

South East Europe 2050 Energy Model

Showing the way to a fairer, cleaner, more
efficient energy system in South East Europe!

We are currently developing a energy models for 7 countries of South East Europe – as well as a regional model – which will allow us to make sensible choices about our energy future in line with EU goals. The name of the model we are using is the 2050 Calculator.

Vital data:

- Where: The 7 countries from SEE region involved in this activity are: Albania, Bosnia and Herzegovina, Croatia, Macedonia*, Kosovo**, Montenegro, Serbia
- Who: The Lead Partner is [SEE Change Net](#) working with [17 CSO partners](#)
- What: With the support of the UK Department of Energy and Climate Change (DECC), the Project is using an energy model called OPE2RA – Open Source Prospective Energy & Emissions Road Mapping – based on the DECC [“My 2050 Calculator”](#)

Technical support to train 14 Civil Society researchers from South East Europe in Energy Modeling is being provided by [ClimAct](#) who also provided technical support to the recently completed [2050 Pathways Calculator for Belgium](#) and the IEA [Global Calculator](#).

The steps being undertaken by the CSO researchers in creating these energy models are:

- Mapping sectors and stakeholders
- Literature review
- Sectorial analysis
 1. Demand side (buildings, transport, steel, cement, aluminum, agriculture, waste)
 2. Supply side (Oil, Gas and Coal Power; Hydro Power; other Renewables)
- Consolidated modeling
- Technical consultations – including industry, government and academia
- Scenario modeling
- Development of user friendly interface

* According to the UN, the official name for Macedonia is “The former Yugoslav Republic of Macedonia”.

** According to the UN, Kosovo is “under the United Nations Interim Administration Mission in Kosovo (UNMIK) established pursuant to Security Council Resolution 1244.”



My 2050 Calculator – UK



2050 Pathways Calculator – Belgium

What is the 2050 Calculator and why choose it ?

There are approximately 100 good energy models out there, most of which are very good when used within their capability boundaries. We have decided to leverage the DECC methodology to support our advocacy work and dialogue with decision makers. This short paragraph provides an overview of why the DECC methodology has been selected for this project and also how it typically interacts with other models.

The DECC model & methodologies have been chosen with the following considerations in mind:

- | | |
|------------------------------|--|
| Representative simulation | <ul style="list-style-type: none"> • The model provides the capacity to easily explore a large variety of scenarios on the full energy system • The model takes into account the existing literature and can represent most scenarios performed in previous studies |
| Stakeholder involvement | <ul style="list-style-type: none"> • Key stakeholders are consulted and brought on-board on the methodology • Key stakeholders are provided with an opportunity to review the assumptions during the consultation and through a final call for evidence process • All stakeholders can generate pathways representing their views |
| Transparency | <ul style="list-style-type: none"> • All model assumptions are accessible through presentations • All the model assumptions presented are directly placed in the model |
| Accessibility | <ul style="list-style-type: none"> • The model runs on an open-source spreadsheet in Excel • Three different stakeholder interfaces improve the debate at various complexity levels (schools, decision makers and experts) |
| Credibility | <ul style="list-style-type: none"> • The model is successfully trialled by the UK DECC⁽¹⁾, and other leading institutions have contributed to enriching it, including the IEA⁽²⁾, the WRI⁽³⁾, The Chinese Energy & Resource Institute, the LSE⁽⁴⁾ and ICL⁽⁵⁾ • In the past 3 years, above 20 countries have started to use this methodology |
| Modularity & Complementarity | <ul style="list-style-type: none"> • Its Excel structure makes it very flexible. It is also often used in combination with other models (both simulation & optimisation) • It clearly states its capability boundaries, which makes it an excellent complement to other models |

(1) Department of Energy & Climate Change, (2) International Energy Agency, (3) World Resources Institute, (4) London School of Economics, (5) Imperial College London

Who else is using or developing a 2050 Calculator ?

By creating this energy model, countries of South East Europe will be joining a significant number of states that have already developed or are in the process of developing their own 2050 Calculator energy models.

Countries that published their 2050 Calculator energy models

India Japan
United Kingdom Taiwan
China
South Africa
South Korea Belgium

Countries in the process of creating their 2050 Calculator energy models

Mexico Brazil Algeria
Colombia Bangladesh
Vietnam Thailand
Indonesia Hungary Nigeria

Global Calculator

The International Energy Agency has also contributed to the development of a [Global Calculator](#), an interactive tool that will help us explore all the options the world has to reduce emissions through changing our technologies, fuels, land use and lifestyles up to the year 2050. It is currently in its draft version, and launch is planned for January 2015.



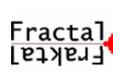
The Global Calculator is built by an international team from renowned organizations, including:

- Department of Energy and Climate Change (UK)
- Climate-KIC
- World Resources Institute
- Energy Research Institute of the National Development and Reform Commission and Energy R&D International (China)
- London School of Economics
- Imperial College London
- International Energy Agency
- Climact
- Climate Media Factory



South East Europe Sustainable Energy Policy

With approximately 25 million potential new EU citizens in South East Europe, who are all energy consumers, energy is perhaps one of the most complex issues which is facing the region. It has interrelated and far reaching impacts on several areas, including society, the economy and the environment, particularly as South East Europe faces the imminent deregulation of the market in 2015 in a less than ideal governance environment. The South East Europe Sustainable Energy Policy (SEE SEP) programme is designed to tackle these challenges. This is a multi-country and multi-year programme which has 17 CSO partners from across the region (Albania, Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro and Serbia) and the EU. It is financially supported by the European Commission. The contribution of the SEE SEP project will be to empower CSOs and citizens to better influence policy and practice towards a fairer, cleaner and safer energy future in SEE.



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