Qualifying Explanatory Statement According to PAS 2060 Commitment to and Achievement of Carbon Neutrality

Prepared for:
Upwing Energy

Date Completed:
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1. Introduction

This document forms the Qualifying Explanatory Statement (QES) that supports the Declaration of Achievement of and Commitment to Carbon Neutrality for Upwing Energy's 2021 Business Operations, in conformance with PAS 2060:2014 other party validation requirements. As part of Upwing Energy's Carbon Neutrality Achievement, GHG emissions were quantified for business operations for the reporting period of September 2021 - August 2022 (see Table 1) in accordance with the WRI GHG Protocol, a GHG assessment standard approved by PAS 2060:2014. It is noted that this is the third application period for Upwing Energy's and the GHG inventory shows an increase over the 2019 baseline assessment on an absolute basis as Upwing continues to expand their operations. However, on an intensity basis (using number of employees), Upwing is showing a 50% reduction in emissions over the baseline. Carbon offset credits representing 606 metric tons CO_2e were purchased by Upwing Energy from the UN FCCC CDM for offsetting Scope 1, 2, and 3 emissions for the 2021reporting period. These offsets purchased were verified by the CDM registry and satisfy all the requirements of PAS 2060:2014.

Table 1. *GHG inventory results for Upwing Energy for the 2021 assessment period*

	GHG Emissions (metric tons)				
Source Category	**CO_2e**	**CO_2**	**CH_4**	**N_2O**	**HFCs**
Scope 1					
Mobile Sources	0	0	0	0	-
Stationary Sources	9	8.8	$2.05x10^{-4}$	$3.90x10^{-4}$	0
Refrigeration	25	-	-	-	$1.36x10^{-2}$
SCOPE 1 TOTAL	34	8.8	$2.05x10^{-4}$	$3.90x10^{-4}$	$1.36x10^{-2}$
Scope 2					
Purchased electricity	95	94.9	$6.50x10^{-3}$	$7.65x10^{-4}$	**-**
Scope 3					
Purchased Goods & Services	154	110	1.6	-	-
Capital Goods	51	43.7	.3	-	-
Fuel and Energy Related Activities	35.9	35.9	-	$2.80x10^{-5}$	-
Upstream Transportation: transportation of production-related goods	59	58.7	$6.00x10^{-4}$	$5.50x10^{-4}$	-
Business Travel	31	31	0	0	-
Employee Commute	91	56.8	0.23	0.10	-
Waste Generation	11.3	2.2	0.33	-	-
Upstream Transportation: distribution of sold products	44	43.5	$4.40x10^{-4}$	$4.11x10^{-4}$	-
SCOPE 3 TOTAL	**477**	**351**	**2.44**	**.10**	**-**
TOTAL (Scope 1+Scope 2+Scope 3)	**606**	**454**	**2.44**	**0.11**	**$1.36x10^{-2}$**

2. Declaration of Carbon Neutrality

Carbon neutrality of Scope 1, Scope 2 and Scope 3 emissions was achieved by Upwing Energy in accordance with PAS 2060 on December 23, 2022 for the period commencing 1st September 2021-August 31st, 2022. Upwing Energy is also committed to maintain this achievement for the period of September 1, 2022 – August 31, 2023.

PAS 2060: 2014 Other Party Validation Requirement	Response
Entity making declaration:	Upwing Energy
Individual responsible	Kristen Frey
Subject of PAS 2060 declaration:	Scope 1, Scope 2, and Applicable Scope 3 GHG emissions including Fuel and Energy Related Activities, Purchased Goods & Services, Capital Goods, Upstream Transportation, Downstream Transportation, Business Travel, Employee Commute and Waste Disposal Activities
Description of subject:	Upwing Energy is an innovative offshoot of Calnetix Technologies, formed to focus on the production of hydrocarbons. Calnetix is a recognized industry leader in high-speed systems, supplying high-speed permanent magnet motors and generators, magnetic bearings and variable speed drives (VSDs) over the past two decades to a wide variety of industries throughout the world. The company's product portfolio includes electric drive systems for offshore and subsea oil and gas applications.
Rationale for selection of the subject:	The scope and subject of this PAS 2060 includes all emissions based on the operational control principle defined in the WRI GHG Protocol- Corporate Standard.
Boundaries of the subject	The scope and subject of this PAS 2060 includes the Scope 1, 2, and 3 emissions of Upwing Energy's business operations
What type of conformity assessment has been undertaken?	OPV-3: Other party validation – unified
Baseline period for PAS 2060: 2014 program:	September 2019 - August 2020
Achievement period:	September 1, 2021 – August 31, 2022
Commitment period	September 1, 2022 – August 31, 2023
Standard for assessment of GHG emissions	GHG Protocol Corporate Standard
Justification of assessment method	The methodology meets PAS 2060 requirements
Baseline Carbon Footprint Results	See Table 1
Senior Representative Signature	Kristen Frey Jan 9, 2023

3 Scope

The subject of this carbon neutral achievement and commitment are Upwing Energy's business operations. The scope of the study is set by the organizational and operational boundaries defined by the GHG Protocol and identifies the business operations and emission sources to be included in the GHG inventory assessment. The following sections provide further detail on elements included in the scope of this study.

3.1 Organizational boundaries

Organizational boundaries determine which operations will be included in the GHG inventory. The operational control approach was selected as the consolidation approach to set an organizational boundary for this assessment. Upwing Energy retains operational control over its operations and facilities, and therefore accounts for 100% of GHG emissions using the operational control approach. A single facility is included in the assessment.

