

## GHG Inventory Management Plan Checklist

The Inventory Management Plan (IMP) is an internal process for the Partner to institutionalize the completion of a high quality inventory. The IMP should be designed with this in mind, not strictly as a reporting requirement to EPA. The IMP checklist outlines what components should be included in an IMP and can be used as a guide for creating an IMP or pulling together existing documents. The checklist does not represent, and should not be used as a substitute for an IMP. As part of the Climate Leaders reporting requirements, Partners describe for EPA, in a format of their choice, their company-specific approach for each IMP component listed below. EPA expects that an IMP be in place within a year of the Partner joining the program. However, EPA recognizes that the development of an IMP is an ongoing process, so components listed as “can be completed over time” can be implemented over the length of the Partner’s goal period.

	IMP Component	Detail Required	Issues to Consider
	<b>Partner Information</b>		
1.	Company Name	Legal name of entity	
2.	Corporate Address	Physical and mailing address	
3.	Inventory Contact	Contact name and title	
4.	Inventory Contact Information	Contact information (telephone/fax/email)	
	<b>Boundary Conditions</b>		
	<b>Organizational</b>		
5.	Inclusion of Partially Owned or Controlled Assets	<p>The basis for reporting emissions data from partially owned or controlled assets:</p> <ul style="list-style-type: none"> <li>• Equity Approach</li> <li>• Control Approach: <ul style="list-style-type: none"> <li>– Financial control criterion</li> <li>– Operational control criterion</li> </ul> </li> </ul>	<p>Is the approach consistent with the Climate Leaders Design Principles? If applicable, how is operational control defined? How is equity defined (e.g., based on financial ownership or value derived from company)?</p> <p>Are leases adequately addressed?</p>
6.	Facilities List	<p>A list of all facilities with location, % ownership, or % control.</p> <p>Define if inventory is U.S. only or includes optional non-U.S. operations.</p>	<p>Is the list complete and does it include all facilities (including leases if applicable)? Are fleet vehicles also included if not assigned to a facility?</p> <p>How does the list compare to other public sources listing company holdings? Is there a method for determining the accuracy of the list and a process for ongoing review?</p>
	<b>Operational</b>		
7.	GHG List	A list of GHGs included in inventory.	<p>Are all of the six major GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) included? Is there documentation for gases not on the list to ensure there is no oversight? Are small sources of a GHG overlooked? Has Partner at least made an estimate of the emissions from small sources and included those estimates in their inventory?</p> <p>How does the GHG list compare to the list of emission sources specified in #9 and #10?</p>
8.	Emission Source Identification Procedure	A description of the procedure / method used to identify direct and indirect emission sources.	<p>Is the procedure likely to identify all sources? Has the procedure captured all stationary, mobile, indirect, process, and fugitive sources, including small sources?</p> <p>Does the emissions source identification procedure include networking with all the appropriate people, whose roles and responsibilities are defined in #24?</p>

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9.	Direct Sources	<p>A list of groups of sources by emission category for each facility or reporting unit (e.g., under stationary combustion: thermal oxidizers, engines, flares, etc.).</p> <p><i>It is not necessary to enumerate each piece of equipment.</i></p>	<p>Are all direct emission sources included (stationary, mobile, fugitive, and process)?</p> <p>How does this list compare with other company lists of emissions sources (e.g., a site's Title V air permit that has a list of all major stationary sources of regulated emissions)?</p>
10.	Indirect Sources – Energy Import / Export	<p>A list of energy imports or exports that are reflected in the inventory (e.g., steam, electricity, hot water, etc.).</p>	<p>Are all indirect emission sources included (purchased electricity, steam, and hot water)?</p>
11.	Optional Sources	<p>A list of other optional emission sources that are accounted for in the inventory (e.g., outsourced activities, upstream or downstream activities, etc.)</p>	<p>Are optional sources included accurately (i.e. entire emissions source accounted for and not just the reductions)?</p> <p>Are the optional sources included relevant to the company profile?</p>
<b>Emissions Quantification</b>			
12.	Quantification Method	<p>A description of the emission quantification methodologies and reference for each emission source and offset project.</p> <p>Where multiple methods are used, specify which facility / source uses the respective method.</p>	<p>Are the correct quantification methodologies being used (see Climate Leaders Inventory Guidance documents)?</p> <p>Are the methods based on reliable accurate and current references?</p> <p>How do the methods compare to the Climate Leaders guidance documents?</p>
13.	Emission Factors and Other Constants	<p>A list of emission factors and other constants and reference for factors and constants (i.e. Global Warming Potentials and conversion factors) for each emission category.</p> <p>Descriptions of the process for how external references are kept current.</p> <p>Where multiple factors are used, specify which facility / source uses the respective factor.</p>	<p>Are the correct emission factors being used, based on reliable accurate and current references? Are factors updated annually?</p> <p>How do the factors compare to default values in the Climate Leaders Inventory Guidance documents (e.g., do stationary combustion CO<sub>2</sub> factors account for carbon oxidation)?</p> <p>Is the method for determining electricity production emission factors documented (e.g., from utility, default average regional factor, etc.)?</p>
<b>Data Management</b>			
14.	Activity Data	<p>A description / name of the <i>source</i> of activity data documents or processes required to complete quantification methodology (e.g., monthly fuel purchase records, fuel meter, internal tracking and aggregation documents, etc.) for each item of activity data.</p> <p>Where multiple data sources are used, specify which facility / source uses the respective data source.</p>	<p>Is activity data based on appropriate sources?</p> <p>Is the right activity data being collected for the quantification method described in #12?</p> <p>Is activity data the most accurate available (e.g., fuel purchases adjusted for stock, fuel use based on physical units not \$)?</p>
15.	Data Management <b>[Roles and responsibilities can be defined over time]</b>	<p>A description of the process for collecting and processing activity or monitoring data from its original source to the final emission data entered into the inventory.</p> <p>Includes a description of roles and responsibilities.</p>	<p>Is the process likely to avoid data errors in computing final rolled up inventory totals?</p> <p>Are roles and responsibilities properly defined and are the person / persons responsible for collecting data identified?</p> <p>Is the process adequately defined and institutionalized?</p>

