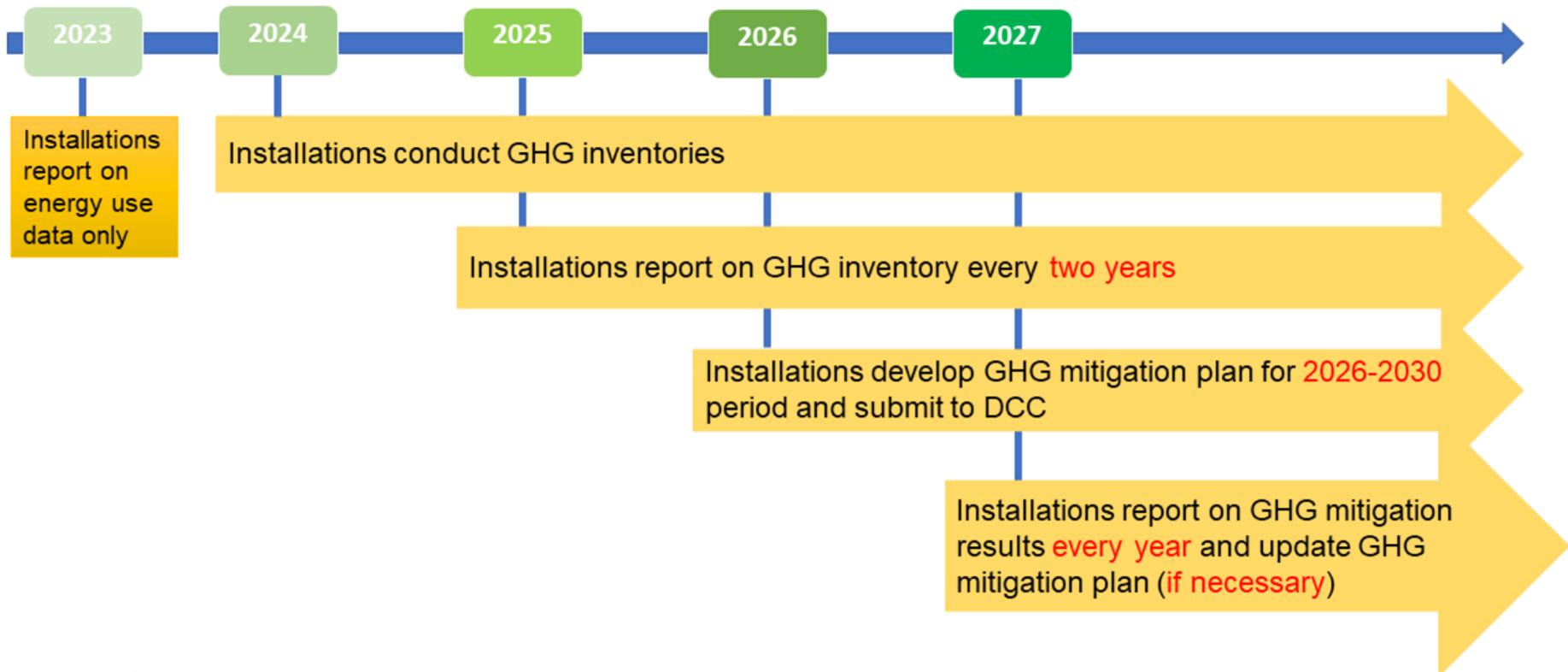


# WHAT ENTERPRISES SHOULD PREPARE TO PARTICIPATE IN THE CARBON MARKET

*Roxanne Tan, Climate policy Expert*  
South Pole Group

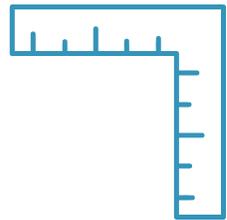
# Timeline for GHG and energy reporting requirements under Decree 06/2022/ND-CP



Source: Consultant (2023)

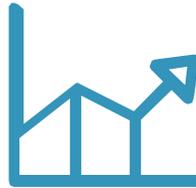
# Three key competencies for companies to develop and deepen

Capabilities needed and Timelines (according to Decree 06/2022/ND-CP)



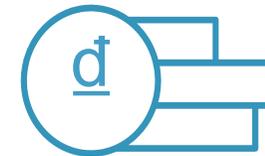
**GHG inventory preparation and reporting**

**From 2024**



**ETS market activities (pilot)**

**From 2025**



**GHG mitigation plan for 2026-2030**

**From 2026**

**From 2028: Full ETS operation**



# GHG inventory preparation and reporting

From 2024

1. Comprehensive scoping of GHG emitting processes and activities
  - a. Identify all inputs and outputs: fuels, feedstocks, products, waste streams
  - b. Refer to PFDs, P&IDs, DCS and other information systems and documentation to conduct a stocktake of process units and equipment, and the manufacturing /industrial processes
  - c. Ensure no omission or duplication (double-counting) of emission streams
  - d. Refer to international monitoring and industry guidelines to understand emissions quantification methodologies



## Comments

Refer to international monitoring guidelines:

- [2006 IPCC guidelines for National GHG inventories & 2009 refinement](#)
  - [Energy](#)
  - [Industrial processes and product use](#)
  - [Waste](#)
- [US EPA GHG Reporting Rule](#)
- [California Regulation for the mandatory reporting of greenhouse gas emissions,](#)
- [EU ETS Monitoring and Regulation Regulation \(MRR\)](#)
- [Australia National Greenhouse and Energy Reporting \(Measurement\) Determination 2008\)](#)
- [American Petroleum Institute \(API\) Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Gas Industry](#)

