

Implementing the Scope 2 Guidance

Presented by WSP|Parsons Brinckerhoff

Eric Christensen
Practice Leader, Sustainability and Energy
eric.christensen@wspgroup.com
www.wspgroup.com/sustain

Agenda for today

- **Overview of dual reporting**
- **Goal setting and tracking**
- **Base year recalculation**
- **Green power purchases**
- **GHG inventory systems**
- **Supplier emission factors**
- **Sourcing instruments from same market**
- **Time required**

The most significant change in the Scope 2 guidance is the concept of dual reporting

- The new guidance introduces the *location-* and *market-based* methods for calculating Scope 2 emissions
- While some organizations currently ‘dual report’ by including gross and net Scope 2 emissions in their inventory, the new guidance will replace this

Past Approach

Category	Total
Scope 1 Emissions	
Stationary combustion	100,000
Mobile combustion	50,000
Refrigerants	5,000
Subtotal	155,000
Scope 2 Emissions	
Electricity	500,000
Steam	10,000
Chilled water	5,000
Subtotal	515,000
Gross Scope 1 and 2 Emissions	670,000
Reductions from green power	100,000
Net Scope 1 and 2 Emissions	570,000

New Approach

Category	Total
Scope 1 Emissions	
Stationary combustion	100,000
Mobile combustion	50,000
Refrigerants	5,000
Subtotal	155,000
Location-based Scope 2 Emissions	
Electricity	500,000
Steam	10,000
Chilled water	5,000
Subtotal	515,000
Market-based Scope 2 Emissions	
Electricity	450,000
Steam	10,000
Chilled water	5,000
Subtotal	465,000
Total Scope 1 & Location Scope 2	670,000
Total Scope 1 & Market Scope 2	620,000

Dual reporting will likely impact how you communicate, and achieve, your GHG reduction goals

- GHG goals that include Scope 2 emissions can be based on either the location- or market-based methods
- Organizations should ensure that the method used to report a reduction goal is the same as that used to report inventory totals (though both methods can be reported for inventory totals)
- Which method is used for reporting a GHG goal will have impact on the opportunities to reduce Scope 2 emissions during the goal period

Reduction Opportunity	Reduce Location-based Emissions	Reduce Market-based Emissions
Energy efficiency	✓	✓
On-site renewables	✓	✓
Site selection (in areas with low emissions supply)	✓	✓
Direct-line arrangement with low emissions supplier	✓	✓
Purchasing instruments (e.g., RECs, GOs)	✗	✓
Establishing PPA	✗	✓
Selecting low emissions suppliers	✗	✓

Dual reporting will impact how your Scope 2 inventory is calculated, and may also impact inventory results

- Most organizations will need to update the calculation approach for their Scope 2 inventory, either because:
 - Location- and market-based emissions have not been calculated, or
 - Different methodologies have been used to calculate these emissions
- For organizations with GHG goals, re-calculation will be necessary for both the base and current year of the goal period
- If an organization has historically used the gross and net approach to reporting emissions, total market-based emissions in the base year may be higher than previously calculated as 'net'

Purchases of green power are now treated differently than previous common practice

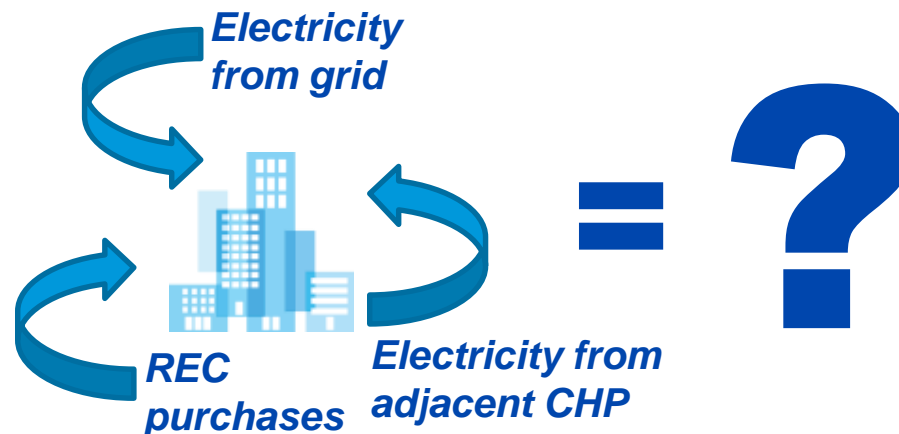
- Historically, most organizations have calculated gross Scope 2 emissions based on the location-based method
- For organizations purchasing green power, reductions from that purchase resulted in net Scope 2 emissions that were lower than gross – green power effectively offset Scope 2 emissions
- In the US, reductions have been calculated using non-baseload eGRID factors in the region from which the green power was produced
- Moving forward, the Scope 2 guidance explains that green power is not an offset, meaning that reductions will be determined using eGRID system average factors

