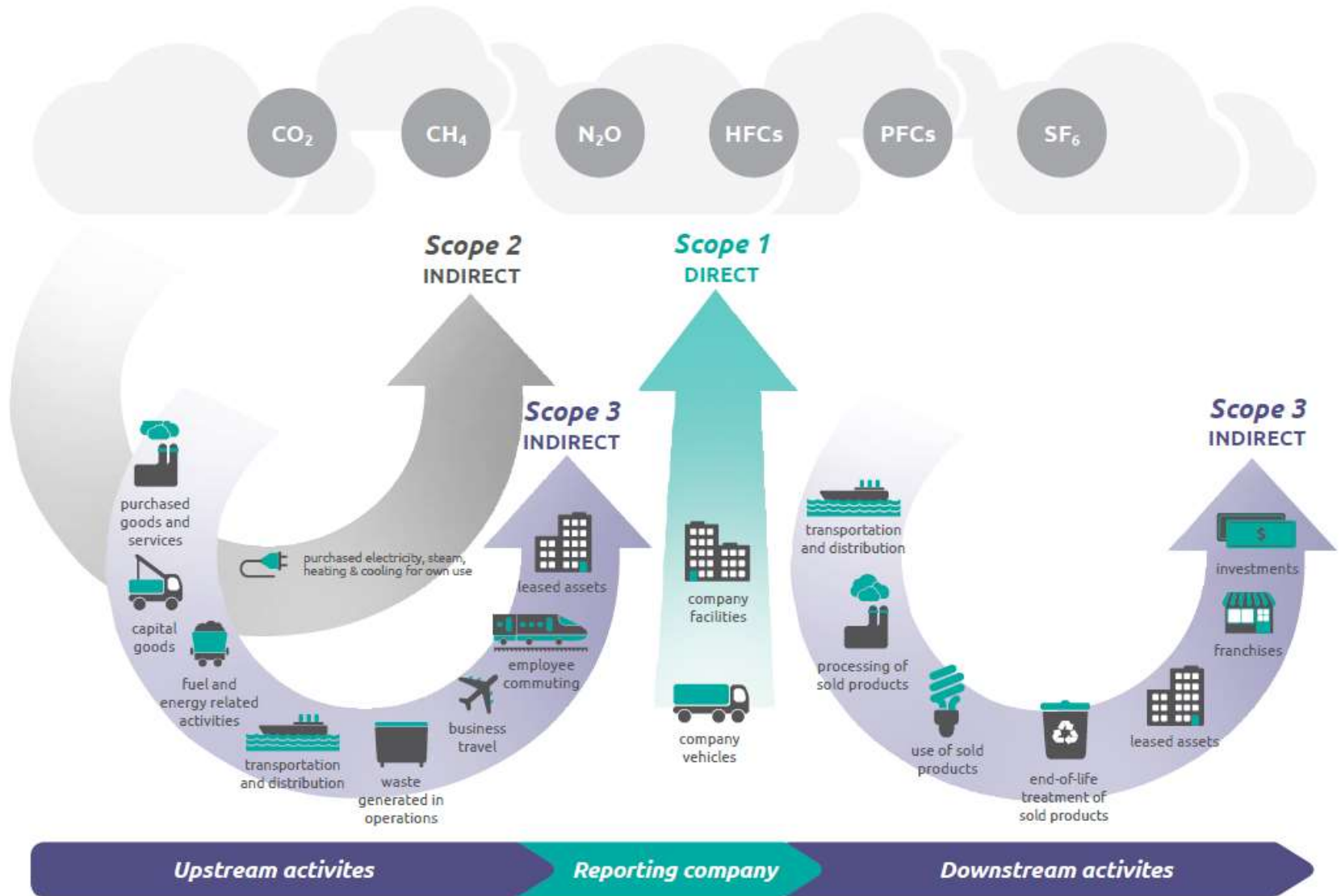




GREENHOUSE GAS PROTOCOL

Scope 2 Guidance: *new developments in corporate GHG accounting for energy purchases and consumption*

Mary Sotos, *Associate at World Resources Institute*



40%
global
emissions

50%
electricity use
by business

60%
Fortune 100
have set clean
energy and GHG
reduction targets

**Measuring electricity
emissions matters!**

Why New Guidance?

