

NGEIR Modeling Tool

User Guide

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Overview

System Requirements

The minimum requirements to run this utility are listed below:

- Windows OS (Windows 2000 or Windows XP)
- Microsoft Excel 2000 or above
- 128 MB RAM and above



Utility Features

Other features

Validations and Error Alerts: Error messages are displayed as dialog boxes when certain validations are not successful.

Mandatory fields and fields requiring no modification: Fields that require mandatory input from the user are denoted with an asterisk “*”.



How-to Guide

Given below is a step-by-step guide

Step 1 – Disclaimer:

When the tool is started the first screen is the Disclaimer Screen. The user needs to click on the “I Agree” button to agree to the terms for the usage in order to use the tool. Clicking on the “I Agree” button implies that the user agrees to terms of agreement for the tool.

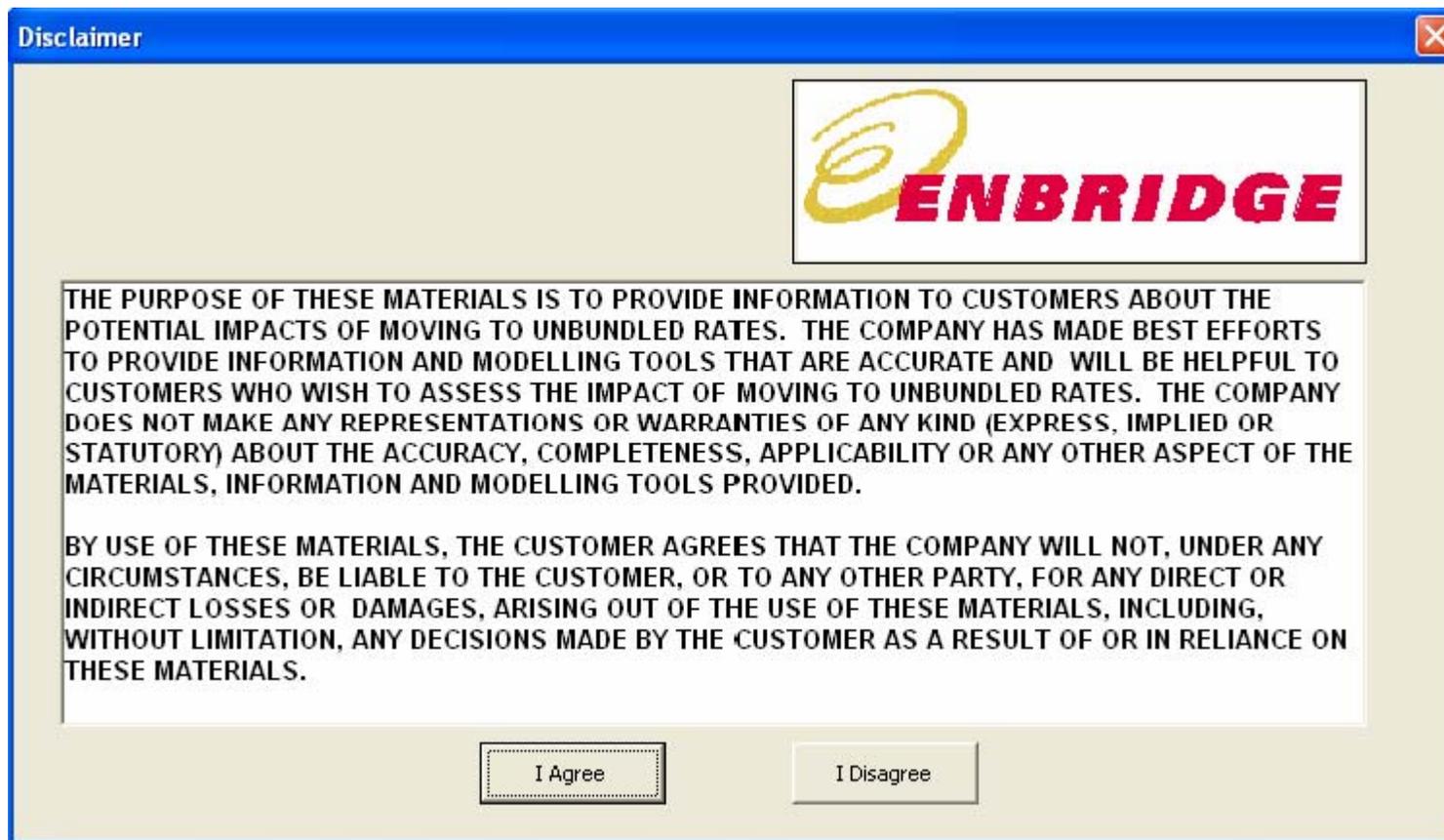


Figure 1 : Disclaimer

Step 2 – Customer Information screen – “Cust Info” and “Consumption” sheets

The user needs to enter Customer information (Customer Name, Contract Number, Current Rate and Service Address), Transportation Charges, Gas Supply Charges, and Contract Demand in cubic meter. Also, the customer needs to enter 12 months of daily consumption information in the sheet “Consumption”. Once this information is supplied to the relevant cells in the ‘Cust Info’ and ‘Consumption’ sheets rest of the other Rate Sheets (e.g. ‘Rate 100’, ‘Rate 110’, ‘Rate 135’, etc) sheets refer to these details for calculating bills based on selected rate plan.

Inputs: All cells marked with a red asterix indicate mandatory inputs

- **Cust Info Sheet**
 - Customer information
 - Customer Name
 - Contract Number
 - Current Rate
 - Service Address
 - Contract Demand volume in m3
 - Gas Supply charge
 - User can choose to input 0 or a positive number
 - User can also choose to use the approved rates (given by EGD) by clicking on the ‘Use approved Gas Supply charge’ button
 - Transportation charge
- **Consumption Sheet**
 - Daily Consumption

Billing calculations are carried out on the basis of the consumption, applicable additional charges (transportation, gas supply) and structure of the rate plan. This screen provides a chart for the customer’s monthly gas consumption profile. It also provides a summary report of the comparative study of all the bundled rate plans with annual charges for each rate including Total annual bill, Load balancing, Gas supply, Distribution charge, Transportation charge and Rate applicability.

