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RENEWABLES ANNUAL QUESTIONNAIRE 2016

User Documentation

July 2017

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Important note to users of Excel 2007 and above

Please note that the Questionnaire was developed and optimized for the Excel 2003 edition. Although Excel 2007 edition will automatically open the questionnaire in "Compatibility mode", please always save your data using the "**Save as**" option and the "**Excel 97-2003 Workbook**" format. Otherwise, the functionalities of the questionnaire may be lost.

Introduction

The two main objectives of the electronic questionnaire are first to **facilitate data entry** for administrations, and second to **minimise the risk of data entry inconsistencies**, which would require substantial time investment from the IEA and the national administrations to correct.

Facilitate data entry

The electronic questionnaire provides three options:

1) ASCII Data Transfers

- Using the new "ASCII Data Transfers" buttons on the "Data Entry Menu" page of the Excel questionnaires, the user can Import or Export ASCII data files (comma separated values - CSV).

- **Import**: Using the questionnaire's embedded "data dictionary" (naming convention of the different dimension - products, flows, time…), data files previously downloaded from your databases in CSV format can be uploaded directly into the Excel questionnaires.

- **Export**: Similarly, the questionnaire can generate data files in CSV format for transfer to other databases or uploading to the Energy Data Centre: https://www.energydatacenter.org. The user can choose to generate these data files containing either IEA country codes or ISO country codes.

- To use this new feature, please contact us for the "data dictionary" and assistance.

E-MAIL: renewaq@iea.org

2) Data Entry through Time Series (1990 onwards)

- Using the time series viewing format for data entry provides the benefit of having at hand the historical time series back to 1990. It therefore provides reference points for the new data entries, and the capacity to do multiple years' revisions/updates to the historical time series all at once.

- In the time series format, the user selects the product table they wish to update/revise. The data for the selected product are then presented in a table format by flows (e.g. production, imports and exports) and for all years from 1990 onwards.

- Data entry through time series should minimize the risk of breaks in time series and misreported data.

3) Data Entry through Forms

- Using the forms viewing format, the user enters the data for one year at a time and data are organised based on lists of products over various lists of flows.

- Data entry with forms requires the user to select in the appropriate menu both the year and the table they wish to update/revise.

- As the user moves between individual forms, the data will be automatically transferred to and from the time series sheets where all the data is stored.

Minimise the risk of data entry inconsistencies

To minimize the risk of data entry inconsistencies or errors, the user is strongly advised to run the **Data Coherence Checks** option. This option alerts the user of inconsistencies in data entry through messages on the Error Sheets which are created.

1. Opening and saving the questionnaire

You have received a compressed ZIP file that contains the Excel version of the questionnaire, which was developed in Excel 2003. Users of the Excel 2007 edition should refer to the note on page 1.

- First, decompress the file, and save the questionnaire on your system.

- Open the extracted Excel workbook "RenQues.xls".

- Excel may first prompt you with a message similar to the one below regarding the enabling of macros. If so, please select "Enable Macros" which will provide you the full benefit of the questionnaire's functionalities.
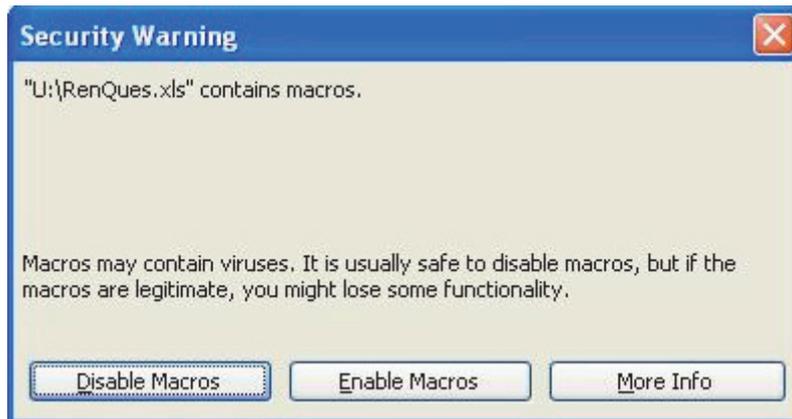
- The questionnaire will then open the "Start" sheet automatically.

- Please note that the questionnaire will not work if the macros are not enabled. The macros in the questionnaire are safe and virus-free.

Before you start, please note:

a) Data entry

- The workbook is protected. Only cells available for data entry can be modified. Other cells are locked and cannot be updated: bold cells are automatically calculated and data cannot be entered in grey shaded cells, which always remain empty.

- Multiple-data entry is possible, but only if the selection does not contain locked cells.

- **The entry of decimal numbers is not allowed**.

- Data Imports via the **"ASCII Data Transfers"** feature will automatically respect the above constraints on data entry and decimals will automatically be rounded.

b) Saving your work

Please save your work frequently.

a) Users of Excel 2003: simply click on the save button on the Excel toolbar, or choose FILE and then SAVE.

b) Users of Excel 2007: in other to maintain the functionalities of the questionnaire and its compatibility to Excel 2003, it is important to that you use the "Save as" option and select "Excel 97-2003 Workbook".