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16.	Normalization Factor(s) Selection  <b>[Only necessary if Partner chooses to set goal based on an intensity target]</b>	A description of the normalization factor (units of product, \$ revenue, etc.) used to calculate emissions intensity.  Documentation on the selection of the normalization factor.	Is the chosen normalization factor and associated intensity value a reasonable metric to represent the Partner's emissions management performance?
17.	Data Collection Process – Normalization Factor  <b>[Only necessary if Partner chooses to set goal based on an intensity target]</b>	A description of the process flow for collecting and processing activity or monitoring data to obtain the final normalization factor data entered into the inventory.	Is the process likely to avoid data errors in computing final normalization factor and intensity value totals?
18.	Data Collection Process – Quality Assurance	A description of the major sources of uncertainty and quality assurance measures for the data process flow.  This includes information on how measurement system accuracy is assessed.	Is there a process for minimizing error?  Are all likely error sources considered?  How are uncertainties being addressed?
19.	Data Collection System Security  <b>[Can be defined over time]</b>	A description of how data collection system security is maintained.	How likely are errors to occur within the data collection and management system due to spreadsheets being damaged or otherwise transformed, unauthorized access to databases, and other information system problems?
20.	Integrated Tools  <b>[Optional]</b>	A description of how GHG reporting and processing is integrated with other reporting tools.	Are tools integrated to enhance efficiency?
21.	Frequency	The frequency for reporting facility data to the corporate level.	Is the reporting frequency sufficient to avoid significant errors in reporting (i.e. at least annual reporting)?
<b>Base Year</b>			
22.	Adjustment – Structural Changes	A description of the approach for adjusting base year emissions for mergers, acquisitions, divestitures, and outsourcing.  This includes defining the process for determining when changes are necessary.	Is there an effective and accurate process for adjusting base year emissions for structural changes? Are procedures in place to trigger adjustments when structural changes occur?  Are changes implemented consistently (e.g., for emissions decreases as well as increases)?  How is this linked to #5 (method) and #6 (list) of facilities?
23.	Adjustment – Methodology Changes	A description of the approach for adjusting base year emissions for changes in calculation methodologies, emission factors, or error correction.  This includes defining the process for determining when changes are necessary.	Is there an effective and accurate process for adjusting base year emissions for methodology changes? Are procedures in place to trigger adjustments when methodology changes occur?  How is this linked to #12 (method) and #13 (factors) for calculating emissions?
<b>Management Tools</b>			
24.	Roles and Responsibilities  <b>[Can be defined over time]</b>	A description of overall roles and responsibilities for corporate GHG inventory development and maintenance, include discussion of management role(s).	Are roles and responsibilities sufficiently spelled out to ensure that tasks are completed?  Are roles and responsibilities adequately defined and institutionalized?
25.	Training  <b>[Can be defined over time]</b>	A description of inventory development training received by inventory development team members.	Is sufficient training provided to ensure that tasks are completed accurately?  Are new staff properly trained and aware of their roles and responsibilities?



	<b>IMP Component</b>	<b>Detail Required</b>	<b>Issues to Consider</b>
26.	Document Retention and Control Policy  <b>[Can be defined over time]</b>	A description of how version control is maintained for GHG inventory management guidelines.  A description of the Partner's document retention policy.	Is there a reasonable process for ensuring that all participants are working to the same IMP guidelines?  Does the document retention policy insure data is maintained long enough to adjust base year emissions in goal year, if needed?
<b>Auditing &amp; Verification</b>			
27.	Internal Auditing	A description of the internal audit process.  Timing of the audit.	Is there an audit process that is likely to identify gaps and errors in inventory management?  Are auditor roles and responsibilities properly defined in #24?
28.	External Validation and/or Verification  <b>[Optional]</b>	If applicable, a description of the process for external review.  Timing of the audit.	What protocol is the external validation / verification performed to?  What are the overall results of the validation / verification?
29.	Management Review  <b>[Can be defined over time]</b>	A description of the senior management review process.	Are senior managers involved in signing off on the inventory?  Are manager roles and responsibilities properly defined in #24?
30.	Corrective Action  <b>[Can be defined over time]</b>	A description of the process for implementing and documenting corrective actions for all internal and external reviews.	Is there a process for correcting errors or problems found?  Is it clear who is responsible for correcting a problem, when the problem should be solved, and how the correction process is tracked?