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Climate Change Agreements: SATS and PATS

Sector Assessment Template and Performance Account Template

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SLR - Corporate Sustainability

March 2025

SLR

CCA TIMELINE

Current Climate Change Agreements	2019	2020	2021	2022	2023	2024	2025
Target Period	TP4 Jan 2019 - Dec 2020		TP5 Jan 2021 - Dec 2022		Fallow Year - not reported to EA	TP6 Jan 2024 - Dec 2024	
Reporting	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr
Buy-out payment due if applicable	June		June		June		June
Certification period	Jul 17 - Jun 19	July 2019 - June 2021		July 2021 - June 2023		July 2023 - June 2025	Jul 25 - Jun 27

Nb. Labelled here as TP1, TP2, TP3, but may be known as TP7, TP8, TP9 (tbc).

New Climate Change Agreements	2025	2026	2027	2028	2029	2030	2031
Target Period	Fallow Year - not reported to EA	TP1 Jan 2026 - Dec 2026	TP2 Jan 2027 - Dec 2028		TP3 Jan 2029 - Dec 2030		
Reporting	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr	Jan - Apr
Buy-out payment due if applicable	June		June		June		June
Certification period	Jul 23 - Jun 25	July 2025 - June 2027		July 2027 - June 2029		July 2029 - June 2031	Jul 31 - Mar 33

Legacy reporting, buy-out and certification from current CCA scheme

KEY DATES THIS YEAR

January 2025	Reporting spreadsheets issued to collect 2024 data
28th February 2025	Deadline for returning 2024 completed data collection spreadsheets
Feb/Mar 2025	New PAT (Performance Accounting Template) will be issued by DESNZ to collect energy efficiency and decarbonisation actions that can explain TP6 performance. Will be mandatory to return (date tbc).

Actions for target setting exercise and joining the new scheme	Date
Data collection and target setting process letters sent to sector associations	Expected Feb/Mar 2025
Data collection exercise begins	Expected Feb/Mar 2025
Applications for new entrants open	1st May – 31st August 2025
Government to send target offer letters to sector associations	May/June 2025
Final negotiations between Sectors and DESNZ	Jul 2025
DESNZ issue final target offers to sectors & instruct the Environment Agency to prepare agreements	Sep 2025
Sector associations distribute targets amongst participants for agreement with the Environment Agency	Oct 2025
New umbrella and underlying agreements issued and assented	Oct-Nov 2025
Amendments to legislation to be in force	Dec 2025

Sector Assessment Template and Performance Account Template (SATS & PATS)

SATS	PATS
• To feed into the new CCA scheme • Collects 2022 base year information • Completed at facility level • Collects data to help with sector target setting for the new scheme	• Part of TP6 Reporting • Mandatory – Penalties if not completed • Completed at Target Unit Level • Collect energy efficiency and decarbonisation actions that can explain TP6 performance

Performance Account Template (PATS) - Completion

OFFICIAL

Department for Energy Security & Net Zero

February 2025

Guidance for completion of this Performance Account Template

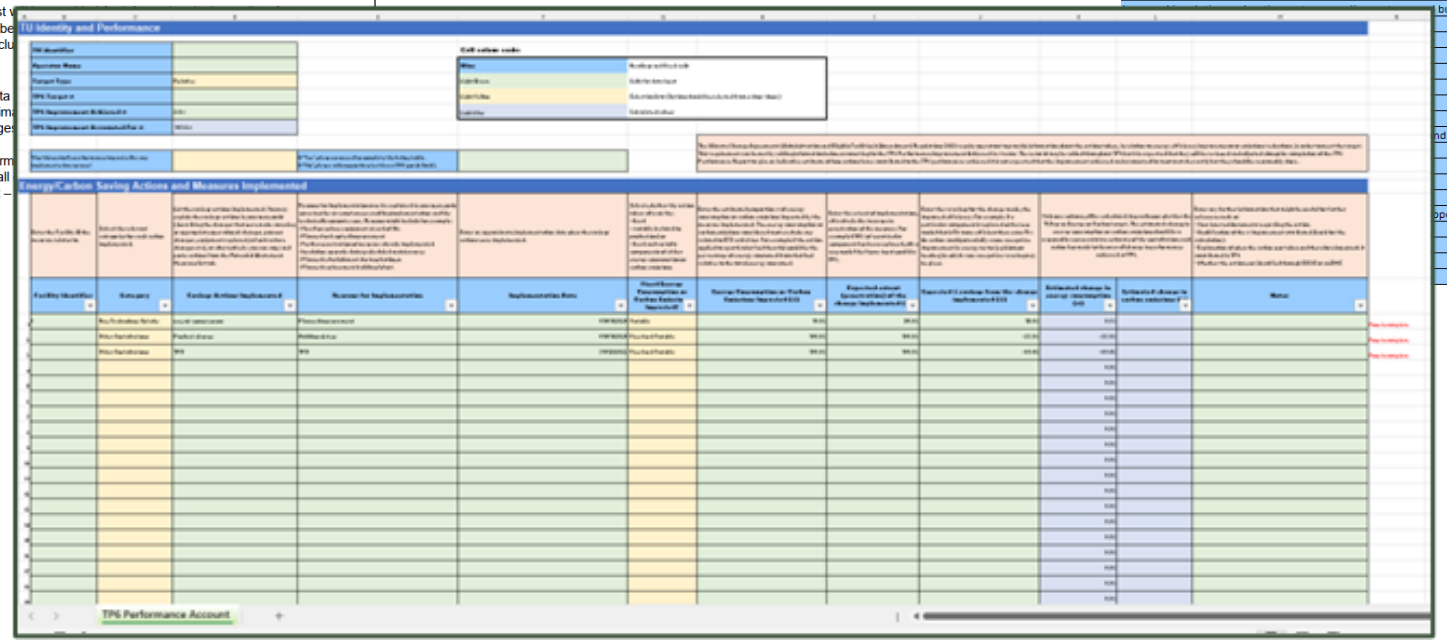
In this Target Period 6 (TP6) Performance Account Template operators should set out the changes in energy efficiency or carbon emissions that have contributed to performance reported for TP6. It should be completed at TU level but should consider action taken at Facility level as contributions to the TU performance may vary between individual Facilities.

A separate Sector Abatement Measures list w
abatement measures that have previously be
range of abatement actions that may be inclu

The guidance covers:

1. Data Needed – an explanation of the data
2. Data Accuracy – a steer on the data estim
3. Savings Actions to Account For – a sugge
the base year.
4. Categorising Contributions to TP6 Perform
opportunities should be categorised – not all
5. Completion of the Performance Account –