3.2 Operational boundaries

Operational boundaries define the direct and indirect GHG emission sources to be included in the carbon footprint. Emission sources are further classified as 'Scope 1', 'Scope 2', or 'Scope 3' emissions. Scope 1, Scope 2, and Scope 3 emissions were included, which is required for a carbon neutral certification under PAS 2060. Upwing Energy does not lease any buildings. Using this approach, the GHG inventory includes emissions from the sources included in the Table 2 below.

Table 2. *Scope categories (according to the WRI GHG Protocol) included in the scope of the GHG Inventory*

Source Category	Description
Scope 1	Stationary sources of propane, diesel, and fuel oil used at leased offices/facilities Refrigeration
Scope 2	Purchased electricity at leased offices/facilities
Scope 3	Category 1: Purchased goods and services Category 2: Capital goods Category 3: Fuel and Energy Related Activities Category 4: Upstream transportation and distribution Category 5: Waste generated in operations Category 6: Business travel Category 7: Employee commute Category 9: Downstream transportation and distribution

3.3 Cut-off criteria

Over 95% of Upwing's Scope 1, 2, and 3 GHG emissions are included in this inventory. No processes under the operational boundaries described above were excluded from the scope of study. No processes

contributing ≥1% of the total carbon footprint were excluded. As shown in Table 1 above, no single emissions source is greater than 50% of the total emissions.

4 Quantification of carbon footprint

4.1 Carbon Footprint Methodology

The Global Climate Change impact category addresses the emissions of greenhouse gases (GHGs) that are responsible for radiative forcing (i.e., warming effects) from interactions in the Earth's atmosphere. All emissions are characterized using Global Warming Potentials (GWPs). GWP values describe the radiative forcing impact of one unit of a given climate pollutant relative to one unit of CO_2. GWP values convert climate pollutant emissions data for non-CO_2 gases into units of CO_2 equivalents (CO_2e) as represented in the equation below:

$$\sum \text{(Climate pollutant emissions x GWP of pollutant)} = \text{Total } CO_2e$$

Total CO_2 equivalents represent emissions of all GHGs, aggregated and converted to units of CO_2e, using GWP values over a 100-year time horizon. The 100-year GWP values used in evaluating the Global Climate Change impact category are shown in Table 3 below.

Table 3. *List of Global Warming Potentials (GWPs) over a 100-year time horizon.*

GHGs	Carbon Footprint GWP 100-year time horizon	Source
CO_2	1	IPCC
CH_4	27.9	IPCC AR6
N_2O	273	IPCC AR6
HCFC-R22	1,810	IPCC AR4

4.2 Data Sources and Emission Factor Datasets

Primary data was obtained from Upwing for the reporting period of September 2021 - August 2022:

- Electricity usage (kWh) billed for owned and leased facilities
- Fuel usage (propane, diesel) billed for owned and leased facilities
- Business travel expenses for air transportation, vehicle rentals, personal car usage and hotel reservations billed for owned and leased facilities
- Employee commute in length and number of employees using modes of transportation
- Transportation charges by mode of transportation
- Refrigerant purchases for owned and leased facilities

- Purchased goods and services, and capital expenses for owned and leased facilities
- Waste management expenses for waste for owned and leased facilities

Secondary data was selected from various sources depending on the type of data and quality of data, as summarized below.

Table 4. *Summary of secondary data sources.*

Component	Dataset/ Emission Factor Source	Source	Publication Date
Scope 1			
Stationary source	Propane Combustion	Emissions Factors for GHG Inventories[1]	2021
Mobile sources: Owned vehicles	Diesel Combustion	Emissions Factors for GHG Inventories	2021
Refrigeration	GWP100	Emissions Factors for GHG Inventories	2021
Scope 2			
Electricity	US EPA eGRID[2]	eGRID2018	2020
Scope 3			
Fuel and Energy related activities	eGRID subregion and grid losses from eGRID2018, upstream emissions of propane and diesel production calculated using DEFRA emission factors	US EPA eGRID and DEFRA[3]	2020 2020
Purchased Goods and Services	Purchased goods and services	USEEIO[4]	2018
Capital Goods	Capital goods	USEEIO	2018
Upstream and downstream transportation	Truck transport	USEEIO	2018
Business travel	Hotels Air transport Passenger ground transport	DEFRA	2020
Employee commute	Passenger ground transport	DEFRA	2020
Waste generation	treatment of municipal solid waste	USEEIO	2018

[1] https://www.epa.gov/sites/production/files/2021-04/documents/ghg-emission-factors-hub.pdf
[2] Emissions & Generation Resource Integrated Database (eGRID). https://www.epa.gov/egrid
[3] Greenhouse gas reporting: conversion factors 2020. https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020
[4] Yang, Y., Ingwersen, W. W., Hawkins, T. R., Srocka, M., & Meyer, D. E. (2018). USEEIO: A new and transparent United States environmentally-extended input-output model. *Journal of cleaner production*, *158*, 308-318. https://www.epa.gov/land-research/us-environmentally-extended-input-output-useeio-technical-content

4.3 Scope 1 – Direct Emissions

Scope 1 direct emissions consists of fuel used in owned and leased facilities, calculated from propane, fuel oil and diesel fuel use:

$$Emissions = \sum_{fuels} fuel(lbs, therms, gal) x\ Combustion\ emission\ factor\ (\frac{MT\ CO2eq}{lbs, therm, gal})$$

4.4 Scope 2 – Indirect Emissions (Purchased Electricity)

Emission factors for electricity generation in owned facilities were calculated using primary data on electricity use for the facility and the emission factors from the CAMX eGRID subregion.

$$Emissions\ for\ electricity\ use\ \ (kg\ CO2e) = \sum kWh\ for\ owned\ facilities * \frac{average\ kg\ CO2e}{kWh\ for\ eGRID\ subregion}$$

4.5 Scope 3 – Other Indirect Emissions

Emission calculation methodologies for each of the Scope 3 categories included in the inventory are summarized below.