Calculated Output:

- Summary report
- Gas Consumption Profile
- Rate Analysis



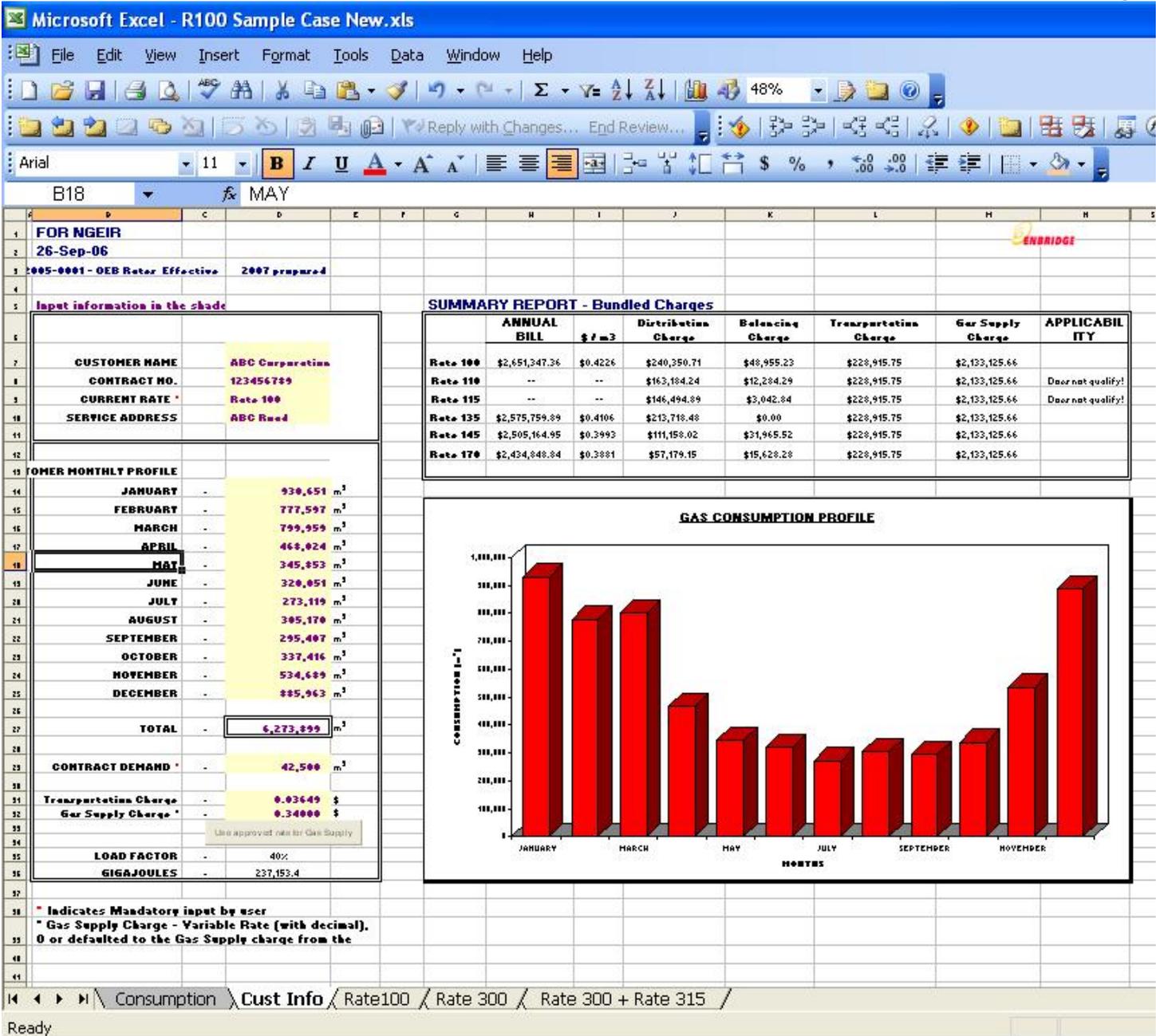


Figure 2 : Customer Information



Step 3 – Calculation of all charges and total annual bill

Rate 100

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the Cust Info sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- MONTHLY SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- ANNUAL BILL (SYSTEM GAS)

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides the Unaccounted for Gas in kind.



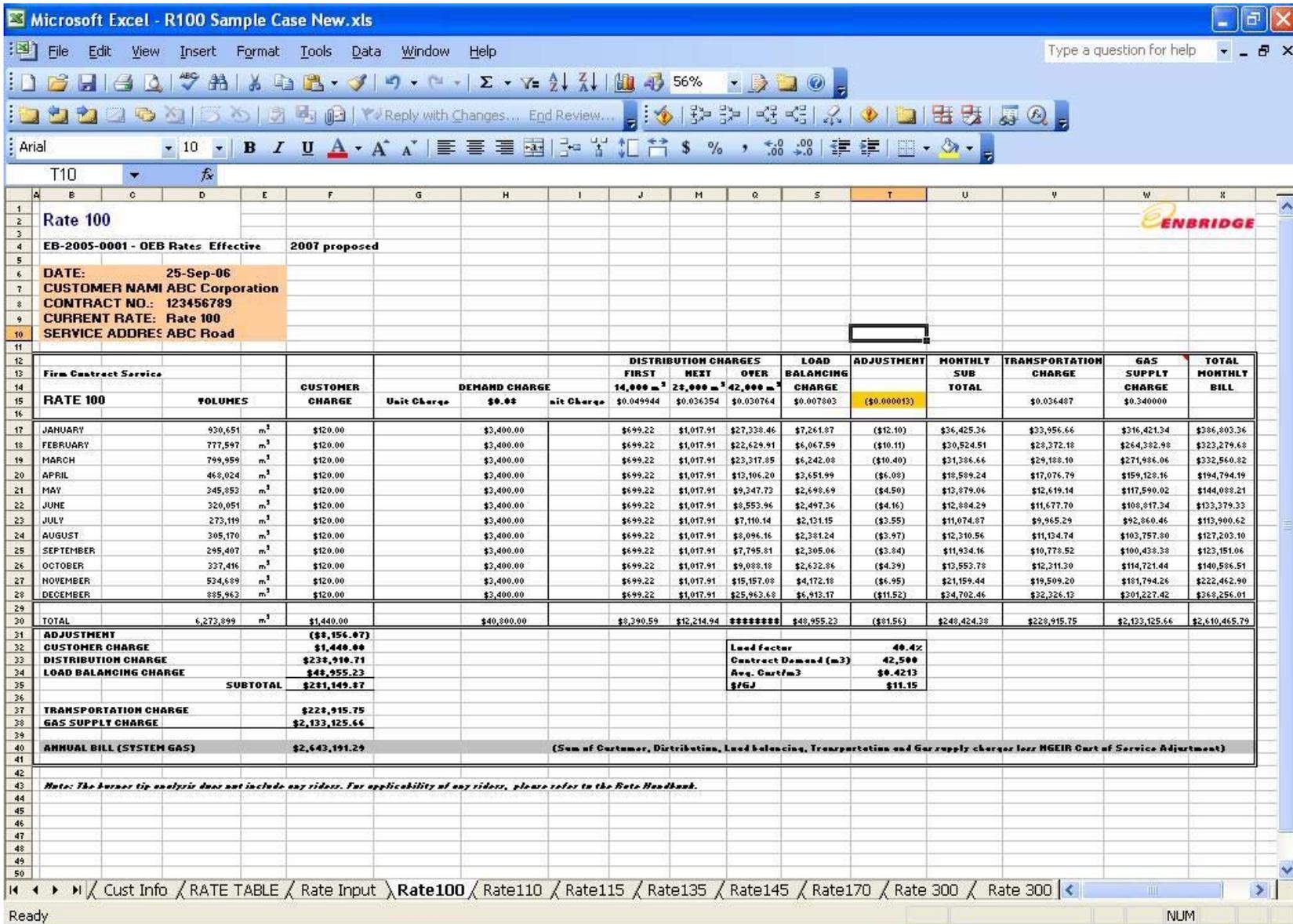


Figure 3 : Rate 100



Rate 110

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the 'Cust Info' sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- ANNUAL BILL (SYSTEM GAS)

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides the Unaccounted for Gas in kind.