1 Data Needed



Climate Change Agreement - Sector Abatement Measure List

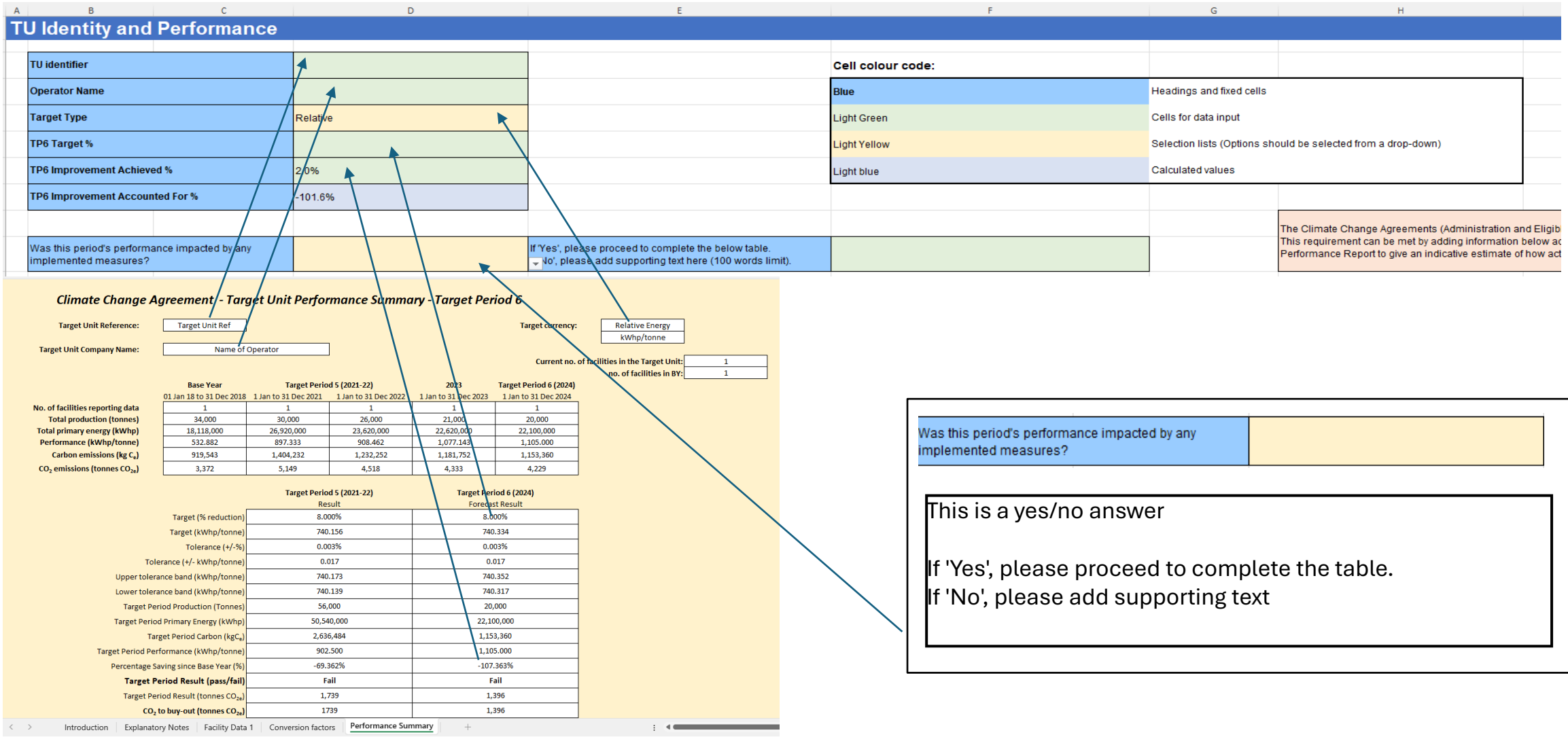
Sector Name:

FDF1 - Food and Drink

This table has been prepopulated with a list of abatement measures and is intended to prompt Operators to consider the range of opportunities available.

Abatement measures
Energy management systems
Use of energy submetering systems and energy monitoring and targeting
Process optimisation
Improved control technology
Process Control: Advanced Control & Optimisation
Improved efficiency of steam and hot water production and distribution.
Minimising use of hot water
building fabric.
nd alternative technologies.
oper sizing of pipes.

Populate PAT using TP6 Data Collection Form



TU Identity and Performance

TU identifier	
Operator Name	
Target Type	Relative
TP6 Target %	
TP6 Improvement Achieved %	2.0%
TP6 Improvement Accounted For %	-101.6%

Was this period's performance impacted by any implemented measures?		If 'Yes', please proceed to complete the below table. If 'No', please add supporting text here (100 words limit).

Cell colour code:

Blue	Headings and fixed cells
Light Green	Cells for data input
Light Yellow	Selection lists (Options should be selected from a drop-down)
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The Climate Change Agreements (Administration and Eligib
This requirement can be met by adding information below ac
Performance Report to give an indicative estimate of how act

Climate Change Agreement - Target Unit Performance Summary - Target Period 6

Target Unit Reference: Target Unit Ref

Target Unit Company Name: Name of Operator

Target currency: Relative Energy kWhp/tonne

Current no. of facilities in the Target Unit: 1

no. of facilities in BY: 1

	Base Year 01 Jan 18 to 31 Dec 2018	Target Period 5 (2021-22) 1 Jan to 31 Dec 2021	1 Jan to 31 Dec 2022	2023 1 Jan to 31 Dec 2023	Target Period 6 (2024) 1 Jan to 31 Dec 2024
No. of facilities reporting data	1	1	1	1	1
Total production (tonnes)	34,000	30,000	26,000	21,000	20,000
Total primary energy (kWhp)	18,118,000	26,920,000	23,620,000	22,620,000	22,100,000
Performance (kWhp/tonne)	532.882	897.333	908.462	1,077.143	1,105.000
Carbon emissions (kg C_e)	919,543	1,404,232	1,232,252	1,181,752	1,153,360
CO_2 emissions (tonnes CO_{2e})	3,372	5,149	4,518	4,333	4,229

	Target Period 5 (2021-22) Result	Target Period 6 (2024) Forecast Result
Target (% reduction)	8.000%	8.000%
Target (kWhp/tonne)	740.156	740.334
Tolerance (+/-%)	0.003%	0.003%
Tolerance (+/- kWhp/tonne)	0.017	0.017
Upper tolerance band (kWhp/tonne)	740.173	740.352
Lower tolerance band (kWhp/tonne)	740.139	740.317
Target Period Production (Tonnes)	56,000	20,000
Target Period Primary Energy (kWhp)	50,540,000	22,100,000
Target Period Carbon (kgC_e)	2,636,484	1,153,360
Target Period Performance (kWhp/tonne)	902.500	1,105.000
Percentage Saving since Base Year (%)	-69.362%	-107.363%
Target Period Result (pass/fail)	**Fail**	**Fail**
Target Period Result (tonnes CO_{2e})	1,739	1,396
CO_2 to buy-out (tonnes CO_{2e})	1739	1,396

Introduction | Explanatory Notes | Facility Data 1 | Conversion factors | Performance Summary

