Newsletter no. 11 – January 2015

Dear colleague and user of the EnergyPLAN software,

You are receiving this e-mail because you have once downloaded the EnergyPLAN computer model. We issue newsletters once or twice a year. **PLEASE NOTE: To receive newsletters in the future, you must sign up here.**

EnergyPLAN website has a new log-in system

The EnergyPLAN website (www.EnergyPLAN.eu/) now contains a log-in system which enables us to communicate with our users more effectively. By signing up, you will automatically receive Newsletters from us in the future, which will save us a lot of time collecting and maintaining an e-mail list. When you sign up, you get free access to:

- Downloading the model: www.energyplan.eu/download/
- Cost database: www.energyplan.eu/costdatabase/
- Existing national models: www.energyplan.eu/models/
- Our forum: www.energyplan.eu/forum/: our aim in the future is to reply to new posts within 1 week, so please use the forum instead of e-mail if you need support in the future. This enables others to read about the solutions.

EnergyPLAN has a new interface

An interface was first created in the EnergyPLAN model back in the early 2000s, when the model was moved into Delphi Pascal. Many new features have been developed since then, so in the latest version of EnergyPLAN we have updated the graphical user interface (GUI). Here are a few of the main features we have added:
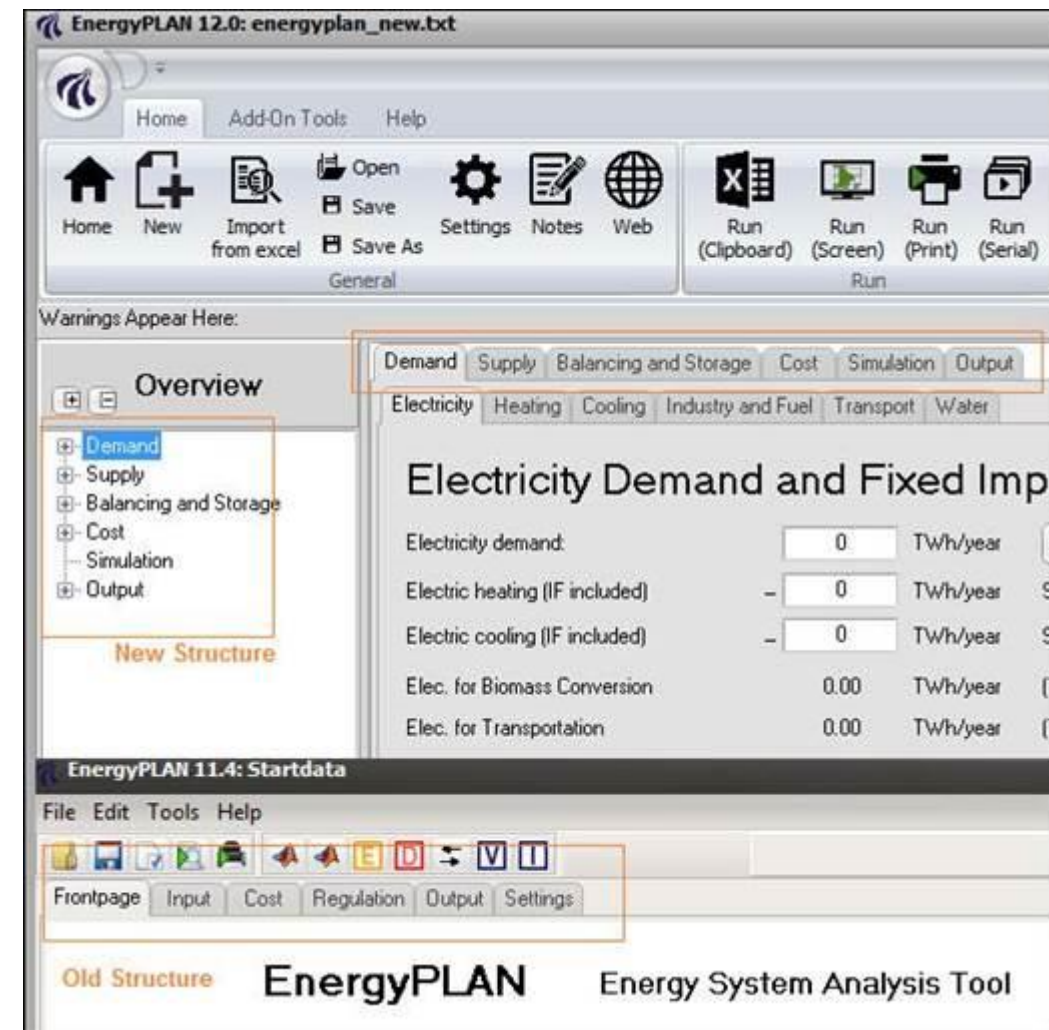
- **Ribbon layout**: EnergyPLAN now contains the same 'ribbon' layout as many Microsoft applications.
- **New Dropdown Menu**: On the top-left of the model, you can click the EnergyPLAN/AAU logo to see the new dropdown menu.
- **Treeview Navigation**: In addition to the tab navigation that has always existed in EnergyPLAN, there is now also a TreeView navigation. This appears on the left side of the model. Both the TreeView and Tab navigation systems can be turned on or off.
- **A short video about these updates is available here.**

