The GHG Protocol *Scope 2 Guidance*: What it means for companies in India

The Purpose of the Scope 2 Guidance

The new GHG Protocol *Scope 2 Guidance* amends the *Corporate Standard (2004)* and provides new methods and requirements for all companies following the *Corporate Standard.* It addresses how companies shall account and report emissions from purchased electricity, steam, heat and cooling. It is designed to enhance the ability of scope 2 emissions reporting to meet the five GHG Protocol principles of accuracy, consistency, completeness, transparency and relevance. For companies with operations that have access to product- or supplier-specific data (e.g. contractual instruments), the new Guidance also improves inventories by introducing three new features:

- **Dual reporting** – companies shall report two totals, one based on the location-based method and one based on the market-based method.
- **Scope 2 Quality Criteria**—companies shall ensure any emission factors used in the market-based method meet the policy-neutral quality criteria here, established to ensure that the method is implemented with rigor and ensure no double counting of emissions between consumers
- **Recommended disclosure**—to improve transparency of market-based reporting, the Guidance identifies several key features of corporate electricity purchases that companies should disclose on where relevant, including instrument labels, power plant age/location, and policy context.

The Market-Based Method Data in India

The Guidance outlines two methods: location-based and market-based. Location-based method relies on grid average emission factors. The market-based method derives emission factors from a variety of contractual instruments that convey attributes (including GHG emissions) about the electricity at the point of generation. The purpose of the market-based method is to reflect the emissions, risks and opportunities associated with corporate electricity procurement choices, leading to better management of those emissions and risks. Companies may or may not have access to different types of electricity procurement choices depending on their market—but the method is flexible to reflect whatever instruments are available, provided they meet the Quality Criteria. Examples are provided in the box below about how the contractual instrument types and emission factors in the Scope 2 Guidance match to some choices available to Indian companies:

Contractual instrument	Applicability in India
Energy attribute certificates	**Renewable Energy Certificates** registered when claimed by company: https://www.recregistryindia.nic.in/index.php/general/publics/registered_regens. However, most companies choose the preferential tariff rather than choose REC issuance and claims. RE generators have two options – a. Either to sell the renewable energy at preferential tariff fixed by the concerned Electricity Regulatory Commission or b. To sell the electricity generation and environmental attributes associated with RE generation separately. On choosing the second option, the environmental attributes can be exchanged in the form of REC. Price of electricity component would be equivalent to weighted average power purchase cost of the distribution company including short-term power purchase but excluding renewable power purchase cost. The value of REC will be equivalent to 1 MWh of electricity injected into the grid from renewable energy sources.

Contracts	**Owned installation and purchasing:** In India, companies and individuals do have a choice to install their own Captive power projects (both renewable and non-renewable) and enter into Wheeling agreement (PPA) with state utility body for captive consumption. Intra-state wheeling is still a concern due to a complex structure of present electricity system and varying state-level open access charges. **Open Access purchasing:** Open Access Policies do exist in India and allows a consumer (>1 MW consumption) to buy cheaper power from open market. http://indianpowersector.com/home/open-access/. **PPAs**: PPA includes details about REC option or Generation-based Incentive (GBI) option. Both the options affect tariff structure and are captured in the PPA. Generally PPA does not contain emission rate information.
Supplier or utility-specific emission factors	**Supplier choice**: the electricity act in India does not give a choice to consumer for selecting power distribution company. However, it is under discussion and the act will undergo amendment to enable consumers to select power distribution company. **Supplier-specific information:** Generally, no information is publically available.
Residual mix	Not yet available
Other location-based data	Regional grid average emission factors published by the Central Electricity Authority http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm

Scope 2 Quality Criteria

Adapted from the Guidance:

All contractual instruments used in the market-based method for scope 2 accounting shall:
1. Convey the direct GHG emission rate attribute associated with the unit of electricity produced. 2. Be the only instruments that carry the GHG emission rate attribute claim associated with that quantity of electricity generation. 3. Be tracked and redeemed, retired, or canceled by or on behalf of the reporting entity. 4. Be issued and redeemed as close as possible to the period of energy consumption to which the instrument is applied. 5. Be sourced from the same market in which the reporting entity's electricity-consuming operations are located and to which the instrument is applied.
In addition, utility-specific emission factors shall:
6. Be calculated based on delivered electricity, incorporating certificates sourced and retired on behalf of its customers. Electricity from renewable facilities for which the attributes have been sold off (via contracts or certificates) shall be characterized as having the GHG attributes of the residual mix in the utility or supplier-specific emission factor.
In addition, companies purchasing electricity directly from generators or consuming on-site generation shall:
7. Ensure all contractual instruments conveying emissions claims be transferred to the reporting entity only. No other instruments that convey this claim to another end user shall be issued for the contracted electricity. The electricity from the facility shall not carry the GHG emission rate claim for use by a utility, for example, for the purpose of delivery and use claims.
Finally, to use any contractual instrument in the market-based method requires that:
8. An adjusted, residual mix characterizing the GHG intensity of unclaimed or publicly shared electricity shall be made available for consumer scope 2 calculations, or its absence shall be disclosed by the reporting entity.