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2021 ANNUAL REPORT

Taking collective action to decarbonize the global wine industry

INTERNATIONAL WINERIES FOR CLIMATE ACTION

INTERNATIONAL WINERIES FOR CLIMATE ACTION

International Wineries for Climate Action (IWCA), a registered 501(c)6 organization, is a collaborative working group of environmentally committed wineries focused on a science-based approach to reducing carbon emissions across the wine industry.

Annual Report

OCTOBER 2021

Cover image courtesy of Yealands Estate Wines (New Zealand)


VSPT Wine Group (Chile)

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FOREWORD

BY THE IWCA BOARD OF DIRECTORS

Julien Gervreau
Vice President of Sustainability, Jackson Family Wines

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Second Generation and Senior Vice President of Corporate Social Responsibility, Jackson Family Wines

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Fourth Generation and President, Familia Torres

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General Manager – Sustainability & Strategic Projects, Yealands Estate Wines

Three years ago, two visionary, committed winemakers—Miguel A. Torres and Katie Jackson—met with an idea to tackle an issue close to their hearts and foundational to their businesses: how to decarbonize the wine industry. They connected thanks to Miguel A. Torres' niece Cristina Torres, who worked as a brand manager at Jackson Family Wines and thought the two like-minded families should meet. Their wineries, Familia Torres and Jackson Family Wines, had long felt a responsibility to reduce their greenhouse gas (GHG) emissions and mitigate other environmental impacts—whether from how grapes are grown, how wine is bottled, how estate energy is sourced, or many other pathways. For these wineries, working towards a climate-positive wine sector isn't just the right thing to do; it's also critical to preserving the future of their multigenerational businesses in the face of accelerating, catastrophic climate impacts.

Today, thanks to the leadership and unwavering commitment of those two founding members, International Wineries for Climate Action (IWCA) has grown into an international collective of **10 member wineries** and welcomed an additional **12 applicant members** this year alone—a number that is increasing every month. These wineries have invested heavily in measuring and reducing their emissions (some of them using IWCA's new U.S.-specific **GHG emissions calculator**); and they have been sharing their **knowledge and best practices** within and outside IWCA to help build a global movement. IWCA has also grown stronger as an organization: we are now registered as a 501(c)6 nonprofit, and our **new secretariat**, Meridian Institute, came on board this July.

We were also very proud to join the **Race to Zero** campaign earlier this year. This United Nations-backed, global campaign rallies leadership and support from businesses, cities, regions, and investors for a healthy, resilient, zero-carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth. IWCA was the first Race to Zero member to represent the wine and agriculture industry. By joining this global multistakeholder movement, we are renewing our commitment to our founding mission of decarbonizing the wine sector; committing to public reporting of our members' progress toward achieving net zero status by 2050 and intermediate targets by 2030; and continuing to drive awareness and action around climate and wine.

In the following pages of our inaugural annual report, we share highlights of IWCA's recent work, introduce our dedicated member wineries, and report on progress toward our Race to Zero goal of every member winery achieving net zero emissions by 2050 at the latest.

Our vision is of a climate-positive wine sector, which inherently relies on widespread participation and diverse partnerships. We invite you to join us in achieving this vision, as a member winery or as a Friend of IWCA. We deeply appreciate your support, and we hope you will be in touch.

OUR STORY


Alma Carraovejas (Spain)

IWCA was founded in 2019 by Familia Torres (Penedes, Spain) and Jackson Family Wines (California, USA) to galvanize the global wine community to create climate change mitigation strategies and decarbonize the industry.

Our core pillars focus on:

1. Raising awareness in the viticulture community of the urgent need to reduce GHG emissions in order to mitigate the effects of climate change;
2. Sharing strategies and best practices to reduce emissions in the wine sector and mobilizing wineries worldwide to adopt emissions reductions strategies; and,
3. Developing rigorous methodologies to measure GHG emissions footprints.

Our member wineries commit to the same goal when joining IWCA: to become net zero by 2050 across Scopes 1, 2, and 3, ensuring constant reductions to meet intermediate targets by 2030 (in alignment with the United Nations' **Race to Zero** campaign) without relying on the purchase of external offsets.

IWCA is also a founding member of the **Sustainable Wine Roundtable**, a global, independent, multistakeholder initiative aimed at developing a global wine sustainability standard.

Miguel A. Torres, fourth generation and President at Familia Torres, and Katie Jackson, second generation and Senior Vice President of Corporate Social Responsibility at Jackson Family Wines, at the launch signing of IWCA in February 2019 in Barcelona, Spain.

IWCA received the *Wine Enthusiast* Wine Star Award in the Social Visionary category in 2019.

20TH ANNIVERSARY WINE ENTHUSIAST WINE STAR AWARDS

IWCA is open to any wine company that views climate change as a serious threat and is committed to reducing their own emissions.

In the two and a half years since IWCA was launched, we have grown into an international working group of 10 member wineries and 12 applicant members, and we actively recruit and welcome new members.

Many of our members have been leaders in the sustainable wine community for years. We also welcome wineries that may be early in their sustainability journey but are nonetheless committed to climate action, environmental stewardship, and responsible business practices. Our tiered membership system allows these wineries to join the effort, learn from other members, and receive guidance on how to conduct GHG inventories and adopt emissions reductions strategies.

At the same time, our rigorous requirements and membership milestones ensure that applicants and members are held accountable to their commitments. They must demonstrate tangible progress towards climate neutrality by 2050 in order to retain their membership in IWCA and remain a part of the Race to Zero campaign.

MEMBERSHIP STRUCTURE

APPLICANT MEMBERS

Any winery interested in becoming an IWCA member but that has not yet fulfilled the GHG inventory requirement can join IWCA as an applicant. The winery must demonstrate positive intent by taking steps to calculate and verify their emissions. Applicants have one year to meet IWCA membership requirements and become a Silver- or Gold-level member.

SILVER MEMBERS

Must fulfill requirements 1 and 2 at a minimum

REQ. 1 Commit to becoming net zero by 2050 across Scopes 1-3, ensuring constant reductions to meet intermediate targets by 2030, in alignment with the United Nations' Race to Zero campaign.

REQ. 2 Complete a minimum baseline third-party-verified GHG inventory for a standardized set of emissions categories across Scopes 1-3 (using the World Resources Institute's GHG Protocol and ISO-14064 process), including 90% of the organization's volume within the region where its main winery is located.

GOLD MEMBERS

Must fulfill requirements 1, 2, 3, and 4

REQ. 3 Have winemaking operations be at least 20% powered by onsite renewable energy, as certified by independent audit.

REQ. 4 Demonstrate a constant reduction of CO_2 emissions from a baseline emissions inventory year, as proof of proactive ongoing commitment. This percentage is dependent on the baseline year and is proportional towards the winery's net zero target for 2050.

CLIMATE CHANGE & THE WINE SECTOR

Wine grapes are an extremely sensitive crop, making them one of the agricultural crops most vulnerable to climate change. Global temperature changes are fundamentally shifting where, when, and what kind of wine can be grown, putting the future of multigenerational wineries at risk. Unpredictable weather patterns are affecting crop abundance and grape chemistry and quality, and increasingly frequent extreme events from droughts to flooding to wildfires place entire harvests—and businesses—in grave danger. These threats have already materialized and, based on projections by experts, will only grow in the decades to come. Strong climate action by the wine community is imperative to mitigate and adapt to these impacts.

Of course, the wine sector is not just affected by climate change—it also plays a contributing role. At IWCA, we consider the climate impacts of wine through its full life cycle, including all direct and indirect emissions. This means including Scope 3 emissions in our accounting. Scope 3 emissions represent all the indirect emissions derived upstream or downstream from a company's activity; in other words, Scope 3 activities are not under a company's direct control. As such, companies often leave out Scope 3 sources from emissions calculations.