… and a new structure

In the past, EnergyPLAN was divided by 1) technical 'Inputs', 2) 'Regulation' strategy, 3) Costs, and 4) Outputs. However, many new technologies and simulation options have been developed over the past 15 years, so a new structure has been implemented to improve the flow through the tool. The new structure encourages the users to:

1. Specify the '**Demand**'
2. Design the '**Supply**' to meet these demands
3. Identify '**Balancing & Storage**' options
4. Input the '**Costs**'
5. Pick a '**Simulation**' strategy
6. Investigate the results/'**Outputs**' from the model

This new structure is reflected in both the TreeView and tab navigation. To implement this new structure, some features within EnergyPLAN were moved around. For example, the district heating demand and individual heat demand are now located together under 'Demand->Heating'. Therefore, if you cannot find an input that was included in previous versions of EnergyPLAN, then please search the new layout as it is most likely located in a new tab/frame. This is particularly true for the 'Balancing & Storage' section, which did not exist previously.
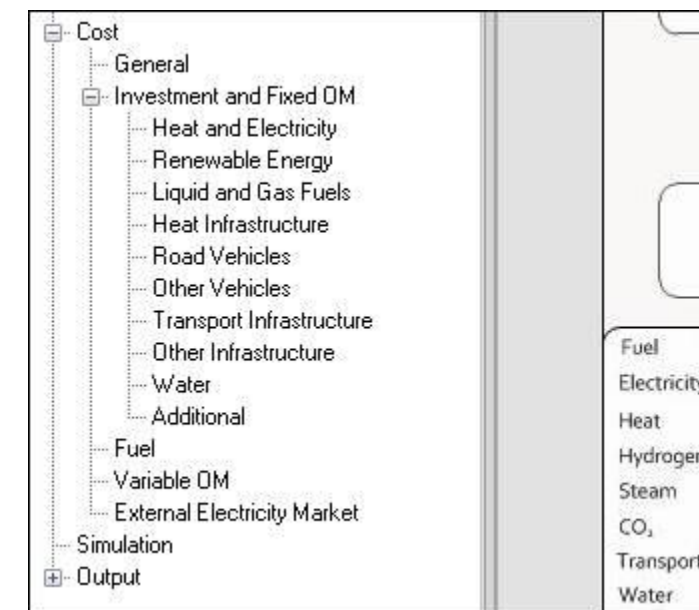
Major Restructuring of the Investment tab/frame