# GHG inventory preparation and reporting

From 2024

2. Identification of measurement methods for activity data and conversion factors, such as use of default emission factors
  - a. Gather masterlist of all onsite metering equipment, calibration and maintenance schedules
  - b. Identify critical meters that are used for existing operations (e.g. production performance)
  - c. Identify external data sources e.g. supplier invoices
3. Determine the appropriate emissions quantification approaches and methods for emissions computation for your facility
  - a. Determine if meter calibration and maintenance schedule



## Comments

- For emission sources where multiple meters are available for selection, select the option which gives better data quality and the other option could act as the fall-back approach.
- Critical meters that are used for billing or for monitoring key production performance parameters are usually well-maintained and therefore suitable for monitoring of activity data or conversion factor parameters.
- Where onsite meters do not belong to the company but external parties such as suppliers, check contractual arrangements with the party on the utilization of metered data and requirements on maintenance and calibration of the meter.

# GHG inventory preparation and reporting

From 2024

4. Emissions calculation and aggregation for inventory compilation
  - a. Develop data processing templates and embed calculation formulas
  - b. Determine access rights and permission controls
  - c. Develop SOPs/checklists and conduct trainings on the use of templates and data processing steps
5. Develop data management/record-keeping procedures in anticipation of future verification audits
6. Basic inventory quality assurance and quality control (QA/QC) procedures



## Comments

- The [GHG Protocol](#) contains several useful practices which should be incorporated into operational manuals and checklists as part of the facility's broader quality management plan
  - data gathering, input and handling activities
  - data documentation
  - emissions calculations and checking of calculations
- A detailed set of documented procedures to ensure data quality does not amount to anything if there are no responsible persons assigned to implement the procedures. Ensure that the responsible teams and job titles are clearly identified for each procedure and that there are processes to check that procedures are implemented.

# ETS market activities (pilot stage)

From 2025

1. Setting of internal carbon pricing strategy to guide company's development of long-term decarbonisation strategy and investment strategy, Continuous monitoring of developments in industry and policy
2. ETS allowance management, including ETS spot price tracking and market analysis
3. Carbon credits (offsets) plan
4. Registry account operations
5. Mandatory external verification of GHG emissions report



## Comments

- The learning-by-doing approach of the pilot stage of the ETS will be a very useful exercise and meaningful learning experience for all stakeholders.
- In anticipation of the pilot phase, companies can already refer to the various international resources to glean useful practitioner insights:
  - IETA (2023): [Carbon Market Readiness Guide](#)
  - [IETA emissions trading 101 library](#)
  - [EU ETS MRR and AVR training documents](#)
    - [AV Training handbook 2020](#)
  - [ICAP publications](#):
    - [Emissions Trading in Practice: A Handbook on Design and Implementation \(2nd Edition\)](#)
    - [Emissions Trading Worldwide: 2023 ICAP Status Report](#)

# GHG mitigation plan for 2026-2030

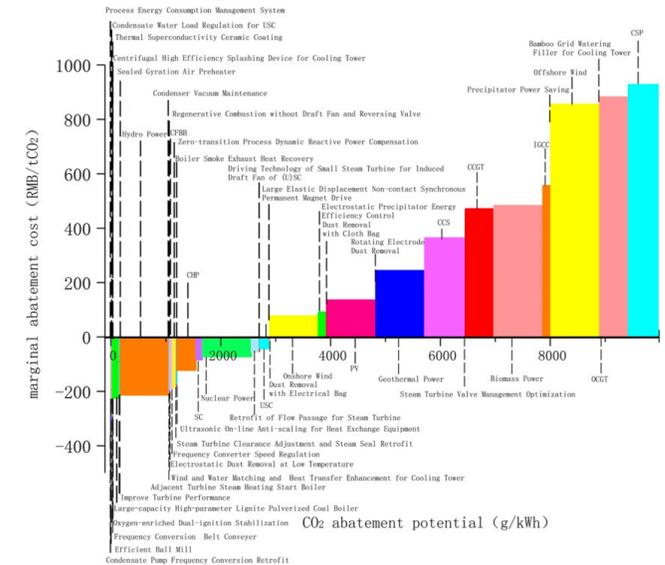
From 2026

1. Identification of emission reduction opportunities, cost-benefit analysis of mitigation measures
  - a. Develop a technical plan of potential range of mitigation measures (e.g. fuel switch, process upgrades, equipment upgrades, on-site fuel utilization, plant optimization upgrades, CO2 capture and utilization)
  - b. Undertake techno-economic financial analysis of the mitigation measures
2. Implementation and tracking of mitigation measures
  - a. Make a plan for deployment of mitigation measures based on understanding of future ETS policy (prices) and government plans for the industry sector



## Comments

- Facility-level marginal abatement cost curves are a useful visual representation of mitigation actions on a \$/tCO2e abated basis.



Source: Chen, L., Fang, ZH., Xie, F. et al. Technology-side carbon abatement cost curves for China's power generation sector. *Mitig Adapt Strateg Glob Change* 25, 1305–1323 (2020). <https://doi.org/10.1007/s11027-019-09909-x>

# THANK YOU!



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