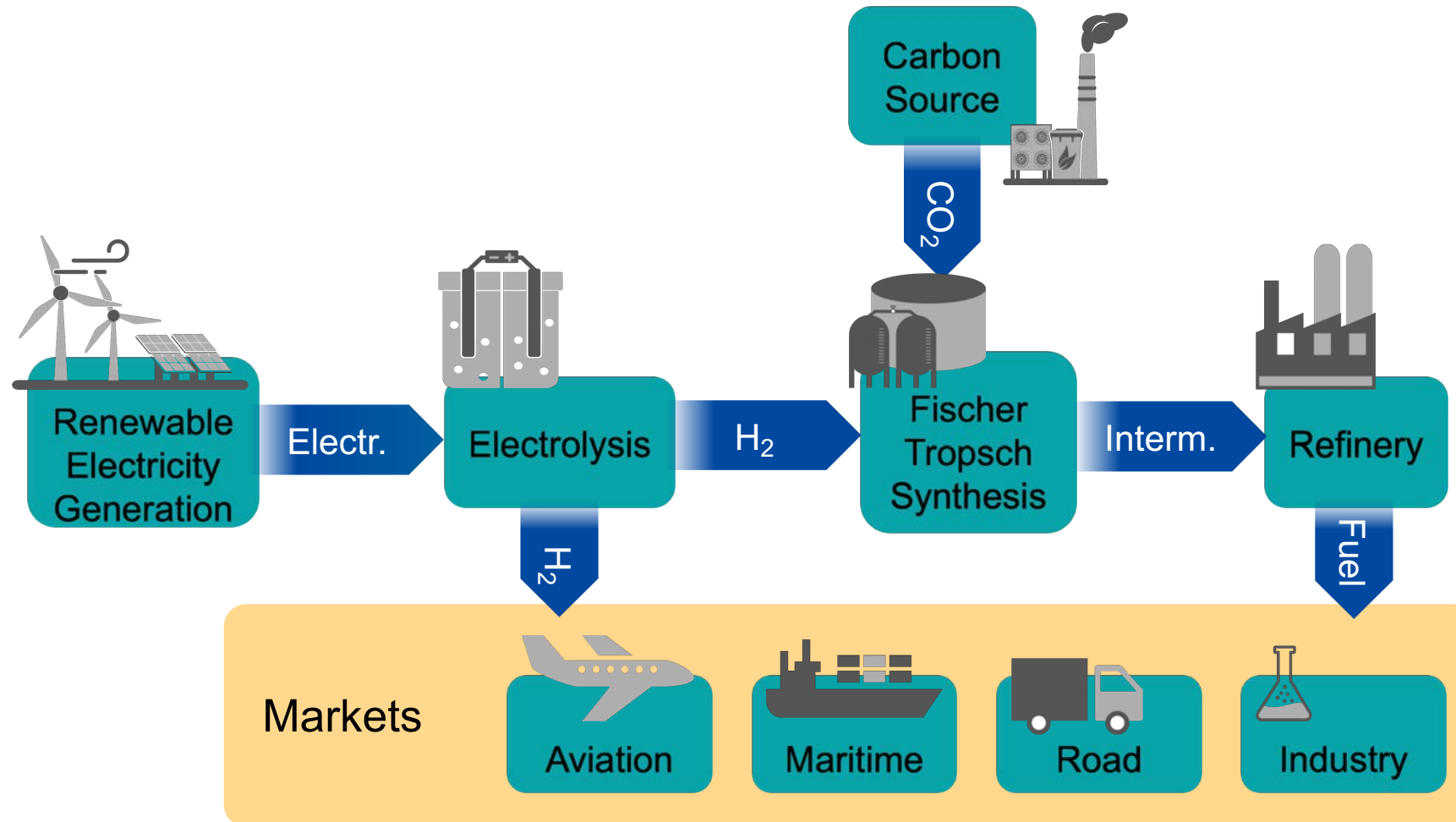




RFNBOs Certification: Requirements and GHG methodology

RFNBOs supply chains provide a pathway for the production of low-carbon fuels