In particular, the old 'Cost->Investment' tab/frame has been expanded significantly in Version 12. It is now located under 'Cost->Investment and Fixed OM' and includes separate tabs/frames for:
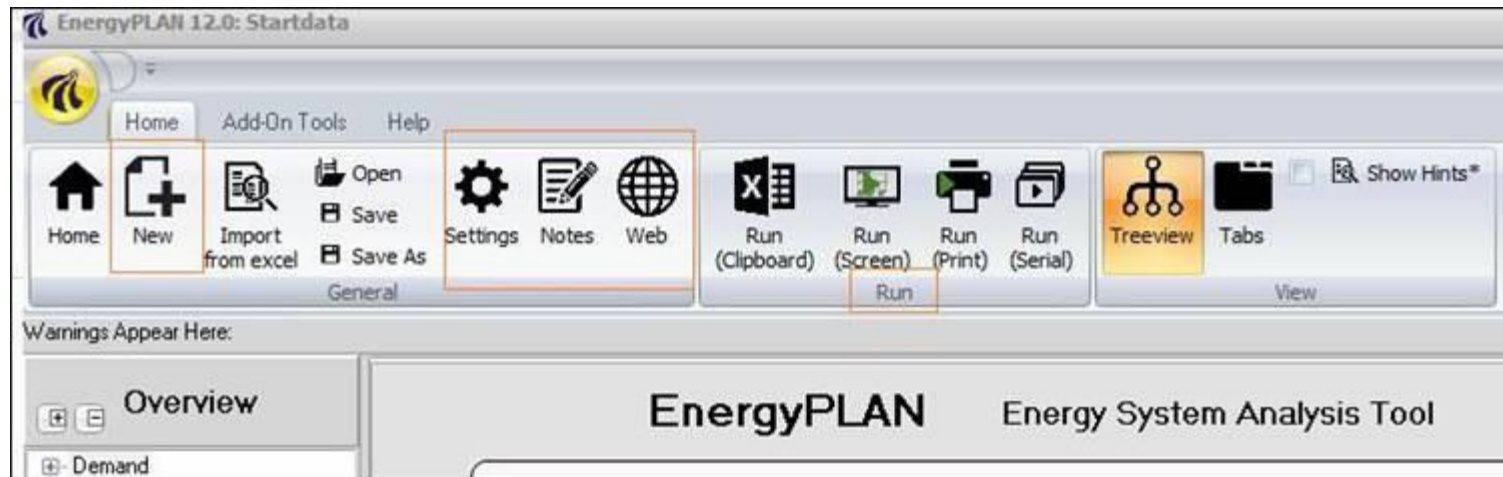
- Heat and Electricity plants
- Renewable Energy
- Liquid and Gas Fuels
- Heat Infrastructure
- Road Vehicles
- Other Vehicles
- Water
- Additional

This mirrors the new layout under the 'Supply' tab/frame. Two other costs are still under development and will hopefully be included in the next version of EnergyPLAN. They are:

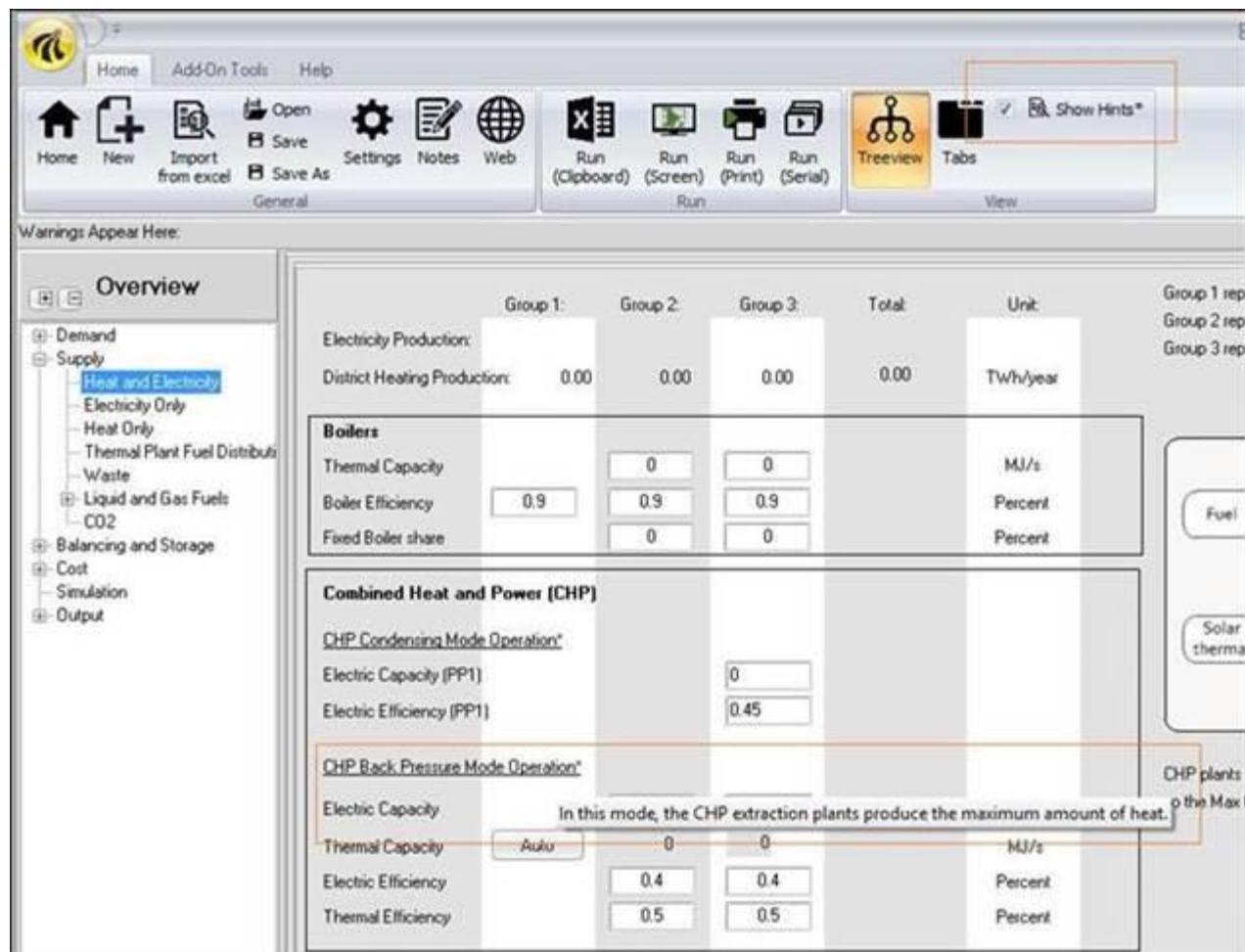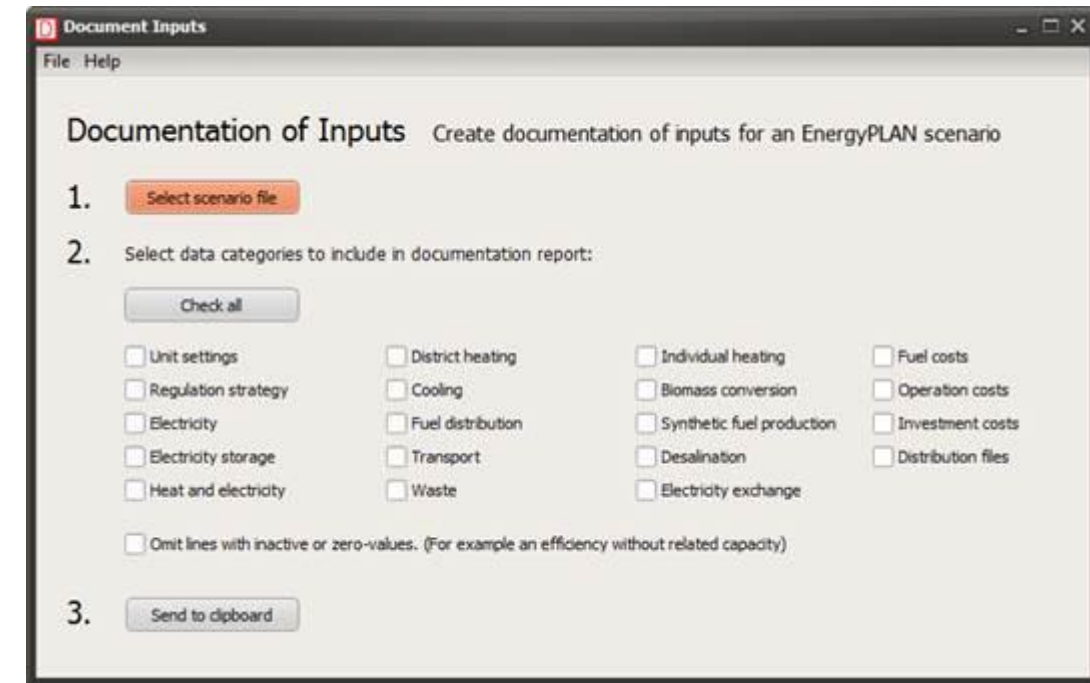- Transport Infrastructure
- Other Infrastructure

