Electricity Worksheet 2b | Answers

Supply & Demand Extension

Table 1

Time	Electricity demand (kWh)	Electricity supply (kWh)	Electricity demand – electricity supply
1 am	20	0	20 – 0 = 20
2 am	17.5	0	17.5
3 am	15	0	15
4 am	15	0	15
5 am	17.5	0	17.5
6 am	20	0	20
7 am	40	0	40
8 am	62.5	5	57.5
9 am	60	7.5	52.5
10 am	60	35	25
5 pm	75	7	68
6 pm	82.5	0	82.5
7 pm	82.5	0	82.5
8 pm	80	0	80
9 pm	80	0	80
10 pm	75	0	75
11 pm	50	0	50
12 am	30	0	30
Total electricity that can't be generated using solar panels			828 kWh

Table 2

Time	Electricity demand (kWh)	Electricity supply (kWh)	Electricity supply – demand
11 am	50	65	65 – 50 = 15
12 pm	47.5	72	24.5
1 pm	50	75	25
2 pm	45	77	32
3 pm	47.5	68	20.5
4 pm	60	62	2
Total electricity from solar panels that could be wasted			119 kWh

1. **How much electricity would Banktown still need to generate for this day?**

   827 kWh - 119 kWh = 708 kWh

2. **Why is it important for different towns and countries to use an energy mix?**

   It means that we don't always rely on one technology for our electricity supply. This is important because there are times when renewables aren't able to generate electricity. For example, solar panels can't generate much electricity when it's cloudy, or at night. Wind turbines aren't able to generate electricity on days when it isn't windy. When one technology can't generate electricity, another technology could.