This is a position IWCA and our members do not share. **We cannot ignore Scope 3 emissions if we seek to fully decarbonize the wine sector:** Data from our members' GHG inventories show that Scope 3 activities account for a substantial portion of the emissions in the wine life cycle. Wineries can encourage and demand Scope 3 emissions reductions through avenues including partnerships and distribution pathways, manufacturing requirements, and supply chain sourcing choices to help decarbonize *all* corners of the sector—not just wineries themselves but also the other businesses and activities upon which they depend.

"It's easy to say, 'Oh we can just shift, and we can move to new places.' And yes, there are places that might stand to benefit from new climates. But there's a really important cultural aspect to wine and to other crops where it takes generations to figure out how to really grow wine well on your land. […] That's a big part of what makes wine so special and makes wine from a certain place taste the way that it does: how it was grown, and by whom, and in what way it was grown. That's knowledge that we are in danger of losing from climate change."

Dr. Kimberly Nicholas, Senior Lecturer, Lund University Centre for Sustainability Studies

Hear her concise summary of how climate change is affecting the wine industry in this 3-minute interview.

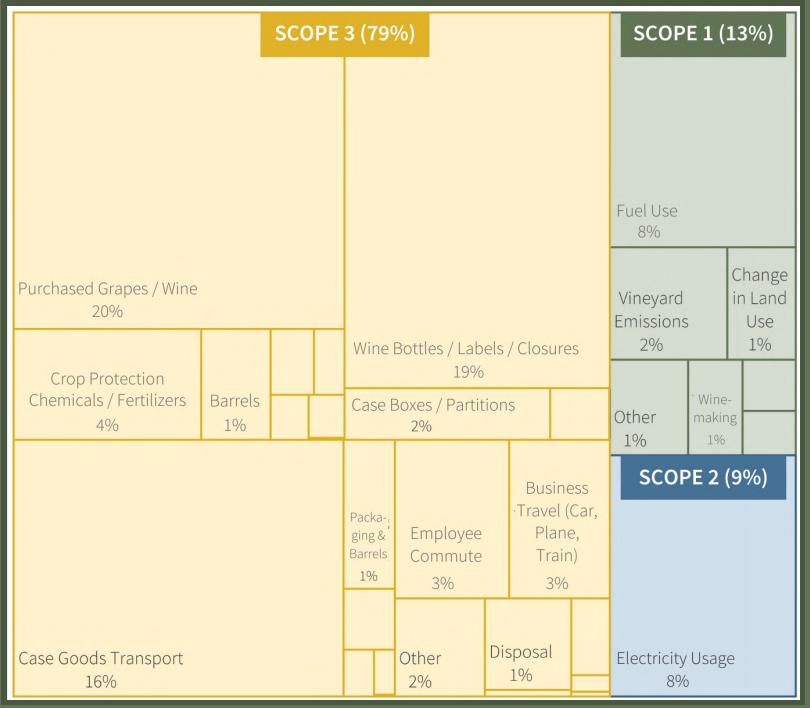
"When we look at the overall framework of growing grapes and making wine, we know that it takes quite a bit to be able to produce a given crop for high quality. […] Beyond structure and suitability, we also have to have a framework behind which we can understand how climate variability influences quality and productivity. Today, more than ever, we need to understand how a changing climate influences all of this."

Dr. Gregory Jones, Wine Climatologist, CEO at Abacela Winery, and Former Director of the Evenstad Center for Wine Education at Linfield University

Learn more in his TEDx talk, "Climate, Grapes, and Wine."

GHG Emissions "Hotspots"

Averages calculated from our members' 2018 GHG emissions data. Unlabeled boxes represent GHG emissions that make up less than 1% of total average emissions.



IWCA NEWS HIGHLIGHTS

Cullen Wines (Western Australia)

Greenhouse Gas Emissions Calculator

One of IWCA's foundational priorities is to develop a standardized methodology for wineries to account for annual GHG emissions across Scopes 1, 2, and 3, from the vineyard to the final disposal of waste once the product is consumed. With this detailed inventory, wineries can identify their emissions hotspots and implement targeted strategies, then track their progress in achieving emissions reductions over time.

At present, to become an IWCA member, we require wineries to conduct and submit carbon footprint inventories—covering Scopes 1, 2, and 3—following the ISO-14064 standard and verified by an external auditing firm that has been ISO-14064 accredited (see **Annex A** for detailed guidance on the inventory). This sets a globally recognized standard for verifying emissions and ensures equal treatment of all applicants and members. That said, we recognize the complexity and cost of calculating and auditing GHG emissions, particularly for small wineries or wineries new to GHG emissions measurement.

To reduce these barriers and encourage widespread, high-standard, consistent GHG measurements, we have worked on developing our own GHG calculator. We are thrilled to have completed the **inaugural version** which was developed for our US-based member and applicant wineries using US-based emissions factors. The calculator, which we developed with the technical expertise of **Sustridge Sustainability Consulting**, is aligned with World Resources Institute GHG Protocols and ISO-14064 standards.

Our US-based members and applicants are already piloting this streamlined calculator, and in the near future we plan to collaborate with members in other parts of the world to implement regional updates to the tool and make it more widely accessible.

2020 Special Guidance

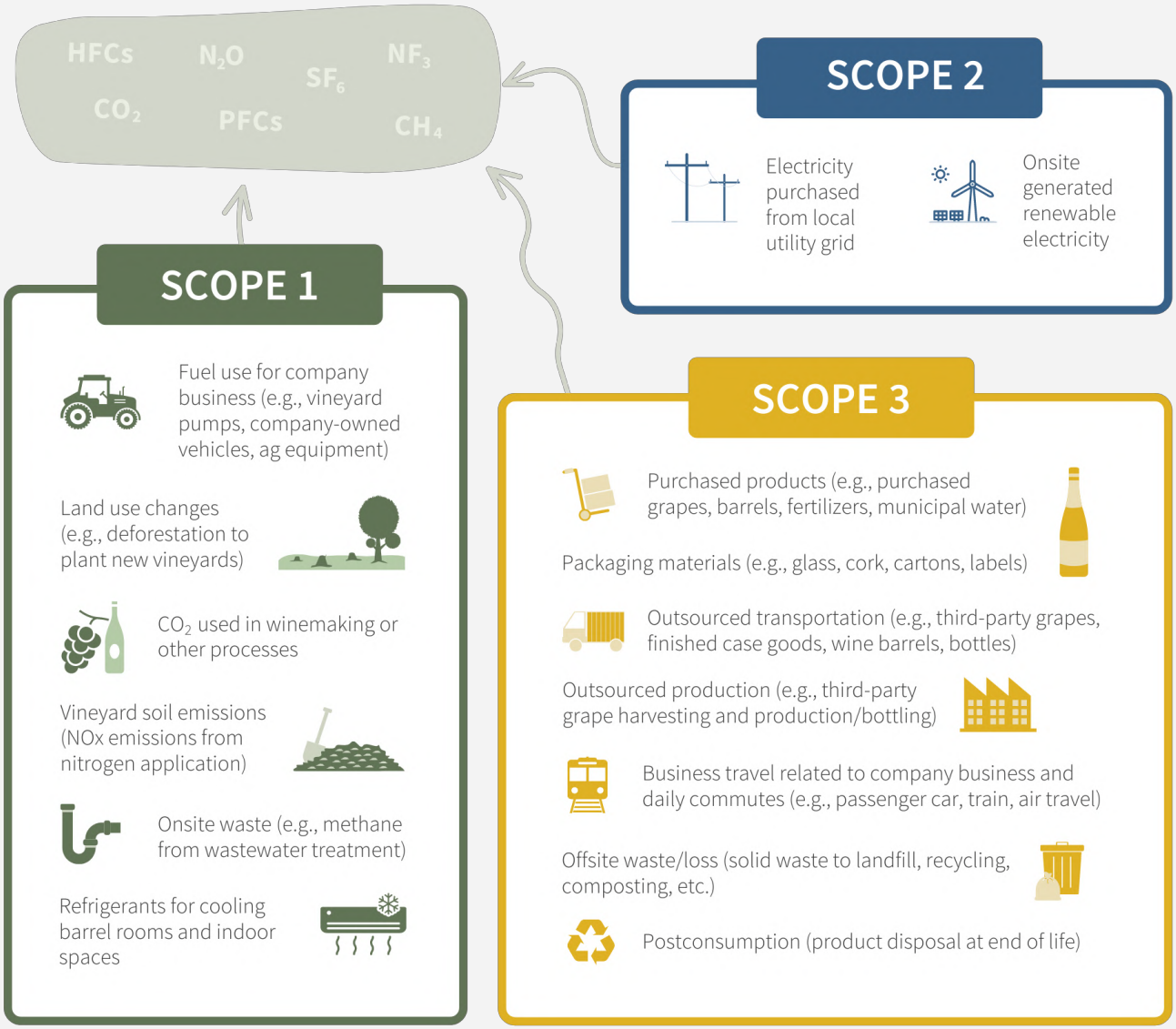
Given the impacts of the global COVID-19 pandemic, IWCA developed special guidance for members and applicants on how to measure and report on 2020 GHG emissions. Most organizations across the industry are anticipating significant absolute emissions reductions due to the limitations the pandemic placed on activities such as transportation and business travel, as well as the sale of wine to on-premise accounts. As such, it could be difficult for new IWCA applicants to use 2020 as a baseline year for target setting because their inaugural emissions calculations may be artificially low. The 2020 IWCA GHG Inventory Guidance is detailed in its entirety in **Annex B**.