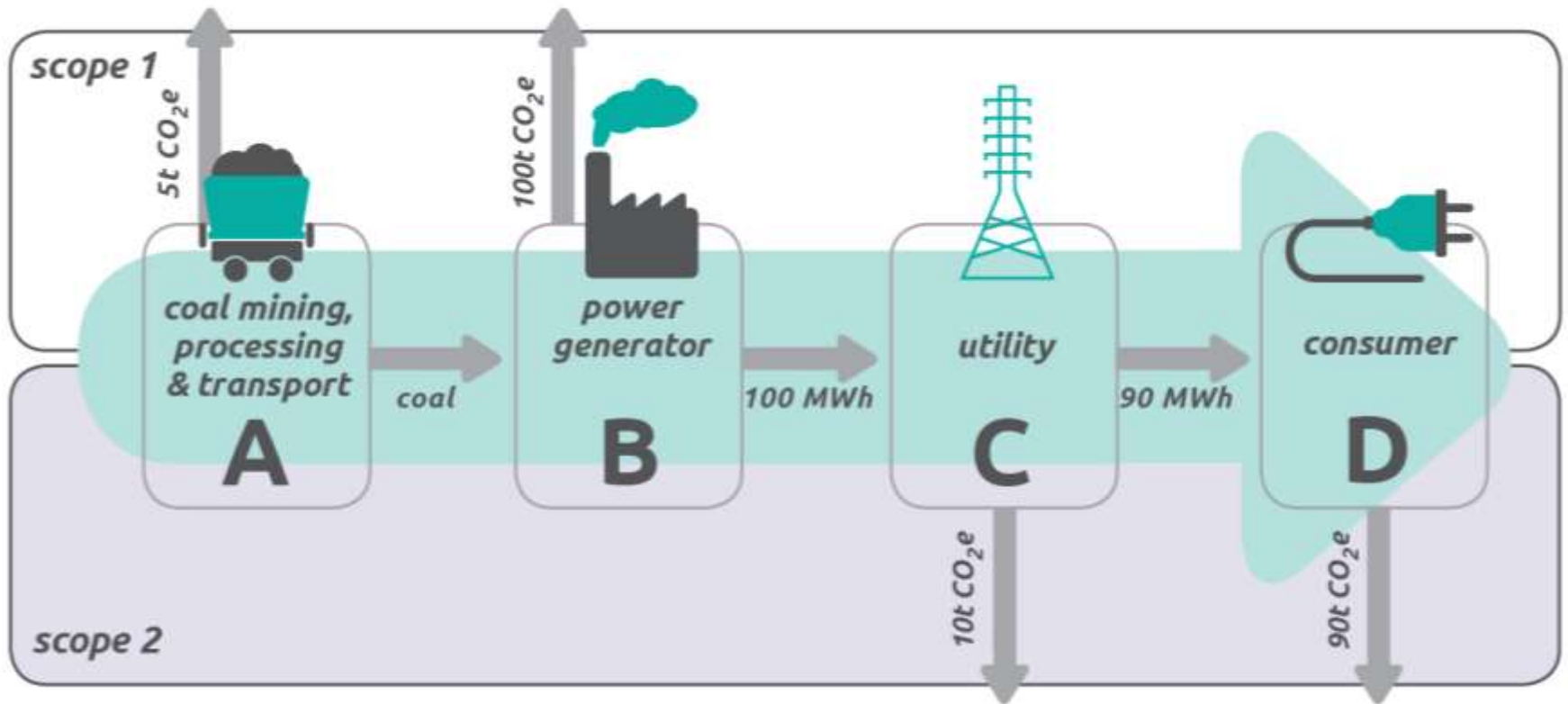
The energy market has changed profoundly.

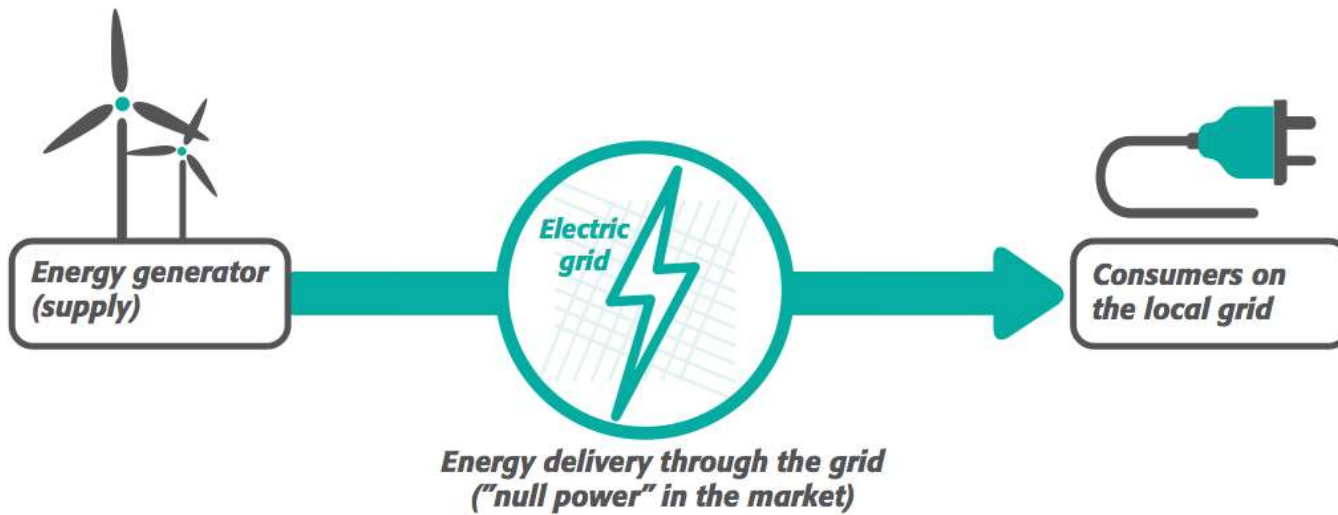
- Deregulation
- More government requirements for sourcing renewable energy
- Growth of the renewable electricity markets
- Increase in consumer choice
- New purchasing options and instruments (e.g. certificates)

