

# The (special) role of Green Electricity in Green Public Procurement

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Boosting Sustainable Energy Supply & Efficiency  
through Smart Public Tendering

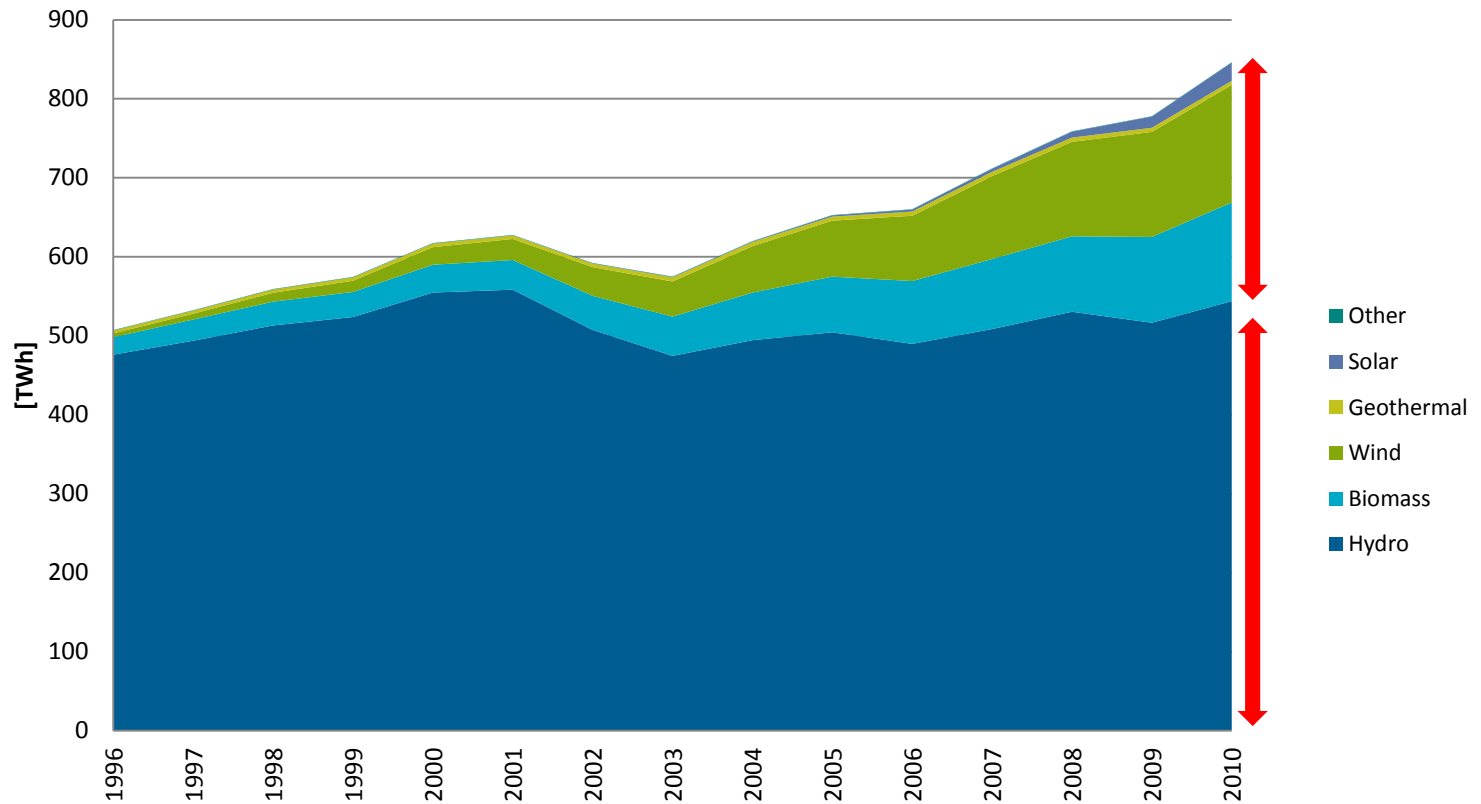
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## Background for "green" RES-E markets