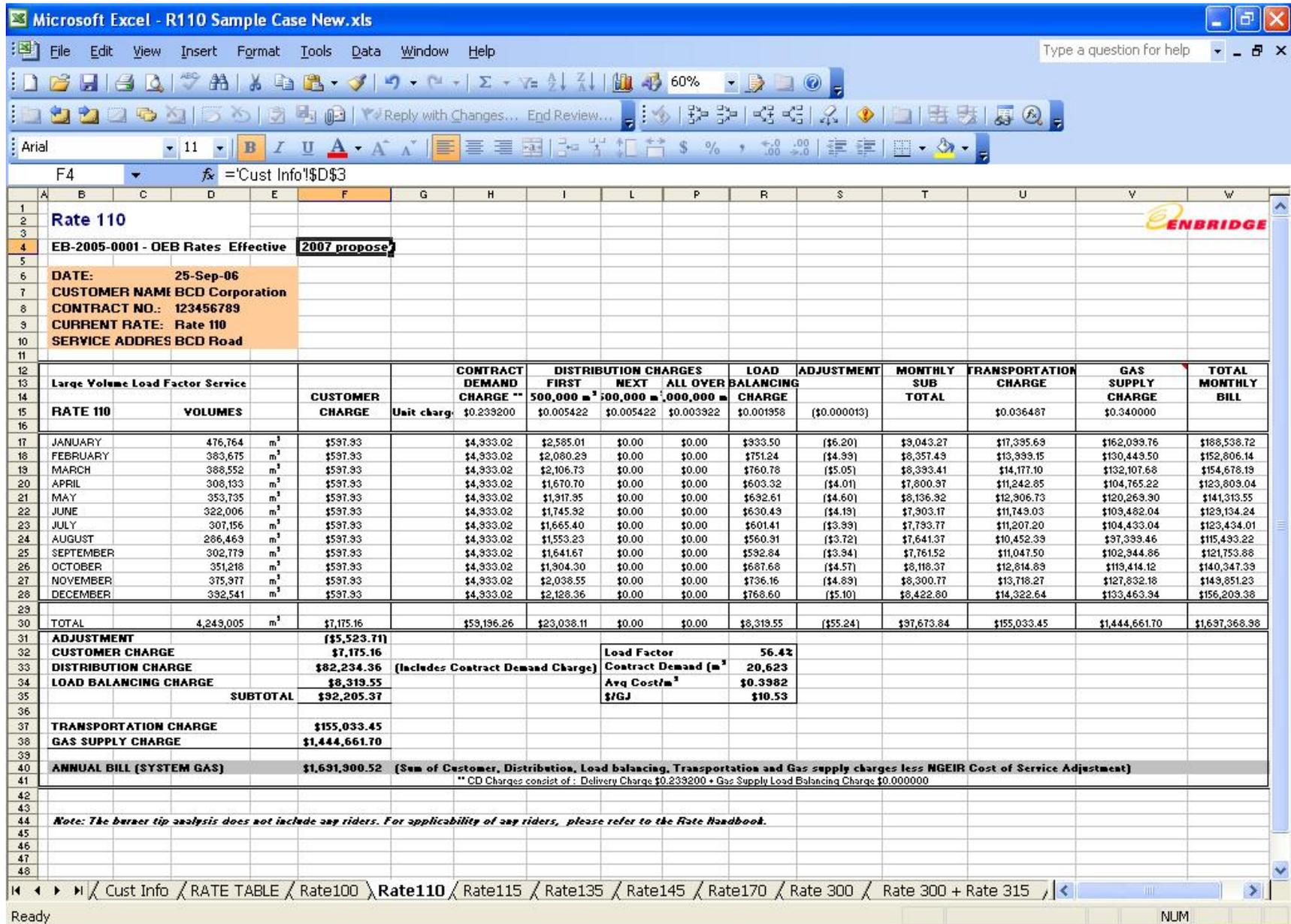


Figure 4 : Rate 110



Rate 115

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the Cust Info sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- ANNUAL BILL (SYSTEM GAS)

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides the Unaccounted for Gas in kind.