Overview of GHG Emissions across the Wine Value Chain

The emissions of a company are separated into 3 scopes:

- **SCOPE 1** covers direct emissions from activities under a company's control.
- **SCOPE 2** emissions are indirect emissions related to a company's purchase of electricity, steam, heat, or cooling.
- **SCOPE 3** emissions are related to all the indirect emissions derived from the company's activity: that is, any emissions not under the direct responsibility of the firm.

The following diagram shares a simplified overview of the typical activities in the wine value chain that contribute GHG emissions. For further detail, consult IWCA's Greenhouse Gas Emissions Inventory Guidance **(Annex A)**.



Soil Health Best Practices

One of our first internal capacity building and knowledge sharing efforts focused on regenerative farming and the potential for soil carbon sequestration—a topic of significant interest to our members and one important to helping IWCA member wineries achieve carbon-neutral and climate-positive status.

We compiled a **practical report** for members that detailed the research and best practices that IWCA member wineries have undertaken to promote soil health and vineyard carbon sequestration. These practices include regenerative farming techniques that create a wide range of environmental benefits and can potentially capture and sequester carbon within vineyard soils (e.g., conservation tillage, composting, cover cropping, crop diversity, animal and insect integration, enhancing biodiversity on planted and unplanted lands).

In compiling this report, we saw vast discrepancies in soil carbon sequestration ranges among the different IWCA member trials. While there is clearly potential, our view is that we need additional study and scientific research on quantification of carbon capture and the permanence of sequestered carbon (including in different geographic settings) before we can affirm feasible sequestration ranges, sequestration strategies, and credible recognition of sequestration in our GHG emissions calculator. We look forward to continuing to explore this topic with our members and considering other aspects of soil health and regenerative farming (e.g., practices that can improve vineyard outcomes such as yield, quality, longevity, and farmworker health).

We are thankful for the many academic and institutional research partners who contributed to our members' data collection and reporting efforts for this report, including the **California Department of Food and Agriculture**, **CARBOCERT**, **Carbon West**, **Soil Health Institute**, and **TomKat Ranch**.


Cullen Wines (Western Australia)

Partnerships

In addition to mobilizing action and sharing best practices within our own membership, IWCA has joined other global mission-aligned efforts to further drive collective climate action.

We joined the **Race to Zero** campaign in March 2021 as the first representative from the food and agriculture sector. Launched by the United Nations on World Environment Day 2020 (5 June), the objective for Race to Zero is to build momentum around the shift to a decarbonized economy ahead of COP26, where governments must strengthen their contributions to the Paris Agreement. As part of the Race to Zero campaign, IWCA's members are committed to the overarching goal of halving emissions by 2030 and achieving net zero emissions by 2050 at the latest. We also commit to publicly reporting on our progress towards these goals annually (which we do through this report, publicly shared on the **IWCA website**).

RACE TO ZERO PARTNER

We are a Founding Member of the **Sustainable Wine Roundtable (SWR)** (launched in September 2021), a coalition of wine brands, small producers, distributors, retailers, environmental organizations, and others joining forces to accelerate action as sustainability challenges mount in the production and marketing of wine. IWCA is looking forward to contributing our expertise in GHG measurement and mitigation as SWR works to develop clear and credible guidance on how to implement and measure sustainability across the global wine industry.

Sustainable wine ROUNDTABLE FOUNDING MEMBER

Recruitment and Institutional Growth

Since our founding, IWCA has focused on strengthening our backbone institution to better serve our members and expand our impact. We registered as a 501(c)6 nonprofit organization, now overseen by a seven-person Board of Directors. In July, we onboarded a secretariat in **Meridian Institute**, a non-profit consultancy with expertise in multistakeholder collaborative processes and institution-building, including in the climate, agriculture, and supply chain sustainability spaces. Meridian's backbone support will help IWCA grow stronger as an organization by helping grow our membership, facilitate knowledge-sharing, coalesce members around prioritized strategic efforts, and take action.

We host quarterly member meetings, all of which have been virtual to date. These meetings provide members and applicants an opportunity to connect and discuss shared goals and synergies for industry-wide decarbonization efforts. Our September 2021 member meeting was our largest to date and included all the new IWCA applicants. The primary focus of that meeting was to begin identifying member-led working groups and action priorities for the coming months. In addition to regular working group meetings, our goal moving forward is to host at least one in -person member meeting per year that coincides with a global industry trade event (e.g., ProWein, VinExpo, Unified) to minimize additional travel and its associated GHG emissions.

Over the next year, we will embark on a number of efforts to continue strengthening our organizational mission and structure.

Expand our membership.
We are thrilled to have 22 wineries involved in IWCA, including 12 new applicants in 2021 alone. We want to capitalize on this momentum and work not only to recruit more wineries to join our cause but also to expand the geographic scope and size diversity of our members.

Create intentional space for knowledge sharing.
With a quickly expanding applicant and member base, IWCA is in prime position to consider how to take advantage of our diverse knowledge set. We believe that prompt, efficient, and strategic opportunities for collective learning are a core value that wineries gain from being part of IWCA.

Act quickly on an IWCA communications and marketing plan.
As a rapidly growing organization—whose mission includes outreach and awareness-raising—we must expand our communications capacities. We will focus on fostering a cohesive organizational culture, scaling up recruitment efforts, and enhancing IWCA recognition both within and outside of the wine industry. In particular, we want to equip our existing members to serve as ambassadors for IWCA.

Continue exploring—and circulating best practices on—emissions reductions and carbon sequestration in areas of shared interest.
This specifically includes the areas of packaging and glass, energy and fuel use, transportation, and regenerative agriculture. In particular, IWCA is exploring how our collective power can be leveraged to make substantive progress in these areas.

Convene a Science Panel.
The IWCA Science Panel will consist of experts (organizations and/or individuals) in the study of climate change and wine. The Science Panel will help us maintain science-based targets and the rigor and credibility of IWCA requirements.