<i>Past Approach</i>			<i>New Approach</i>	
Green power purchased (MWh)	100,000		Green power purchased (MWh)	100,000
Example eGRID non-baseload factor	1.0 t/MWh	Example eGRID system avg. factor	0.5 t/MWh	
Emissions reduction (mt CO₂e)	100,000	Emissions reduction (mt CO₂e)	50,000	

- As a result in this change, organizations will need to purchase roughly 2X as much US-sourced green power for the same emissions benefit

Your GHG inventory system should be prepared for the guidance change

- Organizations will need to ensure that their inventory quantification tool is prepared for the new guidance – that it can incorporate both location- and market-based approaches
- In adapting to the new guidance, systems should be able to:
 - Define at least two emission factors per facility
 - Document which emission factors are used and source of those factors
 - Navigate situations that include multiple sources of electricity



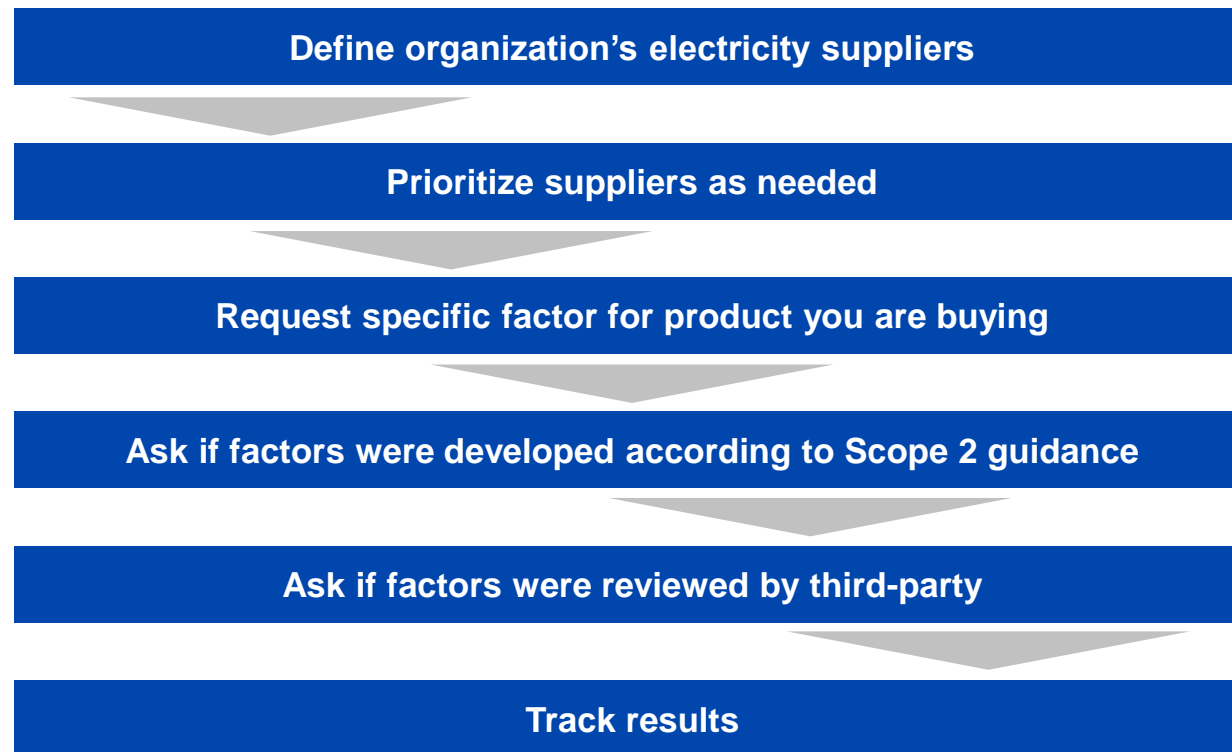
- In addition to ensuring that systems are prepared, organizations should consider updating inventory calculation procedures in advance, in an inventory management plan (IMP) or similar document

A challenge in calculating market-based emissions is obtaining supplier specific emission factors

- Collecting supplier-specific emission factors is left to each reporting organization – some organizations will request factors directly from suppliers, while others will wait until factors are published by suppliers
- To enable accurate emissions calculation, suppliers should eventually provide emission factors associated with each electricity product sold – this will reflect:
 - All energy delivered to end-users (both generated by supplier and purchased by supplier from others)
 - Any certificates purchased by supplier
 - Any certificates sold by supplier from its generating facilities
- Ideally in the future there will be a centralized resource from which organizations can gather any emission factors applicable to their facilities – in the meantime, direct engagement is needed

