Basis of Preparation

September 21st, 2021

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SCB Group - Basis of Preparation 2020

CO2 Emissions Abatement Calculation

Introduction

PricewaterhouseCoopers AG (PwC) has been selected to provide limited assurance on SCB Group (SCB)'s CO2 emissions abatement calculation procedures. The methodology summarized below is intended to ensure that our procedures are carried out in a systematic manner, using data whose sources are documented, and all practices are recorded and consistent. This Basis of Preparation document sets out how the quantification procedures have been prepared and reported.

Scope

The performance data includes all brokerage transactions in the biodiesel, ethanol, and carbon markets, including riskless principal transactions of renewable energy certificates, during the calendar year 2020.

All SCB entity locations were considered in compiling the performance data. Locations exist in Puerto Rico, Singapore, Switzerland, the United Kingdom and in the United States. Where new SCB entities were formed during the relevant period, the data begins the first day a brokerage transaction in one of the above markets took place at that entity. For any SCB mergers, the data measures up to the date of merger for the non-surviving entity. Excluded SCB entities include those where no biodiesel, ethanol or carbon brokerage transactions took place during the relevant period.

Data Sources

With operations throughout the world, we felt it most appropriate to utilize two separate legislative bodies located in our largest geographical areas, the United States and Europe, as the framework of our CO2 emissions abatement calculation for our biodiesel and ethanol brokerage transactions.

All biodiesel and ethanol brokerage transactions outside of the U.S. and the U.S. territory of Puerto Rico, shall follow the criteria as published by the European Union's Renewable Energy Directive (RED). The RED documents a number of sustainability criteria that fuels must meet in order to be considered a biofuel, including the minimum greenhouse gas (GHG) savings rate from using a biofuel versus a traditional fuel source[1].

[1]European Commission, https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive/overview_en

Unlike Europe, the U.S., has no such policy as it relates to renewable energy. Each state however has its own regulations and guidelines. As California is known for having some of the most extensive guidelines, we have elected to follow the publications set forth by the Low Carbon Fuel Standards (LCFS) program, as governed by the California Air Resource Board (CARB) for U.S. biodiesel, ethanol and carbon fuel emissions transactions. The program is designed to reduce greenhouse gas emissions associated with the life cycle of transportation fuels. As part of its program, the LCFS determines the emissions of each baseline fuel and the corresponding alternative fuel sources, referred to as the carbon intensity (CI)[2].

For Renewable Identification Number (RIN) transactions, which are brokered only in our U.S. locations, we have elected to follow the publications set forth by the Renewable Fuel Standard (RFS) Program, as governed by the U.S. Environmental Protection Agency (EPA). By statute, the RFS program includes four categories of renewable fuel, each with a specific fuel pathway requirement and RIN D-Codes[3]. Each RIN category requires a specific reduction in lifecycle greenhouse gas emissions as compared to traditional fuel sources.

European carbon brokerage transactions will follow three different frameworks depending on the product brokered. Renewable transport fuel certificates and greenhouse gas credits transactions will follow the UK Statutory Instrument, The Renewable Transport Fuels & Greenhouse Gas Emissions Regulations 2018 No. 374 (UK Statutory Instrument). German Tickets and German Upstream Emissions Reduction transactions will follow the guidelines published in the German Legislation[4] and HBE Dutch Tickets and Dutch Upstream Emissions Reductions shall follow the guidelines as set forth by the Dutch Emissions Authority's Energy for Transport[5].

Similar to biodiesel and ethanol brokerage transactions, we have elected to utilize two separate frameworks for the riskless principal transactions. All European riskless principal transactions will take into consideration the European Residual Mixes as calculated by Grexel, on behalf of the Association of Issuing Bodies (AIB)[6]. The residual mix is defined on a country level (32 European countries are considered) and as such, we have elected to utilize the information provided for Great Britain as a large majority of our riskless principal brokers are based in London. Riskless principal transactions outside of Europe will employ the methodology set out by The Emissions & Generation Resource Integrated Database (eGrid). eGrid comprises data from both the Energy Information Administration (EIA) and the EPA to produce a multitude of variables such as emissions per megawatt hour of electricity generation (lb/MWH), which depicts the environmental impact of electricity generation[7].

