



# Calculating Electricity Bill

## USING THE IF FUNCTION TO QUICKLY CALCULATE ELECTRICITY BILLS IN EXCEL

## Contents

1.Introduction .....	2
2.Electricity Consumption Data and Pricing Overview: .....	2
3.Conclusion:.....	4
References .....	5

# Calculating Electricity Bill

# 1.Introduction

Electricity bills are a cost that every household and business have to pay. But can accountants control this amount and not let it exceed their ability to pay? Use the IF function to calculate how much money you have to pay for electricity. Since the electricity unit price is calculated according to different levels of electricity consumption, we will need to calculate according to each level. In this article, I will share with you how to use the IF function to quickly calculate electricity bills in Excel. The government periodically revises electricity tariffs to reflect changes in production costs, including fuel prices. Recent adjustments have aimed to balance the financial sustainability of power companies with the need to keep electricity affordable for consumers. Bangladesh has faced challenges with power supply reliability. The government has been working to enhance infrastructure and expand the grid to meet growing demand, particularly during peak times. Efforts have been made to ensure consumer rights are protected in billing practices, with regulations aimed at preventing overcharging and ensuring transparent billing.

**2.Electricity Consumption Data and Pricing Overview:** We have a table of electricity consumption of 5 households as shown below. The Previous reading column is the electricity meter reading at the end of the previous month. The Current reading column is the electricity meter reading at the end of this month.

In the table below is the electricity prices for each level of electricity consumption:

- Level 1: For kWh from 0-75: 4.85 Taka (Per Unit Cost)
- Level 2: For kWh from 76-200:6.63 Taka (Per Unit Cost)
- Level 3: For kWh from 201-300:6.95 Taka (Per Unit Cost)
- Level 4: For kWh from 301-400:7.34 Taka (Per Unit Cost)
- Level 5: For kWh from 401-600:11.51 Taka (Per Unit Cost)

Table 1

Slab Rate	Difference	Per Unit Cost
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0-75	75	4.85
76-200	125	6.63
201-300	100	6.95
301-400	100	7.34
401-600	200	11.51
600+		13.26

Table 2

Customer Name	Account Number	Meter Number	Sanction Load	Tariff	Previous Unit	Present unit	Consumed unit	Normal KW H Charge	Demand Charge	Meter Rent	Vat	Total Dues(Rounded )
Rayhan Tanjim	55223112	BD-235	8	A	60606	61207	601	4936.76	280	0	260.8	5478
Md Tanjimul Kabir	55223111	DK-121	8	A	1923	2036	113	615.69	280	0	44.78	941
Atif Akash	55223113	MK-525	16	A	48177	50643	2466	29666.66	560	0	1511	31738
Obaidur Rahman	55223114	DK-122	8	A	2521	2820	299	1880.55	280	0	108	2269
Azizur Rahman	55223121	BD-241	16	A	5021	5211	190	1126.2	560	0	84.31	1771

First, we need to calculate the amount of electricity consumed by each household in the period by subtracting the Previous reading from the Current reading. In cell **D2**, we have the following formula: =K6-J6

Copy the formula for the remaining cells, we will get the result of calculating the amount of electricity consumed by each household in the month.

Next, to calculate the electricity bill according to the progressive table for each level of electricity consumption, we apply the **IF** function to the formula in cell **M6** as follows:

```
=IF(L6<=75,L8*4.85,
IF(L6<=200,
75*4.85+(L6-75)*6.63,
IF(L6<=300,75*4.85+125*6.63+(L6-200)*6.95,
IF(L6<=400,75*4.85+125*6.63+100*6.95+(L6-300)*7.34,
IF(L6<=600,75*4.85+125*6.63+100*6.95+100*7.34+(L6-400)*11.51,
IF(L6>600,75*4.85+125*6.63+100*6.95+100*7.34+200*11.51+(L6-600)*13.26,"")
))))))
```

Copy the above formula for the remaining cells, we will calculate the electricity bill without including value-added tax for each household.

Next, to calculate the **demand charge**, we multiply **sanction load \*35**

Copy the above formula for the remaining cells, we will calculate the electricity bill demand charge

Next, to calculate the electricity bill including VAT, we multiply the electricity bill before tax by 5%. We have the formula in cell P6 as follows:  $= (M6+N6)*5\%$

Copy the formula for the remaining cells in the column, we will get the electricity bill including VAT for each household.

Next, to calculate the electricity bill including all cost, we sum the electricity bill, Vat , demand charge and result with roundup value  $=ROUNDUP(M6+N6+P6,0)$

Copy the formula for the remaining cells in the column, we will get the total electricity bill including VAT, demand charge.

**3.Conclusion:** Thus, the above article has guided you on how to use the IF function to quickly calculate electricity bills in [Excel](#). Hopefully, the article will be useful for you in the

work process. Calculating your electricity bill can empower you to manage your energy consumption and reduce costs effectively. By understanding the various components, such as usage in kilowatt-hours (kWh), peak vs. off-peak rates, and additional fees, you can identify opportunities for savings. Utilizing tools like Excel allows for precise tracking and forecasting of expenses, making it easier to implement energy-saving measures. Ultimately, staying informed and proactive about your electricity usage not only helps in budgeting but also contributes to sustainable energy practices.

## References

1. <https://buffcom.net/using-the-if-function-to-quickly-calculate-electricity-bills-in-excel/>
2. <https://www.wikihow.com/How-Do-You-Write-an-if-then-Formula-in-Excel>

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