Example

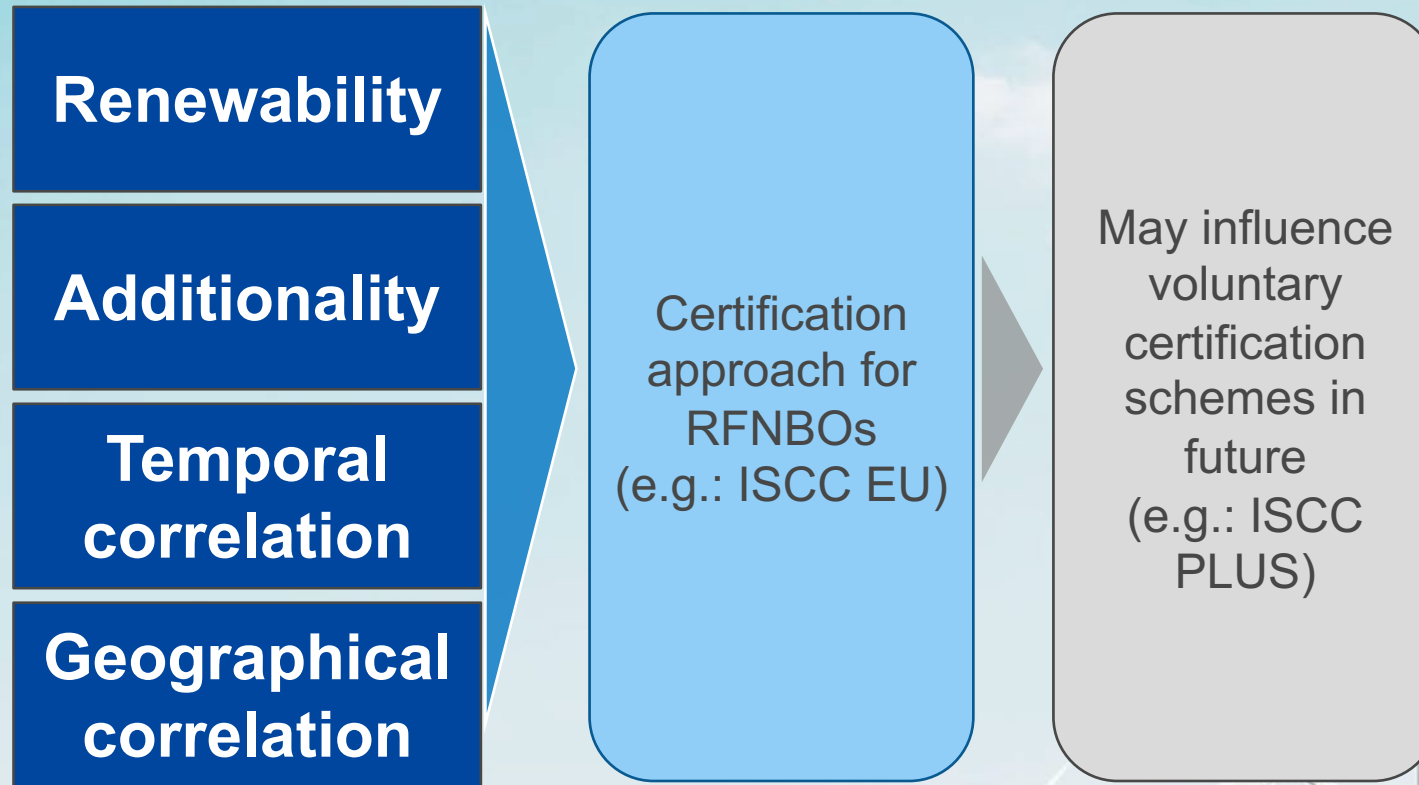
Hydrogen may be used directly as fuel or serve as an intermediate for other RFNBOs.