Build the Friends of IWCA network.
The primary way to become involved in IWCA to date has been through membership (as a winery). However, we know many individuals, associations, and non-winery businesses share our values and mission and want to be involved. Through a Friends of IWCA network, we will foster a community of supporters and champions to help us advance our mission.

Media Highlights

Since our inception, IWCA has been committed to engaging industry media to reinforce the importance of global climate action to protect the long-term viability of the wine industry. Take a look at some of the media articles that have mentioned IWCA and highlighted our cause.


Jackson Family Wines (California, United States)

SEPTEMBER 2021

The Drinks Business — International Wineries for Climate Action Accepts 12 New Applicant Members

APRIL 2021

Wine Spectator — Green Teams: Winegrowers Band Together to Address Environmental Challenges and Ensure Long-term Success

The Drinks Business — IWCA joins Race to Zero Campaign

Winetitles Media — International Wineries for Climate Action Joins United Nations' Race to Zero Campaign

JancisRobinson.com — Rob Symington: Environmental Activist

MARCH 2021

Mon-Viti — Le changement climatique Est la menace la plus importante pour l'industrie du vin (Interview with Miguel A. Torres)

AUGUST 2020

Meininger's Wine Business International — Wine Families Against Climate Change

APRIL 2020

Wine Alchemy — IWCA: International Wineries for Climate Action

JANUARY 2020

Wine & Spirits — Wineries Take Climate Action

The Drinks Business — Wineries for Climate Action Welcomes New Members

MAY 2019

Wine Enthusiast — Two Producers Working to Protect the Future of Wine

Events

IWCA sponsored two major wine industry events in 2021 that were aimed at increasing our reach to climate-conscious wineries, media, and trade.

The Future of Wine Americas (1-3 June 2021)

This virtual conference, organized by Sustainable Wine UK, was focused on how the wine industry can build resilience and turn sustainability into opportunity. IWCA sponsored a 3-hour pre-conference workshop on 1 June that attracted more than 50 industry participants who came to learn more about IWCA's mission, membership requirements, and how to get involved.

Wine & Spirits Virtual Fair (8-11 June 2021)

IWCA served as a Gold Sponsor for this virtual event, which featured ~25,000 visitors across the three-day conference. A number of IWCA member wineries presented at the conference, providing visitors with a behind-the-scenes look at their various sustainability and climate action programs.

MEMBER SPOTLIGHTS

Familia Torres (Spain)

As a membership-based entity, IWCA is driven by our member wineries. We are proud to have such committed wineries in our ranks, dedicated to reducing their GHG emissions, improving their land stewardship, protecting biodiversity, and being socially responsible, locally engaged businesses.

Learn more about our members through the following pages. IWCA and our members are committed to GHG emissions measurement and transparent reporting, and we are proud to publicly share each member winery's audited emissions data here on their behalf as a Race to Zero partner.

The purpose of these GHG emissions data is to allow wineries to understand their climate footprint, pinpoint opportunities for climate change mitigation, and track the impacts of emissions reductions actions over time. The data are not meant to be compared across wineries, as each winery's GHG emissions inventory is affected by unique factors, such as the size and scope of the winery, when it first began measuring and actively reducing emissions, and its measurement methodology, which includes different regional emissions factors (all members must follow the IWCA GHG Emissions Inventory Guidance in **Annex A**, at a minimum). Therefore, we do not share aggregated or comparative figures across our full membership. All member wineries are held to the same Race to Zero goals and IWCA standards—but we believe the journey towards net zero by 2050 is individualized and should be evaluated as such.

Per Race to Zero requirements, members may choose whether to report absolute emissions or intensity emissions. The emissions data presented here are drawn from members' GHG emissions inventories, which must follow the IWCA GHG Inventory Scopes Guidance Document (see **Annex A**). Among other IWCA requirements, the inventory must follow the ISO-14064 standard and be verified by an external auditing firm of the winery's choosing that has been ISO-14064 accredited. We share here the most recent year of audited data that members provided to IWCA, along with their baseline year data (for many, their first year of data is their first year as an IWCA member; for other wineries that had previously conducted inventories, they have an earlier baseline year). Moving forward, IWCA will report yearly on members' progress meeting emissions reductions goals in line with Race to Zero, tracked against baseline year data.

Per IWCA's policy, emissions reduction targets must be met based on a winery's own efforts to decarbonize, rather than through any purchased offsets. We do, however, encourage sequestration strategies carried out directly by members (such as reforestation on owned or long-term leased land). We invite member wineries to submit biogenic emissions data, but unfortunately due to the lack of definitive research and scientific consensus on vineyard sequestration (e.g., short cycle emissions from vineyard photosynthesis or from wine fermentation), we do not presently count sequestration efforts towards meeting IWCA requirements. In contrast, Scopes 1-3 emissions account for the permanence of fossil-fuel derived carbon emissions in the atmosphere. The topic of biogenic emissions remains of significant interest to IWCA, and we look forward to exploring the issue further.

Alma Carraovejas

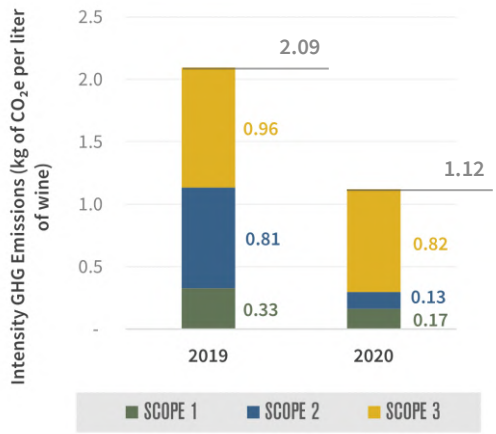
SILVER MEMBER

Joined IWCA in March 2020

ALMA CARRAOVEJAS

46% reduction in emissions intensity since 2019

Alma Carraovejas is the concept which unites several unique viticultural and gastronomic projects under the same corporate culture. This way of life is based on creating unforgettable experiences around wine and has the purpose of building a unique and long lasting heritage. Our projects are Pago de Carraovejas, Ossian Vides y Vinos, Milsetentayseis, Viña Mein-Emilio Rojo, Aiurri, SV Wines, Bodega Marañones, as well as Restaurante Ambivium. Alma Carraovejas, led by Pedro Ruiz Aragoneses, CEO of the project, aims to be recognized as a Spanish reference in the world for the quality and the diversity of our wines and for our pampered touristic and gastronomical options. For Alma Carraovejas, sustainability has become an essential value and the only way to progress and continue the company. Making our activities sustainable from an economic, social, and environmental perspective is a core value that guides our decisions.



CLIMATE & SUSTAINABILITY HIGHLIGHTS

- Our sustainability philosophy is rooted in efficient consumption management and rests on four fundamental pillars: reduction of greenhouse gas emissions, water management, waste reduction, and energy efficiency and renewable energy. We also promote biodiversity enhancement, climate change research, and circular economy innovation projects.
- We are investing in renewable energy, including installing a biomass boiler and solar panels.
- As part of our commitment to a circular economy, we reuse waste from the vineyard and make our own compost for the organic garden of our restaurant.
- We have installed pressurized water equipment that reduces the use of fossil fuels as well as water consumption.

Alma Carraovejas' 2019 inventory accounts only for Pago de Carraovejas (Peñafiel, Spain). The 2020 inventory accounts for Hoyada de los Lobos (Aranda de Duero Burgos, Spain), Ossian Vides y Vinos (Segovia, Spain), Pago de Carraovejas (Peñafiel, Spain), and Viña Mein (Ourense, Spain).