Purchased Goods and Services

Category 1: Purchased Goods and Services	
Category Description	All upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year. Products include both goods (tangible products) and services (intangible products).
Calculation Boundary	Upstream emissions from production of products purchased or acquired by the reporting company. Includes both goods and services
Calculation Approach	Spend-based approach
Data Source	Primary data on expenditures for goods and services
Exclusions	None

A spend-based method was used to calculate GHG emissions associated with purchased goods and services. The spend-based method involved determining the expenditures for each goods or service type represented in the USEEIO[5] database and applying spend-based emission factors to estimate emissions this

[5] Yang, Y., Ingwersen, W. W., Hawkins, T. R., Srocka, M., & Meyer, D. E. (2018). USEEIO: A new and transparent United States environmentally-extended input-output model. *Journal of cleaner production*, *158*, 308-318. https://www.epa.gov/land-research/us-environmentally-extended-input-output-useeio-technical-content

category (see equation below). Emission factors are adjusted for the difference in consumer price index in the reporting year.

$$Emissions\ for\ purchased\ goods\ and\ services\ (kg\ CO2e) = \sum value\ of\ purchased\ good\ or\ service\ (\$) \times emission\ factor\ per\ unit\ of\ economic\ value\ \left(\frac{kgCO2e}{\$}\right) x \frac{Consumer\ Price\ Index_{2020}}{Consumer\ Price\ Index_{2019}}$$

Capital Goods

Category 2: Capital Goods	
Category Description	All upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year.
Calculation Boundary	Upstream emissions from the production of capital goods purchased or acquired by the reporting company
Calculation Approach	Spend-based approach
Data Source	Primary data on capital good expenditures expenses.
Exclusions	None

Emissions for this category are calculated using the same methodology and databases as for Category 1: Purchased goods and services, described above.

Fuel and Energy Related Activities

Category 3: Fuel & Energy Related Activities	
Category Description	Emissions related to the extraction, production, and transportation of fuels and electricity purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2.
Calculation Boundary	All upstream (i.e., cradle-to-gate) emissions from the production of fuels used by the reporting company in the reporting year. Transmission and distribution losses associated with purchased electricity
Calculation Approach	Average data method as described in the Scope 3 Calculation Guidance
Data Source	Primary data was collected on electricity and fuel consumption.
Exclusions	None

Fuel and energy related activities consists of upstream impacts of fuel production for owned on-site use (e.g., propane at owned facilities) and grid losses from electricity use.

Emissions from upstream fuel production are estimated using fuel-specific life cycle emission factors from DEFRA and the annual fuel consumption reported by Upwing.

Emissions from electricity transmission and distribution losses associated with the electricity grid by state were calculated using percent grid loss data from the US EPA.

$$Emissions\ from\ T\&D\ losses = \sum (kWh\ of\ electricity\ consumed \times electricity\ life\ cycle\ emission\ factor\ (kg\ CO2e/kWh) \times\ T\&D\ loss\ rate\ (\%))$$

Upstream Transportation & Distribution

Category 4: Upstream Transportation and Distribution	
Category Description	Emissions from the transportation and distribution of products purchased by the reporting company in the reporting year between a company's tier 1 suppliers and its own operations (in vehicles and facilities not owned or controlled by the reporting company); transportation and distribution services purchased by the reporting company in the reporting year, including inbound logistics, and transportation and distribution between a company's own facilities (in vehicles and facilities not owned or controlled by the reporting company).
Calculation Boundary	Inbound transportation of purchased goods.
Calculation Approach	Spend-based approach for inbound transportation for production-related goods.
Data Source	Primary data on expenses for purchased production-related goods.
Exclusions	None

Emissions for this Scope 3 category are calculated using a spend-based approach for inbound transportation for production-related goods and spend-based approach for product distribution using primary data on expenses for upstream transportation.

$$Emissions\ for\ transportation\ \ (kg\ CO2e) = \sum \$\ spent\ on\ transportation * \frac{average\ kg\ CO2e}{transport\ expenses\ (\$) by\ mode\ of\ transport}$$

Average pollutant emissions ($\frac{average\ kg\ CO2e}{transport\ expenses\ (\$)}$) are taken from USEEIO emission factors for transport for truck transport.

Business Travel

Category 6: Business Travel	
Category Description	Emissions from the transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company).
Calculation Boundary	Emissions from hotel accommodation and all modes of transport undertaken by employees for business travel purposes
Calculation Approach	Distance-based method
Data Source	Primary data on business travel related expenses.

