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Mass and energy balance model

BSEAA PROJECT
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Agenda

Introduction to the Aston Mass-Energy Balance Model

Guided walk-through of the model and a challenge!

Discussion of results generated and model feedback

Closing remarks

The Aston Team

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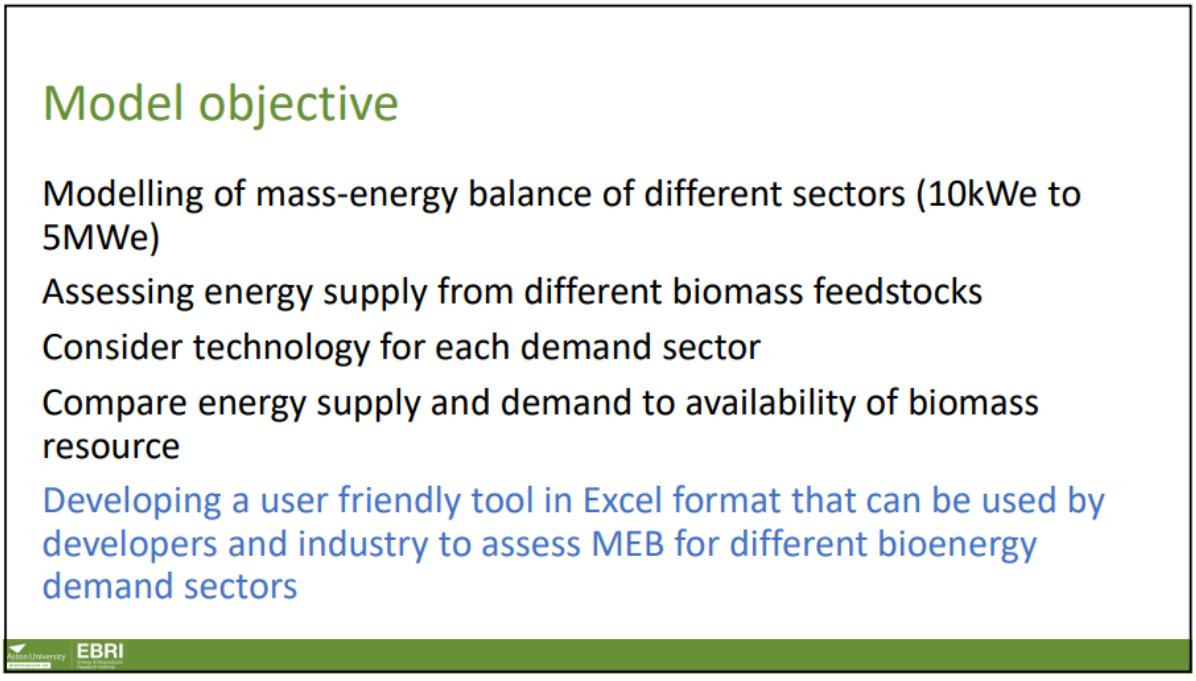

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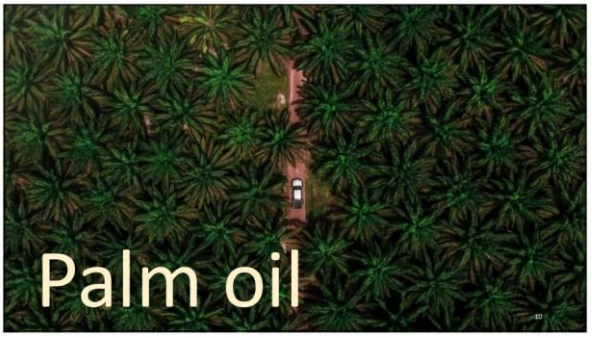
The demand sectors



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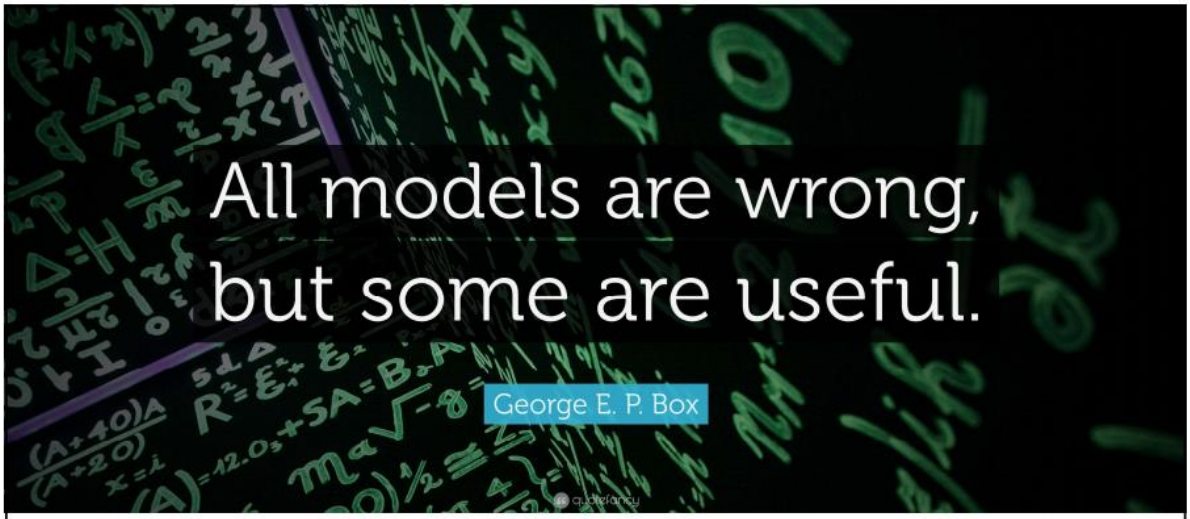
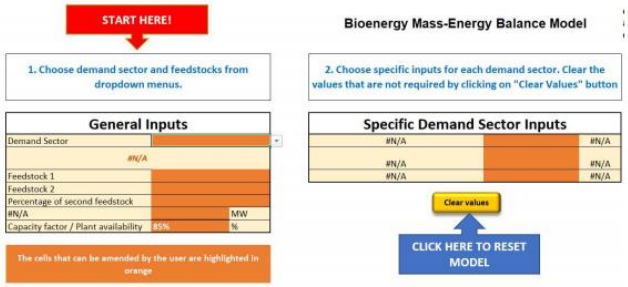
Model design