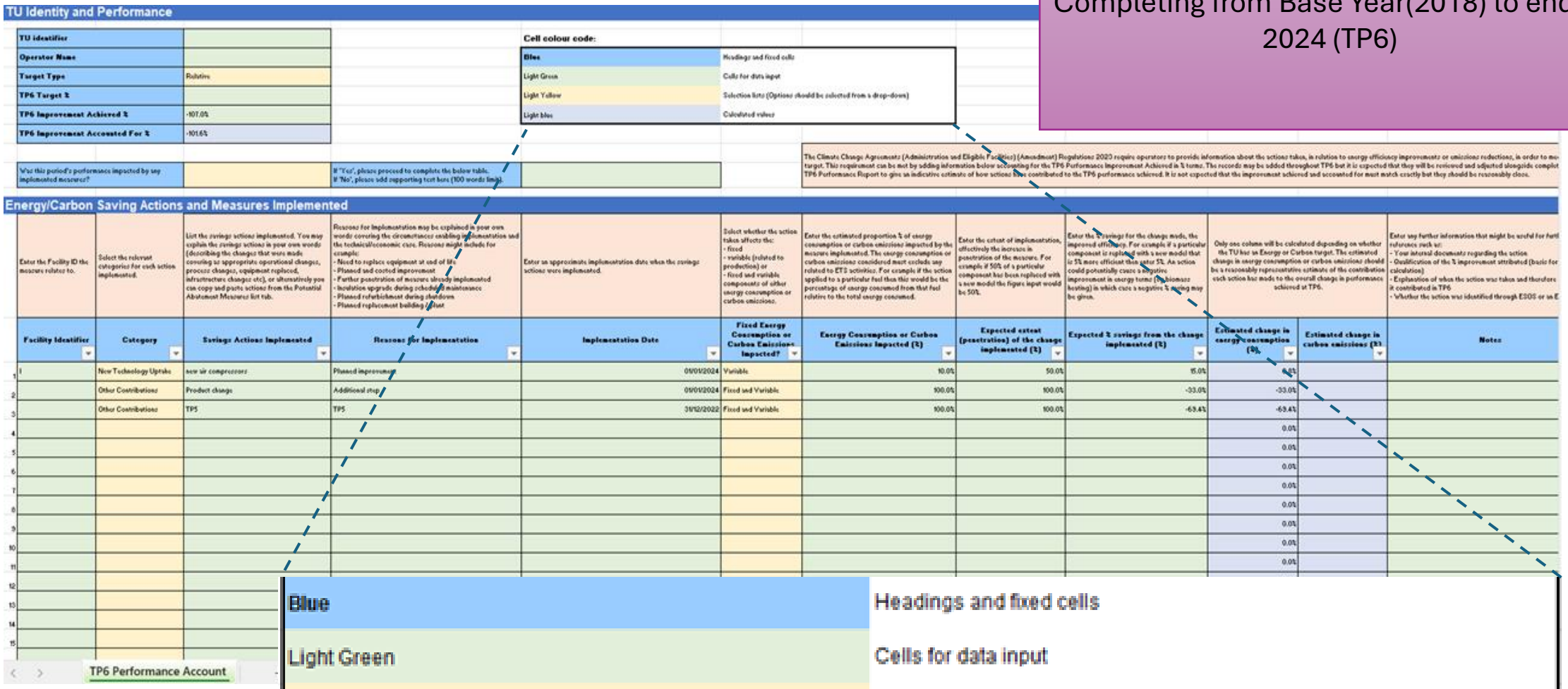
Was this period's performance impacted by any implemented measures?	

This is a yes/no answer

If 'Yes', please proceed to complete the table.
If 'No', please add supporting text

Performance Account Template (PATS)

Completing from Base Year(2018) to end of 2024 (TP6)



TU Identity and Performance

TU identifier	
Operator Name	
Target Type	Relative
TP6 Target %	
TP6 Improvement Achieved %	-107.0%
TP6 Improvement Accounted For %	-101.6%

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Was this period's performance impacted by any implemented measures?

If "Yes", please proceed to complete the below table.
If "No", please add supporting text here (100 words limit).

The Climate Change Agreements (Administration and Eligible Facilities) (Amendment) Regulations 2020 require operators to provide information about the actions taken, in relation to energy efficiency improvements or emissions reductions, in order to me… target. This requirement can be met by adding information below accounting for the TP6 Performance Improvement Achieved in % terms. The records may be added throughout TP6 but it is expected that they will be reviewed and adjusted alongside complet… TP6 Performance Report to give an indicative estimate of how actions have contributed to the TP6 performance achieved. It is not expected that the improvement achieved and accounted for must match exactly but they should be reasonably close.

Energy/Carbon Saving Actions and Measures Implemented

	Facility Identifier	Category	Savings Actions Implemented	Reasons for Implementation	Implementation Date	Fixed Energy Consumption or Carbon Emissions Impacted?	Energy Consumption or Carbon Emissions Impacted (%)	Expected extent (penetration) of the change implemented (%)	Expected % savings from the change implemented (%)	Estimated change in energy consumption (%)	Estimated change in carbon emissions (%)	Notes
1	1	New Technology Uptake	new air compressors	Planned improvement	01/01/2024	Variable	10.0%	50.0%	15.0%	0.0%		
2		Other Contributions	Product change	Additional step	01/01/2024	Fixed and Variable	100.0%	100.0%	-33.0%	-33.0%		
3		Other Contributions	TP5	TP5	31/12/2022	Fixed and Variable	100.0%	100.0%	-63.4%	-63.4%		
4										0.0%		
5										0.0%		
6										0.0%		
7										0.0%		
8										0.0%		
9										0.0%		
10										0.0%		
11										0.0%		
12												
13												
14												
15												

TP6 Performance Account

Blue	Headings and fixed cells
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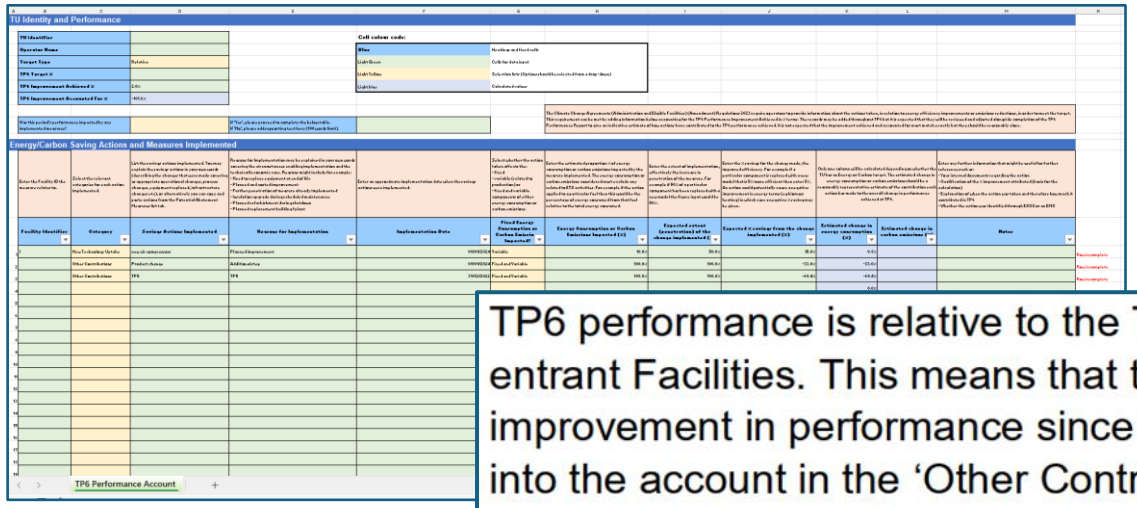
Performance Account Template (PATS) – 2018 to 2022



TP6 performance is relative to the TU baseline which will generally be 2018 except for new entrant Facilities. This means that the Performance Account needs to cover the improvement in performance since the baseline, not just TP6. A single line may be added into the account in the 'Other Contributions category' (see Section 5 for an explanation of the categories) to cover the performance achieved at TP5. For example, if the TP5 performance achieved was 5.5% the following data could be input to support that progress.

Select the relevant categories for each action implemented.	List the savings actions implemented. You may explain the savings actions in your own words (describing the changes that were made covering as appropriate operational changes, process changes, equipment replaced, infrastructure changes etc), or alternatively you can copy and paste actions from the Potential Abatement Measures list tab.	Reasons for Implementation may be explained in your own words covering the circumstances enabling implementation and the technicaleconomic case. Reasons might include for example: - Need to replace equipment at end of life - Planned and costed improvement - Further penetration of measure already implemented - Insulation upgrade during scheduled maintenance - Planned refurbishment during shutdown - Planned replacement building/ plant	Enter an approximate implementation date when the savings actions were implemented.	Select whether the action taken affects the: - fixed - variable (related to production) or - fixed and variable components of either energy consumption or carbon emissions.	Enter the estimated proportion % of energy consumption or carbon emissions impacted by the measure implemented. The energy consumption or carbon emissions considered must excluding any related to ETS activities. For example if the action applied to a particular fuel then this would be the percentage of energy consumed from that fuel relative to the total energy consumed.	Enter the extent of implementation, effectively the increase in penetration of the measure. For example if 50% of a particular component has been replaced with a new model the figure input would be 50%.	Enter the % savings for the change made, the improved efficiency. For example if a particular component is replaced with a new model that is 5% more efficient then enter 5%. An action could potentially cause a negative improvement in energy terms (eg biomass heating) in which case a negative % saving may be given.
Category	**Savings Actions Implemented**	**Reasons for Implementation**	**Implementation Date**	**Fixed Energy Consumption or Carbon Emissions Impacted?**	**Energy Consumption or Carbon Emissions Impacted (%)**	**Expected extent (penetration) of the change implemented (%)**	**Expected % savings from the change implemented (%)**
Other Contributions	TP5 performance achieved	This line accounts for the TP5 performance achived.	30/03/2022	Fixed and Variable	100.0%	100.0%	5.5%