- Internal Electricity Market (IEM) Directive:  
All consumers should be allowed to freely choose their electricity supplier based on price, fuel mix or other criteria
- Renewables (RES) Directive:
  - Guarantees of Origin (GOs) are established as a (but from a EU legal perspective not necessarily the only) instrument for accounting a specific RES-E supply by an electricity supplier towards an end-consumer
  - GOs include information e.g. on production plant, fuel, production period, level of support, plant age, ...
- All (non-domestic) consumers should be able to choose their electricity supply also based on ecologic criteria
- Challenge: straight-forward purchase of RES-E does not include a benefit for the environment

# Existing RES-E production in Europe

## Renewable Electricity Production (EU27+CH+NO)

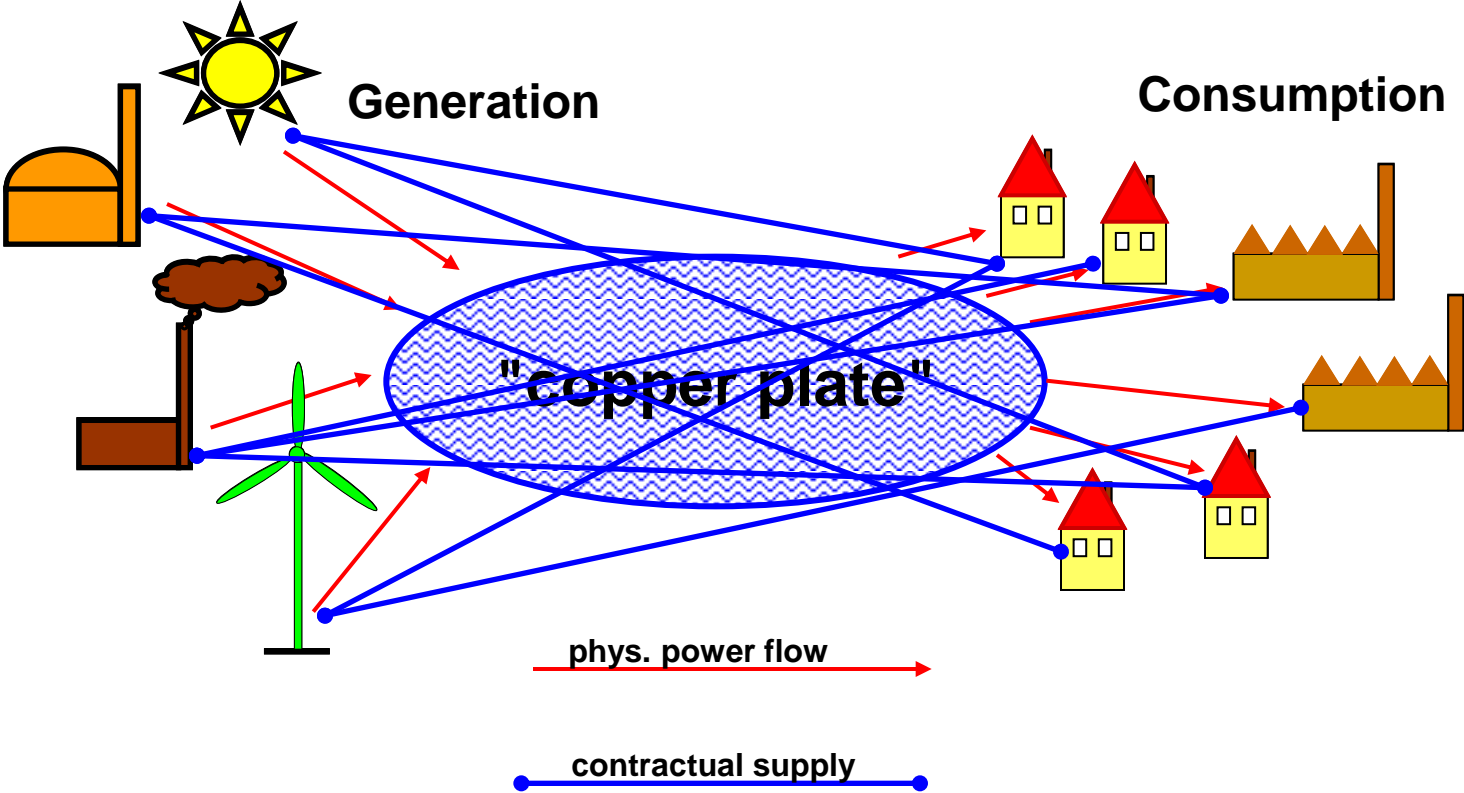


Source: Calculations Öko-Institut, based on Eurostat 2012

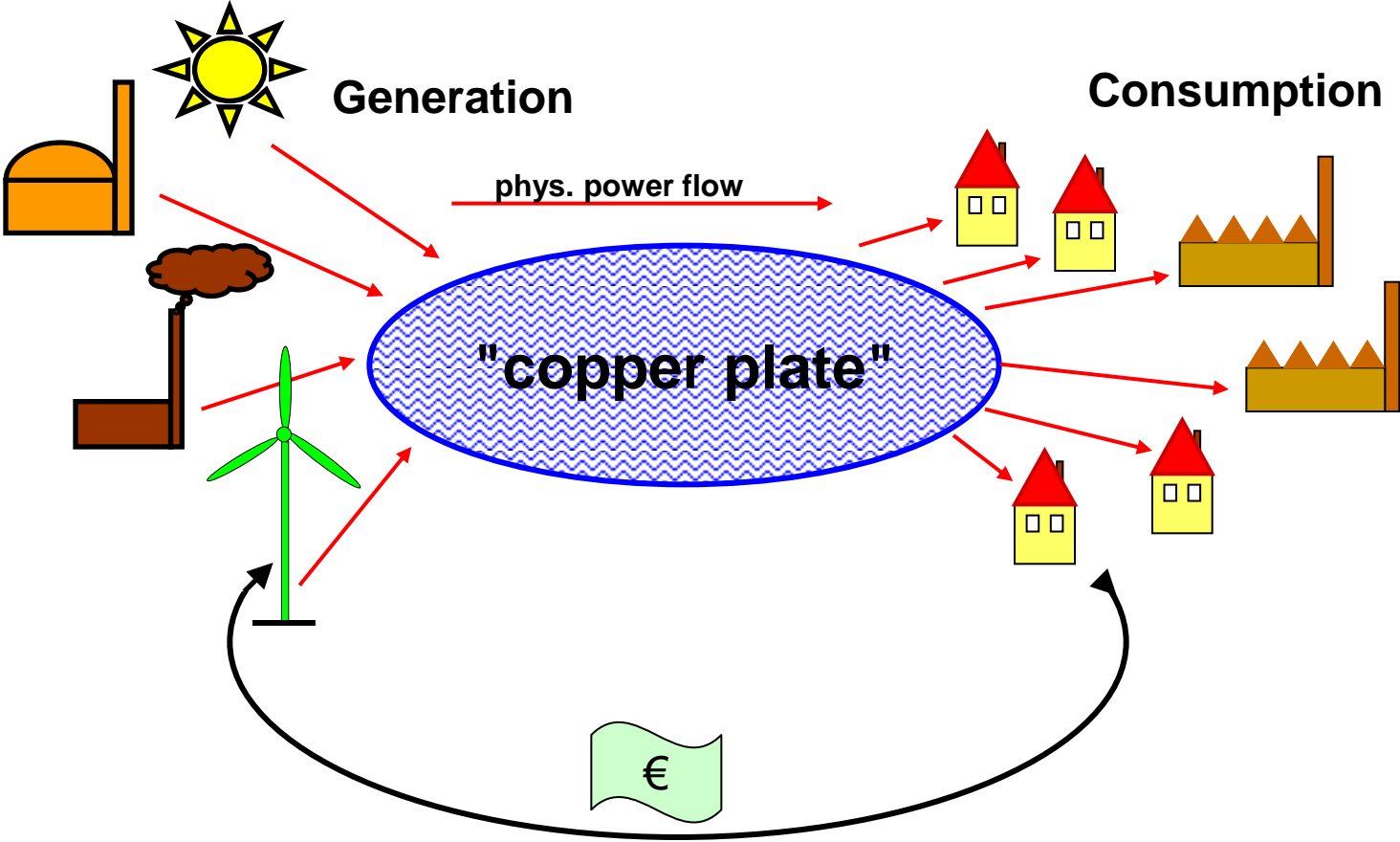
## How to deal with this "additionality challenge"?

