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# Electricity and the chain of custody

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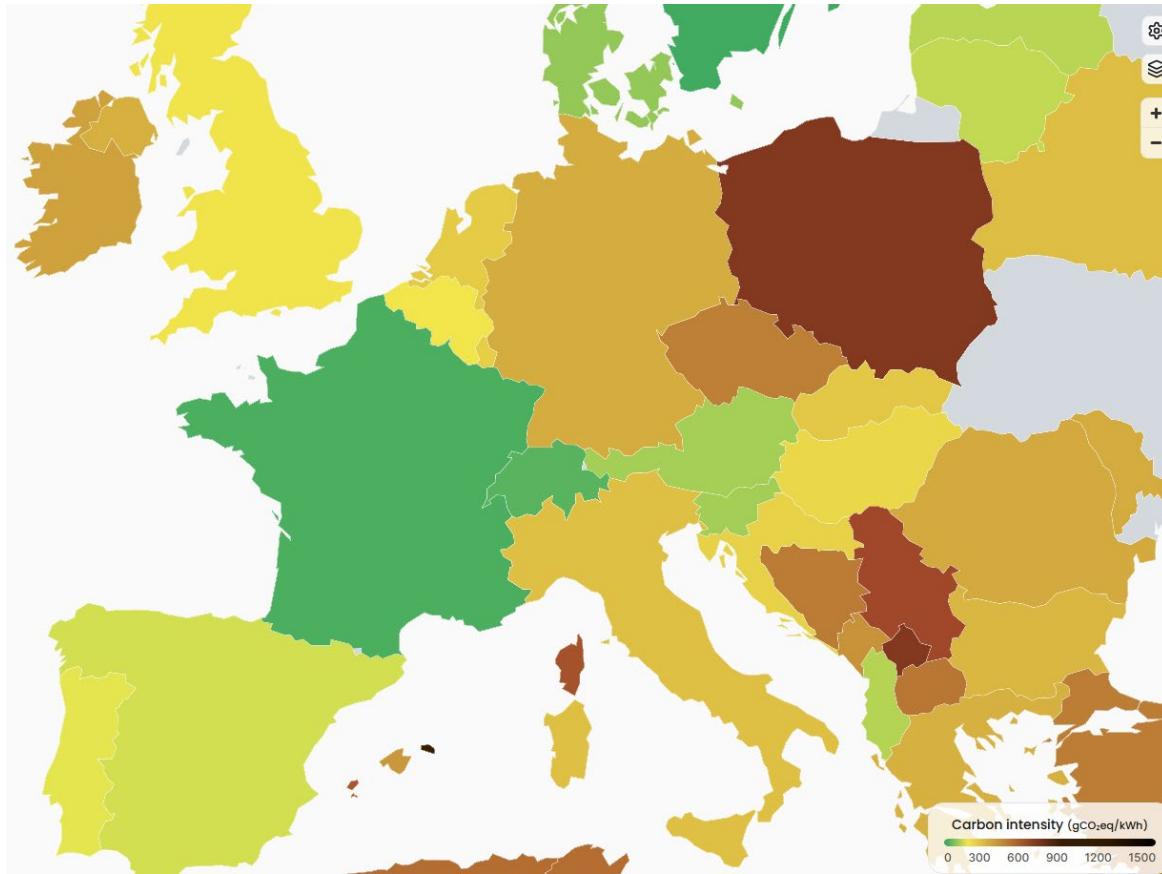
# Agenda

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- Electricity as CoC case
- Lessons from electricity debate
- The advantage of electricity modelling