Category 6: Business Travel	
Exclusions	None

Average-data method was used to calculate business travel emissions. The method involved determining the transportation mode and distances for business travel (air, rail, car rental, etc.) and the total number of hotel stays during the reporting year and applying DEFRA emission factors to estimate emissions for this category.

$$Emissions\ for\ business\ travel\ (kg\ CO2e)$$
$$= \sum \$\ spent\ on\ hotel\ stay\ \times emission\ factor\ of\ hotel\ stay\ \left(\frac{kg\ CO_2e}{\$}\right)$$
$$+ \$\ spent\ on\ vehicle\ rental\ \ x\ emission\ factor\ of\ vehicle\ rental\ \left(\frac{kg\ CO_2e}{\$}\right)$$
$$+ \$\ spent\ on\ air\ travel\ x\ emission\ factor\ for\ air\ travel\ (\frac{kg\ CO_2e}{\$})$$
$$+ \$\ spent\ on\ train\ travel\ x\ emission\ factor\ for\ train\ travel\ (\frac{kg\ CO_2e}{\$})$$

Employee commute

Category 7: Employee Commute	
Category Description	Emissions from the transportation associated with employee during the reporting year (in vehicles not owned or operated by the reporting company).
Calculation Boundary	Emissions from all employee commute activities
Calculation Approach	Average-data method
Data Source	Primary data on employee commute distance, mode and frequency
Exclusions	None

Average-data method was used to calculate business travel emissions. The method involved determining the transportation mode and distances for all employee commuting during the reporting year and applying DEFRA emission factors to estimate emissions for this category.

$$Emissions\ for\ Employee\ Commute(kg\ CO_2e)$$
$$= \sum average\ one\ way\ distance\ (mi)\ x\ \frac{2\ trips}{day}$$
$$\times\ emission\ factor\ by\ vehicle\ type\ \left(\frac{kg\ CO_2e}{mi}\right) x\ \text{(number of days commuted per year)}$$

Waste Generated in Operations

Category 5: Waste Generated in Operations	
Category Description	Emissions from third-party disposal and treatment (in facilities not owned or controlled by the reporting company) of waste generated in the reporting company's operations in the reporting year.
Calculation Boundary	Waste disposal associated with Upwing facilities. It includes landfilled non-hazardous waste.
Calculation Approach	Spend-based method
Data Source	Primary data on amount spent on treating non-hazardous waste in a landfill.
Exclusions	None

A spend-based method was used to calculate waste generated from Upwing's operations. The spend-based method involved determining the amount of money spent on each type of waste generated and applying USEEIO spend-based emission factors to estimate GHG emissions for this category.

$$Emissions\ (kg\ CO_2e) = spend\ by\ \text{Stemilt}\ category\ (\$)\ x\ Emission\ factor\ for\ Equivalent\ USEEIO\ category\ (kg\ CO_2e/\$)$$

Downstream Transportation & Distribution

Category 9: Downstream Transportation and Distribution	
Category Description	Emissions from the transportation and distribution of final products by the reporting company in the reporting year between a company and its final customers.
Calculation Boundary	Outbound transportation of final sold products.
Calculation Approach	Spend-based approach for outbound transportation for products sold to end customer.
Data Source	Primary data on amount of money spent on downstream transportation of shipments and mode of transport
Exclusions	None

Emissions for this Scope 3 category are calculated using a spend-based approach for product distribution using primary data on expenses for downstream transportation.

$$Emissions\ for\ transportation\ \ (kg\ CO2e) = \sum \$\ spent\ on\ transportation * \frac{average\ kg\ CO2e}{transport\ expenses\ (\$) by\ mode\ of\ transport}$$

Average pollutant emissions ($\frac{average\ kg\ CO2e}{transport\ expenses\ (\$)}$) are taken from USEEIO emission factors for transport for truck transport.

4.6 Greenhouse Gas Emissions vs. Baseline Greenhouse Gas Assessment

For the 2021 assessment year, the GHG inventory total for Upwing was 606 MT CO_2e. As Upwing continues to grow its business and expand operations, on an absolute basis, this is an increase of 62 MT CO_2e from the 2019 baseline GHG inventory (554 MT CO_2e). This represents an 11% increase from the baseline emissions. This business growth is notable in Upwing's scope 1 and 2 emissions, as well as the scope 3 emissions for upstream and downstream transportation and employee commuting.

However, from an intensity basis (using number of employees), Upwing's 2021 emissions are 15.9 MT CO_2e per employee compared to 36.9 MT CO_2e per employee in 2019. This represents a 56.9% reduction in emissions per employee.

4.7 Summary of Greenhouse Gas Inventory Assessment

Sources of greenhouse gases are classified into Scopes 1, 2, and 3. The inventory for Scope 1 encompasses greenhouse gas emissions from stationary and mobile equipment used in the Upwing facility and refrigerants. Scope 2 emissions are associated with the generation of purchased electricity. Scope 3 emissions include indirect emissions associated with purchased and capital goods, business travel, upstream transportation, product distribution, employee commuting, and waste management.

The baseline greenhouse gas inventory was evaluated for time period September 2019 - August 2020 according to the organizational and operational boundaries specified by PAS 2060 and the GHG Protocol. The greenhouse gas emissions from Upwing's operations were calculated and converted to CO_2 equivalents using the Global Warming Potential (GWP100) metric, evaluated over a 100-year time horizon.