- Options:
  - Neglect ☹; *or*
  - Apply specific "additionality" criteria
    - E.g. specific focus on new plants and no public support; or also strong "ecological criteria" (e.g. for ecological improvement of hydro)
- Legal requirement for tendering procedure: ecologic tendering criteria have to refer to the electricity product
  - no criteria possible which refers solely to the supplying company (e.g. may not be the owner of a nuclear power plant)
- Possible green electricity approaches:
  - Supply model with new unsupported plants, or long-term PPAs,
  - (Funds model)
  - (Initiation model)

# Typical models for "green electricity offers": *Supply model*



# Typical models for "green electricity offers": *Funds model*



# How to define an ambitious green electricity offer?

- Criteria:
  - Criteria of green electricity labels could give orientation
  - In some countries also green electricity tendering guidelines exist
  - Ecological criteria can be defined as qualification criteria or be weighted against price for purchase decision
- Besides ecological criteria, also verification procedure has to be clarified
  - GOs are available in most European markets, and can be used (by suppliers or in some countries even directly by a large consumer) for documentation of specific criteria (particularly in the supply model)
  - Advice: require third party audit (based on GO cancellation)
  - Labels could be an alternative (but not mandatory) way of verification

# Show case 1:

## RES-E Procurement Guidelines Baden-Württemberg

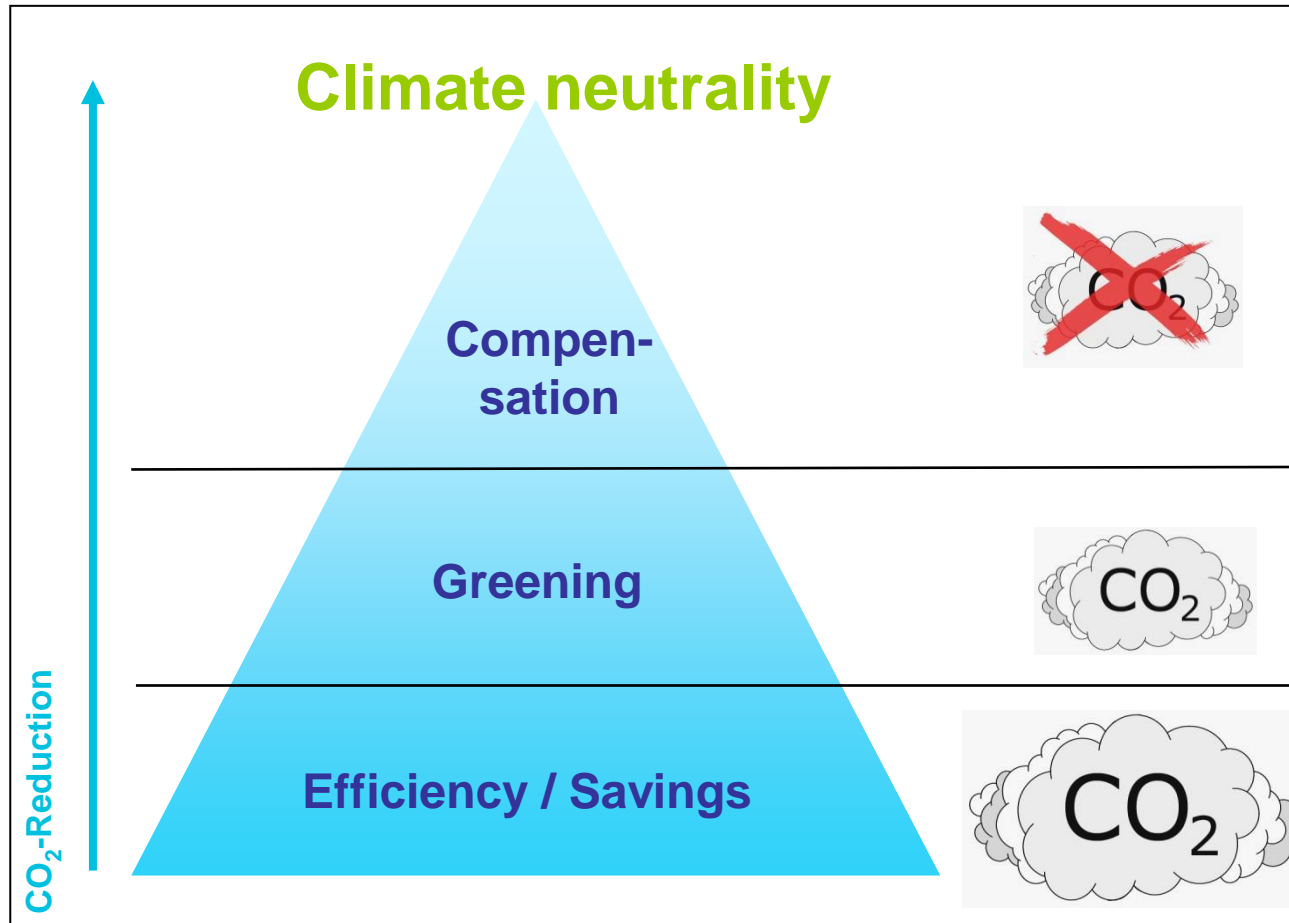
- Currently in draft status at the Regional Office for Environment of the German Federal State Baden-Württemberg
