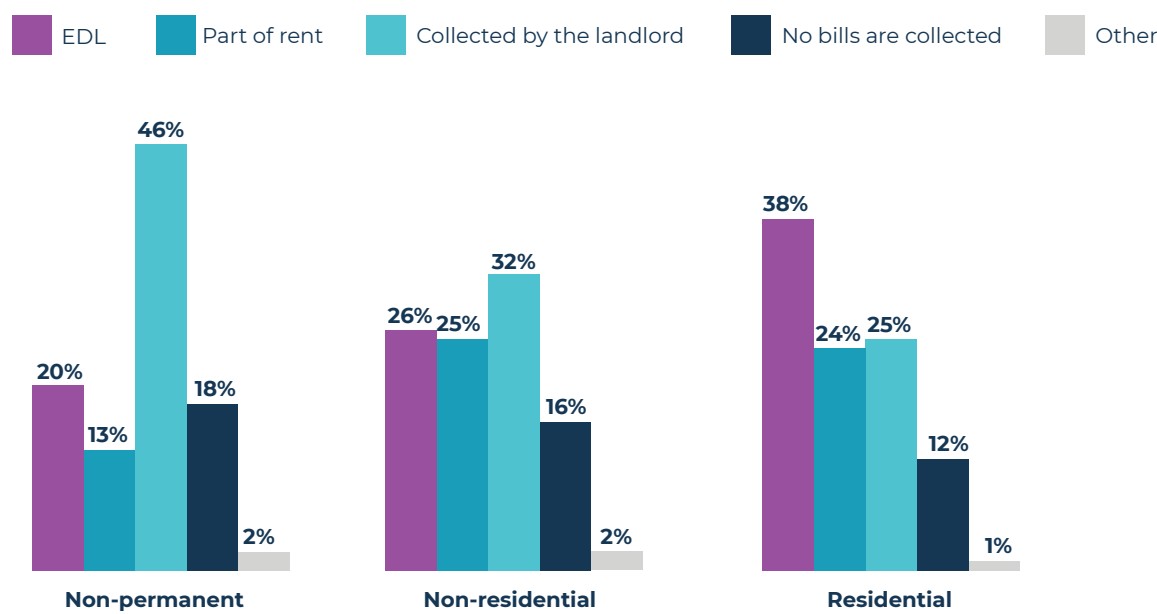


Figure 8: Bills collection by governorate



Two-thirds of refugees living in non-permanent shelters (informal settlements) are paying the EDL electricity bills to the landlord (directly or part of the rent) and only 20% are paying directly to EDL staff compared to 38% of those living in residential shelters.

Figure 9: EDL bill collection

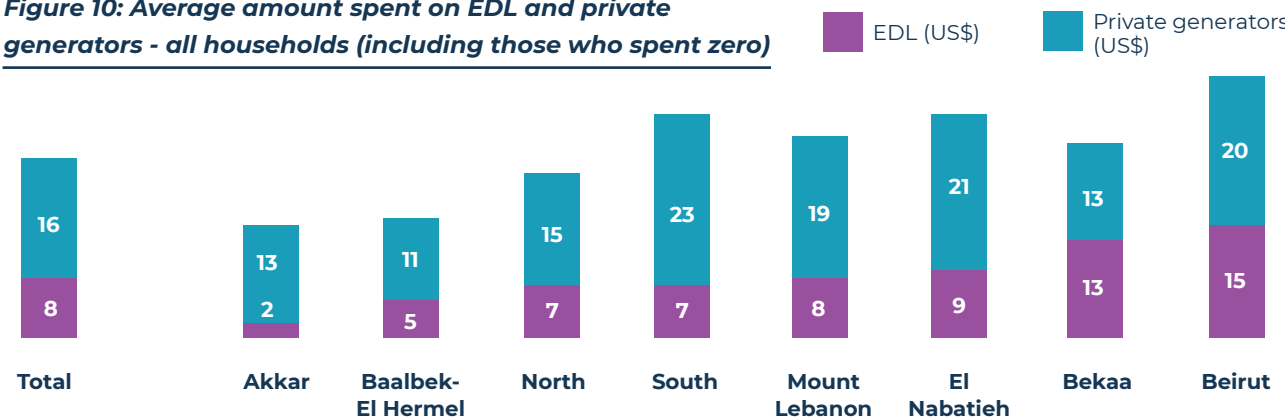


EXPENDITURE ON ELECTRICITY

Out of all households visited, 30% reported an expenditure on electricity from the grid (Electricité du Liban - EDL) in the last 30 days, whereas 38% had an expenditure on generators during the same time period.

The average amount spent on electricity from the grid is USD\$ 8 per family monthly, whereas the average amount spent on generators is US\$ 16 per family per month.

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



FREQUENCY OF BILL COLLECTION

Of the 33% of households where EDL directly collects the bills, 59% pay monthly, whereas 40% pay every two months, with only 1% settling their bills every 6 months.

Refugee households more frequently tend to pay the landlords directly for the electricity grid, whereas 81% pay their bills every month.

Table 6: 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	59%	40%	1%	81%	16%	3%
Akkar	35%	65%	0%	80%	17%	3%
Baalbek-El Hermel	84%	13%	3%	78%	15%	6%
Beirut	40%	59%	1%	85%	14%	1%
Bekaa	90%	9%	1%	90%	6%	3%
El Nabatieh	37%	60%	3%	68%	29%	3%
Mount Lebanon	58%	41%	1%	76%	20%	3%
North	41%	59%	0%	78%	22%	0%
South	26%	69%	5%	58%	42%	0%

In contrast to EDL electricity payments, almost all refugee households (99%) with access to diesel generators pay their bills monthly.

Table 7: Energy sources for cooking

		Gas	Oil (e.g. furnace oil)	Wood	Electric powered heater/cooker	No source is used
Governorate	Total	98%	2%	2%	1%	0%
	Akkar	99%	0%	1%	0%	0%
	Baalbek-El Hermel	99%	4%	2%	0%	0%
	Beirut	94%	0%	0%	5%	1%
	Bekaa	100%	7%	7%	0%	0%
	El Nabatieh	99%	0%	2%	1%	0%
	Mount Lebanon	99%	0%	0%	1%	0%
	North	93%	1%	0%	5%	0%
	South	99%	2%	2%	1%	0%
Shelter type	Residential	98%	2%	1%	1%	0%
	Non-residential	97%	2%	2%	3%	1%
	Non-Permanent	99%	4%	8%	0%	0%

Table 8: Energy sources for heating

		Gas	Oil (e.g. furnace oil)	Wood	Electric powered heater/cooker	None	Other
Governorate	Total	11%	40	12%	16%	20%	5%
	Akkar	8%	62%	13%	9%	12%	1%
	Baalbek-El Hermel	5%	82%	16%	1%	0%	1%
	Beirut	22%	0%	0%	27%	33%	18%
	Bekaa	3%	78%	22%	1%	1%	1%
	E Nabatieh	16%	41%	22%	8%	14%	5%
	Mount Lebanon	16%	11%	3%	26%	38%	9%
	North	15%	18%	12%	28%	25%	3%
	South	17%	23%	13%	22%	22%	15%
Shelter type	Residential	14%	33%	6%	20%	24%	7%
	Non-residential	9%	44%	16%	16%	14%	5%
	Non-Permanent	3%	63%	30%	1%	6%	1%