New Buttons

There is also a range of new buttons in the EnergyPLAN navigation system, including:

- **New**: if you select the 'new' button, then a blank EnergyPLAN file will open with the default name of 'energyplan_new.txt'
- **Settings**: by selecting the settings button, a new window will pop up with the settings you are familiar with from previous versions of EnergyPLAN
- **Notes**: here you can write some general notes about the model you are developing such as the area, year it represents, and the year it was created.
- **Run**: these are shortcut buttons to run the EnergyPLAN model. Different run options are available such as copying the results to your clipboard, pop-up screen, print out, and the serial calculator
- **Show Hints**: If you check the box beside 'Show Hints', then when you hover over text with a *, you will get some extra explanation about that input, see below for an example.
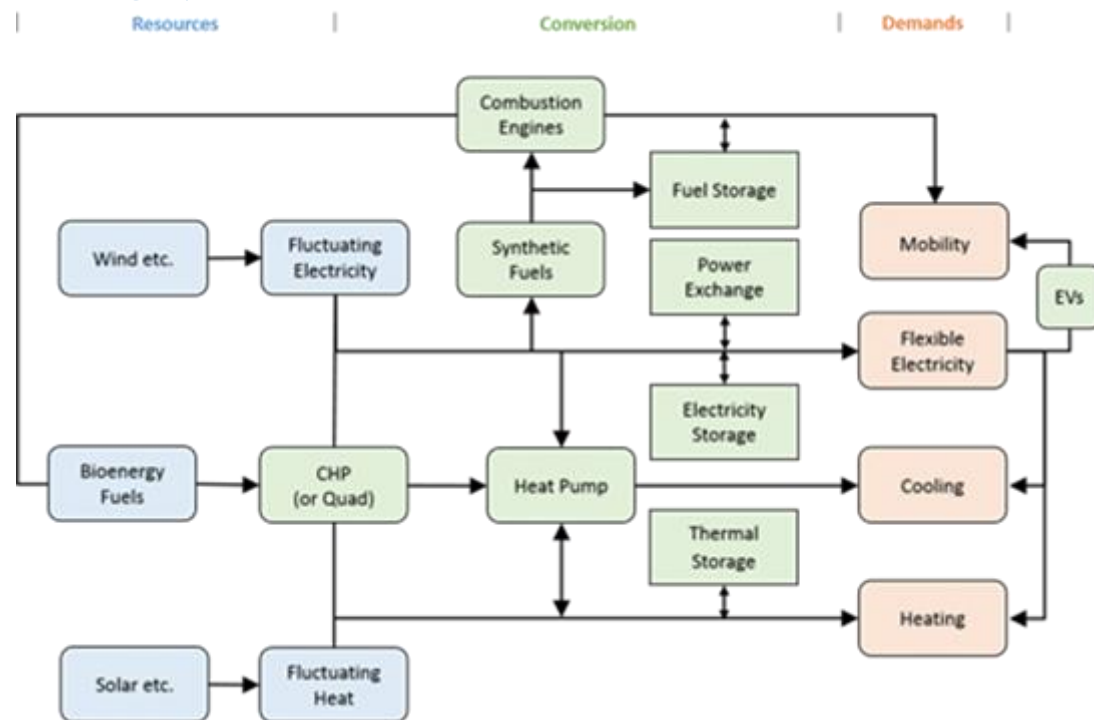
New Add-On tool – Input Documentation