- Based on criteria of the German "ok-power" label for green electricity
- Criteria:
  - Contractual supply of 100% RES-E
  - Age requirements for production plants for each year of supply:
    - At least 66% coming from plants < 12 yrs, of which at least 33% < 6yrs
  - Electricity should not have received public support
- Verification:
  - Third party audit, based on cancellation statement of eligible GOs
  - Alternatively: existing ok-power certification (which covers all above requirements)



## Show case 2: German Federal Environment Agency

- Issued by the German Federal Environment Agency (UBA)
  - "Beschaffung von Ökostrom – Arbeitshilfe für eine europaweite Ausschreibung der Lieferung von Ökostrom im offenen Verfahren"
- Criteria (amongst others):
  - Contractual supply of 100% RES-E
  - *Calculatory* reduction of GHG-emissions by supply from specific plants
    - Guidelines include a table (for Germany) for applicable emission reduction factors per fuel as compared to national reference emissions.
  - Emission reductions may be accounted for depending on plant age
    - New plants: 100%, <6yrs: 50%; <12yrs: 25%
  - Based on this table, procurers can define either a minimum reduction, or define a weighting against the price

# Priority setting to reduce carbon footprint



## Conclusions

- Procurement of Green Electricity
  - is already taking place
  - can be environmentally beneficial (taking special criteria into account) and thus be an element of responsible governance
  - is technically, ecologically and legally feasible
- The greenest electricity is electricity which is not consumed at all!

Thank you for your attention!

Do you have any questions?