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[2]California Air Resources Board, https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about

[3]United States Environmental Protection Agency, https://www.epa.gov/renewable-fuel-standard-program/what-fuel-pathway#RIN

[4]German Legislation, https://www.gesetze-im-internet.de/bimschv_38_2017/BJNR389200017.html

[5]Dutch Emissions Authority, https://www.emissionsauthority.nl/topics/obligations---energy-for-transport/obligation-to-reduce-greenhouse-gas-emissions-2020/complying-with-obligation-to-reduce-greenhouse-gas-emissions-2020

[6]Grexel, https://grexel.com/european-residual-mix-calculation/

[7]Energywatch, https://energywatch-inc.com/egrid-explained-what-it-is-how-its-used-and-whats-new-in-the-2020-released-data/

Data Preparation

A. Extraction of product volumes

All brokerage transactions, which include volumes, are exported from SCB's deal management system. The information contained in the deal management system has been subject to the 2020 annual audits of each respective entity. Brokerage transactions are classified into the appropriate product group, such as biodiesel, ethanol, carbon, etc. Volumes have been converted to a single unit of measurement, which for purposes of this analysis is metric tons. Riskless principal volumes are kept in megawatt hours (MWh).

As there are two sides in a transaction, a buyer and a seller, only the total quantity transacted, and the corresponding spread quantity, if applicable, has been included in the calculation.

B. Determining the CO2 emitted from non-renewable fuel sources on a per metric ton basis

SCB's mission is to promote the adoption of a low carbon future. As such our aim is to broker products that will assist in achieving this goal and therefore displace the use of non-renewable fuel sources. In determining the GHG emissions from each non-renewable source, SCB utilized the common CO2 conversion factors as published and agreed upon by the EPA, along with the Department of Transportation[8] below:

.010180 metric tons of CO2 emitted per gallon of diesel consumed

.008887 metric tons of CO2 emitted per gallon of gasoline consumed

As the CO2 conversion factors above are calculated on a "***per gallon***" basis, the factors were further converted into a "***metric tons***" basis using the liquid fuel measurements and conversion interpreted by Iowa State University:

Diesel:

Where 1 gallon of diesel = .003192[9] metric tons, this equates to

3.1892 metric tons of CO2 emitted per ton consumed

Gasoline:

Where 1 gallon of gasoline = .002791[10] metric tons, this equates to

3.1842 metric tons of CO2 per ton consumed

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[8]United States Environmental Protection Agency, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references

[9]Iowa State University Extension & Outreach, https://www.extension.iastate.edu/agdm/wholefarm/html/c6-87.html

[10]Iowa State University Extension & Outreach, https://www.extension.iastate.edu/agdm/wholefarm/html/c6-87.html

Note that the conversion factors for diesel and gasoline were only used for the brokerage transactions involving biodiesel and ethanol, including RINS. All carbon brokerage and riskless principal transactions utilized a factor of 1, the credits themselves represent a 1 MT CO2 reduction in traditional fuel emissions.

C. Determining the CO2 reduction rate of using renewable fuel sources on a per metric ton basis

Using the referenced legislative sources discussed under the Data Sources section of this document, SCB obtained the appropriate GHG reduction rate or CI for each renewable fuel source brokered during calendar year 2020.

The LCFS's CI will vary by product type depending on feedstock and how the fuel is produced or manufactured.

Note that in regard to the CI published by the LCFS, only the direct emissions factor has been utilized in the emissions abatement calculation for U.S. products. The purpose of our calculation is to quantify the emissions that were abated (by substituting 100% gasoline or diesel with renewable fuel sources) as a result of assisting our clients' close transactions. Indirect emissions factors were excluded as it refers to the carbon emitted in getting products into the state of California, which occurs after the deal is closed or potentially not at all if the product is going elsewhere or remains stationary.

Further note that as the U.S. brokers Midwest ethanol blends, we have elected to utilize the direct CI of Midwest ethanol corn blends only, excluding all coal and California blended CI factors.