This is an illustration of what can be input to account for the contribution to your TP5 performance

Up to TP5 performance

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Target Period Result (pass/fail)	**Fail**	**Fail**
Target Period Result (tonnes CO_{2e})	1,739	1,396
CO_2 to buy-out (tonnes CO_{2e})	1739	1,396
Buy-out Cost (TP5 £18/tonne, TP6 £25/tonne) (£)	**£31,302**	**£34,900**
Estimated Value of CCL Discount during 2 year period (£)	**£186,466**	**£217,880**
timated Value of CCL Discount for next certification period (£)		**£233,090**

Introduction | Explanatory Notes | Facility Data 1 | Conversion factors | Performance Summary

PAT – TP5 Input

TU Identity and Performance

TU identifier	
Operator Name	
Target Type	Relative
TP6 Target %	
TP6 Improvement Achieved %	-107.0%
TP6 Improvement Accounted For %	-63.4%

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	Facility Identifier	**Category**	**Savings Actions Implemented**	**Reasons for Implementation**	**Implementation Date**	**Fixed Energy Consumption or Carbon Emissions Impacted?**	**Energy Consumption or Carbon Emissions Impacted (%)**	**Expected extent (penetration) of the change implemented (%)**	**Expected % savings from the change implemented (%)**	**Estimated change in energy consumption (%)**	**Estimated change in carbon emissions (%)**	
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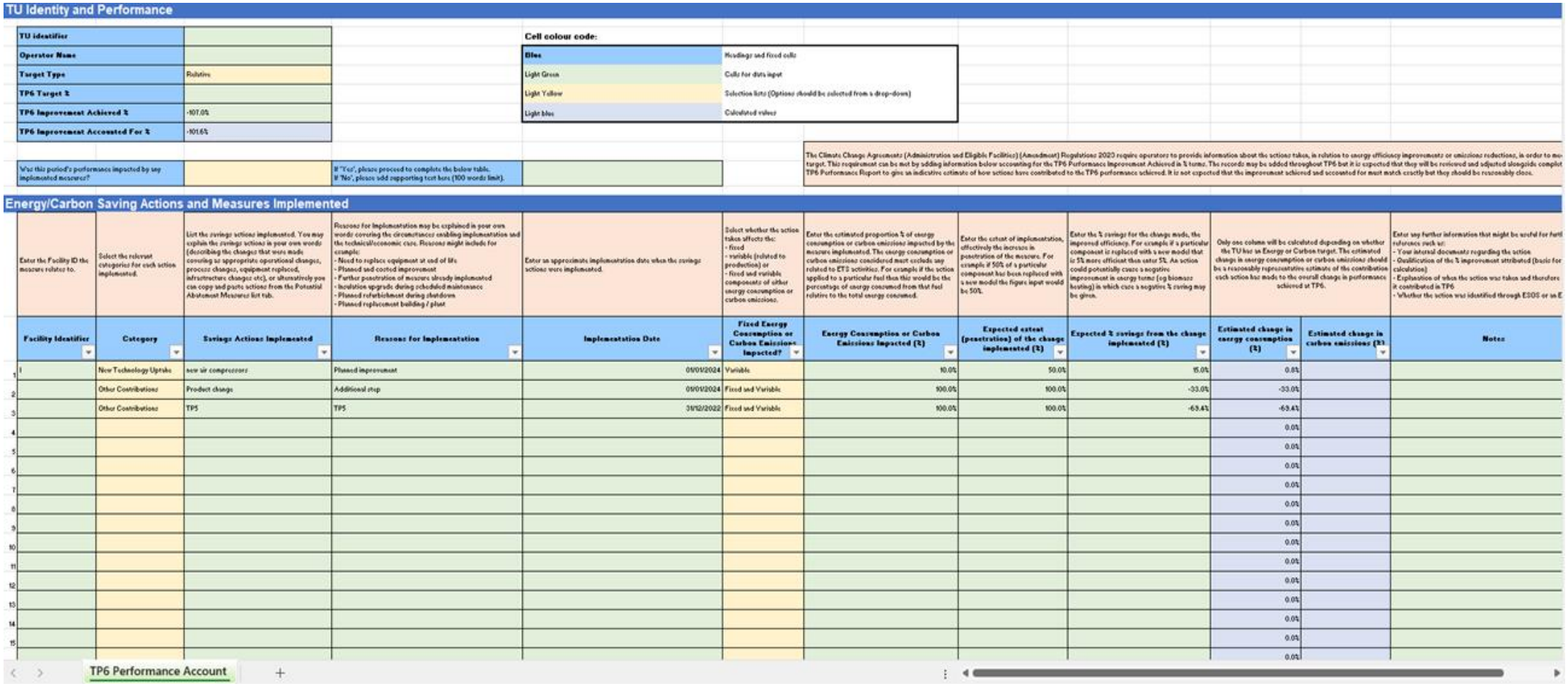
2										0.0%		
3										0.0%		
4										0.0%		

Performance Account Template (PATS)



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1	I	New Technology Uptake	new air compressors	Planned improvement	01/01/2024	Variable	10.0%	50.0%	15.0%	0.8%		
2		Other Contributions	Product change	Additional step	01/01/2024	Fixed and Variable	100.0%	100.0%	-33.0%	-33.0%		
3		Other Contributions	TP5	TP5	31/12/2022	Fixed and Variable	100.0%	100.0%	-69.4%	-69.4%		
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11										0.0%		
12										0.0%		
13										0.0%		
14										0.0%		
15										0.0%		

TP6 Performance Account

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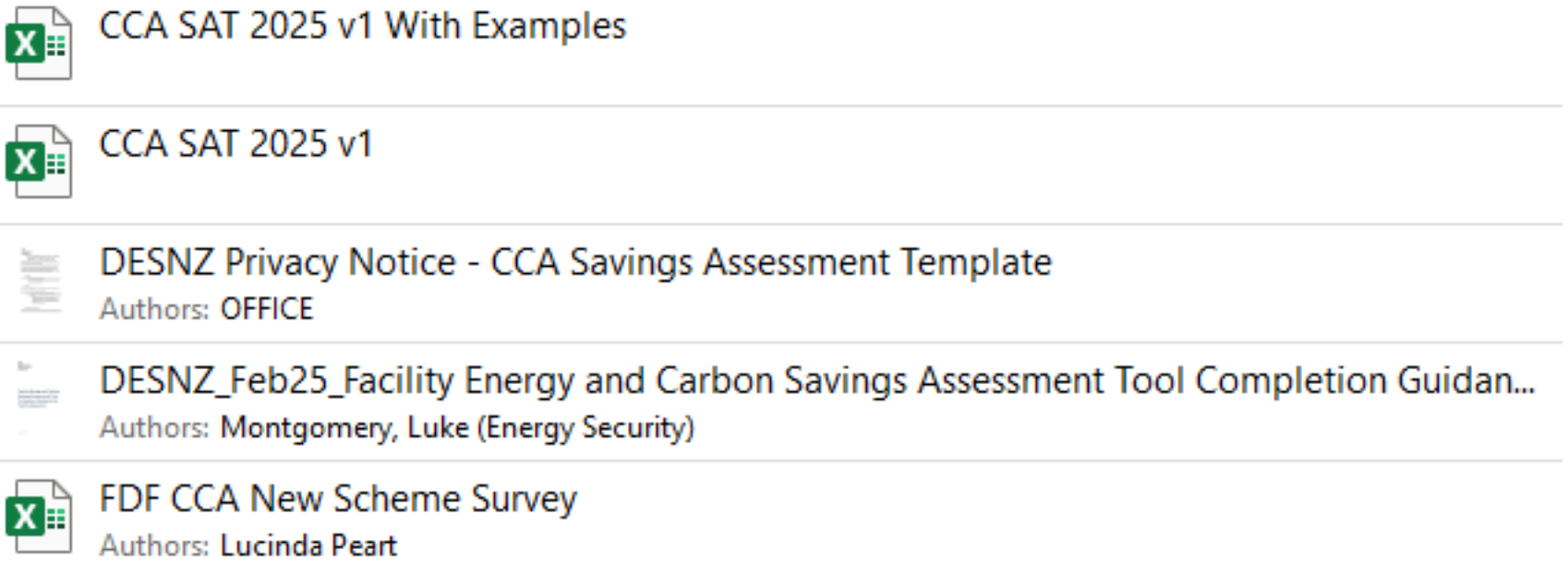
2		Other Contributions	Product change	Additional step	01/01/2024
3		New Technology Uptake	new air compressors	Planned improvement	01/01/2024
4					