Cullen Wines

SILVER MEMBER

Joined IWCA in November 2020

CULLEN WINES

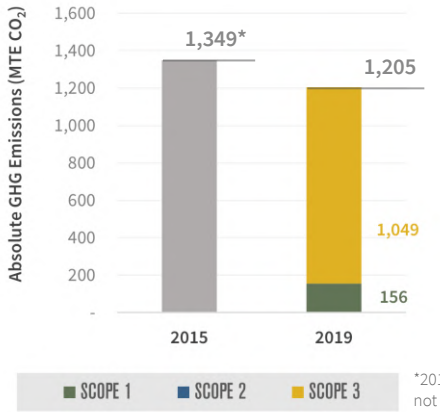
WILYABRUP ~ MARGARET RIVER

11% reduction in absolute emissions since 2015

Cullen Wines, founded 50 years ago, is a family-owned and -managed wine business in the Wilyabrup area of the Margaret River wine growing region in southwest Western Australia. Three words which define the Cullen approach are quality, integrity, and sustainability. The Cullen journey from the outset grew from minimal chemical inputs, to organic, and then biodynamics. We were one of the first to make the transition to organics and biodynamics, with over 22 years of practice, and 17 of certification. Cullen Wines has been certified carbon-neutral since 2007 and carbon-positive since 2019 where our soils sequester and hold more carbon than our business emits.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- The majority of the wine bottled at our winery is packaged in carbon-reduced bottles. We have adopted the Sustainable Packaging Guidelines and the Australian Wine Research Institute Code of Good Manufacturing Practice for the Australian Grape and Wine Industry.
- We have a completely biodynamic winery and have adopted programs to eliminate chemical use on our property. We place a significant focus on soil health and have been measuring rates of carbon sequestration in the soil to understand the positive climate impacts of our farming.
- In addition to minimizing the impact of our activities on the global environment, we are compensating for any emissions created from vehicles, tractors, forklifts, liquid petroleum gas (LPG) use, and air travel through our carbon offset project, which over the past nine years has been responsible for 3,921 tonnes of CO_2 offset through reforestation carbon sinks and the planting of 1,705 native trees and shrubs.



*2015 data not detailed by scope.


Alma Carraovejas (Spain)


Emina Ribera (Spain)


Cullen Wines (Western Australia)

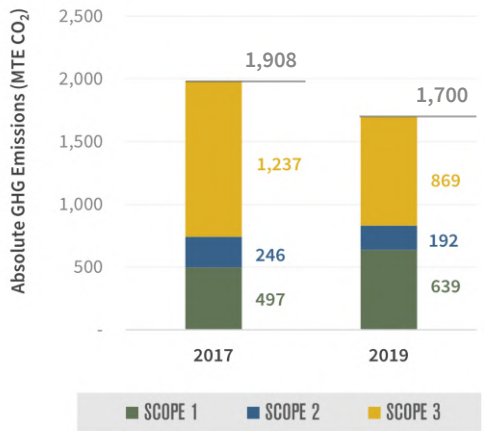
Emina Ribera

SILVER MEMBER

Joined IWCA in November 2020

Bodega Emina in Ribera del Duero is a prime example of eco-sustainable construction, generating energy for our own consumption. The Emina wineries prioritize the sustainability of our buildings. Emina was the first Spanish winery company to calculate the carbon footprint of several of our wines, meaning we pioneered generating awareness of the actual environmental and atmospheric impact of our wine production. Our company's firm commitment to sustainability has previously won us the European Business Award for the Environment (2012).

14% reduction in absolute emissions since 2017



CLIMATE & SUSTAINABILITY HIGHLIGHTS

- All of our electricity consumption comes from renewable energy. We irrigate our vineyards with photovoltaic solar energy, and we have installed an energy efficiency platform to optimize consumption.
- We are committed to improving biodiversity in our vineyards. We have organic vineyards and we strive to reduce fertilizer consumption.
- Other actions we have taken to improve our environmental sustainability include reusing treated water for vineyard irrigation, reusing CO_2 from fermentation, installing biomass boilers, and reducing the weight of our glass bottles.

Familia Torres

GOLD MEMBER

Joined IWCA in February 2019 (Founding Member)

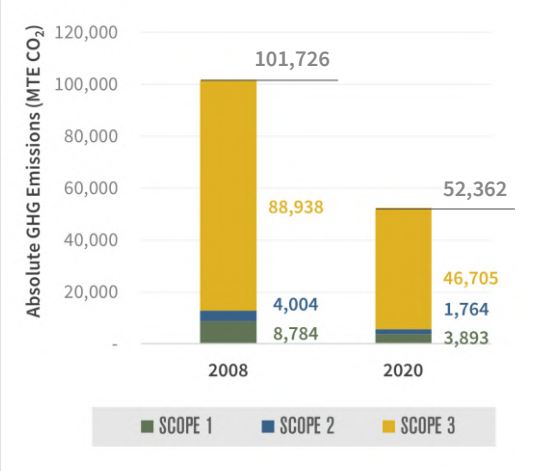
Familia Torres founded its winery in Vilafranca del Penedès in 1870, but its roots in winegrowing date back to the 16th century. Familia Torres has a historical connection to Penedès, Conca de Barberà, Priorat, and Costers del Segre, but now its presence extends to vineyards and wineries in preeminent Spanish wine regions and in Chile and California. Every generation has passed on its passion for wine culture from parents to children, a passion built on a deep respect for the Earth and tradition, as well as a belief in innovation. Today the focus of the fifth generation is on making wines from exceptional vineyards and historical estates, as well as on recovering ancestral varieties as a way of adapting to climate change. Since 2008, Familia Torres has taken active steps to combat the climate emergency, implementing adaptation and mitigation measures to reduce its carbon emissions through its ambitious environmental program, Torres & Earth.

49% reduction in absolute emissions since 2008

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- According to the audited balance sheet of its carbon footprint for 2020, Familia Torres has already reduced its CO_2 emissions per bottle by 34% across its entire scope, compared to 2008. By 2030, our goal is to reach at least a 60% reduction in emissions.
- All Familia Torres wineries have solar panels for self-consumption, and some have biomass boilers. At Familia Torres' main winery in Pacs del Penedes, more than 30% of the energy consumption comes from 100% self-generated renewable sources. We promote sustainable mobility and energy efficiency and work closely with our suppliers to reduce bottle weight and the use of other auxiliary materials. In 2021, we will add the first electric tractor to harvest our estates in Penedès, with the intention of gradually replacing the entire fleet.
- In 2021, we have been capturing the CO_2 from fermentation to (re)use it for tank inerting, thus generating a circular economy solution based on CCR (carbon capture & reuse).
- We contribute to absorbing CO_2 from the atmosphere to compensate our emissions, using our own resources: in 2016, we started a reforestation project in the Chilean Patagonia (where we acquired about 6,000 hectares (with the goal of regenerating an area of 2,000 hectares by 2030); and we are implementing regenerative vine-growing that allows the soil, in addition to being healthier and having more microbiodiversity and water retention capacity, to enhance its function as carbon sink.

Familia Torres' GHG emissions inventory only covers activities in the Catalonia region of Spain.



Familia Torres (Spain)

Jackson Family Wines

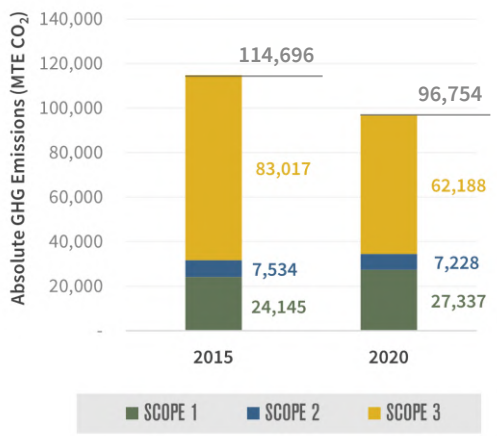
GOLD MEMBER

Joined IWCA in February 2019 (Founding Member)

16% reduction in absolute emissions since 2015

Jackson Family Wines' GHG emissions inventory only covers North America operations.

