

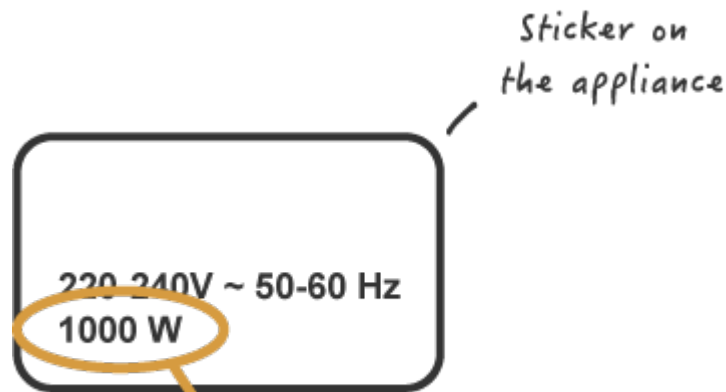
1 kWh

ONE KILOWATT HOUR

Like a metre is a measurement of length,
a **kilowatt hour** is a measurement of **energy**

It measures or describes the amount of
power used in a certain amount of time

All appliances carry a power rating that indicates the amount of power they use



This appliance has a power rating of **1 000 W**

1 000 W is the same as **1kW** (one kilowatt)

If I run a
1 kWh appliance*

for 1 hour

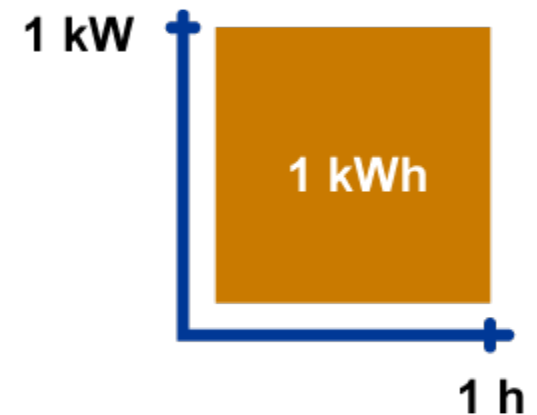
it uses a total
of 1 kWh of
energy



x



=



1 kW

x

1 h

=

1 kWh

If I run a
2 kWh appliance*



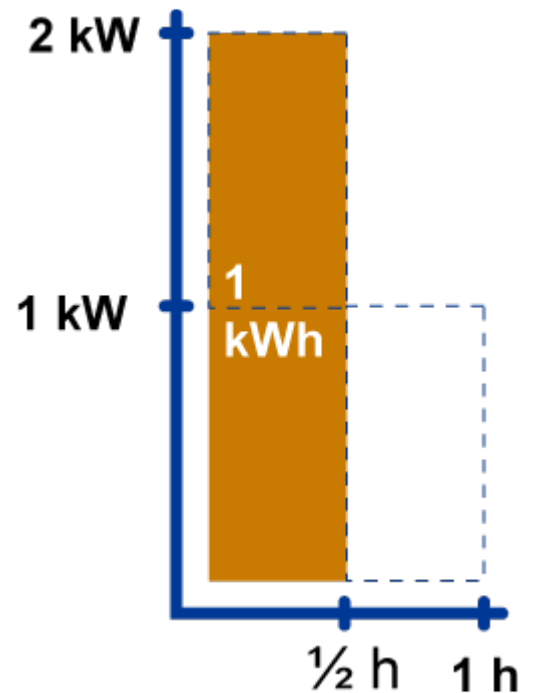
x

for half
an hour



=

it also uses a
total of 1 kWh of
energy



2 kW

x

1/2 h

=

1 kWh

How much do you get for 1 kilowatt hour?