A new add-on tool interprets EnergyPLAN scenario files and presents all the relevant input data in a way that is easy to understand. It allows you to select the categories of inputs you want to present and send it to the clipboard, designed to paste into a spreadsheet. This add-on can be used to draw out the inputs of a scenario file in an easy and consistent way, for example to be used in a documentation report.

Exciting Updates about our Recent Studies and an Invitation to Add Your Own

The EnergyPLAN tool is also being utilised to carry out a number of exciting studies around the world. For us, the focus recently has been on two main issues:

- **Smart Energy Systems**: 100% renewable energy will require the integration of the electricity, heat, cooling, industry, and transport sectors. EnergyPLAN allows you to model these interactions on an hourly basis, but to support the communication of this concept we have recently published a number of new papers, reports, and videos about the concept here: www.SmartEnergySystems.eu.

- **Heat Roadmap Europe**: we have been working hard since 2012 to promote a more holistic heating and cooling strategy in Europe, through our project Heat Roadmap Europe. We are excited to say that this work is progressing well as we continue this research under the IEE funded STRATEGO project. At the end of February, we look forward to presenting our work at the High-Level Heating and Cooling conference hosted by the European Commission.

- **ADD YOUR STUDY TO THE LIST**: attached to this email you will find a work template. Please, fill it out and send it to energyplanmodel@gmail.com if you would like us to add your work to the list of case studies on our website which use the EnergyPLAN tool.

PhD course in Energy System Analysis on the EnergyPLAN model – April 2015

In April, we have the annual EnergyPLAN PhD course at Aalborg University, Denmark. The course gives an introduction to advanced energy system analysis using the EnergyPLAN computer model and after the course the participants are expected to be able to understand methodologies of advanced energy system analysis and to be able to use EnergyPLAN as a tool in making energy system analyses. The course is conducted as a combination of lectures and computer workshops of a total of 4 days (32 hours) and assignments of a total of 6-7 days (52 hours) and has a workload of 3 ECTS. The course fee is 675 DKK for PhD fellows (90€) and the course will take place in Aalborg on 7-9 and 20-22 April, 2015. For registration, create a profile at https://phd.moodle.aau.dk and search for the course title "Advanced Energy System Analysis on the EnergyPLAN model (2015)". Deadline for registration is 17 March 2015.

Invitation to the First Annual EnergyPLAN User-Summit – August 2015

In the course of the last year, the team behind EnergyPLAN has developed the EnergyPLAN user interface, expanded the EnergyPLAN website, created an online written FAQ section, as well as conducted online live workshops and much more. We would like to expand the collaboration with our users as well as facilitate the interaction between users. We will therefore conduct the first Annual EnergyPLAN User-Summit as a special session at the International Conference on Smart Energy Systems and 4th Generation District Heating on 25-26 August 2015 in Copenhagen. At the Summit, the EnergyPLAN Development Team will present the philosophy behind EnergyPLAN and a short history of it. The majority of the session, however, consists of user presentations and feedback. If you would like to present some of your work, you are invited to write a short abstract covering your presentation at the conference, see more information here: www.4dh.dk/call-for-abstracts. You are also welcome to simply attend and learn from the experience of others. For us the aim is to both facilitate a feedback session for you and to enable you to provide us with feedback on the latest developments within EnergyPLAN. EnergyPLAN is only alive through its users. If you wish to join, please respond to this doodle. Also indicate whether you plan to present some of your EnergyPLAN work.

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