Jackson Family Wines is a family-owned wine company with a penchant for exploration. Founder Jess Jackson placed his faith in farming and a meticulous expression of wine with his first landscape-changing vintage in 1982, an ethos that chairman and proprietor Barbara Banke, the Jackson family, and the company's employees continue to uphold to this day. The family's collection of 40 wineries span significant winegrowing regions across the globe, from California, Oregon, France and Italy in the northern hemisphere, to Australia, Chile, and South Africa in the southern half of the globe. Artisan winemaking underscores a steadfast commitment to making exceptional wines in the most responsible manner. The Jackson family's focus on vineyard ownership remains key to consistent high quality and environmental stewardship for future generations.



CLIMATE & SUSTAINABILITY HIGHLIGHTS

- In 2021, we launched Rooted for Good: Roadmap to 2030, an ambitious 10-year sustainability and climate action plan designed to make a significant impact across the wine industry by leading the way to become climate-positive, create positive social impact, and support the Jackson family's long-term vision for a sustainable future.
- Renewable energy powers more than 30% of our winemaking operations. Our glass bottles are comprised of more than 50% recycled glass and we have been working to reduce emissions across our packaging and distribution processes.
- We are transitioning 100% of our estate vineyards to regenerative agriculture by 2030. We have already increased composting and reduced tillage, and we are exploring how other farming practices can accelerate climate solutions.
- We have reduced our wineries' water use by 43% and deployed smart water management practices.

Jackson Family Wines (California, United States)


Silver Oak and Twomey Cellars (California, United States)

Silver Oak and Twomey Cellars

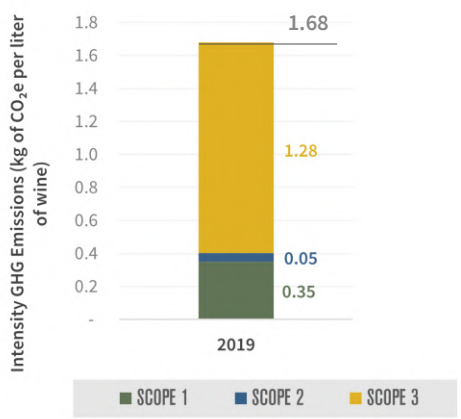
SILVER MEMBER
Joined IWCA in May 2020

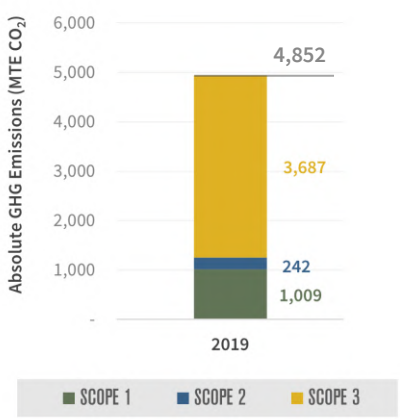
SILVER OAK
TWOMEY

Silver Oak is a leading producer of California Cabernet Sauvignon aged exclusively in American oak barrels. Based in Napa Valley, Sonoma County, Anderson Valley, and Willamette Valley, our family of brands includes Twomey, Ovid Napa Valley, and Timeless Napa Valley. Across seven wineries and tasting rooms and nearly 500 acres of vineyards we farm from Central California to Oregon, the Duncan family is committed to innovative and sustainable viticulture and winery management practices that result in wines of the highest quality and distinction.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- Our two Silver Oak flagship wineries in the Napa Valley and Alexander Valley are LEED Platinum Certified, the highest level of certification from the US Green Building Council. In April 2020, our Alexander Valley winery was certified as a Living Building, the world's most rigorous performance standard for green buildings, by the International Living Future Institute.
- We use precision viticulture technologies to make informed irrigation decisions. At our Oakville winery, water conservation strategies have resulted in an 86% reduction in irrigation and a 26% reduction in indoor water use. We've installed Membrane Bioreactor (MBR) water treatment and filtering at our Alexander Valley winery, which reduced our potable water needs by 37%.
- Our Oakville winery features 1,464 solar panels, producing nearly half of our energy needs. In Alexander Valley, 2,595 solar panels produce over one megawatt of electricity per year and generate more energy (105%) than we consume.



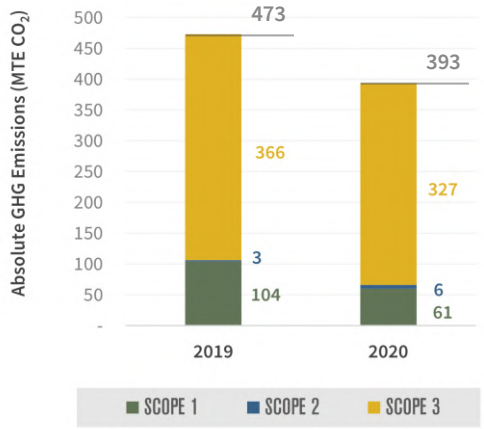


Spottswoode Estate Vineyard & Winery

SILVER MEMBER
Joined IWCA in December 2019

17% reduction in absolute emissions since 2019

Established in 1882 and guided by two generations of the Novak family for a half century, Spottswoode Estate adopted organic farming in 1985, and we have never looked back. Grounded in stewardship, we actively effect and inspire meaningful change through nurturing our vineyards, communities, and planet. Today, Spottswoode is organic, biodynamic, solar powered, B Corp-certified, a member of 1% for the Planet (since 2007), and more. In 2017, Spottswoode earned the Green Medal Environment Award for exemplifying that being green leads to exceptional quality. We proudly support the IWCA's mission to decarbonize the industry and champion climate change mitigation strategies.



CLIMATE & SUSTAINABILITY HIGHLIGHTS

- Spottswoode's energy needs in the winery, office, and vineyard are largely supplied by our solar arrays. When our power needs exceed what we can generate, we purchase renewable energy through Marin Energy's Deep Green program.
- We are currently working toward achieving LEED Platinum certification and TRUE Zero Waste certification at the Gold Level.
- We are one of the first wineries to have adopted organics—Spottswoode has farmed organically since 1985. We are also committed to biodynamic farming, optimizing our drainage and irrigation systems, planting cover crops, reducing tillage, and improving biodiversity through bird boxes, insectaries, apiaries, and animal husbandry.

Symington Family Estates

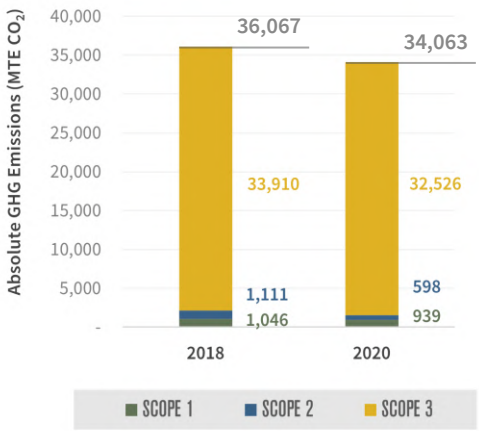
SILVER MEMBER
Joined IWCA in December 2019

6% reduction in absolute emissions since 2018

The Symingtons, leading vineyard owners in Douro, have been Port producers in northern Portugal since 1882. For five generations, we have combined our passion for producing fine wines and Ports with a deep commitment to the region's land and people. In 2019, Symington Family Estates became the first winery in Portugal to achieve B Corp certification—joining a global movement of companies using business as a force for good.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We are partners in a new research and development project (VISCA) consisting of a sophisticated forecasting software that will provide us with detailed, long-term climate modelling covering extreme short-term weather events, seasonal forecasting, and long-term climate projections. This will allow us to make very specific interventions in the vineyard to manage climate disruptions.
- In 2019 and 2020, we piloted a new technology to capture the carbon dioxide released during fermentation. Although not included in our carbon footprint calculation, we are actively seeking ways to capture this CO_2 as part of our commitment to sustainable winemaking.
- We have planted three grape variety libraries (for a total of 53 grape varieties, including some rare indigenous Douro varieties) at four vineyards to understand how different varieties perform under different conditions. As well as safeguarding the Douro's viticultural heritage, we believe this will be a crucial part of adapting to climate change as growing conditions continue to change.
- We are running trials in our organic vineyards at Quinta do Ataíde in the Vilariça Valley which aim to reduce copper sulphate treatments in our vineyards and olive groves for cost and environmental reasons. Our aim is to push the boundaries of organic farming rather than limiting ourselves to the levels permitted by organic certification.