Without a centralized source of supplier specific emission factors, you may need to engage suppliers

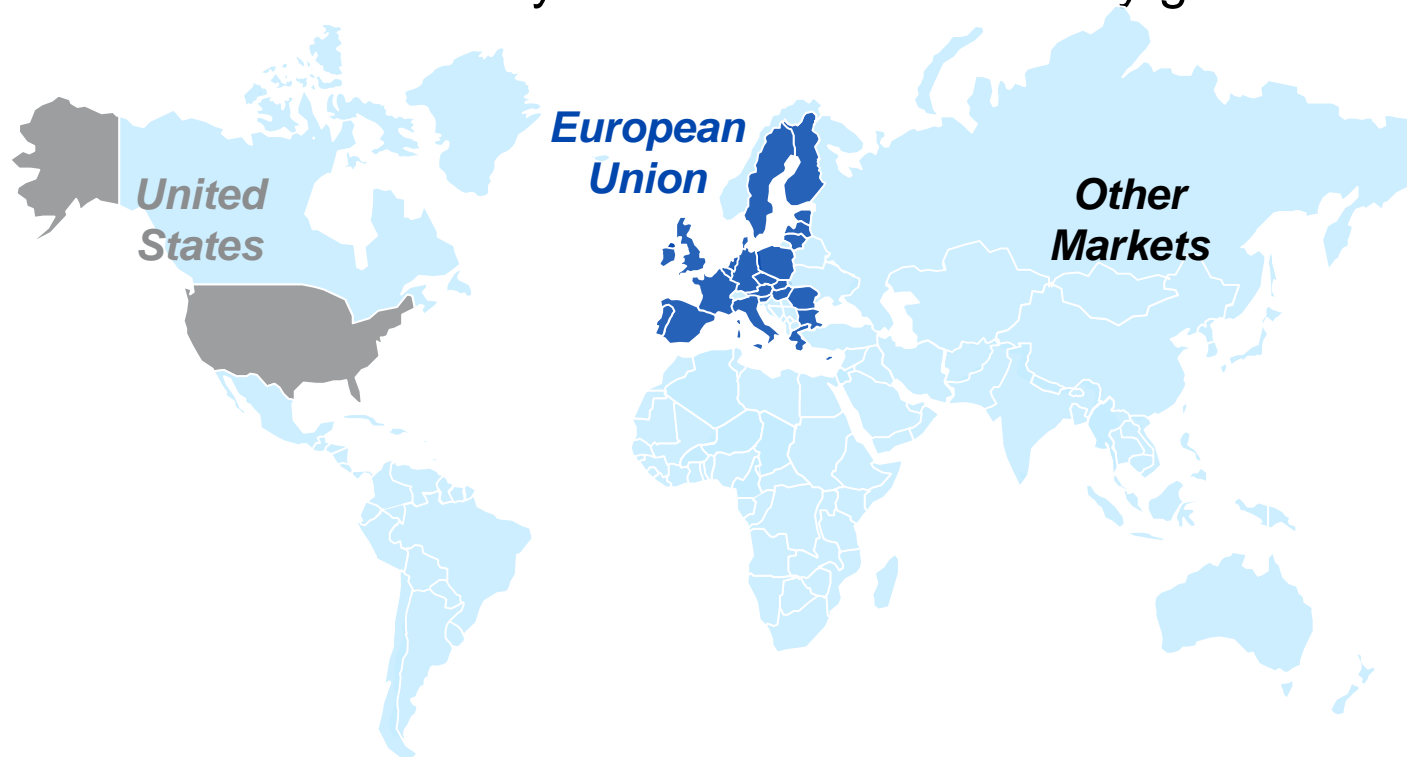
- Some organizations have already begun the process of contacting suppliers to collect appropriate emission factors



- While many suppliers will be well-versed in the guidance, others will not – they either have not been asked yet, or are having difficulty in tracking data internally (given purchases from many sources, etc.)

For market-based method, instruments must be sourced from same market as company operations

- In the guidance, a market is defined as geographic area that has a common system for trading/retiring contractual instruments (e.g., US or EU)
- Markets are defined more by national borders than by grid boundaries



- Impact of this change depends on how aggressive an organization's green power purchasing is – "100% renewable" may pose new challenges

The time and effort needed to adapt to the new Scope 2 guidance is highly dependent on your organization

- Adapting to the guidance may be straightforward, or it may be more challenging, dependent on several factors:
 - Complexity of your organization's electricity purchases
 - The ability of your GHG inventory system to incorporate changes
 - How aggressive your organization plans to solicit supplier factors
 - What market instruments you buy now, and will buy in the future
- Starting now will help prepare your organization for reporting in advance of data collection, and quantification, early in 2016