The requirements for RFNBO supply chain certifications are based on the RED II and Delegated Acts

- **Renewable fuels of non-biological origin (RFNBOs):** Renewable liquid or gaseous **fuels** which are used in the **transport sector** other than biofuels or biogas, the energy content of which is derived from **renewable sources other than biomass**.
- Delegated Acts adopted since **February 13th**
- Focus on **electricity sourcing** and **GHG calculation methodology**
- Two-month scrutiny period by the European Parliament and the Council.

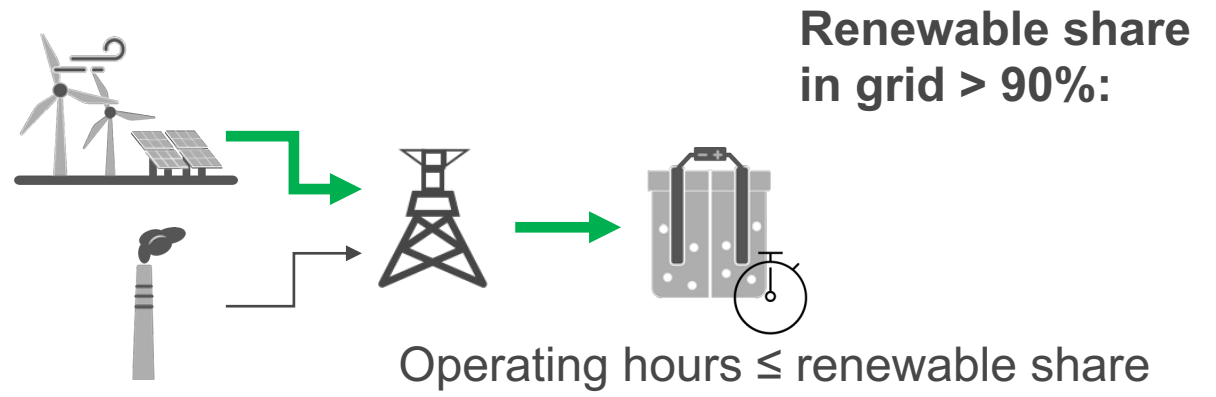
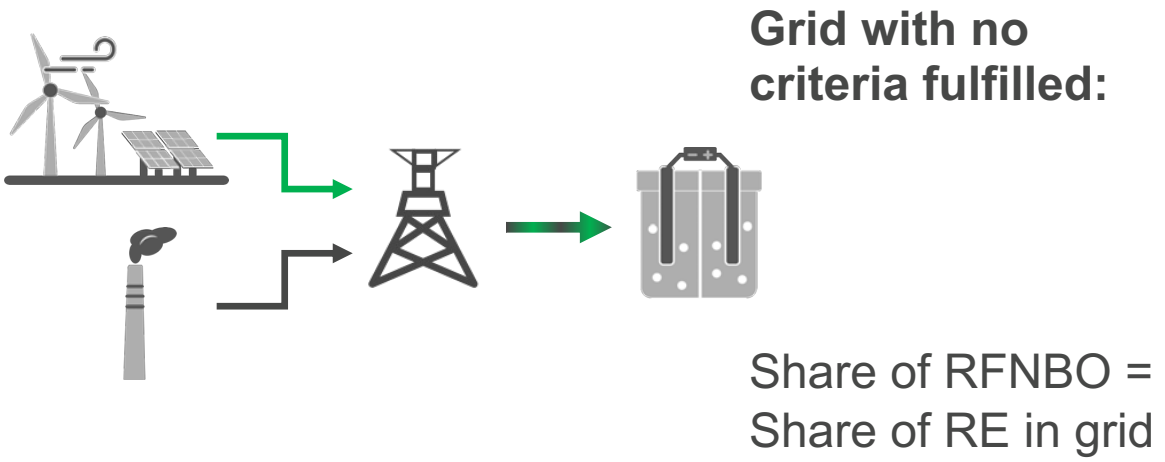
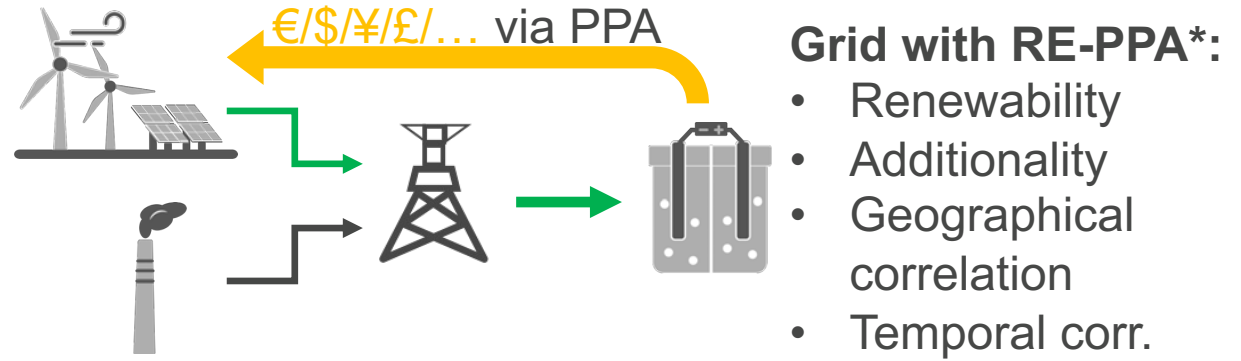
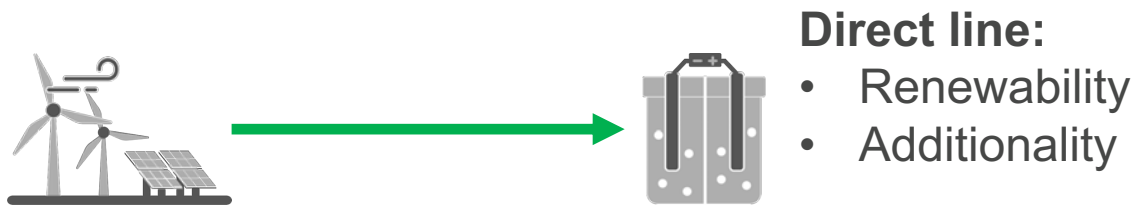
The criteria for renewable electricity for RFNBOs follow four principles