VSPT Wine Group

SILVER MEMBER

Joined IWCA in December 2019

5% reduction in emissions intensity since 2019

The VSPT Wine Group is one of the largest exporters of Chilean wine in the world. Committed to sustainable wine production for over 10 years, our primary focus is utilizing 100% renewable energy for electricity, recovering ecosystems through a robust biodiversity plan, and pioneering waste management programs in Chile. Our sense of urgency and concern for the future of Chile's viticulture deeply aligns with IWCA's values and commitment to mitigating climate change around the world.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We continue to implement new photovoltaic projects in our estates. In 2019, installation of solar panels began in nine of the group's estates, with an installed capacity of 2.7 MW. At the same time, another photovoltaic project was built to supply 1.3 MW for the winemaking operation of Vina San Pedro in Molina. We also pioneered a biogas plant in Viña San Pedro and built a run-of-the-river mini hydroelectric power plant in Viña Tarapacá.
- In mid-2020, we launched our first Ecodesign policy. It sets out three main goals: To reduce the weight and quantity of primary and secondary bottles and packaging; to promote circular logic by only using materials which are 100% recyclable, separable, re-usable and/or compostable, and reach 60% of our portfolio originating from recycled material with 0% PVC use; and finally, to promote conscious consumption, incorporating instructions to better manage domestic waste and facilitate its collection.
- We have worked on our Biodiversity Master Plan, in the center of one of the 35 biodiversity hotspots in the world, which aims to preserve over 2,000 hectares of native forest which surround the vineyards, contributing to the land's protection and the species which inhabit it.

Yealands Estate Wines

SILVER MEMBER

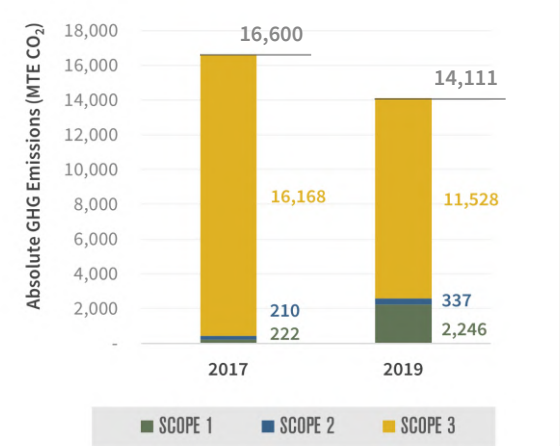
Joined IWCA in January 2020

15% reduction in absolute emissions since 2017

Yealands Estate Wines was launched in August 2008 with the ambition of becoming a world leader in sustainable wine production. The first winery in the world to be Toitū carbon zero certified from inception, Yealands has introduced sustainable initiatives across the breadth of our business and supply chain, targeting environmental enhancement, community engagement, energy efficiency, waste minimization and sustainable procurement.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- Yealands was the first winery in the world to be certified Toitū carbon zero from inception, which exceeds the requirements for the ISO-14064 greenhouse gas emissions standard and PAS 2050 for lifecycle analysis.
- We have installed solar power, generated energy through burning our vine prunings, and harnessed the coastal winds through on-site wind turbines. We also have a purpose-built compost facility producing up to 6,000 tonnes per annum.
- We recently embarked on a 270-hectare landscape restoration program, developing extensive areas of native vegetation to enhance biodiversity across our vineyards.
- We were recognized at the 2021 International Best in Biz awards with a Silver Trophy for the Most Environmentally Responsible Company of the Year and for Environmental Program of the Year.



VSPT Wine Group (Chile)

Symington Family Estates (Portugal)

Spottswoode Estate Vineyard & Winery (California, United States)

Yealands Estate Wines (New Zealand)

APPLICANT SPOTLIGHTS


Sula Vineyards (India)

Any winery interested in becoming an IWCA member but that has not yet fulfilled the GHG inventory requirement can join IWCA as an applicant. They must demonstrate positive intent by taking steps to calculate and verify their emissions. Applicants have one year to meet IWCA membership requirements and become a Silver or Gold-level member.

A to Z Wineworks

APPLICANT

Joined IWCA in August 2021

Family-owned since our founding in 2002, A to Z Wineworks' basic premise is quality for value, focusing on Pinot Noir, Pinot Gris, and Chardonnay. Sourcing grapes from partner vineyards across the state, A to Z blends wines that present the essence of Oregon. As a certified B Corp, we combine commerce with conscience, working towards sustainable health and equitable well-being for people, society, and the environment. In 2020, A to Z rebuilt our 38-year-old REX HILL brand tasting room for energy efficiency and replaced HVAC systems serving the entire operation.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- A to Z has been recognized by B Lab as a "Best For The World" B Corp honoree in the Environment category four times between 2017 and 2021.
- A to Z has maintained LIVE winery certification since 2008 and our estate vineyards have been certified biodynamic since 2009.
- In 2020, all HVAC systems for the winery were upgraded for greater campus-wide efficiency and the 38-year -old tasting room was rebuilt and reinsulated for reduced energy use.

Cakebread Cellars

Cakebread Cellars

APPLICANT

Joined IWCA in September 2021

The Cakebread Cellars story begins with a piece of land and a family passionate about wine that brought Cakebread Cellars to life in 1973. Our commitment to sustainability encompasses all parts of the organization from the vineyards to the cellar including business operations and people practices. Sustainable farming, growing and winemaking techniques further sustain the health of vineyards and the balanced interaction with surrounding wildlife, promoting diverse and balanced ecosystems. We employ bundled renewable electricity, capture excess heat generated from microturbines, and have installed EV charging stations. It's not just the big initiatives or investments that define Cakebread Cellars; it's the day-to-day details and decisions that create a culture of conservation.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We are committed to sustainability in our energy systems: We employ bundled renewable electricity (50% solar and 50% wind), capture excess heat generated from microturbines, added permeable pavers that reflect heat, installed EV charging stations, and installed solar-powered Big Belly Waste Receptacles.
- We have also made strides across our water and waste systems. This includes designing bioswales that capture and filter water, reusing the water generated from the wine making process, and recycling over 90% of winery waste.
- We have been certified as a Napa Green winery since 2008 and Napa Green Land since 2006. In 2018, we were the recipient of the California Green Medal Business Award in recognition of our innovation, efficiency, and sustainability-based employee practices such as carpooling and education.