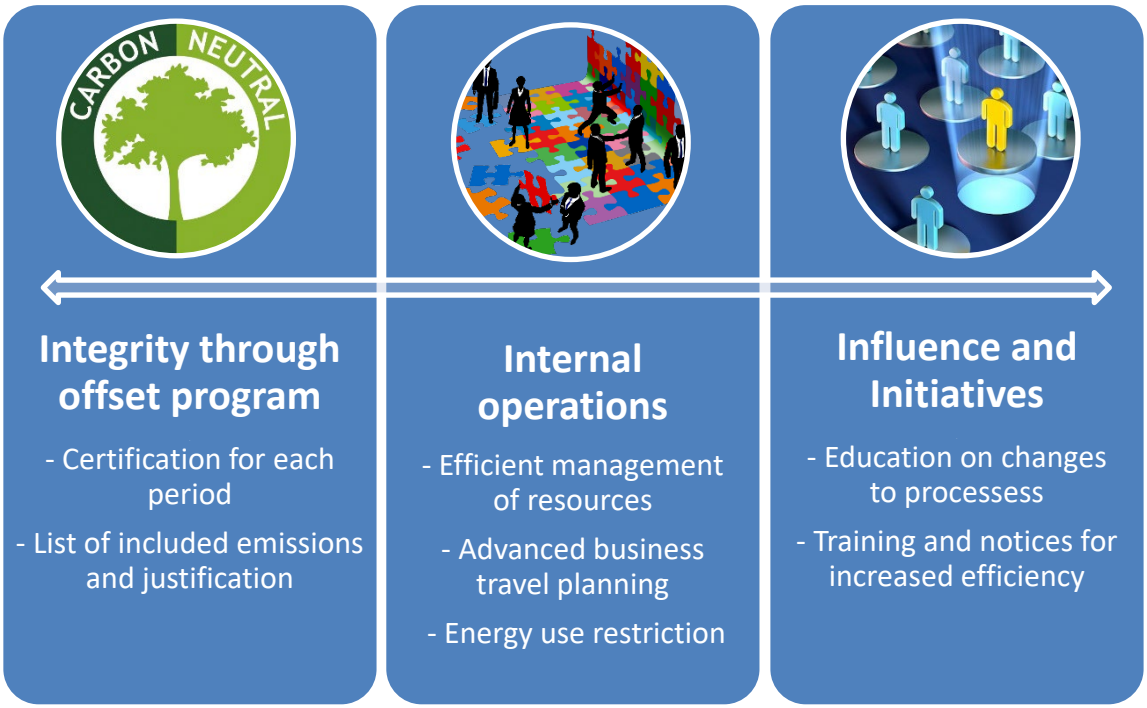
5 Carbon Management Plan

Upwing Energy is committed to supporting the oil and gas industry on its carbon emission reduction goals. Our aim is to transition our subsurface artificial lift business to become carbon neutral. In the process, our subsurface compressor systems will provide meaningful emission reductions that give upstream oil and gas companies an upper hand in their clean energy journey.

Upwing Energy is committed to achieving carbon neutrality from the period of September 1, 2021 – August 30, 2022, in accordance with PAS 2060 standards. Upwing Energy will offset the entirety of its 606 metric tonnes of CO2e for the period.

Upwing Energy's strategy for achieving carbon neutrality is focused on three main themes – 1) integrity through the offset program, 2) internal operations and 3) influence and initiatives.

Projects under each focus group are being put into effect. They will serve the purpose of, first and foremost, communicating the significance of emissions reducing activities and aim to drive other aspects of the business to adopt carbon reduction plans.



Emissions Reducing Activities

Employee Education Program
Upwing Energy has committed to a program that aims to assist its employees in a transition to heightened carbon consciousness. Upwing will dedicate time at All Hands meetings to educate employees on potential environmental impacts of their daily activities and provide, or challenge employees to provide, solutions that our team can implement to initiate positive change.

Correspondingly, employees will be involved in maintaining record of their CO2e emission generating activities for each commitment period. This will allow Upwing Energy to continually move towards complete carbon neutrality from any activity associated with the company.

EV Charging Initiative

Upwing Energy and its affiliate company, Calnetix Technologies, have invested in electric vehicle charging stations at their facility. In addition to this, Upwing Energy will provide resources that demonstrate emissions from inefficient vehicles. These two aspects work together to incentivize employees to consider changes to their commute and be increasingly aware of the environmental impacts of their actions.

Business Travel Planning
Upwing Energy has set a plan of action to limit emissions from necessary business travel. There are four key aspects to execute the proposed plan. First, market research will be conducted to determine events and facilities within a similar location. Second, during business travel, employees must make a decision to travel with either a sustainable airline or one that offsets emissions. Third, team members must travel together where applicable. They will be responsible for coordinating times and routes that allow them to travel together. Fourth and finally, employees must plan out their trips in advance to ensure that they avoid any unnecessary emissions and are optimally efficient.

Ongoing Emissions Reduction Plan

Local Shipping of Goods and Services
Currently, 32% of Upwing Energy's scope 3 emissions are a result of purchased goods and services. A decrease of 16%, however since the previous year. Upwing Energy plans to continue the trend by focusing its shipping on local vendors delivering with ground transportation. As Upwing Energy continues to increase its total portion of local shipments, the company will also see a significant decrease in the intensity of carbon emissions associated with shipping activities.

Limited Mobile and Stationary Machine Use for Testing
Continuously working towards peak effectiveness is crucial to Upwing Energy's operations. Upwing Energy has set an initiative to plan out both purpose and use of their machinery. Their due diligence will limit hours spent on, and therefore, fuel consumption associated with the use of machinery.

Recycling of Supplies at the End of Life and in the Office
A significant portion of Upwing Energy's operations allows for recycling of supplies.
At the end of life for manufactured products, Upwing Energy will repurpose, reuse or recycle used supplies when possible. A significant portion of Upwing's operations also entail office work. Upwing Energy plans to phase in and enforce recycling, so its employees will be able to adapt to the change long-term.

Carbon Offset Program

Offset Program for the Second Application Period
Credits amounting a total of 606 metric tonnes of CO2e have been ordered by Upwing Energy for the period covering September 1, 2021 – August 31, 2022. These credits offset GHG emissions associated with all scopes of business activities.