Select whether the action taken affects the: - fixed - variable (related to production) or - fixed and variable components of either energy consumption or carbon emissions.	Enter the estimated proportion % of energy consumption or carbon emissions impacted by the measure implemented. The energy consumption or carbon emissions considered must exclude any related to ETS activities. For example if the action applied to a particular fuel then this would be the percentage of energy consumed from that fuel relative to the total energy consumed.	Enter the extent of implementation, effectively the increase in penetration of the measure. For example if 50% of a particular component has been replaced with a new model the figure input would be 50%.	Enter the % savings for the change made, the improved efficiency. For example if a particular component is replaced with a new model that is 5% more efficient then enter 5%. An action could potentially cause a negative improvement in energy terms (eg biomass heating) in which case a negative % saving may be given.	Only one column will be calculated depending on whether the TU has an Energy or Carbon target. The estimated change in energy consumption or carbon emissions should be a reasonably representative estimate of the contribution each action has made to the overall change in performance achieved at TP6.	
Fixed Energy Consumption or Carbon Emissions Impacted?	**Energy Consumption or Carbon Emissions Impacted (%)**	**Expected extent (penetration) of the change implemented (%)**	**Expected % savings from the change implemented (%)**	**Estimated change in energy consumption (%)**	**Estimated change in carbon emissions (%)**
Fixed and Variable	100.0%	100.0%	-69.4%	-69.4%	
Fixed and Variable	100.0%	100.0%	-33.0%	-33.0%	
Variable	10.0%	50.0%	15.0%	0.8%	

Sector Assessment Template (SATS)

- Provide the Environment Agency (EA) with the data they need to set a baseline for each facility in the new CCA scheme.
- Aid the Department of Energy Security & Net Zero (DESNZ) to set robust targets for the whole duration of the upcoming new CCA scheme. Therefore, this is a one-off process which will only be needed once for the new scheme, and the amount of information it asks for is proportionate to this

Sector Assessment Template (SATS) - Files



SATS - Instructions

Instructions for the Facility Energy and Carbon Savings Assessment Tool (Publication date: 18/02/25, Version: 3.7)

A Facility Operator (or their consultant) should complete **one template for each facility** participating in the new Climate Change Agreement (CCA) scheme from 2025-2030.
Completing this template for your facility (facilities) is **only needed once for the new CCA scheme**. The input required is therefore proportionate to the 6 years of CCA relief that recipients will receive, and will ensure that appropriate targets are set for each Target Period.
A key aim of the new scheme is to drive additional energy and carbon savings in exchange for substantive CCL relief from 2027-2033.
In entering the proposed demand-side and supply-side measures into the SAT, please be ambitious with the savings you can achieve between now and December 2030. The output tab of the SAT allows each facility to see the implied energy and carbon savings from the measures they propose.

ALL FACILITIES MUST COMPLETE TABS 1 & 2
Tab 1: Facility Details: Basic information about your facility.
Tab 2: Facility Details: Base Year Energy Consumption: Data on energy consumption, by fuel, during the 2022 base year. Production, energy consumption by product.

IF INDICATED BY YOUR TRADE ASSOCIATION, PLEASE COMPLETE TABS 3, 4a AND 4b FOR THE RELEVANT FACILITY:
Tab 3: Demand Side Measures: Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.
Tab 4.a: Supply Side Measures: Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.
These measures include: Switching Non-Renewable Fuels, and Switching to Biomass Heating, Switching to Renewable Power as well as Other measures.
Tab 4.b: Switching to CHP: Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.

There is an additional (purple) tab at the end of the workbook that does not require any input but provides information on the savings possible as a result of input savings opportunities.
Cells conducting calculations which feed into these outputs have been hidden to streamline the tool. For help completing this SAT please refer to accompanying guidance document, worked example and video at: <<https://www.youtube.com/watch?v=Za2RDzyur3s>>

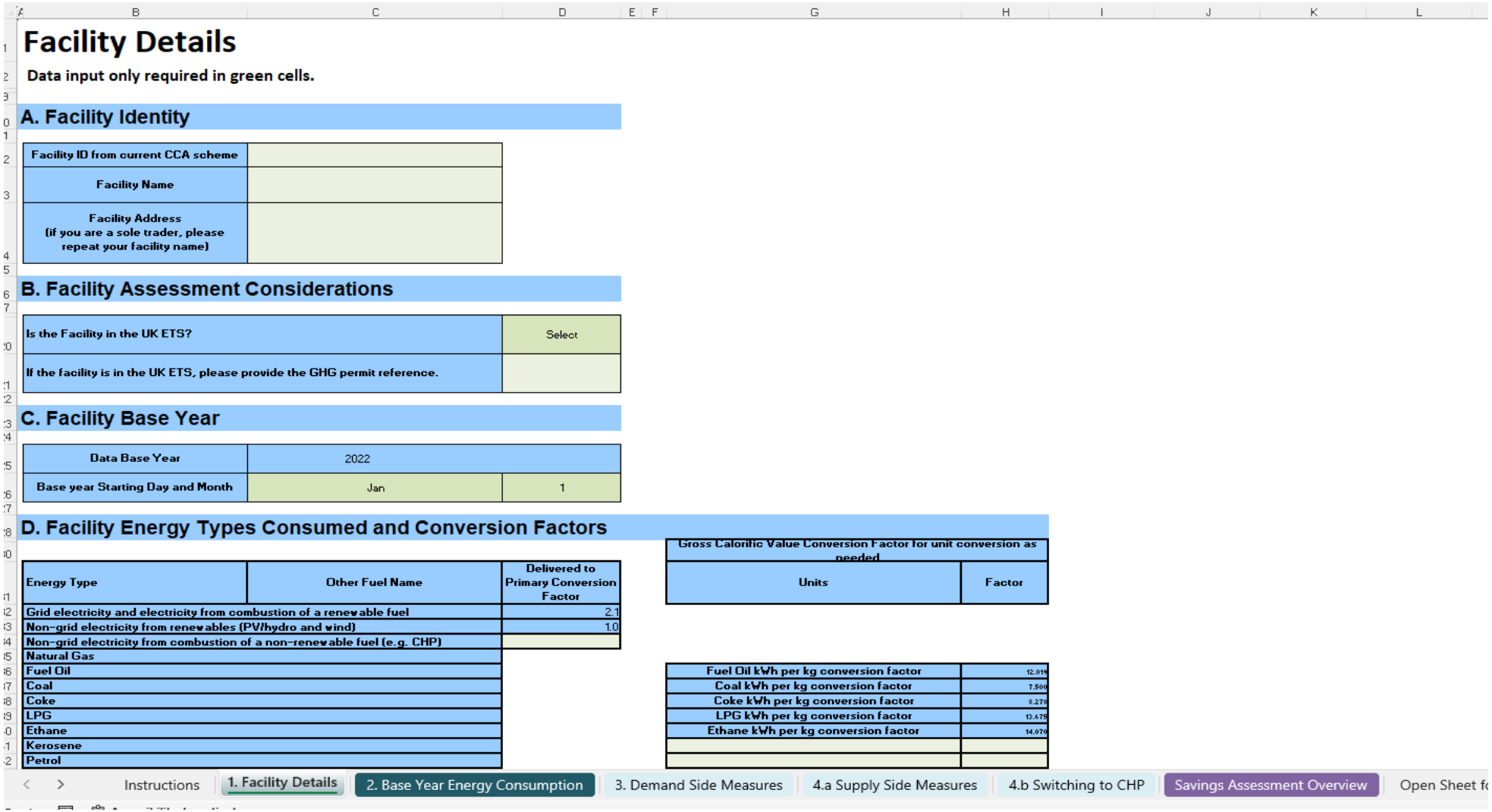
The savings data provided should draw on any information already existing for the Facility regarding energy efficiency including ISO 50001 EMS, ESOS audits and current investment plans.