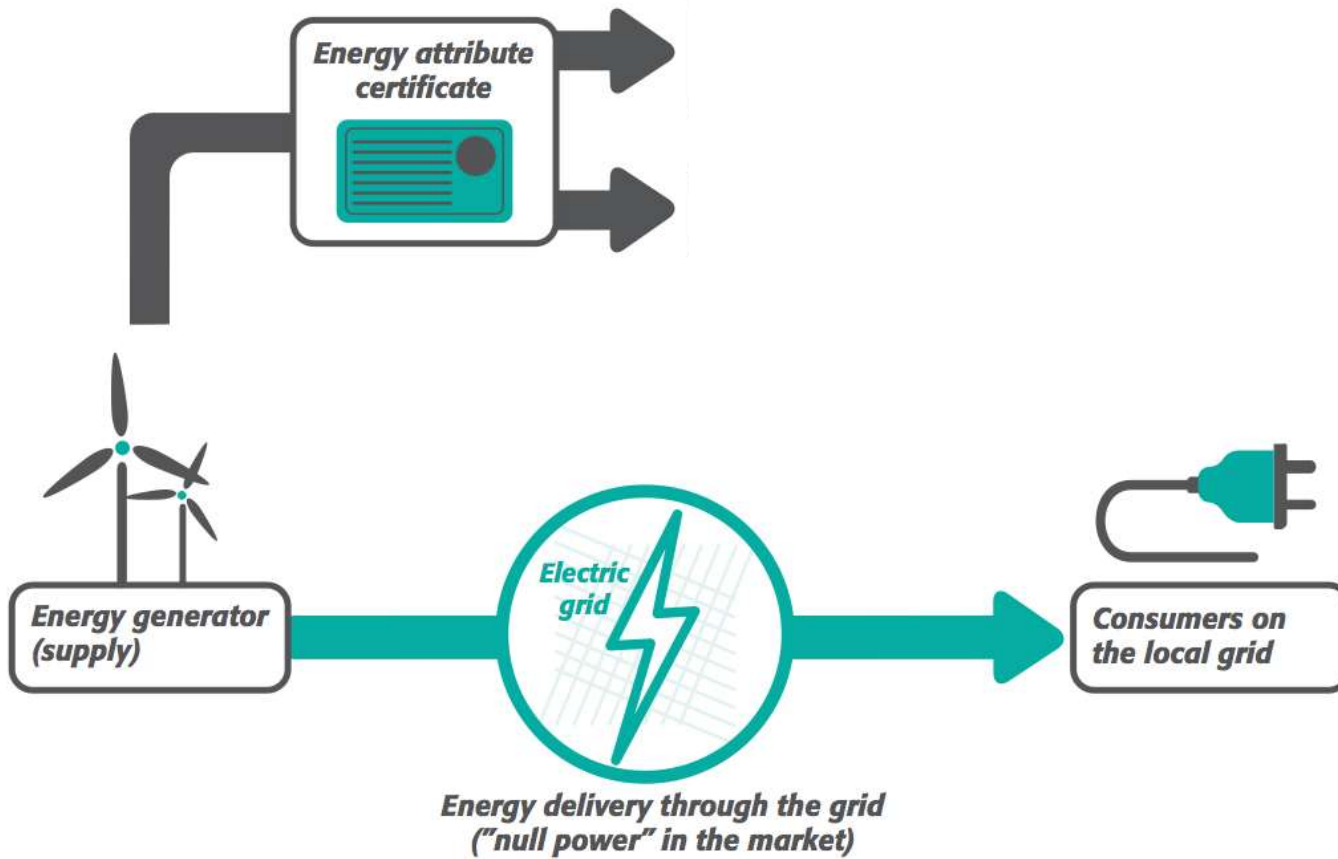
Accounting for purchased electricity should meet 5 GHG Protocol principles:

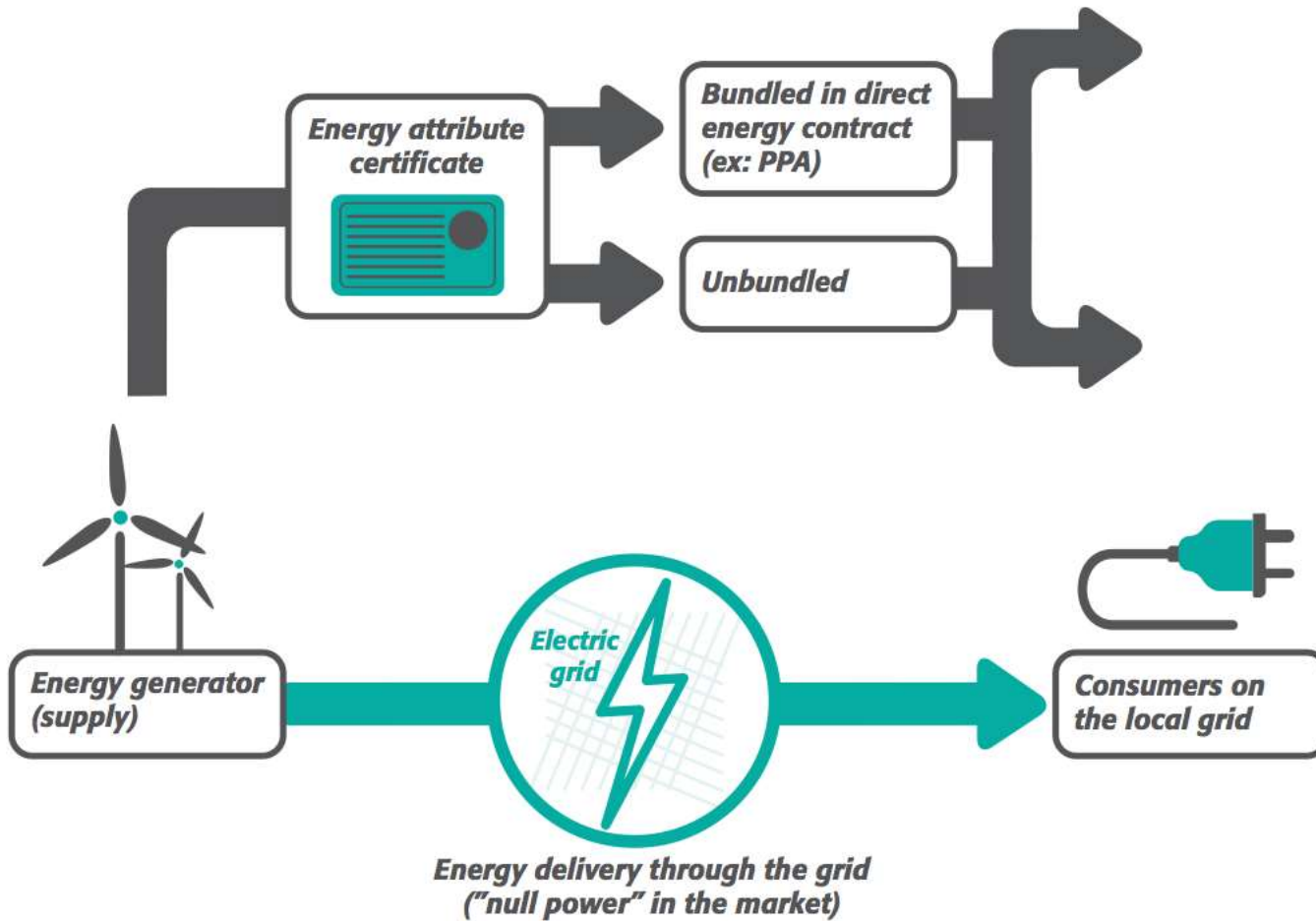
- Accuracy, Completeness, Consistency, Transparency and Relevance