# Location-based electricity

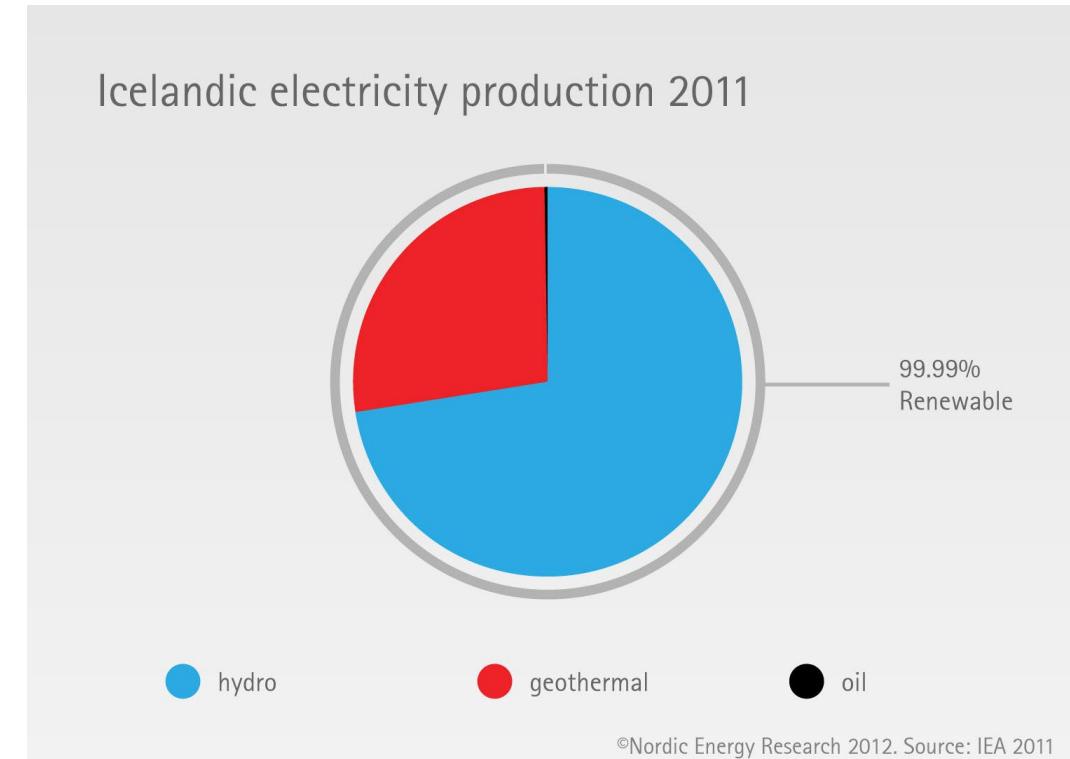


- Uses annual average electricity data
- Corresponds to rolling-average mass-balance approach
- Stipulated by
  - ISO 14064-1
  - GHG Protocol

Source: [app.electricitymaps.com](http://app.electricitymaps.com)

# Market-based electricity

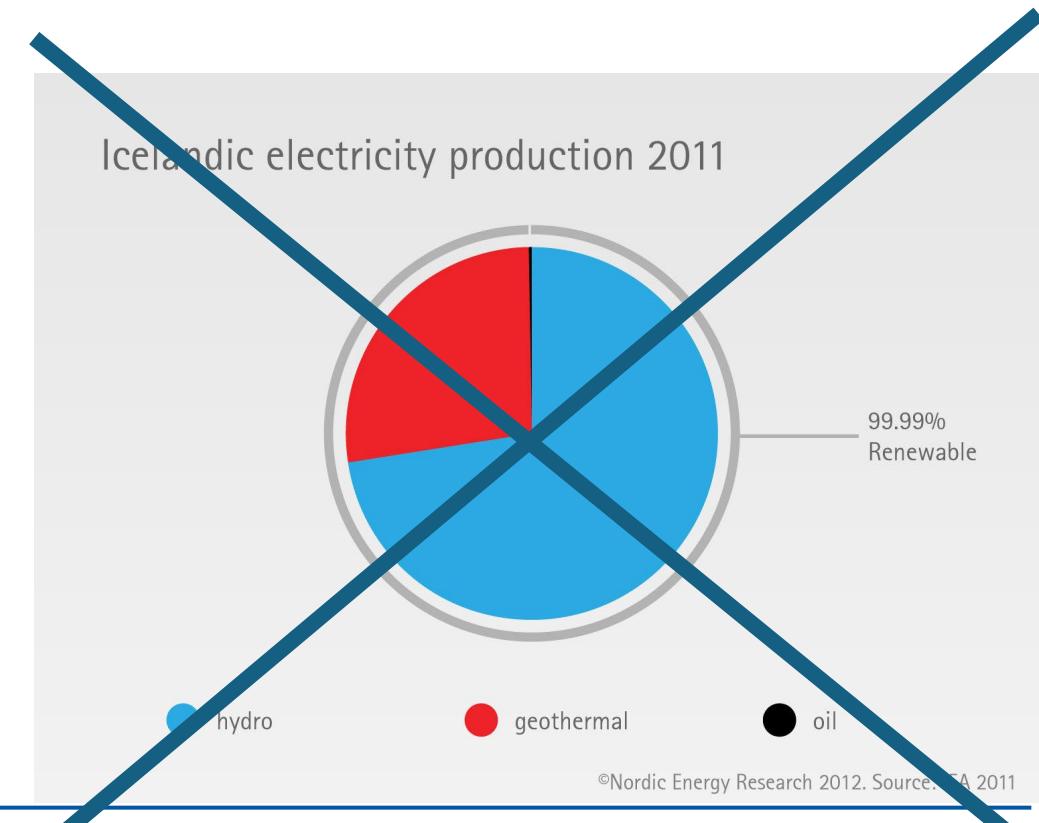
- Electricity and Guarantees of Origin are traded separately
- Corresponds to book-and-claim approach
- Stipulated by
  - ISO 14067
  - PEF
  - GHG Protocol