Lastly, the CO2 reduction rate was only referenced for the brokerage transactions involving biodiesel and ethanol, including RINS. All carbon brokerage and riskless principal transactions utilized a factor of 1, the credits themselves represent a 1 MT CO2 reduction in traditional fuel emissions.

D. Determining the CO2 abated, as adjusted for the CO2 reduction rate, on a per metric ton basis (B*C)

The CO2 displaced per MT from using renewable fuel sources, such as the ones SCB brokers, is determined by multiplying the CO2 emitted per metric ton of non-renewable fuel by the GHG savings rate or CI of using a renewable fuel source.

For riskless principal transactions, the CO2 displaced per Mwh from utilizing clean electricity sources (wind, hydro, solar, etc), is determined by utilizing the average CO2 output of non-renewable energy sources within Great Britain and the US, as published by the AIB and eGRID, respectively.

E. Total metric tons of CO2 abated as a result of brokering a renewable fuel source (A*D)

Lastly, the total metric tons of CO2 emissions abated is calculated. The abated emissions are those that would have occurred, had SCB not assisted in transacting a renewable fuel source deal. This figure is determined by multiplying the total volume of product brokered during the period by the CO2 abated per metric ton or Mwh, as adjusted for the GHG reduction.

ClimatePositive - Basis of Preparation

CO2 Emissions Abatement Calculation for Passenger Cars

Introduction

PricewaterhouseCoopers AG (PwC) has been engaged to provide limited assurance on ClimatePositive's CO2 emissions abatement calculation for passenger cars procedures. ClimatePositive is a brand created by SCB Brokers SA (SCB), headquartered at Avenue Perdtemps 23, 1260 Nyon, Switzerland. The methodology summarized below is intended to ensure that our procedures are carried out in a systematic manner, using data whose sources are documented, and all practices are recorded and consistent. This Basis of Preparation document sets out how the quantification procedures have been prepared and reported.

Data Sources

With operations throughout the world, ClimatePositive felt it was most appropriate to utilize data from official government agencies located in our largest geographical areas, the United States and Europe, as the framework of our CO2 emissions abatement calculation for passenger cars.

All transactions outside Europe shall follow the average emissions of passenger car as published by United States Environmental Protection Agency (EPA) and U.S. Department of Transportation (DOT). The EPA documents the typical emissions from passenger vehicle, which can vary based on a vehicle's fuel, fuel economy, and the number of miles driven per year[11].

Data Preparation

A. Extraction of the number of cars to be abated

The scope includes all passenger cars that ClimatePositive has helped to abate their carbon emissions during the calendar years from 2021 onwards.

B. The number of calendar years to be abated

The scope includes all the calendar years that the users have opted to abate their carbon emissions.

If the user has opted to abate only after the commencement of the calendar year, the abatement will be pro-rated respectively.

Example of pro-rated abatement

If the user has selected to abate between 1 July 2021 to 31 December 2021, the calendar year is calculated as 0.5.

[11]United States Environmental Protection Agency, Greenhouse Gas Emissions from a Typical Passenger Vehicle, https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle#:~:text=typical%20passenger%20vehicle%3F-,A%20typical%20passenger%20vehicle%20emits%20about%204.6%20metric%20tons%20of,8%2C887%20grams%20of%20CO2.

If the user has opted to abate for multiple calendar years, the abatement will be multiplied respectively.

Example of multiple years of abatement

If the user has selected to abate 4 calendar years between 1 January 2021 to 31 December 2024, the calendar years is calculated as 4.

C. Determining the CO2 emitted from average passenger car

In determining the GHG emissions, ClimatePositive analyzed approximately 800 different car models and their emissions as published by Which? UK Consumer Champion NGO2[12]. Their emissions vary based on their engine type as below:

- Electric cars produce lower emissions of up to 160 gCO2 per kilometer driven.
- Regular cars with fuel or hybrid engines produce higher emissions of up to 372 gCO2 per kilometer driven.