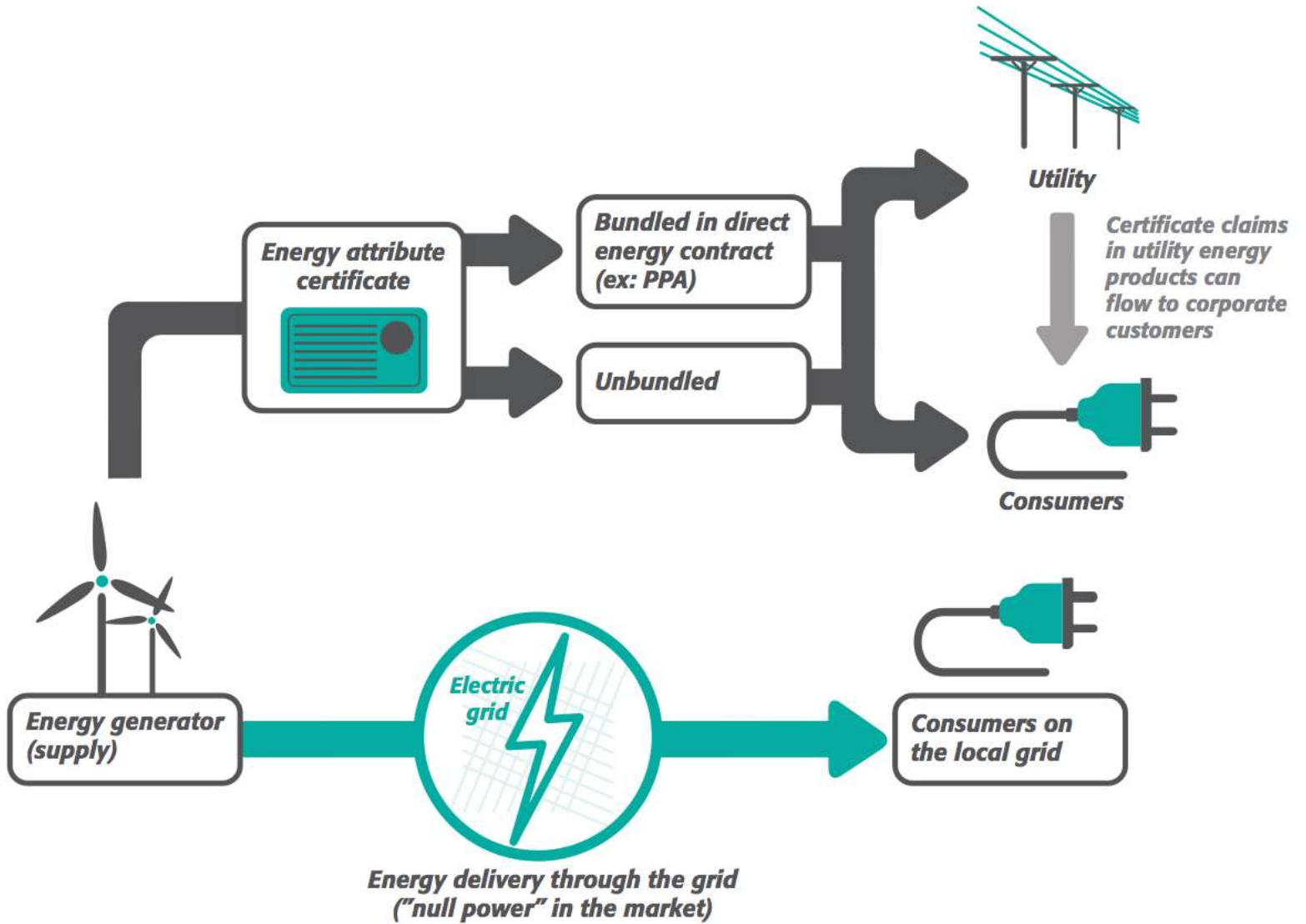
Emissions across an electricity value chain











How should emissions associated with energy purchases in the market be accounted and reported in scope 2?

CONCEPT

Grid vs.
market?

Double
counting?

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Grid vs.
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INSTRUMENTS

How to
compare?

What counts?

How should emissions associated with energy purchases in the market be accounted and reported in scope 2?

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Grid vs.
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INSTRUMENTS

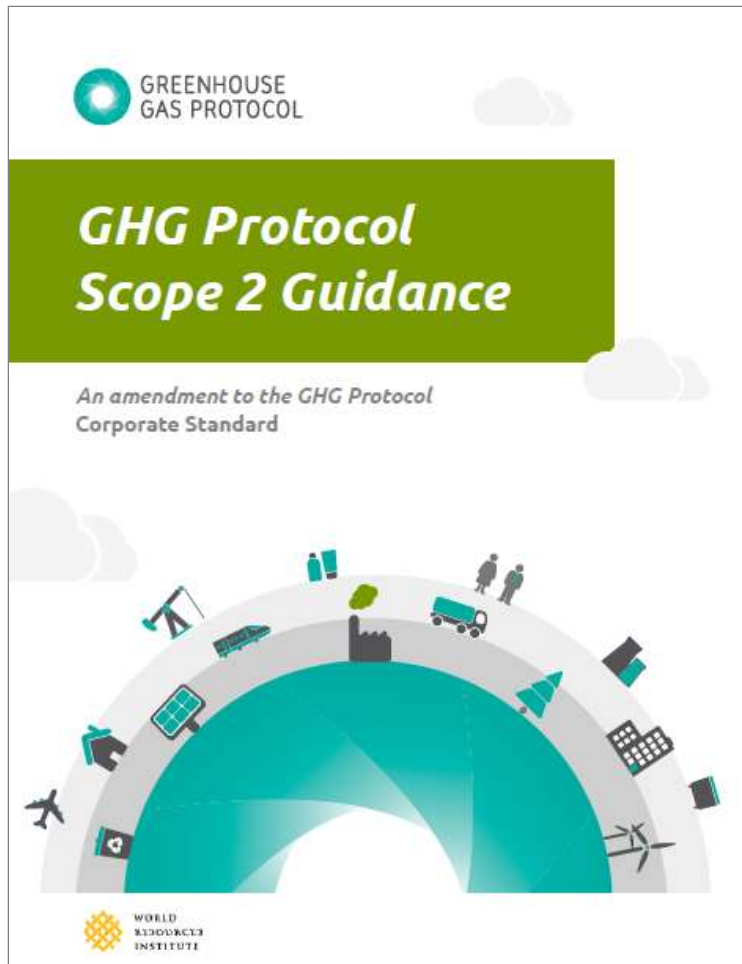
How to
compare?