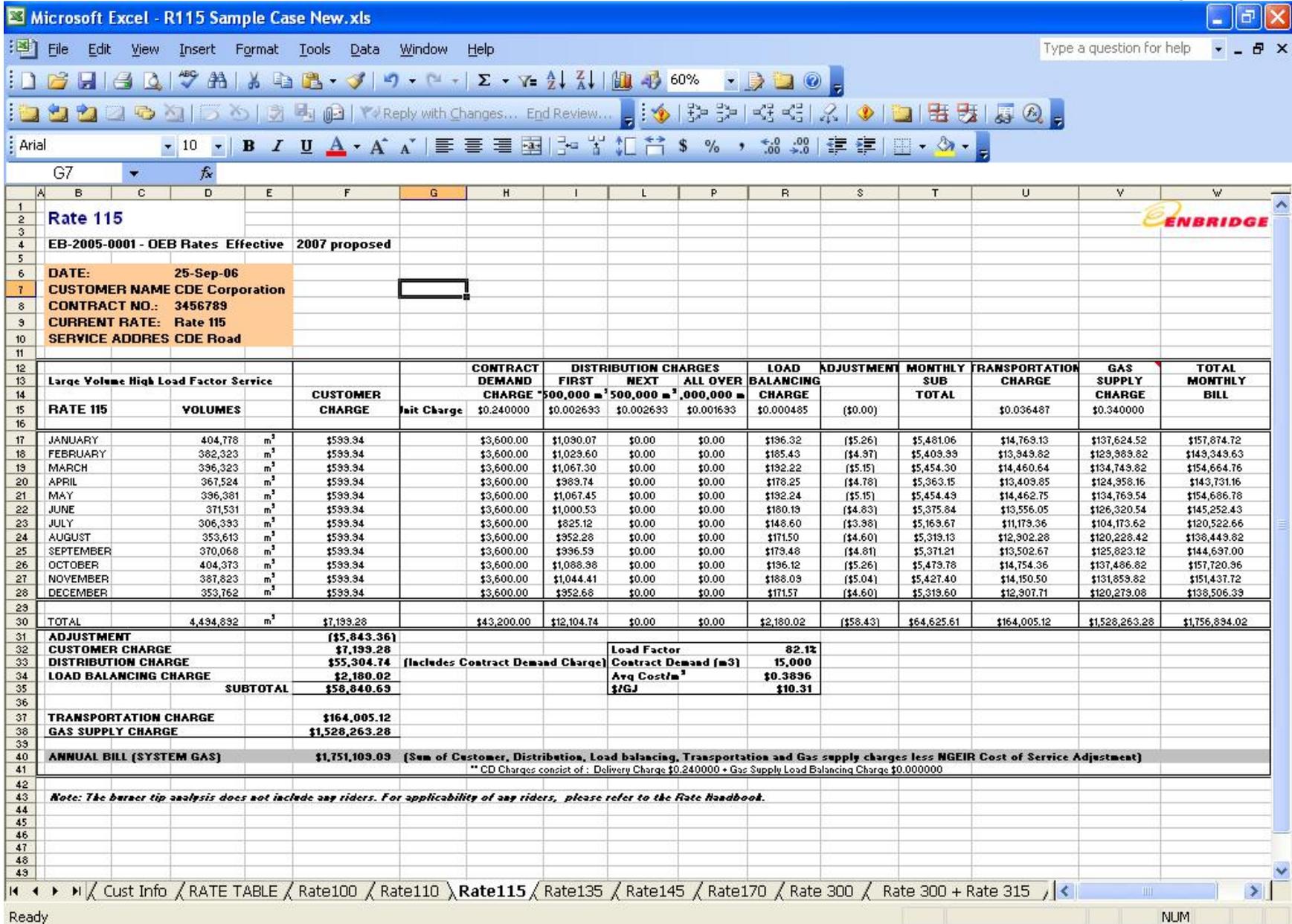


Figure 5 : Rate 115



Rate 135

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the Cust Info sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- SEASONAL OVERRUN CHARGE
- ANNUAL VOLUME DEFICIENCY CHARGE
- CAPACITY REPURCHASE RATE
- ANNUAL BILL (SYSTEM GAS)

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides the Unaccounted for Gas in kind.



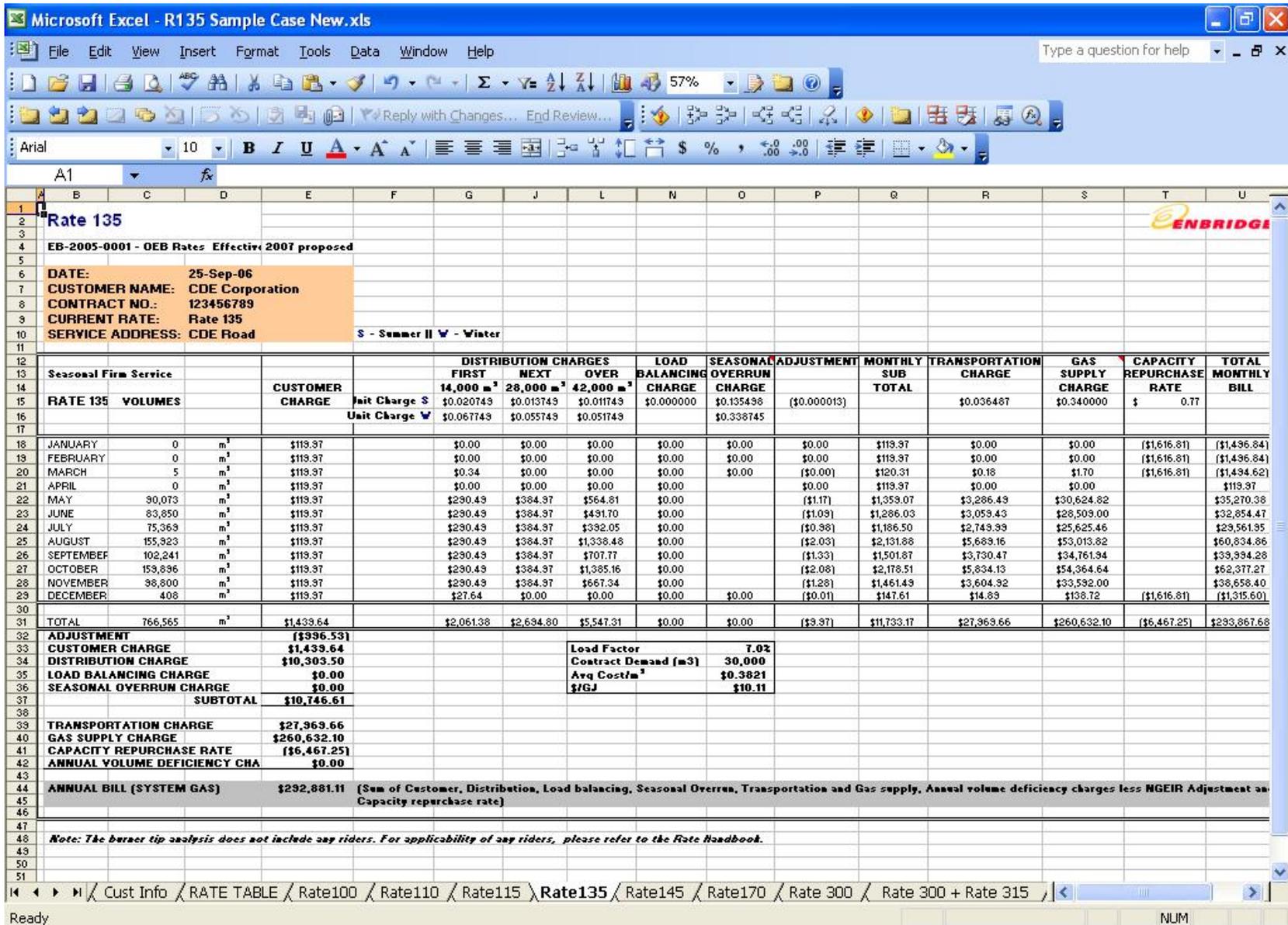


Figure 6 : Rate 135



Rate 145

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the Cust Info sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- CAPACITY REPURCHASE RATE (16 HRS)
- CAPACITY REPURCHASE RATE (72 HRS)
- ANNUAL BILL (SYSTEM GAS)
- ANNUAL BILL (SYSTEM GAS) 16 HRS
- ANNUAL BILL (SYSTEM GAS) 72 HRS

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides the Unaccounted for Gas in kind.