Retirements have been made from the following source categories (no exclusion of emissions were present in the source or subcategories):

Scope 1
- Mobile Sources, Stationary Sources and Refrigeration

Scope 2
- Total Purchased Energy

Scope 3
- Purchased Goods and Services, Capital Goods
- Fuel and Energy Related Activities, Waste Generation
- Business Travel and Employee Commute
- Upstream Transportation of Production Related Goods and Upstream Transportation for distribution of sold products

The purchase of offsets via these sources guarantees a particular set of projects serving to offset GHG emissions. Additionally, the offsets purchased represent genuine GHG emissions that have been verified in accordance with Greenhouse Gas Protocol standards and regulations. These credits are supported by documentation attached to the end of this report **and are publicly available on Upwing Energy's website**.

Furthermore, Upwing Energy complies with the internationally applicable requirements of PAS 2060 in their carbon neutrality demonstration and selects projects that provide communities in need with support.

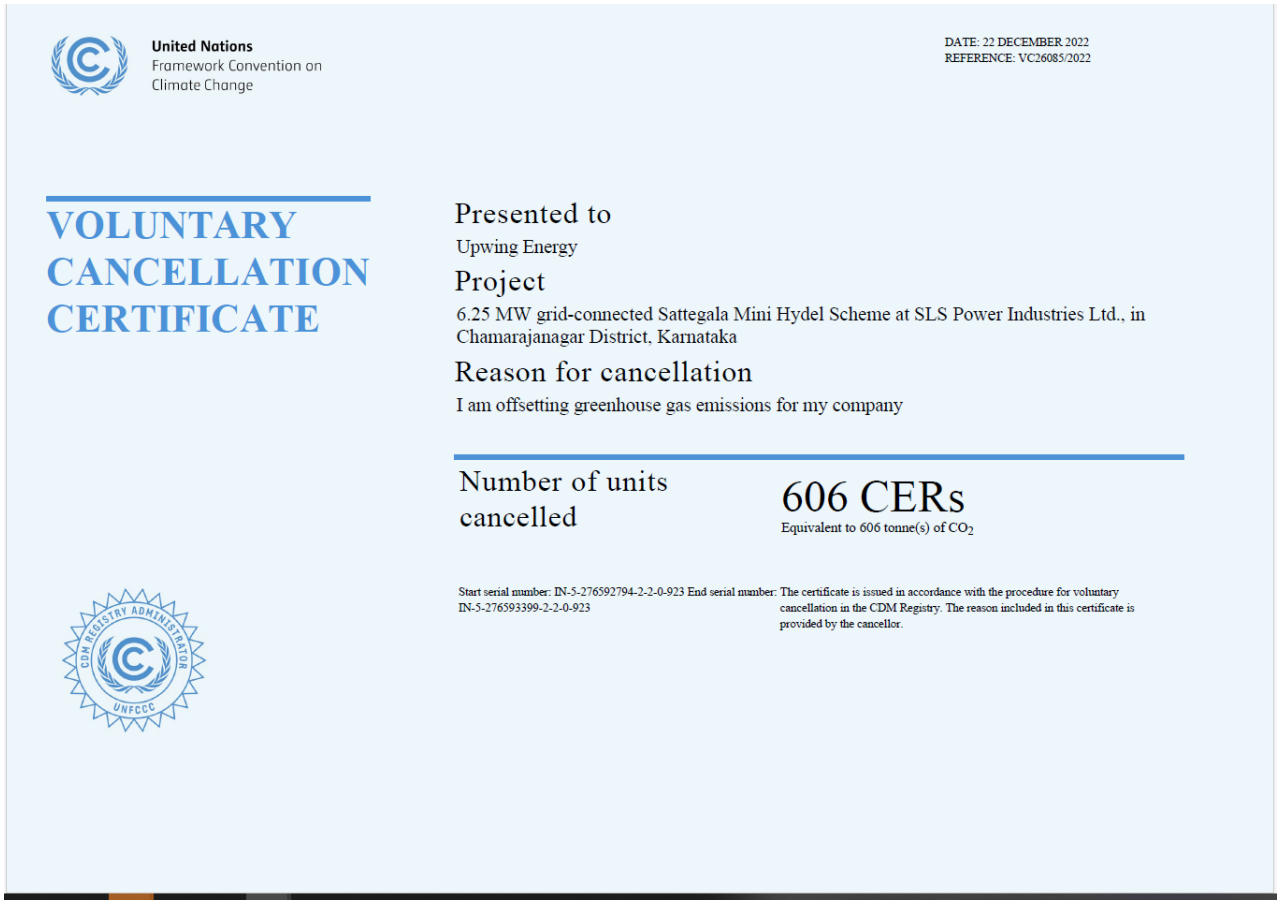
Upwing Energy has a rigorous emissions assessment and selection process for carbon credits. It begins with a carbon footprint consultation to ensure precise calculation of emissions. Calculation requires a detailed input from nine areas of business activities, accounting for scopes 1-3, with no present exclusions. The following step is project selection. Upwing Energy diligently researches the availability of projects in a range of offset types - including biodiversity, agriculture, waste management and water treatment. This ensures that projects will provide additional benefits to communities in need of support. Upwing Energy's team will then verify that sources follow PAS 2060 standards as well as regulations of the project site. At this point, contracts are negotiated, and offsets purchased, verified and received.