Source: Delegated regulation on establishing a Union methodology setting out detailed rules for the production of renewable liquid and gaseous transport fuels of non-biological origin

Four electricity supply options for RFNBO production are foreseen

RE: renewable electricity
PPA: power purchase agreement



The methodology for GHG accounting included in the DA differs from the RED methodology. Required GHG savings are 70%.

$$E = e_i + e_p + e_{td} + e_u - e_{ccs}$$

Where:

E = total emissions from the use of the fuel in g CO₂/MJ

$e_i = e_{i \text{ elastic}} + e_{i \text{ rigid}} - e_{\text{ex-use}}$: supply of inputs

$e_{i \text{ elastic}}$ = emissions from elastic inputs

$e_{i \text{ rigid}}$ = emissions from rigid inputs

$e_{\text{ex-use}}$ = emissions from inputs' existing use or fate

e_p = emissions from **processing**

e_{td} = emissions from **transport and distribution**

e_u = emissions from **combusting the fuel**

e_{ccs} = emission savings from **carbon capture and geological storage**

Elastic: Supply can be expanded to meet additional demand (e.g. electricity)

Rigid: Supply cannot be expanded to meet additional demand (e.g. MSW, inputs for RCFs)

Source: Annex on Delegated Act on Renewable Fuels of Non-Biological Origin – GHG methodology (2023)




Final messages

- Meo has already supported customers with RFNBO pilot projects:
 - GHG calculations
 - Certification set-up and electricity requirements verification
 - Certification support under voluntary markets
 - RVO pilot projects with ISCC
 - Trainings provision
- Certification set-up assessments, GHG calculations, identification of GHG core impact categories and reduction potentials can already be performed.
- Publication of legislation will happen within next months; certification schemes can then apply for recognition.



Feel free to get in touch with us!

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