D. Determining the average annual mileage

In determining the average annual mileage, ClimatePositive utilized the average miles travelled by vehicle type in U.S. (United States) as published by DOT[13], along with the average miles travelled by passenger car in E.U. (European Union) as published by Ecological Transition Agency (ADEME) below[14]:

- Average passenger car mileage in U.S. of 11,576 miles.
- Average passenger car mileage in E.U. of 11,879 km.
- All average passenger car mileages outside of U.S. and E.U. shall follow the average passenger car mileage as published by DOT. These numbers are conservative, which help ensure full abatement of these passenger cars.

E. Margin of the tolerance

In determining the margin of tolerance where the calculated abatement standard may be exceeded to account for deviations from the actual sample, ClimatePositive utilized the margin of an additional 25% for each calculated CO2 emissions.

- For electric cars, an additional 25% tolerance margin amount to an abatement standard of 200 gCO2 per kilometer driven.
- For regular cars, an additional 25% tolerance margin amount to an abatement standard of 465 gCO2 per kilometre driven.

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[12]Which? UK Consumer Champion NGO, Car CO2 Emissions, https://www.which.co.uk/reviews/new-and-used-cars/article/car-emissions/car-co2-emissions-aRVNW9t0zLu6

[13]U.S. Department of Transportation, Highway Statistics Series, https://www.fhwa.dot.gov/policyinformation/statistics.cfm

[14]Odyssee-Mure project is co-ordinated by Ecological Transition Agency, Change in Distance Travelled by Cars, https://www.odyssee-mure.eu/publications/efficiency-by-sector/transport/distance-travelled-by-car.html

F. Determining the CO2 conversion factors for different measurement units

As average mileage above are calculated on a "per mile" basis, the factors were further converted into a "kilometer" basis using the conversion table published by University of Wyoming as below[15]:

- 1 mile = 1.61 kilometers

G. Total offsets needed to abate the CO2 emitted from average passenger car (A x B x C x D x E or A x B x C x D x E x F)

Lastly, the total metric tons of CO2 emissions needed to be abated is calculated. The abated emissions of those passenger cars that would have occurred had ClimatePositive not assisted in offsetting their emissions. This figure is determined by multiplying the total number of passenger cars abated during the period by the CO2 abated per passenger car, and by annual mileage, as adjusted for margin of tolerance as well as different measurement units.

Example of abatement of an average electric car in E.U. in 1 calendar year

C. Electric cars produce emissions of up to 160 gCO2 per kilometer driven.
D. Average passenger car mileage in E.U. of 11,879 km.
E. Additional 25% tolerance margin is applied.
F. N/A
G. (C) 160 x (D) 11,879 x (E) 1 + 25% = 2.38 metric tons of CO2 emissions needed to be abated per car.

Example of abatement of an average regular car in E.U. in 1 calendar year

C. Regular cars produce emissions of up to 372 gCO2 per kilometer driven.
D. Average passenger car mileage in E.U. of 11,879 km.
E. Additional 25% tolerance margin is applied.
F. N/A
G. (C) 372 x (D) 11,879 x (E) 1 + 25% = 5.52 metric tons of CO2 emissions needed to be abated per car.

Example of abatement of an average electric car in U.S. and the Rest of the World in 1 calendar year

C. Electric cars produce emissions of up to 160 gCO2 per kilometer driven.
D. Average passenger car mileage in U.S. of 11,576 miles.
E. Additional 25% tolerance margin is applied.
F. 1 mile = 1.61 kilometers.
G. (C) 160 x (D) 11,576 x (E) 1 + 25% x (F) 1.61 = 3.73 metric tons of CO2 emissions needed to be abated per car.

[15]University of Wyoming, Step Conversions, https://www.uwyo.edu/wintherockies_edur/win%20steps/coordinator%20info/step%20conversions.pdf

Example of abatement of an average regular car in U.S. and the Rest of the World in 1 calendar year

C. Regular cars produce emissions of up to 372 gCO2 per kilometer driven.
D. Average passenger car mileage in U.S. of 11,576 miles.
E. Additional 25% tolerance margin is applied.
F. 1 mile = 1.61 kilometers.
G. (C) 372 x (D) 11,576 x (E) 1 + 25% x (F) 1.61 = 8.67 metric tons of CO2 emissions needed to be abated per car.