- When you try to exit the application, a message will first appear asking you "Do you wish to run the checks to control the integrity and coherence of your entries?" If all

data entries are completed, it is advisable to run the **Data Coherence Checks** option to minimize the risk of data entry inconsistencies or errors. If data entries are not completed, or if you already ran the **Data Coherence Checks** click NO.

- Then, as you exit the application, a message will appear asking "Do you want to save?" Click on the YES button to save your work.

2. Menu, Sub-menus, and Structure of the Workbook

Once you have opened up the Excel workbook, and selected the language of work (which the questionnaire will keep in memory), you will need to click on the "**Start**" button of the following "START" sheet to gain access to the "Menu" and the other sheets of the questionnaire.

IEA - Eurostat - UNECE
Energy Questionnaire - Renewables and Wastes

Questionnaire annuel - Energies renouvelables et déchets
AIE - Eurostat - UNECE

Click on the "Start" button to begin:
Cliquez sur le bouton "Start" pour commencer :

Start

If it does not work, please:
  1) Close this file
  2) Reopen it and click "Enable Macros" if a security warning appears.

  The macros in this file are virus free.

Si cela ne fonctionne pas, veuillez :
  1) Fermer ce fichier
  2) Le réouvrir et cliquer sur "Activer les macros" si un message de sécurité apparaît.

  Les macros de ce fichier sont sans virus.

As indicated in section one, this requires that you have enabled the macros. Once you have clicked on the "Start" button, you will access the "Cover" sheet, where you can select the language in which you will work (English or French). The "Menu" button takes you to the "Data Entry Menu" sheet, where you can access either:

- the "Data Entry in Time Series" section

- the "Forms" section

- the "For Information – Efficiencies" section

- the "ASCII Data Transfers" options

- the "Check Data" button, once your data entries are completed. This will allow you to select a year for which a series of checks will be run to capture potential inconsistencies in the data. The program would then create an "Error Sheet" for that year. Please note that you can run the checks for all the years by leaving the selection field blank.

At any time, you can also change the language of work from the "Cover" sheet or by pressing Ctrl + L. Please note that the questionnaire will "remember" the language selected on the first time: therefore, you do not have to select the language every time you open the questionnaire.

DATA ENTRY MENU

Control the integrity and coherence of your entries:
Run the "Check data" program.

[Check data]

DATA ENTRY IN TIME SERIES

Electricity	Municipal Waste (non-renewable)	Biogasoline
Heat	Solid Biofuels	Biodiesel
Geothermal	Charcoal	Other Liquid Biofuels
Solar Thermal	Biogases	Total Capacity
Industrial Waste (non-renewable)	Bioethanol	Production of Solid Biomass
Municipal Waste (renewable)	Bio jet kerosene	Wood pellets

For information - Efficiencies

Geothermal	Municipal Waste (renewable)	Biodiesel
Solar thermal	Municipal Waste (non-renewable)	
Industrial Waste (non-renewable)	Solid Biofuels	
Other Liquid Biofuels	Biogases	

ASCII DATA TRANSFERS

Import	Export

FORMS

Please select the year and click on the form

2012 ▼

Table 1
Table 2
Table 3
Table 4
Table 5
Table 6
Remarks

"Data Entry in Time Series" section

- As mentioned in the Introduction, using the time series viewing format for data entry provides the benefit of having at hand the historical time series back to 1990. This option therefore provides reference points for the new data entries, and the capacity to do multiple years' revisions/updates to the historical time series all at once.

- To use the time series format, select the product you wish to update/revise. The data for the selected product will then be presented in a table format by flows (e.g. production, imports, and exports) and for all years from 1990 onwards.

- It is expected that data entry through time series should minimize the risk of breaks in time series and misreported data.

"Forms" section

- If you prefer to use the forms viewing format, the data can only be viewed and/or entered for one year at a time. In this format, you select the year for which you want all relevant products to be presented over various lists of flows.

- To use "Data Entry through Forms" you are required to select the year and then the table that you wish to update/revise.

- As the user moves between individual forms, the data will be automatically transferred to and from the time series format where all the data is stored. Please note that clicking on the save button when a forms sheet is selected also triggers the transfer of data to the time series.

"For information - Efficiencies" section

- This section is to assist the user to monitor the implicit efficiencies of reported electricity and heat production in relation to reported input renewables and wastes.

"ASCII Data Transfers" section

- This section allows the user to Import data files (in comma separated values – CSV) directly into the Excel questionnaire or to Export the full data content of the questionnaire into a CSV file.

You can switch between Time Series and Forms at any time through the "Menu" sheet.

You can return to the "Menu" sheet from the Time Series or Form sheets by pressing Ctrl + M or clicking on the "*Menu*" button (in the top left corner of each sheet). If the "*Menu*" button is not visible, you may need to scroll up and/or to the left until it is visible.