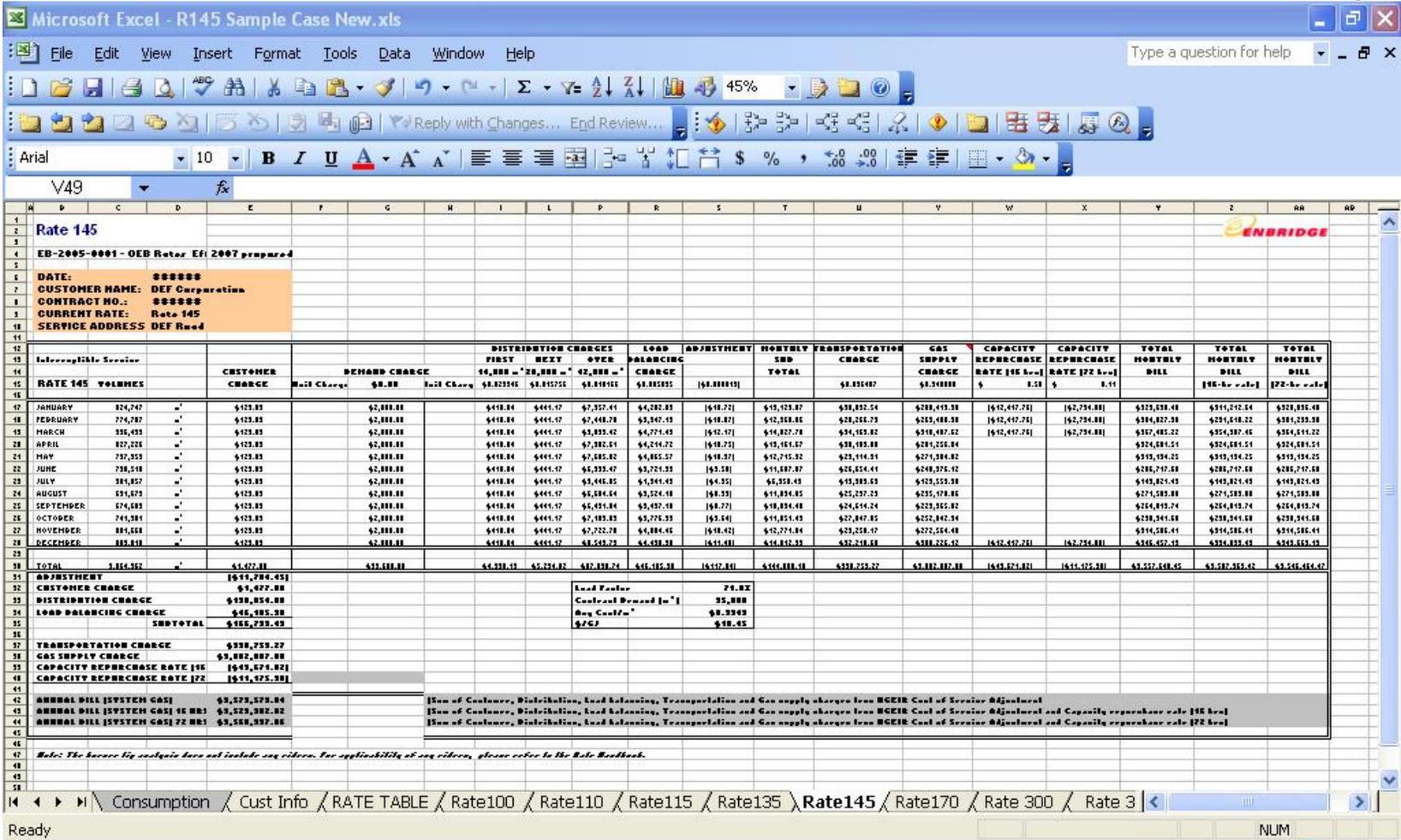


Figure 7 : Rate 145



Rate 170

The user does not input any data in this sheet. The spreadsheet picks the customer information and the monthly consumption from the Cust Info sheet and calculates the following:

Calculated Output:

- ADJUSTMENT
- CUSTOMER CHARGE
- DISTRIBUTION CHARGE
- LOAD BALANCING CHARGE
- SUBTOTAL
- TRANSPORTATION CHARGE
- GAS SUPPLY CHARGE
- CAPACITY REPURCHASE RATE
- ANNUAL BILL (SYSTEM GAS)

Note: The (unbundled) Adjustment allows the bundled rate to be compared to the unbundled rate by adjusting for unaccounted for gas which is removed in the delivery charge of the bundled rate. Under unbundled rates, the customer provides Unaccounted for Gas in kind.



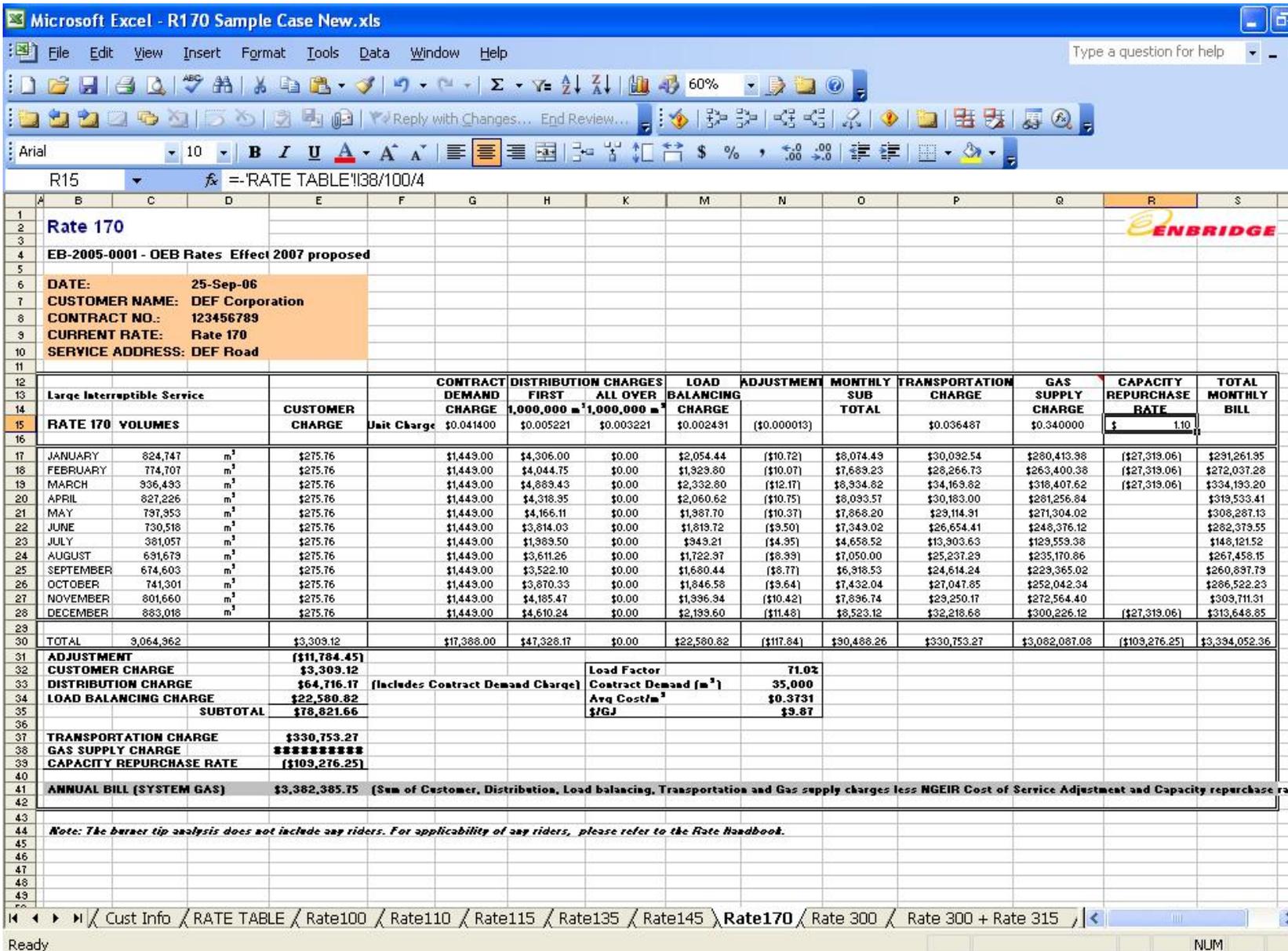


Figure 8 : Rate 170



Rate 300

The spreadsheet picks the contract details from the Cust Info sheet, the daily consumption from the consumption sheet and populates the following columns in the sheet.