Cell colour code:

Blue	Headings and fixed cells
Light Green	Cells for data input
Mid Green	Selection lists (Options should be selected from a drop-down)
Light blue	Calculated values

Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Open Sheet fc

SAT - Facility Details



Facility Details

Data input only required in green cells.

A. Facility Identity

Facility ID from current CCA scheme	
Facility Name	
Facility Address (if you are a sole trader, please repeat your facility name)	

B. Facility Assessment Considerations

Is the Facility in the UK ETS?	Select
If the facility is in the UK ETS, please provide the GHG permit reference.	

C. Facility Base Year

Data Base Year	2022	
Base year Starting Day and Month	Jan	1

D. Facility Energy Types Consumed and Conversion Factors

Energy Type	Other Fuel Name	Delivered to Primary Conversion Factor
Grid electricity and electricity from combustion of a renewable fuel		2.1
Non-grid electricity from renewables (PV/hydro and wind)		1.0
Non-grid electricity from combustion of a non-renewable fuel (e.g. CHP)		
Natural Gas		
Fuel Oil		
Coal		
Coke		
LPG		
Ethane		
Kerosene		
Petrol		

Gross Calorific Value Conversion Factor for unit conversion as needed

Units	Factor
Fuel Oil kWh per kg conversion factor	12.019
Coal kWh per kg conversion factor	7.500
Coke kWh per kg conversion factor	8.278
LPG kWh per kg conversion factor	13.675
Ethane kWh per kg conversion factor	14.070

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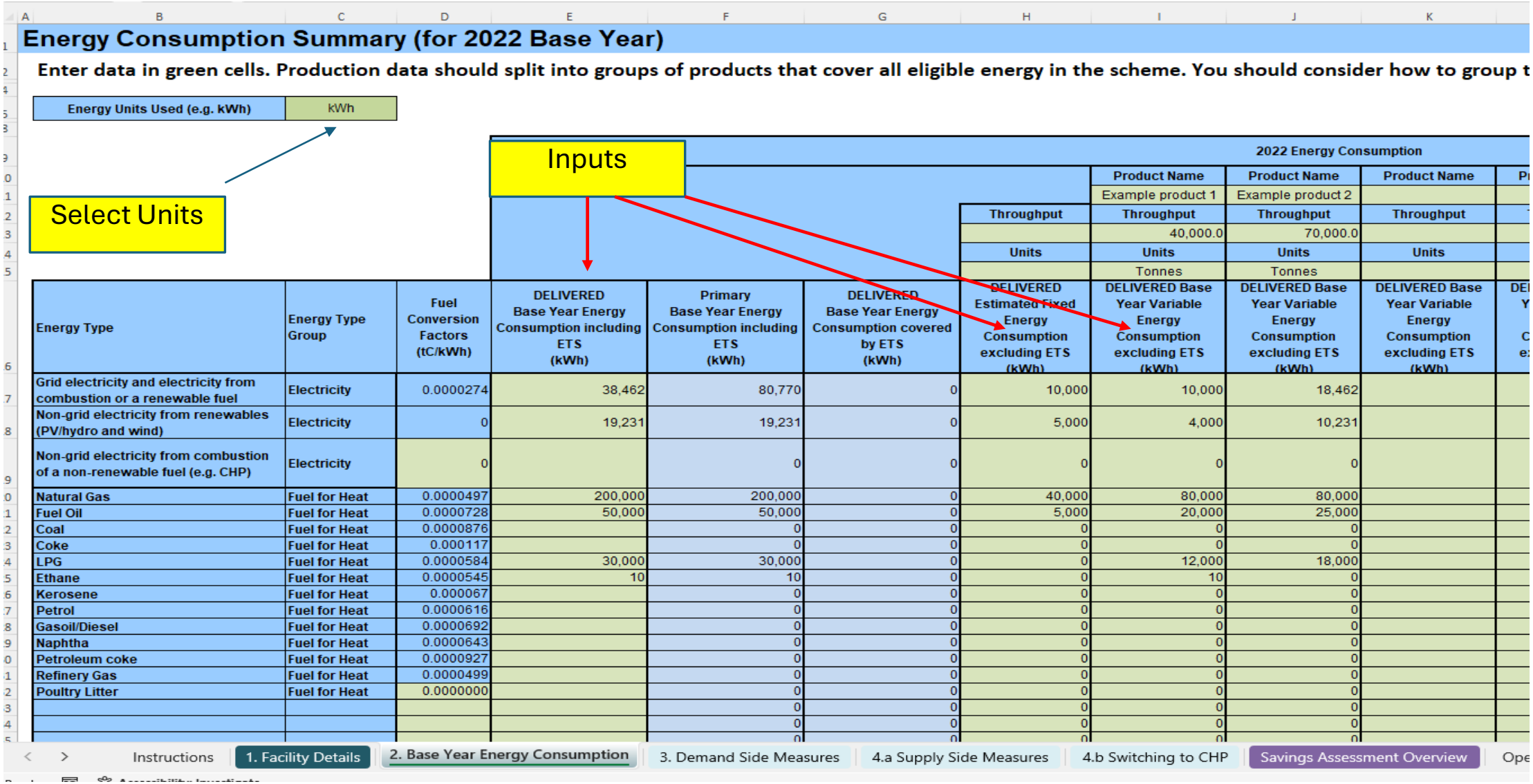
SAT – Base Year Consumption



Energy Consumption Summary (for 2022 Base Year)

Enter data in green cells. Production data should split into groups of products that cover all eligible energy in the scheme. You should consider how to group t