What counts?

IMPACT

Directly or
indirectly
reduce GHG
emissions
over time?

What will this Guidance do?



Provide:

- New reporting requirements
- Codified accounting methods
- Scope 2 Quality Criteria
- Disclosure recommendations

Over time can help support:

- Better electricity supply data
- More electricity market opportunities
- Reduced emissions

How was this Guidance developed?

200+ Technical
Working Group members

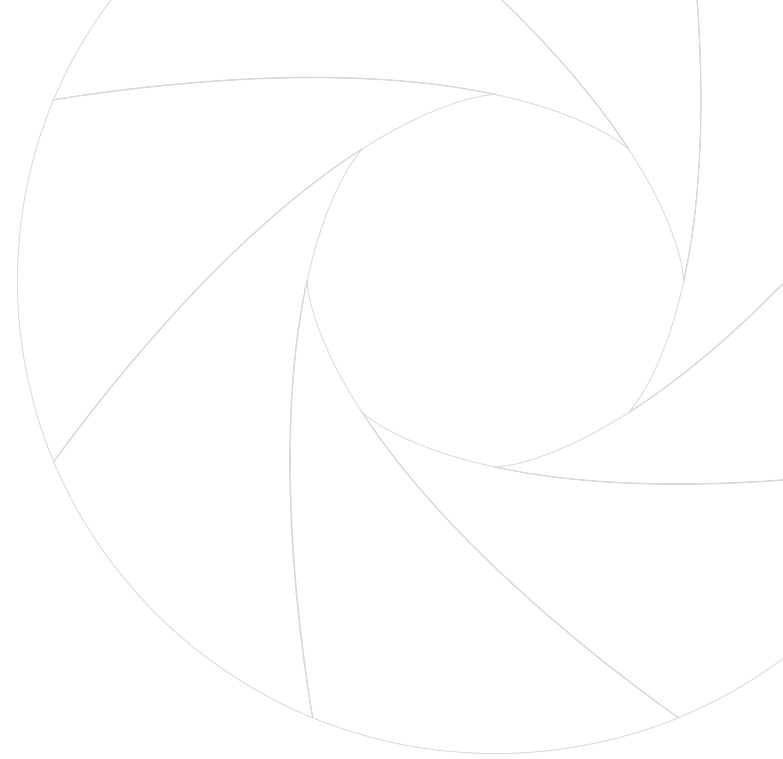
23
countries

4
years

5
discussion
drafts

1 public
comment
period

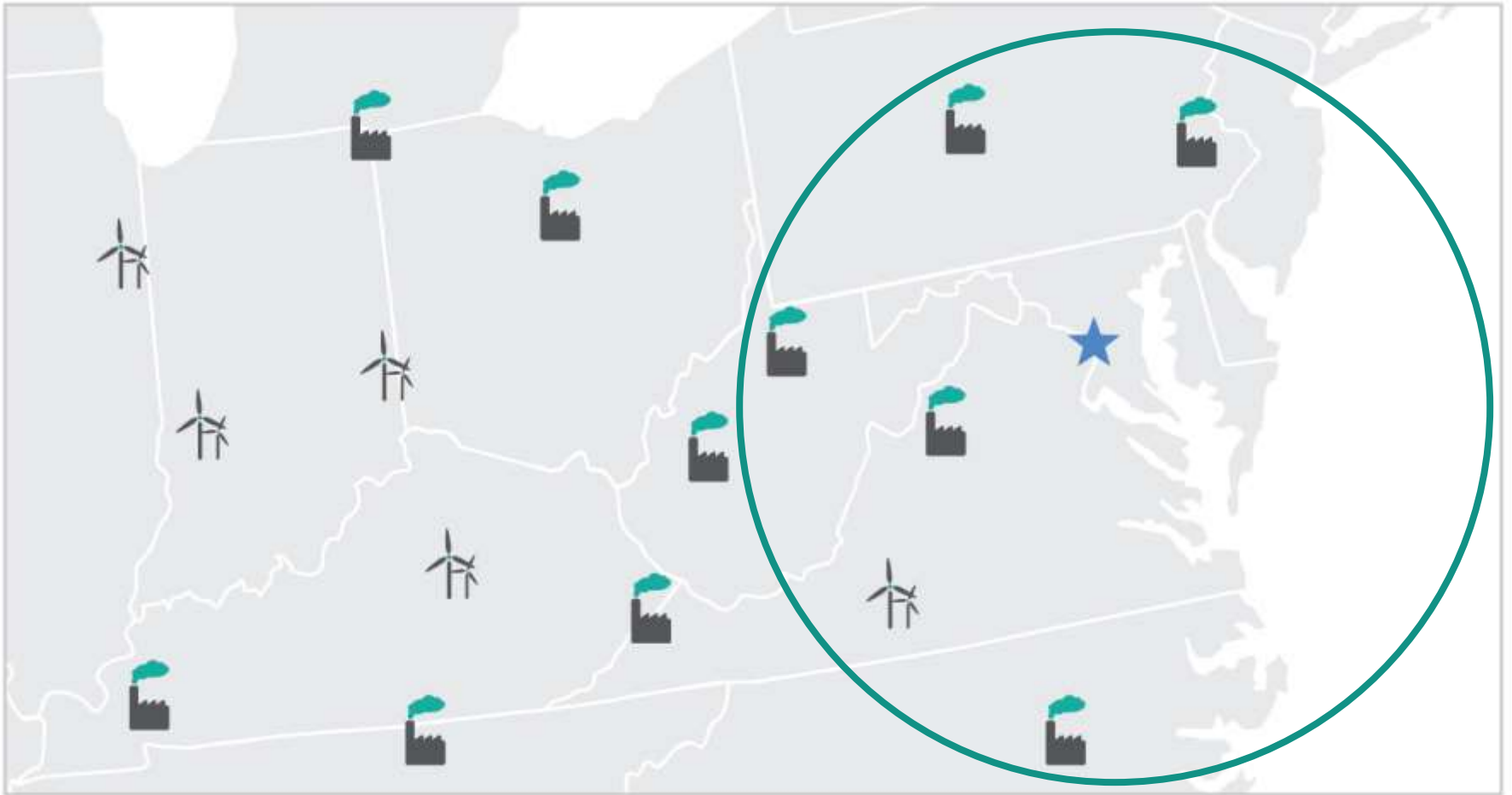
2 final
TWG
reviews



Key Concepts Underpinning the Guidance

Understanding Existing Accounting Methods

Location based method



(map not representative)

Market based method



(map not representative)

Location-based method emission factor hierarchy