Carbon Offsets Schemes (Currently not part of PwC's limited assurance scope as these are future assurances)

The total offsets needed to abate these emissions are then purchased from various carbon offset schemes that allow individual and companies to invest in environmental projects around the world to balance out their carbon footprints. These projects reduce carbon emissions, and every metric tons of carbon emissions reduced from such projects translates into the creation of one carbon offset. Examples of these environmental projects include rolling out clean energy technologies, planting of trees, capturing methane gas at landfill sites and distributing efficient cooking stoves.

At ClimatePositive, we only fund registered verified projects that meet United Nations Sustainable Development Goals[16]. ClimatePositive has chosen these schemes with the most stringent requirements that achieve United Nation Sustainable Development Goals.

These goals are instrumental in attaining the 2030 Agenda for Sustainable Development[17] that were adopted by all United Nations Member States in 2015.

Also, we only fund registered verified projects that meet the requirements of additionality, permanence, and an ensured avoidance of double counting.

Additionality: Carbon offsets must generate units that represent emissions reductions, avoidance, or removals that are on top of any reduction or removals required by law, regulation, or legally binding mandate.

Permanence: Carbon offset must represent emissions reductions, avoidance, or carbon sequestration that are permanent.

Avoidance of double counting: Measures must be in place to avoid double issuance, double use, and double claiming.

[16]United Nations, The 17 Goals, https://sdgs.un.org/goals
[17]United Nations, Transforming Our World: The 2030 Agenda for Sustainable Development, https://sustainabledevelopment.un.org/post2015/transformingourworld

Below is a table outlining the basic information of each program that meets all these requirements:

Program	Registry	Scope of Eligibility
American Carbon Registry[18]	ACR	ACR Emission Reduction Tons excluding California Registry Offset Credits & California Early Action Offset Credits
China GHG Voluntary Emission Reduction Program[19]	GHGVERP	China Certified Emissions Reductions excluding Afforestation and Reforestation, CCUS, N20 from plants, Ag Ops, Fertilizers, Semiconductors, HFC refrigerants, SF6 insulating gas, HCFC22
Clean Development Mechanism[20]	CDM	Certified Emissions Reductions excluding Afforestation and Reforestation
Climate Action Reserve [21]	CAR	Climate Reserve Tons excluding activities not reporting sustainable development contributions or co-benefits, Forecast Mitigation Units, California Registry Offset Credits & California Early Action Offset Credits
The Gold Standard[22]	GSF	Verified Emission Reductions excluding Planned Emission Reductions, micro scale activities without validation and verification
Verified Carbon Standard[23]	Verra	Verified Carbon Units excluding those issued from Scenario 1, 2, or 3 of REDD+, activities without reported sustainable development contribution or co-benefits, California Registry Offset Credits & California Early Action Offset Credits

When these carbon offsets are purchased, they are permanently retired by ClimatePositive. Retiring a carbon offset means that it is taken off the market forever and can never to be reused again. For transparency, each carbon offset has its own assigned serial number, and can be tracked on publicly accessible emission registries[24][25].

At ClimatePositive, we commit to creating lasting benefits to the climate.

[18]American Carbon Registry, How It Works, https://americancarbonregistry.org/how-it-works/what-we-do
[19]International Civil Aviation Organization, China GHG Voluntary Emission Reduction Program, https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/CCER_Programme_Application.pdf
[20]Clean Development Mechanism, What is the CDM, https://cdm.unfccc.int/about/index.html
[21]Climate Action Reserve, Program, https://www.climateactionreserve.org/how/program/
[22]Gold Standard Foundation, Certify a Project, https://www.goldstandard.org/take-action/certify-project
[23]Verra Organization, The VCS Program, https://verra.org/project/vcs-program/
[24]Gold Standard Registry,Issuance and Retirements of Carbon Offsets, https://registry.goldstandard.org/projects?q=&page=1
[25]Verified Carbon Standard Registry, Issuance and Retirements of Carbon Offsets, https://registry.verra.org/app/search/VCS