Alternatively, you can navigate from sheet to sheet by clicking directly on the tab (near the bottom of the screen) indicating the name of the required sheet.

Comments on the data submission should be made in the "Remarks" sheet.

3. Data Entry

This section provides information and alerts you to specific requirements regarding some flows or products.

a) Data Entry through ASCII Data Transfers

Data submission and revisions can be loaded as data files directly in the time series of the annual questionnaire using the Import feature, which provides two options:

Full Import:

> Each year present in the data file will be treated as a complete dataset. Therefore, all data points present in the questionnaire for the specified years will first be erased before the values from the CSV data file are loaded into the questionnaire.

Partial Import:

> Only data points present in the data file will be loaded into the questionnaire. This is useful when multiple data files are required to generate a complete dataset for any given year. This option is also to be used when only a few data points need to be changed/updated.

Data files need to be in CSV format and to follow the embedded "data dictionary" (naming convention of the different dimensions - products, flows, time…) of the questionnaire. To receive the documentation regarding the "data dictionary", please contact us by E-mail: **renewaq@iea.org**

b) Data Entry through Time Series

The time series contains historical data for your country. For each product, a spreadsheet displays the data of Tables 1 to 6 from 1990 to the latest year.

c) Data Entry through Forms

You will find the following forms for each year:

- Table 1: Gross Electricity and Heat Production.

- Table 2: Supply, Transformation, Energy Sectors and Energy End Use (final consumption by sector).

- Table 3: Technical Characteristics of Installations.

- Table 4: Production of Solid Biofuels and Biogases.

- Table 5: Imports by Country of Origin

- Table 6: Exports by Country of Destination

There are a number of key data and totals which must be preserved across the various tables.

It is essential that the figures reported in each table are correctly totalled and that the totals in different tables are consistent wherever a logical relationship exists.

Namely, the following totals have to be consistent between the various tables:

- Production of Solid biofuels and Biogases in Table 2 can be detailed further in Table 4. When Table 4 is completed, total production must equal production in Table 2.

It is also essential that individual entries and totals that appear on other annual questionnaires are consistent wherever a logical relationship exists:

- Statistics for Gross Electricity and Heat Production reported in Table 1 should match gross electricity and heat production reported for the same flows on the annual Electricity and Heat Questionnaire.

- Transfer of products to industries covered by other fuel questionnaires (mainly liquid biofuels) are reported in Table 2 and must be consistent with transfers reported in the Oil Questionnaire in Table 1.

- Inputs reported in the Transformation Sector for electricity and heat production must be consistent with inputs reported in Table 6 of the Electricity and Heat Questionnaire.

- The electrical capacities reported in Table 3 must be consistent with the capacities reported for each technology in Table 7 of the Electricity and Heat Questionnaire.

4. Checks and Controls

As indicated in the Introduction, to minimize the risk of data entry inconsistencies or errors, we strongly advise that you run the **Data Coherence Checks**. For this, you need to go back to the main "Menu" sheet and click on the following button:
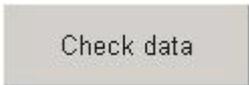
Check data

A pop-up window will ask you which year you wish to run the check for:

The Check will then create an Error sheet (e.g. **"2016-Errors"**) with messages alerting you to potential inconsistencies in data entry for that year.

Please note that you can run the checks for all the years by leaving the field on the pop-up window blank.

PLEASE MAKE SURE YOU RUN THE DATA COHERENCE CHECK FOR EACH YEAR IN WHICH YOU HAVE CHANGED DATA (e.g. create an Error sheet for each year).

The list of checks that are ran is presented in the Annex.

5. Remarks

This sheet has an entry zone that allows you to note any remarks pertaining to incomplete data, exceptions, or explanations.

You can navigate to the "Remarks" sheet using the tabs (near the bottom of the screen). The "Remarks" sheet is the furthest one to the right of the workbook.

Annex

List of checks

If data appear inconsistent, an error sheet for the year selected will be created, with the list of errors and inconsistencies, and the corresponding cells in the time series will show the inconsistent numbers in red. To assist you in your work, the inconsistencies are also rated by their importance (high, medium, low).

When coherent figures are entered, the red colour disappears once control checks have been run again for the same year.

• Solid biofuels production in Table 2 should equal Solid biofuels in Table 4.

• Biogases production in Table 2 should equal biogases in Table 4.

• Energy efficiency should not be greater than 100%.

• Total imports (Trade) in Table 5 should equal Total imports (Balance) in Table 2.

• Total exports (Trade) in Table 6 should equal Total exports (Balance) in Table 2.

• Utilization rate (load factor should not be greater than 100%

• Electrical capacity should be reported when the corresponding production is reported

• Liquid biofuel plant production (tonnes) should not be above the maximum annual production capacity of the plant

• Liquid biofuel plant production capacity (tonnes/year) should be reported when the production of the liquid biofuel is reported

• The Net Calorific Value should be reported for each product reported and for each year it is reported.