The practical question is how wrong do they have to be, before they are no longer be useful?

Model design – user interface

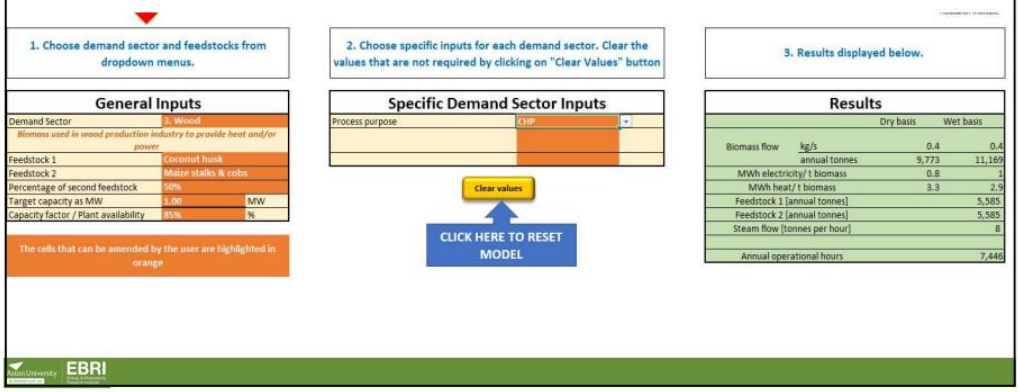
- Simple to use
- Inbuilt methodology document
- All assumptions clearly stated
- Comprehensive feedstock information



Model design – behind the scenes

The results

A simple snapshot on user interface page



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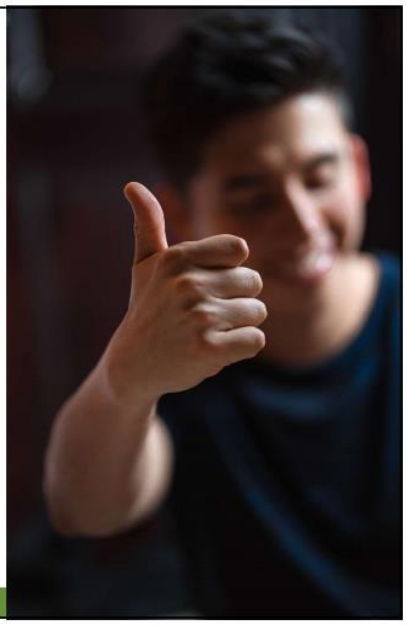
Model capabilities

The model can

Based on user's energy requirement, calculate the amount of biomass required

Restricts the feedstock selection depending on the demand sector

Automatically update the model depending on the choices



The model can't

Provide specific details of the technology. Generalised assumptions are used.

Provide process design details e.g. vessel dimensions

Provide a detailed simulation

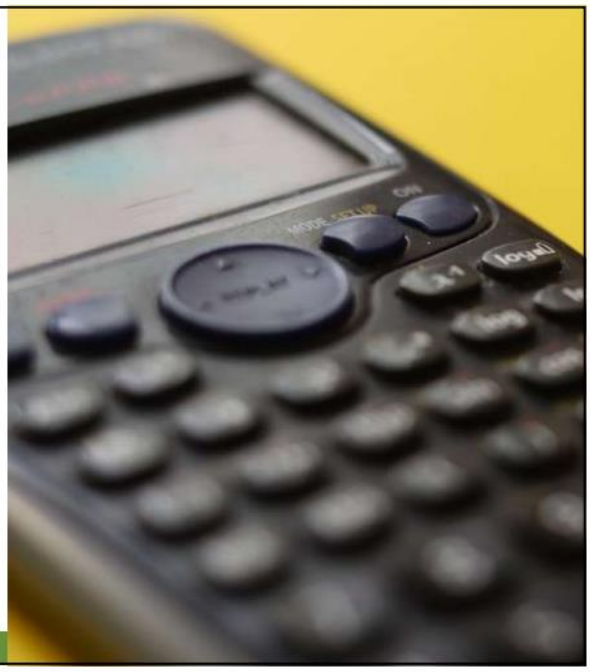
So remember

The efficiency and yields are predetermined

The feedstock properties come from the database.

The properties are not determined by the user

Who the model is aimed at



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Your opinion matters: https://tinyurl.com/36fcx844

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