Energy Units Used (e.g. kWh)	kWh

Select Units

Inputs

						2022 Energy Consumption				
						Product Name	Product Name	Product Name	P
						Example product 1	Example product 2		
					Throughput	Throughput	Throughput	Throughput	
						40,000.0	70,000.0		
					Units	Units	Units	Units	
						Tonnes	Tonnes		
Energy Type	Energy Type Group	Fuel Conversion Factors (tC/kWh)	DELIVERED Base Year Energy Consumption including ETS (kWh)	Primary Base Year Energy Consumption including ETS (kWh)	DELIVERED Base Year Energy Consumption covered by ETS (kWh)	DELIVERED Estimated Fixed Energy Consumption excluding ETS (kWh)	DELIVERED Base Year Variable Energy Consumption excluding ETS (kWh)	DELIVERED Base Year Variable Energy Consumption excluding ETS (kWh)	DELIVERED Base Year Variable Energy Consumption excluding ETS (kWh)	DE Y C e
Grid electricity and electricity from combustion or a renewable fuel	Electricity	0.0000274	38,462	80,770	0	10,000	10,000	18,462		
Non-grid electricity from renewables (PV/hydro and wind)	Electricity	0	19,231	19,231	0	5,000	4,000	10,231		
Non-grid electricity from combustion of a non-renewable fuel (e.g. CHP)	Electricity	0		0	0	0	0	0		
Natural Gas	Fuel for Heat	0.0000497	200,000	200,000	0	40,000	80,000	80,000		
Fuel Oil	Fuel for Heat	0.0000728	50,000	50,000	0	5,000	20,000	25,000		
Coal	Fuel for Heat	0.0000876		0	0	0	0	0		
Coke	Fuel for Heat	0.000117		0	0	0	0	0		
LPG	Fuel for Heat	0.0000584	30,000	30,000	0	0	12,000	18,000		
Ethane	Fuel for Heat	0.0000545	10	10	0	0	10	0		
Kerosene	Fuel for Heat	0.000067		0	0	0	0	0		
Petrol	Fuel for Heat	0.0000616		0	0	0	0	0		
Gasoil/Diesel	Fuel for Heat	0.0000692		0	0	0	0	0		
Naphtha	Fuel for Heat	0.0000643		0	0	0	0	0		
Petroleum coke	Fuel for Heat	0.0000927		0	0	0	0	0		
Refinery Gas	Fuel for Heat	0.0000499		0	0	0	0	0		
Poultry Litter	Fuel for Heat	0.0000000		0	0	0	0	0		
				0	0	0	0	0		
				0	0	0	0	0		

Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Ope

SAT – Demand Side Measures

3. Demand Side Measures

Input data into Green Cells. Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.

Type of demand side measure	Demand side measure	Energy type	Proportion of DELIVERED energy consumption impacted (%)	Anticipated DELIVERED Energy savings from Demand Side Measure (%)	Basis for estimates provided	Is Measure Already Implemented?	Anticipated Implementation Year with CCA	Anticipated Implementation Year without CCA	Estimated payback time (years)	Data Completion Checks - NO INPU: Energy Type Selection	Proportion of Impacted Energy Consumption Input
Energy Management	Improved Zone control of building aircon	Electricity	15.00%	2.00%	Own estimates	Yes	2023	2025	2		
New Technology Uptake	VSD	Electricity	10.00%	25.00%	Anticipated improvement based on ETL information	Yes	2024	2028	2		
Insulation Improvement	Additional insulation around gas fired furnace	Fuel for Heat	3.00%	5.00%	Additional insulation blanket thermal resistance calculations	Yes	2024	2030	3		
Infrastructure Improvement	Refurbish Building X	Fuel for Heat	5.00%	15.00%	New design energy use in compliance with upgrade from BREEAM Unclassified to Good	No	2027	2030	10		
New Technology Uptake	Boiler replacement	Fuel for Heat	7.00%	3.20%	Anticipated improvement based on ETL information	No	2028	2030	4		
Heat Recovery	Recover and reuse heat from air compressor	Fuel for Heat	10.00%	10.00%	Own estimates	No	2028	2030	8		
Select		Select				Select	Select	Select			
Select		Select				Select	Select	Select			
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Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Open Sheet fc

SAT – Supply Side Measures

4.a. Supply Side Opportunities

Input data into Green Cells. Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.

Type of Supply Side Measure	Description of Supply Side Measure	Fuel Type Currently Used	Quantity of annual DELIVERED Energy (e.g. electricity, natural gas) Currently Used (Energy Units Used (e.g. kWh))	Existing Equipment /Appliance Efficiency (%)	Quantity of Useful Energy Currently Used (kWh)	Quantity of Primary Energy Currently Used (e.g. electricity, natural gas etc.) (kWh)	Replacement Fuel Type	Replacement Equipment /Appliance Efficiency (%)	Replacement Quantity of Primary Fuel (kWh)	Is Measure Already Implemented?	Anticipated Implementation Year with CCA	Anticipated Implementation Year without CCA	Estimated payback time (years)	Basis for estimates provided
Switching Non-Renewable Fuel	Change Electric oven to Gas	Grid Elec	1000.000	100.0%	1000.000	2100.000	N Gas	90.0%	1111.111	Yes	2023	2027	4	Own estimates.
Switching to Biomass Heating	Biomass boiler using Poultry Litter to replace current gas boiler	N Gas	1500.000	90.0%	1350.000	1500.000	Poultry Litter	90.0%	1500.000	No	2026	2026	6	Based on manufacturer information.
Switching to Renewable Power	Installation of PV	Grid Elec	2000.000	100.0%	2000.000	4200.000	Non Grid Elec Gen	100.0%	2000.000	No	2028	2029	5	Retailer estimates.
Select		Select			0.000	0.000	Select		0.000	Select	Select	Select		
Select		Select			0.000	0.000	Select		0.000	Select	Select	Select		
Select		Select			0.000	0.000	Select		0.000	Select	Select	Select		
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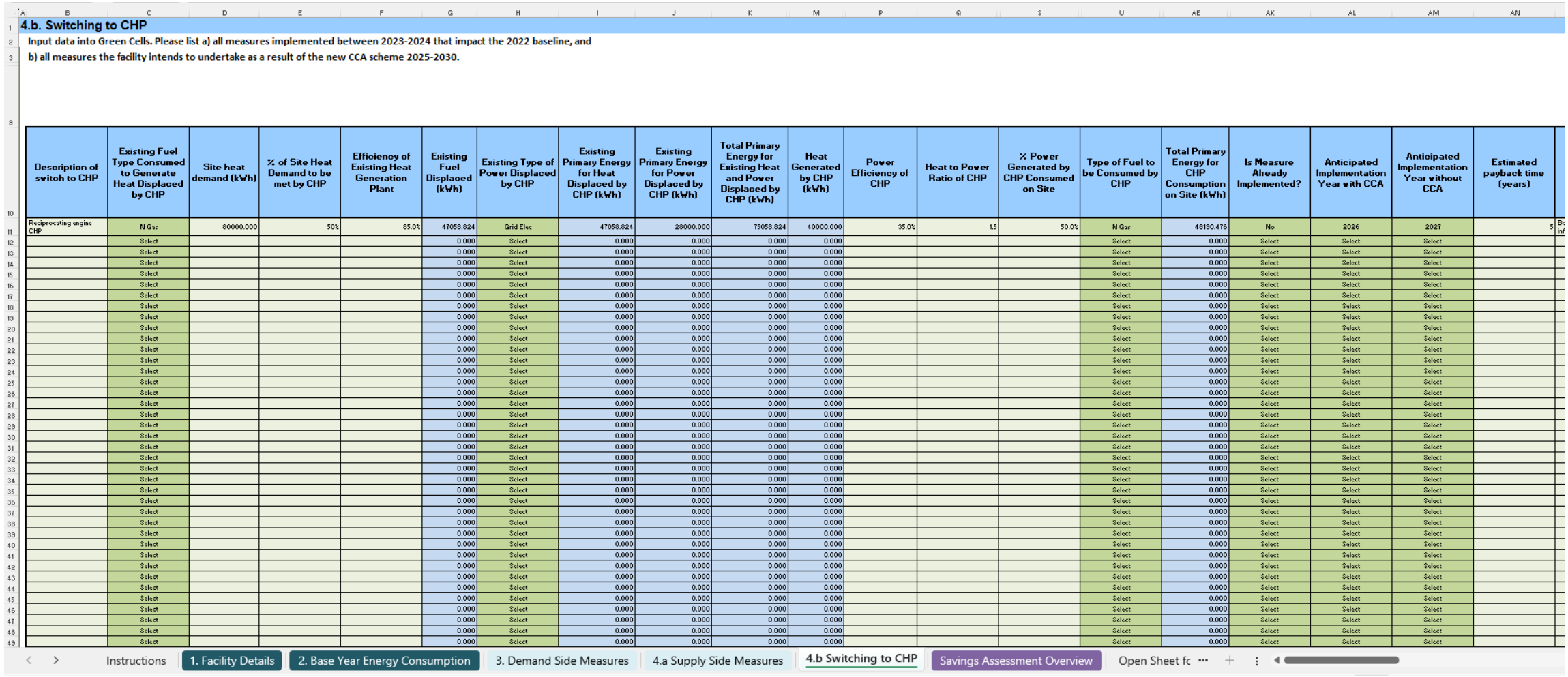
Select		Select			0.000	0.000	Select		0.000	Select	Select	Select		

Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Open Sheet fc

SAT – Switching to CHP



4.b. Switching to CHP

Input data into Green Cells. Please list a) all measures implemented between 2023-2024 that impact the 2022 baseline, and
b) all measures the facility intends to undertake as a result of the new CCA scheme 2025-2030.

Description of switch to CHP	Existing Fuel Type Consumed to Generate Heat Displaced by CHP	Site heat demand (kWh)	% of Site Heat Demand to be met by CHP	Efficiency of Existing Heat Generation Plant	Existing Fuel Displaced (kWh)	Existing Type of Power Displaced by CHP	Existing Primary Energy for Heat Displaced by CHP (kWh)	Existing Primary Energy for Power Displaced by CHP (kWh)	Total Primary Energy for Existing Heat and Power Displaced by CHP (kWh)	Heat Generated by CHP (kWh)	Power Efficiency of CHP	Heat to Power Ratio of CHP	% Power Generated by CHP Consumed on Site	Type of Fuel to be Consumed by CHP	Total Primary Energy for CHP Consumption on Site (kWh)	Is Measure Already Implemented?	Anticipated Implementation Year with CCA	Anticipated Implementation Year without CCA	Estimated payback time (years)
Reciprocating engine CHP	N Gas	80000.000	50%	85.0%	47058.824	Grid Elec	47058.824	28000.000	75058.824	40000.000	35.0%	1.5	50.0%	N Gas	48130.476	No	2026	2027	5
	Select				0.000	Select	0.000	0.000	0.000	0.000				Select	0.000	Select	Select	Select	

Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Open Sheet fc

SAT – Savings Assessment Overview

Savings Assessment Overview (graphs and tables provide an indication of the savings that would be realised)

With CCAs

Percentage Energy Savings (excluding ETS Energy) by Year (%)

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
0.3%	1.1%	1.1%	8.2%	8.7%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%

Percentage Carbon Emissions Savings (excluding ETS Energy) by Year (%)

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
0.1%	0.5%	0.5%	11.1%	11.8%	13.4%	13.4%	13.4%	13.4%	13.4%	13.4%	13.4%	13.4%

Without CCAs*

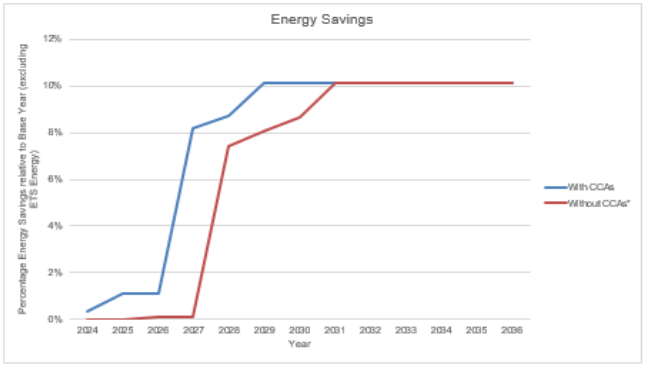
Percentage Energy Savings (excluding ETS Energy) by Year (%)

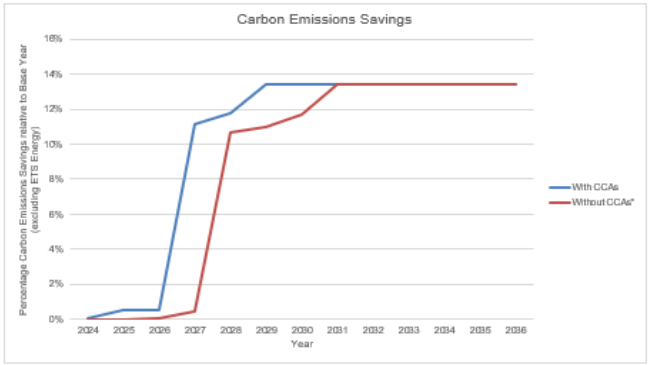
2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
0.0%	0.0%	0.1%	0.1%	7.4%	8.1%	8.6%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%

Percentage Carbon Emissions Savings (excluding ETS Energy) by Year (%)

2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
0.0%	0.0%	0.0%	0.5%	10.7%	11.0%	11.7%	13.4%	13.4%	13.4%	13.4%	13.4%	13.4%

*Note: The energy and carbon savings calculations without CCAs assume that the implementation of measures, if carried out, will follow the same order as with CCAs.





Instructions | 1. Facility Details | 2. Base Year Energy Consumption | 3. Demand Side Measures | 4.a Supply Side Measures | 4.b Switching to CHP | Savings Assessment Overview | Open Sheet fc

CHP Guidance

(1) the primary energy associated with the CHP electricity generated and consumed within the Eligible Facility, and

(2) the primary energy associated with the CHP heat generated and consumed in the Eligible Facility.

It is necessary to separate out the primary energy inputs to CHP in this way in the Base Year because the measures in <3.Demand Side Measures> save different proportions of Base Year primary electricity and fuel for heat.

The primary energy for (1) is to be reported in Row 19 of <2. Base Year Energy Consumption>

The primary energy for (2) is to be reported in Rows >20 of <2. Base Year Energy Consumption>, according to the type of fuel input to the CHP.

The CHP algorithm is to be used in the normal way to calculate the quantities of fuel associated with (1) and (2). It is also to be used to calculate the ratio between delivered CHP electricity and its primary energy equivalent, which is to be reported in Cell D34 of <1. Facility Details>, and the Fuel Conversion Factor (tC/kWh), which gives the carbon emissions per unit of primary energy input, to be reported in Cell D19 of <2. Base Year Energy Consumption> and the primary energy>.

***In the case of non-renewable CHP**:*

*The CHP electricity generated and consumed in the Eligible Facility is to be treated as grid electricity and reported in Row 17 of <2. Base Year Energy Consumption>. The primary energy associated with such electricity is equal to the delivered electricity multiplied by the new 2.1 factor. Subtracting this quantity (delivered electricity * 2.1) from the fuel input to the CHP leaves the fuel deemed to have generated the CHP heat and this is to be reported in Rows >20 of <2. Base Year Energy Consumption>, according to the type of fuel input to the CHP. However, please note, as set out in Operations Manual Appendix D (example for renewable CHP), if:*

*Total Fuel Input to CHP < (Total Power Output from CHP * 2.1), then*

Primary energy for CHP heat must be set to zero. In such a s case the CHP heat is effectively primary energy free.

CCA helpline team – operated by SLR

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CCA Operations Manual:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1056762/Climate-Change-Agreements-Operations-Manual.pdf

FEBRUARY 2025

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