The user inputs the following information for all days of the month/year:

- Net Nominations (m3): Sum of nominations for Net Delivery (m3) and Nominations to (-) / from (-) Cumulative Imbalance Account
- Nominations to (-) / from (-) Cumulative Imbalance Account: Nominations from the CI account
- Consumption (m3): Actual consumption

- Net Delivery (m3) is Gas requested by the customer to be delivered to the terminal location and is calculated automatically

The following charges are calculated monthly:

- Monthly Customer Charge
- Monthly Contract Demand Charge
- Monthly DI Fees
- Monthly CI Fees
- Monthly Load Balancing Charge (DI Fees+ CI Fees)

The following charges are calculated for the year:

- Total Annual Customer Charge
- Total Annual Contract Demand Charge
- Total Annual Daily Imbalance Charge
- Total Annual Cumulative Imbalance Charge

A summary report providing a comparison between Rate 300 and the customer’s current rate is generated:

SUMMARY REPORT - Rates 300 & 115

RATE COMPARISON	ANNUAL BILL	Distribution Charge	Load Balancing Charge	Gas Charge	Supply Charge	Transport Charge
RATE 300						
RATE 115						



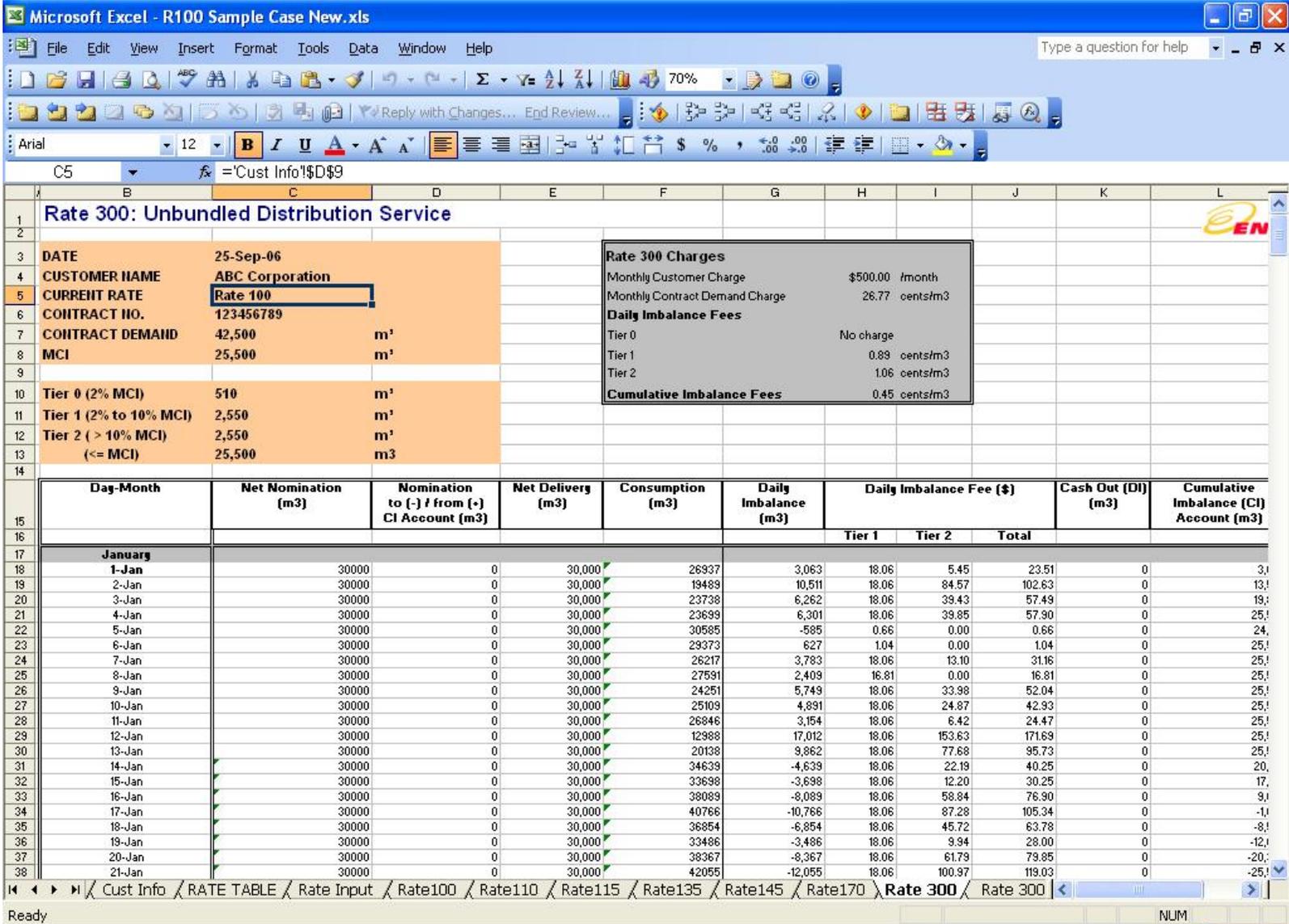


Figure 9 : Rate 300



Instructions to use the Rate 300 worksheet

The user is allowed to input values only in the following columns:

- Net Nominations must be a whole number ≥ 0 (m3). Net nominations is sum of nominations net of Unaccounted for Gas (UFG) and refer to daily nominations by the customer available for delivery at the terminal location and reduction in Cumulative Imbalance (CI). Net delivery is different from Nominations to and from CI account.
- Nominations to (-) / from (+) the CI account (m3) is a tool for customers to manage their Cumulative Imbalance account. Nomination to the account is entered as a negative number. Nomination from the account is entered as a positive number.
 - If the previous Cumulative Imbalance is a negative volume, nomination in this column can only be to the CI account. This implies that the user has to input a negative value only. Also the volume should be \leq the CI balance.
 - If the previous Cumulative Imbalance is a positive volume, nomination in this column can only be from the CI account. This implies that the user has to input a positive value only. Also the volume should be \leq the CI balance.
 - If the previous Cumulative Imbalance is 0, CI account cannot be used to nominate. Hence user can only input a 0 value in this column.
- Consumption must be a whole number between 0 and the Contract Demand volume (m3)