1 kWh

ONE KILOWATT HOUR
WILL GET YOU ABOUT



16 meals
microwaved



4 hours* of
refrigeration



24 slices
toasted



1½ laundry loads
washed



8 rooms
vacuumed



1 cake
baked

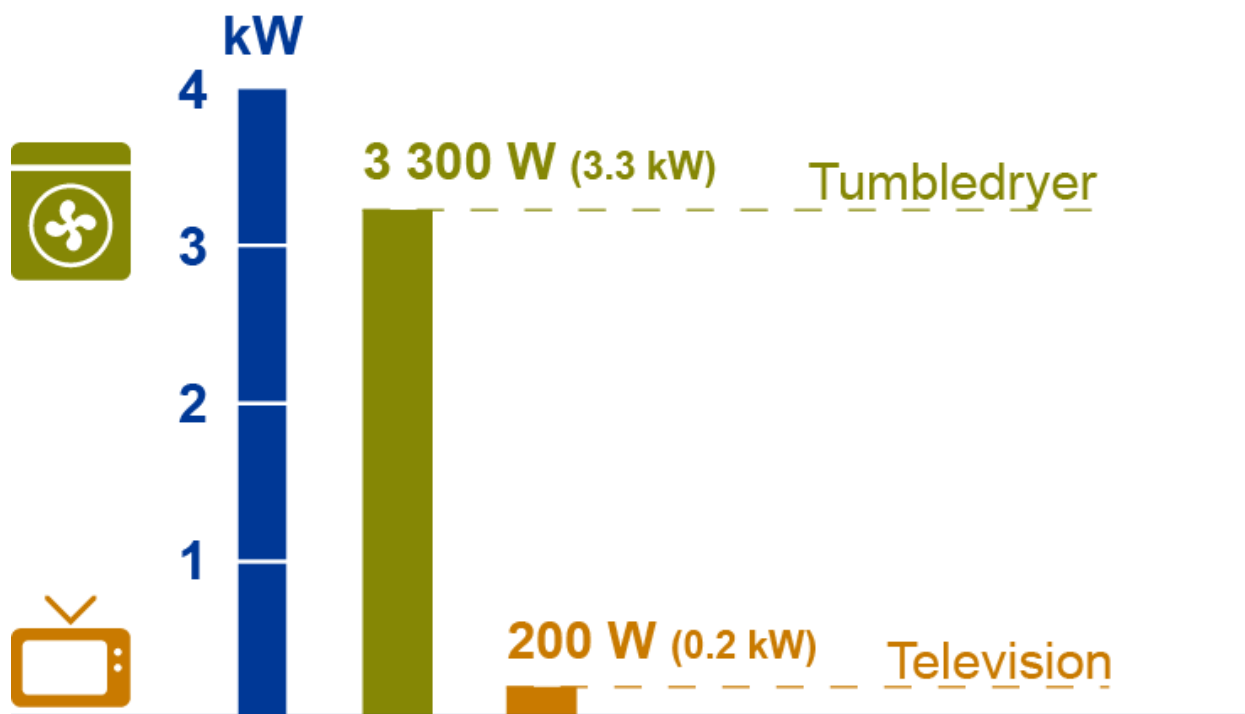


5 shirts
ironed



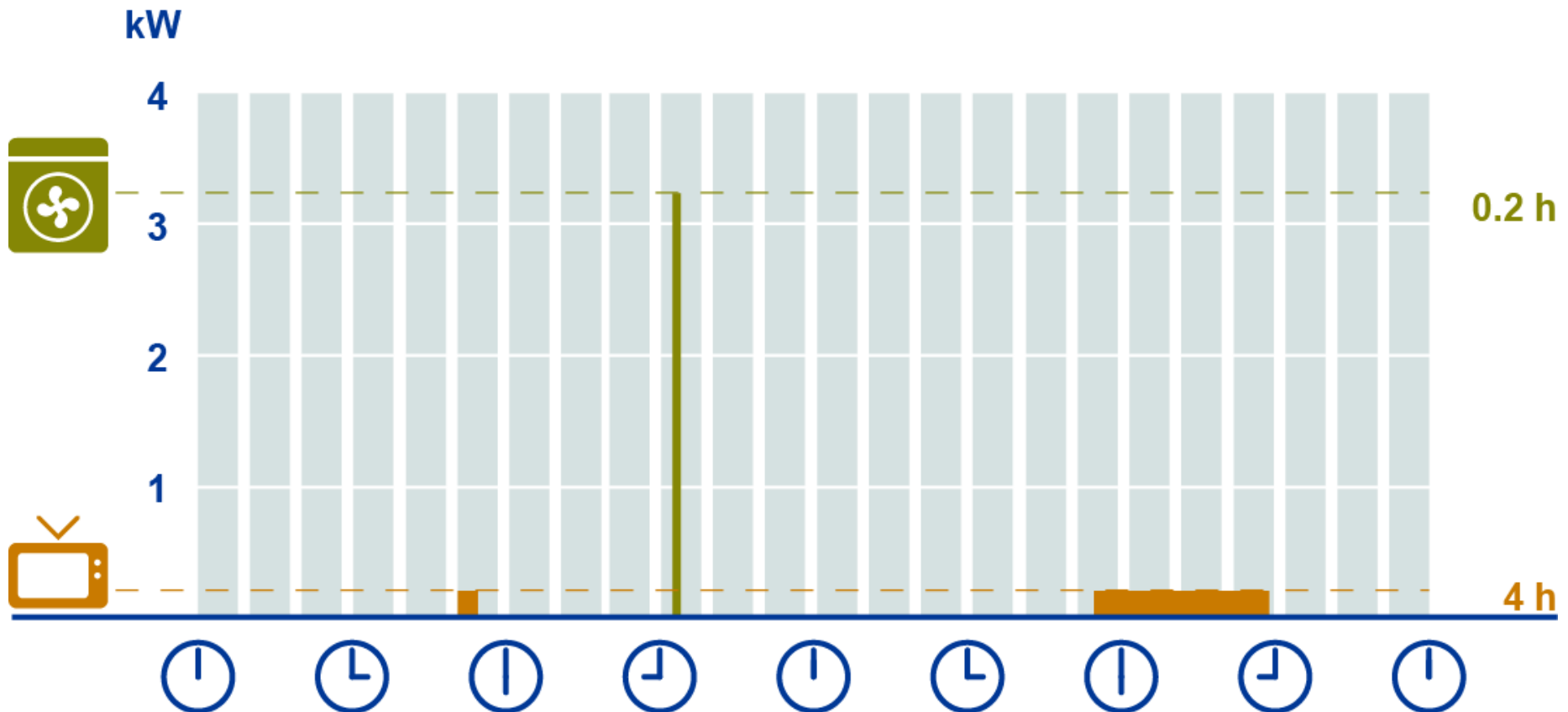
*That's equivalent to
running the fridge
for about 15 hours

A tumbledryer uses much more power than a television



Average daily usage patterns

But, on average, a tumbledryer is used for less time during the day than a television



So, on average, a tumbledryer and a television's average total energy use per day is about the same


$$3.3 \text{ kW} \times 0.2 \text{ h} = 0.66 \text{ kWh}$$


$$0.2 \text{ kW} \times 4 \text{ h} = 0.60 \text{ kWh}$$

Household Appliances



Fridge



Freezer



Dishwasher



Tumble
dryer



Television



Washing
machine



Household
lighting

Average appliance power consumption ratings

							Power rating kW
0.25	0.11	2.50	3.30	0.20	3.00	1.24	
250	105	2 500	3 300	200	3 000	1 240	Watt



