Harmonised Greenhouse Gas Calculations
for Electricity, Heating and Cooling from Biomass

# Block 2: Verification of actual calculations



#### **Elements of a verification**

Use of default values

Correct application of COM(2010)11 / SWDmethodology (and scheme rules)

Verification of data (input data, standard values, reference values)





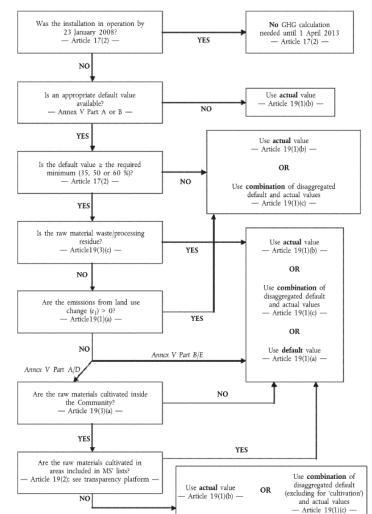
#### Verification of the use of actual vs. default values

Methods for calculating the greenhouse gas impact

## When verifying the use of default values, a verifier should:

- Check whether <u>correct default</u> <u>value</u> has been used
- 2. Check: <u>Is it allowed</u> to use a default value?

  (Use decision tree from Communication on practical application...)





#### **Verification of actual calculations**

The COM(2010)11 <u>methodology</u> has to be applied correctly

- 1. When using recognised schemes / tools, the correct implementation of the methodology is guaranteed
- If calculations are made with non-recognized tools / other means (e.g. spreadsheets), the correct application of the methodology has to be checked
- 3. If tools (recognized or not) offer possibilities to implement changes, compliance with the COM / SWD methodology and schemes rules has to be checked (e.g. BioGrace)



#### **Verification of actual calculations**

How to deal with **definition gaps** in the COM / SWD methodology

- 1. Some are tackled in the calculation rules
  - definition of "defined region" for grid electricity mixes (national mixes in BioGrace)
  - 2. cut-off criteria for chemicals etc.
- 2. Some are not yet addressed:
  - 1. Definition of 'degraded land' for bonus
  - 2. Clear definition of co-product and waste (e.g. fatty acids, jatropha cake)



#### **Verification of actual calculations**

#### All data / numbers have to be correct

- 1. Check whether <u>input data</u> used in the calculation is supported by evidence (documentation)
- 2. Check whether correct standard values have been used,
  - either as defined by the scheme, or
  - user defined standard values (incl. evidence/documentation). This includes checking the correct global warming potentials (1, 25, 298)
- 3. Check whether correct <u>numbers for the reference process</u> have been used (As defined in the SWD)
- 4. Check whether the <u>calculation</u> is correct (no calculation errors leading to incorrect outcomes have been made)
- Complementary calculations may be necessary for converting data into the right units



### Thank you for your attention



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