Offset Program for the Third Application Period

Once emissions calculations are complete, Upwing Energy will have access to the volume of credits needed. Credits for the third application period (September 1, 2021 – August 31, 2022) will be verified within the first quarter of the following year, at which point retirements will be completed. If the total carbon credits retired for the third application period exceeds the emissions of Upwing Energy's 606 Mt CO2e, excess carbon credits will be applied to the fourth period.

6 Carbon Offsets

Carbon Offsets amounting to a total of 606 metric tons CO_2e were purchased by Upwing Energy for offsetting Scope 1, 2 and 3 emissions for September 2021 - August 2022, covering its third application period. These credits were purchased from the UN FCCC CDM Registry[6] which guarantees that the offset purchased represent genuine, additional GHG emission reduction, that the project involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. These carbon credit have been retired. The certificate from the CDM registry is provided below to indicate the number of credits retired and details regarding the carbon offset project.



United Nations
Framework Convention on
Climate Change

DATE: 22 DECEMBER 2022
REFERENCE: VC26085/2022

VOLUNTARY CANCELLATION CERTIFICATE

Presented to
Upwing Energy

Project
6.25 MW grid-connected Sattegala Mini Hydel Scheme at SLS Power Industries Ltd., in Chamarajanagar District, Karnataka

Reason for cancellation
I am offsetting greenhouse gas emissions for my company

Number of units cancelled
606 CERs
Equivalent to 606 tonne(s) of CO_2

Start serial number: IN-5-276592794-2-2-0-923 End serial number: IN-5-276593399-2-2-0-923

The certificate is issued in accordance with the procedure for voluntary cancellation in the CDM Registry. The reason included in this certificate is provided by the cancellor.

CDM REGISTRY ADMINISTRATOR UNFCCC

[6] https://cdm.unfccc.int/about/index.html

The purchase of offsets via these schemes also guarantees that they have: been verified by an independent third party, were only issued after the emissions reductions had taken place, and were retired within 12 months from the date of the declaration of this carbon neutrality achievement. These credits are supported by publicly available project documentation at https://cdm.unfccc.int/Projects/index.html, and are stored and retired in the CDM registry, an independent and credible registry.

Appendix A QES Checklists

In accordance with PAS 2060: 2014 requirements, the QES checklist to support declaration of **commitment** to carbon neutrality is provided in the table below.

Table A1. *Checklist for QES supporting declaration of commitment to carbon neutrality (based on Table B.1 of the PAS 2060: 2014 standard).*

QES Checklist Requirements	Response
1) Identify the individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration including that of preparing, substantiating, communicating and maintaining the declaration.	Refer to Section 2
2) Identify the entity responsible for making the declaration.	Refer to Section 2
3) Identify the subject of the declaration.	Refer to Section 2
4) Explain the rationale for the selection of the subject.	Refer to Section 2
5) Define the boundaries of the subject.	Refer to Section 2
6) Identify all characteristics (purposes, objectives or functionality) inherent to that subject.	Refer to Section 2
7) Identify and take into consideration all activities material to the fulfilment, achievement or delivery of the purposes, objectives or functionality of the subject.	Refer to Sections 2 and 3
8) Select which of the 3 options within PAS 2060 you intend to follow.	Refer to section 2
9) Identify the date by which the entity plans to achieve the status of "carbon neutrality" of the subject and specify the period for which the entity intends to maintain that status.	Refer to section 2
10) Select an appropriate standard and methodology for defining the subject, the GHG emissions associated with that subject and the calculation of the carbon footprint for the defined subject.	Refer to section 2
11) Provide justification for the selection of the methodology chosen.	Refer to section 2
12) Confirm that the selected methodology was applied in accordance with its provisions and the principles set out in PAS 2060.	Refer to section 2
13) Describe the actual types of GHG emissions, classification of emissions (Scope 1, 2 or 3) and size of carbon footprint of the subject exclusive of any purchases of carbon offsets.	Table 1
a) All greenhouse gases shall be included and converted into tCO2e.	Refer to table 1
b) 100% Scope 1 (direct) emissions relevant to the subject shall be included when determining the carbon footprint.	Section 3
c) 100% Scope 2 (indirect) emissions relevant to the subject shall be included when determining the carbon footprint.	Refer to section 3
d) Where estimates of GHG emissions are used in the quantification of the subject carbon footprint (particularly when associated with scope 3 emissions) these shall be determined in a manner that precludes underestimation.	Refer to section 3
e) Scope 1, 2 or 3 emission source estimated to be more that 1% of the total carbon footprint shall be taken into consideration unless evidence can be provided to demonstrate that such quantification would not be technically feasible or cost effective.	Refer to section 3.
f) The quantified carbon footprint shall cover at least 95% of the emissions from the subject.	Refer to section 3 and 4
g) Where a single source contributes more than 50% of the total emissions, the 95% threshold applies to the remaining sources of emissions.	Refer to section 3 and 4
h) Any exclusion and the reason for that exclusion shall be documented.	Refer to section 3.3
14) Where the subject is an organization/company or part thereof, ensure that:	

