JAPAN
2050 Pathways
Calculator

How to install and start up the Excel Spreadsheet model

i) If you install from the Internet (available at http://www.2050-low-carbon-navi.jp/web/en/index.html#excel), find "Excel Spreadsheet version", click the icon of the Excel Spreadsheet model, download the Excel file and save on your PC. If you use USB or CD, please copy the Excel file and save on your PC.

ii) Open the Excel file.

iii) Find the "Control" sheet, click and open.

iv) From the manual bar, you can select "Formulas" and click, and then select "Calculation Options" and click on "Manual". This will deactivate automatic calculation unless you press "F9" on the keyboard to enable the calculation.

v) On the "Control" sheet, you can select your own choices for the trajectory setting of the society scenarios and for each sector of the demand side and the supply side.

- Columns A-D: Given definition of technology, energy efficiency, and behavioural drivers influencing sectoral trajectory settings;
- Column E: Levels of efforts which require the users to input;
- Column F: The upper limits (most are 4 or D with some exceptions set as 5 or E and 2) set for each corresponding selection in Column E;
- Columns H-L: Explanations on the level setting for Column E;
- Columns T-AD: Calculation results of energy supply and demand including three figures, i.e. Primary Energy Supply, Total Final Energy Consumption by Sector and Total Final Energy Consumption by Fuels;
- Columns AF-AP: Calculation results of electricity generation;
- Columns AR-BB: Calculation results of emissions and costs including two figures, i.e. Emissions as % of 1990 levels and Total Costs Per Capita Per Year in Japanese yen valued for the year 2010.

vi) You can select one among several options provided in Columns H-L and then input the value of selection (e.g. 4) into the corresponding cell in Column E. For Society Scenarios (Cell E5), you can select among A, B, C, D and E. For other sectors except for renewable energy (Solar PV, Onshore Wind, Offshore Wind, Floating Wind,

Small-Medium Hydropower, Geothermal Electricity and Ocean Power) and Existing Power Plants of Nuclear Power Stations, values can be inputted as decimals (e.g. 1.2 for Fuel Mix for Conventional Power Plants for Cell E10, or 2.5 for Passenger Transport Behaviour for Cell E21). For renewable energy (Cells E12-18) and Existing Power Nuclear Power Stations (Cell E5), values inputted as decimals are allowed only for the range from 1 to 4, but not allowed for the range from 4 to 5. For the range from 4 to 5, only the value “5” can be selected.

vii) Upon completion of all selections required for Column E, press F9 on the keyboard. The Low Carbon Navigator will calculate based on your selection. You can find the information on the status of calculating in terms of percentage of completion on the right of the bottom bar. Upon 100% completion of the calculation, the results will be shown on the right side in Columns T-AD, AF-AP, AR-BB.