Source: Nordisk Energiforskning

# Market-based electricity with constraint

- Electricity and Guarantees of Origin are traded separately
- Physical grid connection is required
- Corresponds to mass-balance with credits



Source: Nordisk Energiforskning

# Lessons from electricity debate

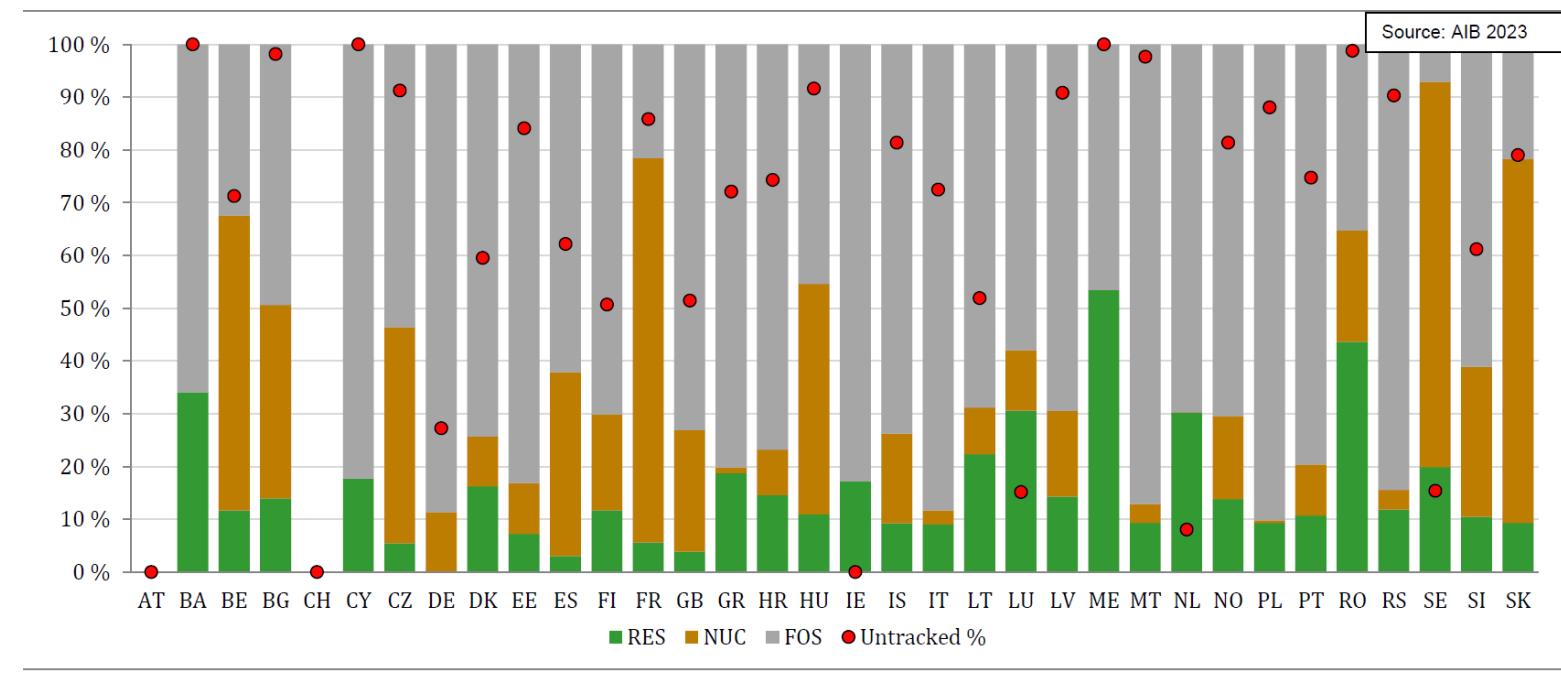
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- Mass balance with rolling average is uncontroversial
- Book-and-claim
  - + gives incentives to green investments
  - can easily be construed as greenwashing

# The advantage of electricity modelling

- Availability of residual data for book-and-claim



Source: Association of Issuing Bodies (AIB)



## Consistent LCA standards

A Swedish Life Cycle Center project

Funded within Net Zero Industry, a joint initiative by  
Vinnova, Formas, and the Swedish Energy Agency



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