1. Regional or sub-national emission factors
2. National production emission factors

Data forms listed here should convey combustion-only (direct) GHG emission rates, expressed in metric tons per MWh or kWh.

Market-based method emission factor hierarchy

1. Electricity attribute certificates or equivalent instruments
2. Contracts for electricity, such as PPAs
3. Supplier/Utility emission rates
4. Residual mix (sub-national or national)
5. Other grid-average emission factors (sub-national or national) *see location-based data*

Concerns with market-based method instruments

Concept of market-based accounting?

Execution of market mechanics?

Impact of markets and instruments?

Dual reporting

Quality Criteria

Additional reporting and recommendations

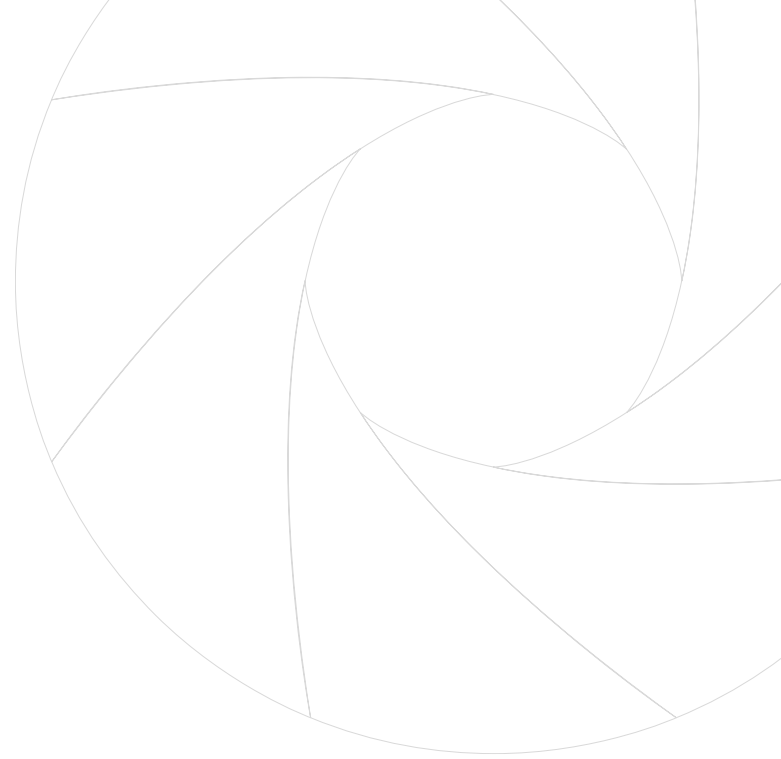


GREENHOUSE
GAS PROTOCOL

Policy-Neutral

This Guidance does not:

- Require new markets
- Make requirements or express preferences about the design of markets
- Address any non-GHG accounting aspects of market design
- Promote specific energy generation technologies (such as renewable energy), or specific electricity labels or programs



New Requirements

For companies with operations in markets without choice in electricity product or supplier

No change.

Only one scope 2 total will be reported based on the location-based method.

For companies with operations in markets with choice in electricity product or supplier:

1. Dual reporting
2. Quality Criteria
3. Additional disclosures

Scope 2 Quality Criteria

Market Based Method for Scope 2 Accounting

- Instruments shall:
 - Convey GHG information
 - Be an exclusive claim
 - Be retired
 - Match up to inventory period
 - Be sourced from same market as company
- Utility emission factors shall be:
 - Calculated based on delivered electricity
- Direct purchases shall:
 - Convey GHG claims to the purchaser
- Using any instruments requires:
 - Adjusted residual mix, or disclose its absence

Additional recommended disclosures

- Stakeholders want to know about:
 - Instrument labels
 - certification?
 - Power plant features
 - resource type, facility location, facility age
 - Policy context
 - supplier quotas like RPS?
 - Cap and Trade?
 - Funding/subsidy receipt?
- These help distinguish differences in purchases between markets, and enhance transparency

How to “make a difference” with electricity procurement?

1. This Guidance’s reporting requirements
2. Enacting eligibility changes throughout the supply chain
3. Emphasizing new corporate-driven energy projects

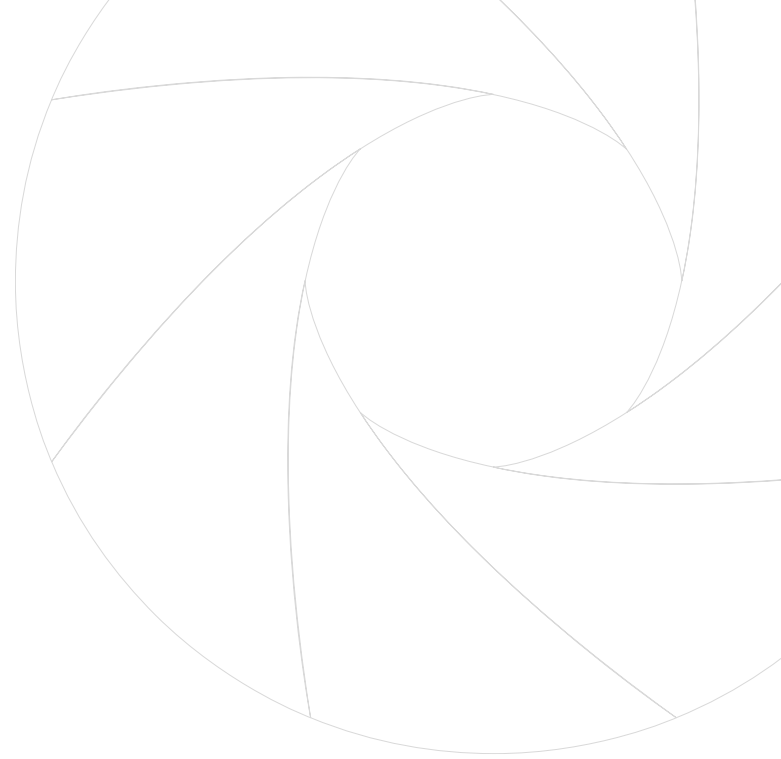
Jurisdictional
policy

Certification
schemes

Utility/
supplier
labels

Corporate
policy and
decisions

Country	Location-Based Total (mtCO ₂ e)	Market-Based Total (mtCO ₂ e)	Instrument Types
USA	650	0	RECs to cover 100% of consumption
France	150	150	<i>No market-based information available</i>
Norway	100	500	No purchase but residual mix
China	800	800 * N/A	N/A
India	850	400	Collaborative solar PPA to cover 50% consumption
Mexico	400	0	PPA to cover 100% of consumption
TOTAL	2,950 mtCO₂e	1,850 mtCO₂e	



Closing

Updates at:

http://www.ghgprotocol.org/scope_2_guidance

Additional courses available at:

<https://ghgprotocol.lambdastore.net/>

Contact: ~~<https://ghgprotocol.org/contact-us-0>~~