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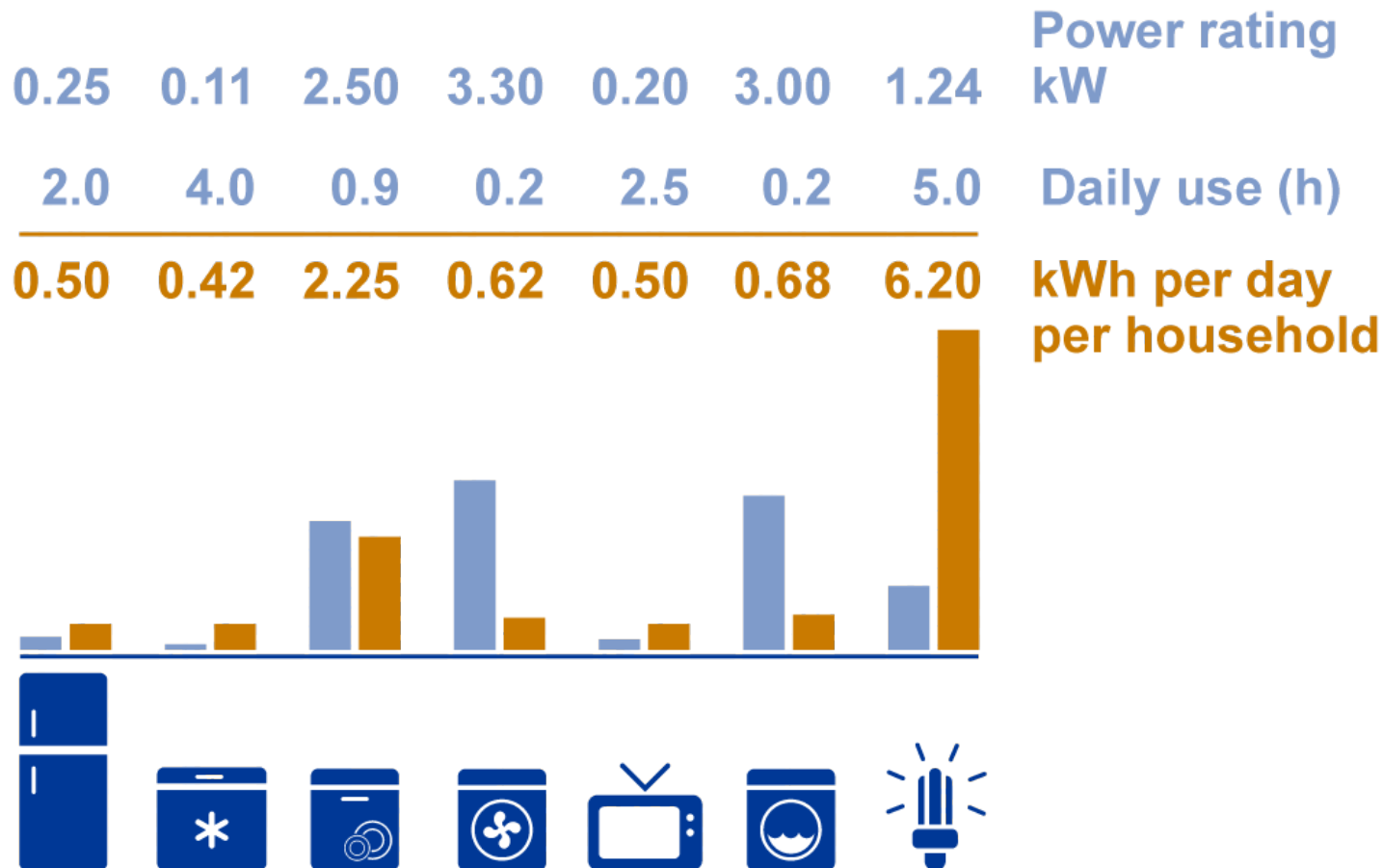