QES Checklist Requirements	Response
a) Boundaries are a true and fair representation of the organization's GHG emissions (i.e., shall include all GHG emissions relating to core operations including subsidiaries owned and operated by the organization).	Refer to section 3.3
b) Either the equity share, or control approach has been used to define which GHG emissions are included. Under the equity share approach, the entity accounts for GHG emissions from the subject according to its share of equity in the subject. Under the control approach, the entity shall account for 100% of the GHG emissions over which it has financial and/or operational control.	Refer to section 3
15) Identify if the subject is part of an organization or a specific site or location and treat as a discrete operation with its own purpose, objectives and functionality.	Section 3
16) Where the subject is a product or service, include all Scope 3 emissions (as the lifecycle of the product/service needs to be taken into consideration).	Subject is not a product or service.
17) Describe the actual methods used to quantify GHG emissions (e.g. use of primary or secondary data), the measurement unit(s) applied, the period of application and the size of the resulting carbon footprint.	Refer to section 4
18) Provide details of, and explanation for, the exclusion of any Scope 3 emissions.	Refer to sections 3 and 4
19) Document all assumptions and calculations made in quantifying GHG emissions and in the selection or development of greenhouse gas emission factors.	Section 3
20) Document your assessments of uncertainty and variability associated with defining boundaries and quantifying GHG emissions including the positive tolerances adopted in association with emission estimates.	Section 3 and 4
21) Document carbon footprint management plan:	Refer to section 5
a) Make a statement of commitment to carbon neutrality for the defined subject.	Section 2 and 5
b) Set timescales for achieving carbon neutrality for the defined subject.	Section 5
c) Specify targets for GHG reduction for the defined subject appropriate to the timescale for achieving carbon neutrality including the baseline date, the first qualification date and the first application period.	Section 5
d) Document the planned means of achieving and maintaining GHG emissions reductions including assumptions made and any justification of the techniques and measures to be employed to reduce GHG emissions.	Section 5
e) Specify the offset strategy including an estimate of the quantity of GHG emissions to be offset, the nature of the offsets and the likely number and type of credits.	Section 5 and 6
22) Implement a process for undertaking periodic assessments of performance against the Plan and for implementing corrective action to ensure targets are achieved.	Section 1
23) Where the subject is a non-recurring event such as weddings or concert, identify ways of reducing GHG emissions to the maximum extent commensurate with enabling the event to meet its intended objectives before the event takes place and include post event review to determine whether or not the expected minimization in emissions has been achieved.	Not applicable
24) For any reductions in the GHG emissions from the defined subject delivered in the period immediately prior to the baseline date and not otherwise taken into account in any GHG emissions quantification (historic reductions), confirm: • the period from which these reductions are to be included; • that the required data is available and that calculations have been undertaken using the same methodology throughout; • that assessment of historic reduction has been made in accordance with this PAS, reporting the quantity of historic reductions claimed in parallel with the report of total reduction.	Not applicable
25) Record the number of times that the declaration of commitment has been renewed without declaration of achievement.	Not applicable

QES Checklist Requirements	Response
26) Specify the type of conformity assessment: a) independent third party certification; b) other party validation; c) self-validation.	Other party validation
27) Include statements of validation where declarations of commitment to carbon neutrality are validated by a third party certifier or second party organizations	Validated by SCS Global Services (other party/second party)
28) Date the QES and have it signed by the senior representative of the entity concerned (e.g. CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	Section 2
29) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g. via websites).	Final QES to be made publicly available via the Upwing Energy website
30) Update the QES to reflect changes and actions that could affect the validity of the declaration of commitment to carbon neutrality.	Not Applicable

In accordance with PAS 2060: 2014 requirements, the QES checklist to support declaration of **achievement** of carbon neutrality is provided in the table below.

Table A2. *Checklist for QES supporting declaration of achievement to carbon neutrality (based on Table B.1 of the PAS 2060: 2014 standard).*

QES Checklist Requirements	Response
1) Define standard and methodology used to determine its GHG emissions reduction.	PAS 2060: 2014 other party validation
2) Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	Section 2 and 4
3) Provide justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessment of uncertainty.	Section 2 and 4
4) Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	GHG reductions have been achieved as detailed in the Carbon Footprint Management Plan
5) Ensure that there has been no change to the definition of the subject.	Section 1
6) Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint.	Section 4
7) State the baseline/qualification date.	Section 2
8) Record the percentage economic growth rate for the given application period used as a threshold for recognizing reductions in intensity terms.	Not applicable
9) Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	Section 4
10) Select and document the standard and methodology used to achieve carbon offset.	Section 6
11) Confirm that	
a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere	Section 6
b) Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting.	Section 6

QES Checklist Requirements	Response
c) Carbon offsets are verified by an independent third party verifier.	Section 6
d) Credits from carbon offset projects are only issued after the emission reductions	Section 6
e) Credits from carbon offset projects are retired within 12 months from the date of the declaration of achievement	Section 6
f) Provision for event related option of 36 months to be added here	Not applicable
g) Credits from carbon offset projects are supported by publicly available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures	Section 6
h) Credits from carbon offset projects are stored and retired in an independent credible registry	Section 6
12) Document the quantity or GHG emissions credits and the type and nature of credits actually purchased including the number and type of credits used and the time period over which credits were generated.	
a) Which GHG emissions have been offset	Section 6
b) The actual amount of carbon offset	Section 6
c) The type of credits and projects involved	Section 6
d) The number and type of carbon credits used and the time period over which the credits have been generated	Section 6
e) For events, a rationale to support any retirement of credits in excess of 12 months including details of any legacy emission savings, taken into account	Not applicable
f) Information regarding the retirement/cancellation of carbon credits to prevent their use by others including a link to the registry or equivalent publicly available record, where the credit has been retired	Section 6
13) Specify the type of conformity assessment.	Other party validation
14) include statements of validation where declarations of achievement of carbon neutrality are validated by a third party certifier or second party organizations.	Section 1 Declaration of Carbon Neutrality
15) Date the QES and have it signed by the senior representative of the entity concerned.	Section 1
16) Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends (e.g. via websites).	Final QES to be made publicly available via the Upwing Energy website.

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