The following values are calculated in the worksheet and cannot be changed by the user:

- MCI: Maximum contractual imbalance – 60% of the Contract Demand (m3)
- Net Delivery (m3) is the absolute difference between the Net nominations and Nominations to/from CI account and is the amount of gas the customer wants delivered to the terminal location (Net of Unaccounted for Gas). Net delivery is greater than Net Nominations when the customer is nominating from the CI account. Net Delivery is less than Net nominations when the customer is nominating to the CI account.
- Daily Imbalance is the absolute difference between the Net Delivery and Consumption volumes (m3). If the volume exceeds the MCI, it is reset to the MCI.
- Daily Imbalance Fees (\$/m3)
 - Tier 0 (Free zone): Any Daily Imbalance volume that lies between 0 – 2% of the MCI is not considered for fee calculation
 - Tier 1: Any Daily Imbalance that lies between 2% - 10% of the MCI is multiplied by the Tier 1 fee charge
 - Tier 2: Any Daily Imbalance volume that lies between 10% of the MCI and MCI is multiplied by the Tier 2 fee charge
- Daily Imbalance Cash Out volume is the excess of the Daily Imbalance volume over the MCI (m3)
- Cumulative Imbalance is the sum of the previous day's Cumulative Imbalance volume and the current day's Daily Imbalance volume less the Nominations to/from the CI account (m3). If the volume exceeds the MCI, it is reset to the MCI.
- Cumulative Imbalance Fee – Cumulative Imbalance volume multiplied with the CI Fee
- Cumulative Imbalance Cash Out volume is the excess of the Cumulative Imbalance volume over the MCI (m3)

* If any of the cell values are pasted on to the sheet, the validations and the macros may not work for the specific cell. It also applies to the values pasted on to a range of cells.



Rate 315

The spreadsheet picks the contract details and the monthly consumption from the Cust Info sheet and populates the following columns in the sheet.

The user inputs the following information:

- Nominations (m3): Sum of Gas nominated by the customer for delivery to the terminal location and Nominations to / from CI account
- Nominations to (-) / from (-) Cumulative Imbalance Account: Nominations meant to reduce the balance in CI account
- Consumption (m3): Actual consumption

Note: User to input fields in the following order only:

1. Net Nominations
2. Consumption
3. Nominations to (-) / from(-) CI account

The following information is calculated for each month:

Rate 300 Monthly Charges

- Monthly Customer Charge
- Monthly Contract Demand Charge
- Monthly DI Fees
- Monthly CI Fees
- Monthly Load Balancing Charges
- Total Monthly Charges
- Total Monthly Cash out Volume

Rate 315 Monthly Charges

- Monthly Customer Charge
- Monthly Deliverability Charge
- Monthly Space Demand Charge
- Monthly Injection/Withdrawal Charge

The following annual charges are calculated:

- Total Annual Customer Charge
- Total Deliverability Charge
- Total Space Demand Charge
- Total Injection/Withdrawal Charge

A summary report providing a comparison between Rate 300, Rate 315 and the customer's current rate is generated:



SUMMARY REPORT - Rates 300, 315 & Current Rate

RATE COMPARISON	Total ANNUAL BILL	Total Cash Out Volume
RATE 300		
RATE 315		
RATE 115		



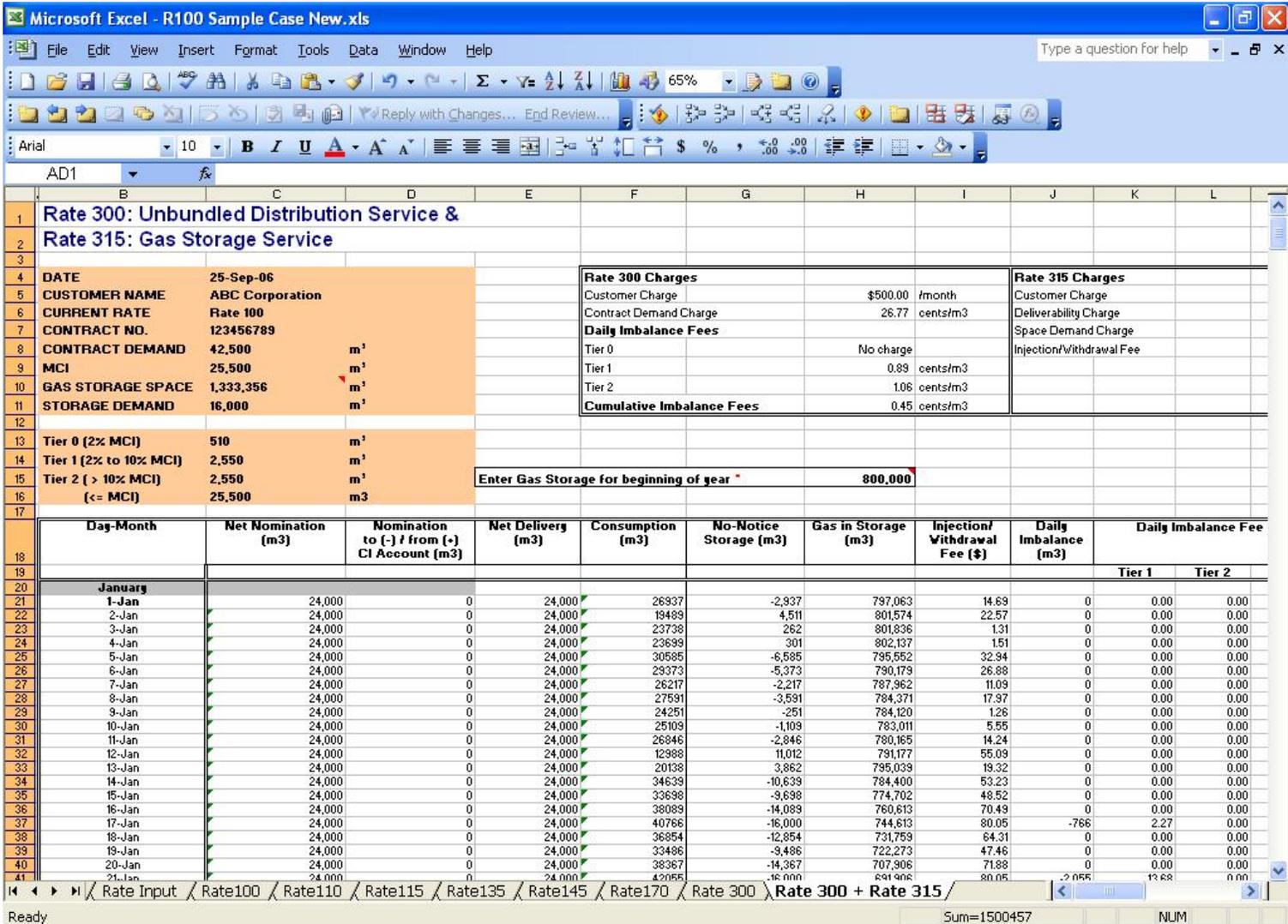


Figure 10 : Rate 315



Instructions to use the Rate 315 worksheet

The user is allowed to input values only in the following columns:

- Gas Storage Space that the user wishes to start the year with (m3): This volume must lie between 0 and the Gas Storage Space available to the user
- Net Nominations must be a whole number ≥ 0 (m3)
- Nominations to (-) / from (+) the CI account: (m3)
 - If the previous Cumulative Imbalance is a negative volume, nomination in this column can only be to the CI account. This implies that the user has to input a negative value only. Also the volume should be \leq the CI balance.
 - If the previous Cumulative Imbalance is 0, CI account cannot be used to nominate. Hence user can only input a 0 value in this column.
 - If the previous Cumulative Imbalance is a positive volume, nomination in this column can only be from the CI account. This implies that the user has to input a positive value only. Also the volume should be \leq the CI balance.
- Consumption must be a whole number between 0 and the Contract Demand volume (m3)

The following values are calculated in the worksheet and cannot be changed by the user:

- Total Gas Storage Space – The total gas storage capacity available to the customer
- Storage Demand (Deliverability) – The % of gas that can be injected/withdrawn from storage in a day
- MCI: Maximum contractual imbalance – 60% of the Contract Demand (m3)
- Net Delivery (m3) is the absolute difference between the Net Nomination and Nominations to/from CI account and is the amount of gas the customer wants delivered at the terminal location (Net of Unaccounted for Gas). Net Delivery is greater than Net Nomination when the customer is nominating from the CI account. Net Delivery is less than Net Nomination when the customer is nominating to the CI account.
- No-notice Storage – the volume of gas that is injected/withdrawn into gas storage per day (m3)
- Gas in Storage – the volume of gas available in storage at the end of the day. It is cumulative over No-notice volume. If the Gas in Storage goes over the Total Gas Storage Space or becomes 0, an error will be raised. The user is required to adjust nominations/consumption to correct this condition.
- Daily Imbalance is the absolute difference between the Net Delivery and Consumption volumes (m3). If the volume exceeds the MCI, it is reset to the MCI.
- Daily Imbalance Fees (\$/m3)
 - Tier 0 (Free zone): Any Daily Imbalance volume that lies between 0 – 2% of the MCI is not considered for fee calculation
 - Tier 1: Any Daily Imbalance that lies between 2% - 10% of the MCI is multiplied by the Tier 1 fee charge
 - Tier 2: Any Daily Imbalance volume that lies between 10% of the MCI and MCI is multiplied by the Tier 2 fee charge
- Daily Imbalance Cash Out volume is the excess of the Daily Imbalance volume over the MCI (m3)
- Cumulative Imbalance is the sum of the previous day's Cumulative Imbalance volume and the current day's Daily Imbalance volume less the Nominations to/from the CI account (m3). If the volume exceeds the MCI, it is reset to the MCI.
- Cumulative Imbalance Fee – Cumulative Imbalance volume multiplied with the CI Fee
- Cumulative Imbalance Cash Out volume is the excess of the Cumulative Imbalance volume over the MCI (m3)

* If any of the cell values are pasted on to the sheet, the validations and the macros may not work for the specific cell. It also applies to the values pasted on to a range of cells.



FAQs

This section answers some questions for the utility that are not already addressed in other sections of this user guide.

1. When I open the sheet, I see a message box prompting me to enable or disable macros. What does this mean?
2. What would happen if I disable the macro?
3. Do I need to do some special security settings for this excel sheet?
4. Why am I not able to change the formatting/style of any of the cells? For some cell I am not able to change the contents either.
5. Why am I getting these error messages when I am entering data for Consumption, Contract demand, Gas supply and transportation charges?

1. When I open the sheet, I see a message box prompting me to enable or disable macros. What does this mean?



Excel does not consider the Excel templates to be trusted sources. Even if you selected the Trust all installed add-ins and templates check box on the Trusted Sources tab and clicked Medium or High on the Security Level tab (Tools menu, Macro submenu, Security command), the macro virus warning appears when you open a template provided with Excel that contains macros.

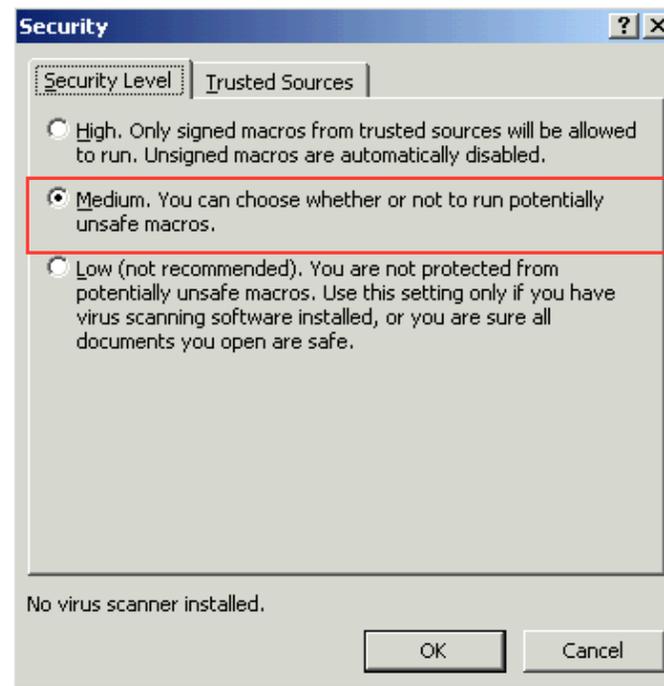
To prevent the virus warning from appearing, you can set the security level to Low, but first make sure that all of the workbooks you open are safe and virus-free. It is recommended that the security level be set to medium.

2. What would happen if I disable the macro?

If you use Excel in this mode, certain add-ins and macros, including the macros created for this utility will not work. The validations and subsequently, the generation of the XML file will fail.



3. Do I need to make some changes to the security settings for this excel sheet?



If the Security Level is High, you will need to change the security level to **Medium**.

1. On the Tools menu, click Options.
2. Click the Security tab.
3. Under Macro Security, click Macro Security.
4. Click the Security Level tab, and then select Medium.

These settings are essential for the tool to run.

4. Why am I not able to change the formatting/style of any of the cells? For some cell I am not able to change the contents either.

In order for this sheet to work properly, there should be no changes to the ordering/names/formatting of the columns in the sheet. Hence, the sheet has been password protected and the cells whose content need not change, have been locked. In a situation where changing the XLS format is unavoidable, please contact EnTRAC Support to get the password to unprotect the sheet and unlock the cells. This is however not recommended as it may cause the macro to crash and the utility to stop working.



5. Why am I getting these error messages when I am entering data for Consumption, Contract demand, Gas supply and transportation charges?

There are some business validation rules on the consumption, contract demand, and gas supply and transportation charges. When the user enters any negative value for these charges the tool throws up the error messages. Please provide valid positive values in case of any the following error messages.