Average daily household use

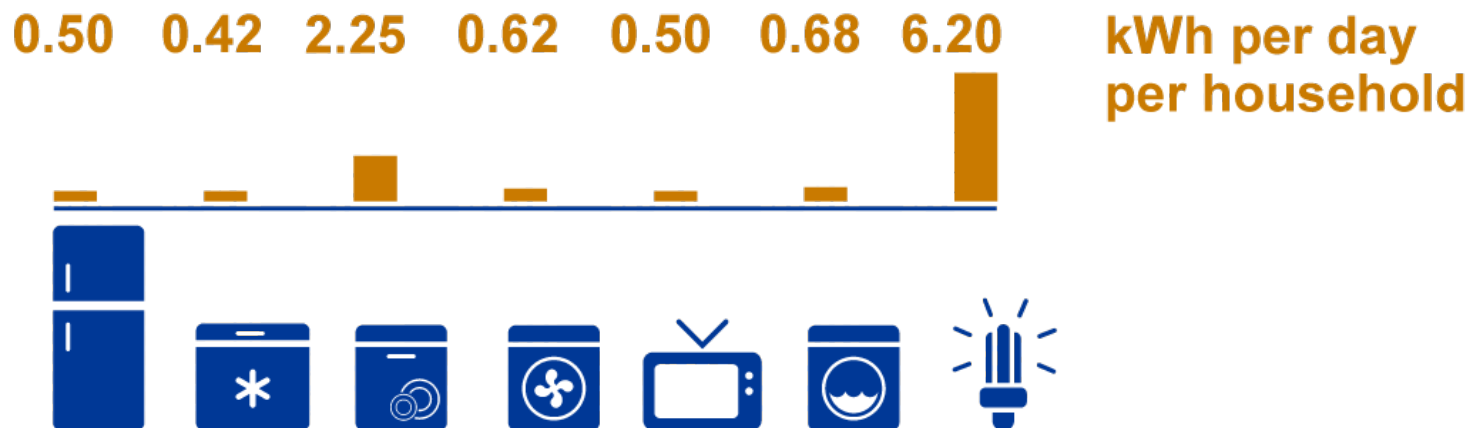
							Power rating kW
0.25	0.11	2.50	3.30	0.20	3.00	1.24	
2.0	4.0	0.9	0.2	2.5	0.2	5.0	Daily use (h)



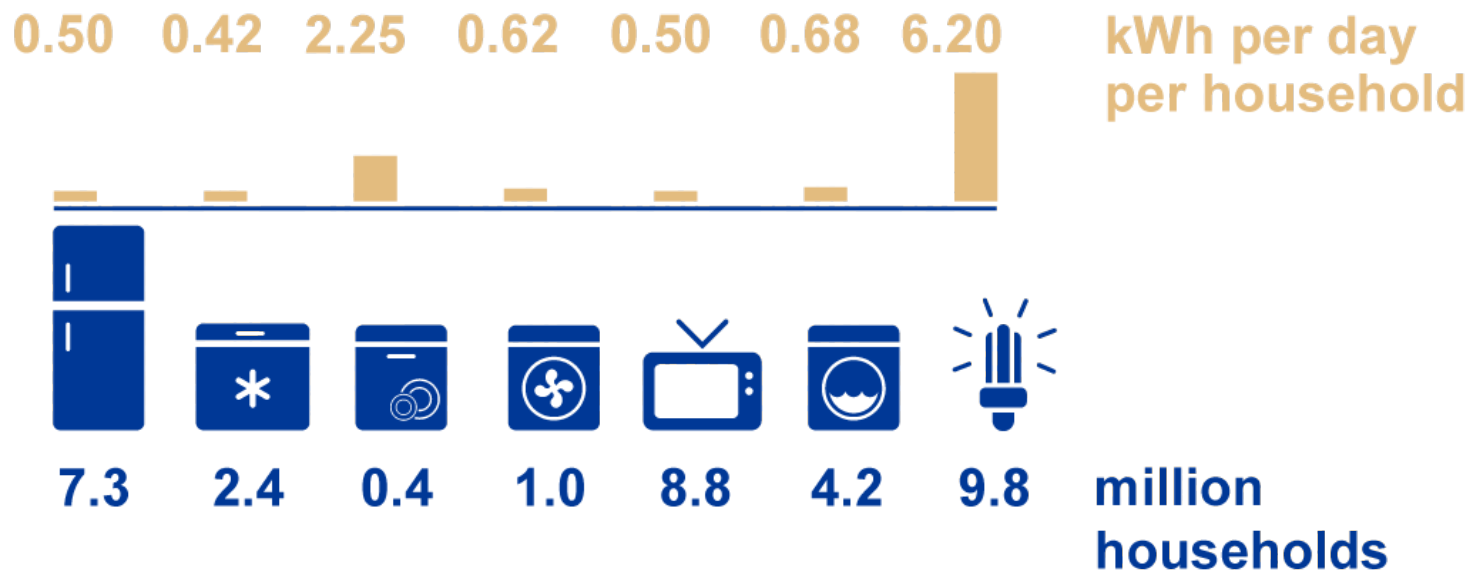
Average daily household power consumption



Average daily household power consumption



How many households in SA have them?



*All values rounded off

Total national annual power consumption