Château Troplong Mondot

APPLICANT

Joined IWCA in September 2021

CHÂTEAU TROPLONG MONDOT 1ER GRAND CRU CLASSÉ

Perched on a hilltop surrounded by 43 hectares of vines sits the most welcoming estate in Saint-Emilion. Premier Grand Cru Classé of Saint-Emilion, Château Troplong Mondot offers an invitation into a slow and sustainable life, one that is tastefully complemented by distinguished wines and a highly acclaimed chef. We are a dynamic farm, a working wine estate, a biodiverse terroir home to wildlife, and a rural retreat with tailor-made experiences. Living in harmony with the land and reducing our impact on the environment is embedded in the soul of the estate.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We are dedicated to preserving biodiversity. We banned herbicides over 20 years ago and insecticides over 10 years ago. In 2018, we banned anti-botritys treatments. We collaborate with microbiologists to develop microbiological life in our vineyard soils and partner with the Ligue pour les Oiseaux to count bird, bat, and butterfly species and develop new habitats for fauna.
- We strive to be zero waste. Chickens and a pig eat the waste from our restaurant, and remaining organic waste is turned into compost. We also have an initiative in progress to ban single-use plastic and "overpackaging" for any delivery of goods.
- In terms of a few carbon footprint initiatives, 80% of the estate is ploughed by horses and we transform our vine shoots into pellets that power our heating system.
- We are HVE 3 since 2020 (Haute Valeur Environnementale), and our new facilities have been built as HQE Excellent (Haute Qualité Environnementale).

Constellation Brands Fine Wines (US)

APPLICANT
Joined IWCA in August 2021

Constellation Brands is committed to safeguarding the environment and to pursuing excellence in sustainability. Within Constellation's Fine Wine Division—comprised of iconic brands such as Robert Mondavi Winery, The Prisoner Wine Company, Mt Veeder Winery, and Schrader Cellars—each brand takes responsibility for sustainability leadership in four primary areas: 1) Protecting the local environment and community by promoting pollution prevention, waste minimization, and efficient use of natural resources; 2) Acting as a responsible steward of water by furthering conservation efforts in partnership with industry and community partners; 3) Decreasing dependence on non-renewable energy sources to reduce greenhouse gas emissions; and, 4) Preventing and reducing environmental impacts from waste generation, transportation, and disposal.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- All of our wineries and associated vineyards have been certified sustainable for over a decade, as part of the California Sustainable Winegrowing Alliance
- In 2020 our Napa Valley vineyard and winery teams commenced the process of organic certification under the California Certified Organic Farming (CCOF) Program. The Prisoner Wine Company achieved certification in October 2020, and our To Kalon® Vineyard is on track to achieve certification by 2023.
- Robert Mondavi Winery has invested in the insulation of wine tanks, replacement of air compressors with on-demand Variable Frequency Drives (VFD), and high-efficient LED lights, resulting in a 20% reduction in energy use. Additionally, the winery has implemented a water recovery and reuse system on the barrel handling line, reducing the water used to wash barrels by 50% annually.
- Mt Veeder Winery plants specific cover crops that create a healthy, sustainable environment by contributing to the nutrients in the soil, protecting against erosion, and helping to control pest infestation.

Crimson Wine Group

APPLICANT
Joined IWCA in August 2021

Crimson Wine Group (CWG) oversees a portfolio of benchmark wines crafted from exceptional vineyards throughout California (Pine Ridge Vineyards, Seghesio Family Vineyards, Chamisal Vineyards, Malene), Oregon (Archery Summit), and Washington (Seven Hills Winery and Double Canyon). CWG holds sustainability as a core value—it's the right thing to do, and we know that these efforts result in higher quality wines and the preservation of estate vineyards for future generations. Our multidisciplinary Green Team consistently monitors and improves practices and implements the latest sustainable practices. Knowing glass weight is the #1 contributor of greenhouses gases in the wine industry, we onshored more than 90% of glass to domestic lighter weight in the last two years and reduced glass usage by 300 tons of carbon annually. We are also members of the Porto Protocol, which is a commitment to work towards minimizing the impacts of climate change.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- Each one of our properties has individual environmental sustainability certifications and all properties are third-party-certified by local organizations.
- As a group, we have reduced our glass bottle weight by 15% across the board.
- We are installing solar panels on site at a number of our estates.

Gloria Ferrer

APPLICANT

Joined IWCA in July 2021

Gloria Ferrer has produced world class sparkling wines in Sonoma since 1986. Rooted deeply in the history and heritage of Carneros, our iconic portfolio showcases Pinot Noir dominant wines that have become synonymous with the winery. Today, Gloria Ferrer continues our commitment to the community and environment through a regenerative model and our sustainable practices.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We have embraced the mindset of running a regenerative business. This includes focusing on soil health, minimal impact farming, employee wellbeing, climate impact mitigation, and community engagement.
- We operate a large, on-site composting operation, plant native species and cover crops to increase biodiversity, utilize synthetic chemical-free farming practices, and employ carbon-free sources for all our electricity usage.
- We are undergoing a robust process to measure our GHG emissions, and we plan to use this baseline data to identify new climate and sustainability priorities.

Herència Altés

APPLICANT

Joined IWCA in September 2021

This family winery in Terra Alta is dedicated to organic viticulture and the elaboration of fresh and elegant wines. We work with native varieties, of which Garnacha, in all its forms, takes pride and place. We make wines in the most natural and respectful way possible, looking to maintain varietal honesty and elegance. Efforts to decarbonize include generating 80% of our energy from solar panels and planting thousands of trees in and around the vineyard. A wider project of rewilding has helped promote biodiversity and soil health on the farm.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- All of our vineyards are certified organic.
- 80% of the energy we consume comes from renewable energies (solar panels on the roof of the winery).
- We are committed to protecting and promoting biodiversity through our environmental practices. We recycle rainwater for the consumption of the winery, and we also accumulate it and create water points to facilitate a space for the fauna of the area. We enable nest houses for different bird species. We also actively participate in the recovery of our natural landscapes—including planting 12,000 plants of 80 different species.
- We were recognized as the best organic and environmental project in Catalonia (VINARI 2019 award).

Hunt Country Vineyards

APPLICANT

Joined IWCA in June 2021

Farming for seven generations and crafting wine since 1981, the Hunts are one of the founding families of the Finger Lakes wine region in NY. We continue to be a family-run winery focused on managing our vineyards and business as part of a complete and healthy ecosystem. We produce the majority of our electricity with 348 solar panels, heat and cool with an award-winning geothermal system, provide EV charging stations to customers, and focus on soil carbon sequestration and sustainable vineyard practices and have certified some sections of the farm and vineyards organic. Hunt Country Vineyards received the 2020 Sustainability Award from the NY Wine & Grape Foundation.

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CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We installed an award-winning geothermal system that has been heating/cooling all of our large buildings for nearly a decade. Six years ago, we installed a 348-panel solar photovoltaic system and helped other wineries go solar. We've also worked to enhance our energy efficiency, including switching to all LEDs. We also provide five electric vehicle charging stations free for customers.
- We do not use any synthetic fertilizers and we have certified some of the vineyards organic. We have enhanced wildlife habitats by installing bat and kestrel boxes, and we are expanding our native bee and pollinator habitat.
- Our latest offering is Uncharted Terroir, a line of fine wines made from regionally adapted, climate-resilient grape varieties.
- We have reduced waste, including eliminating capsules on our wine bottles.

Medlock Ames

APPLICANT

Joined IWCA in July 2021

Medlock Ames is an organic vineyard and estate winery that straddles both Sonoma County's Alexander Valley and Russian River Valley and is committed to farming in harmony with nature to produce wines that represent the distinct terroir of the Bell Mountain Vineyard. We maintain the vast majority of our land in its native state to protect the 10 defined ecosystems that thrive here. We are also focused on using regenerative farming techniques that draw carbon from the atmosphere into the soil where it provides myriad benefits.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We are doubling down on regenerative farming. We are excited to become Regenerative Organic Certified—recognition of our commitment to farmworker fairness, carbon sequestration through our agricultural practices, and soil health.
- We are reducing our reliance on the electric grid by solar powering our winery and business offices via 7 solar arrays throughout Bell Mountain that allow us to make the most of reusable energy.
- To further improve our environmental practices, we are transitioning away from tillage, increasing biodiversity through insectary cover crops, increasing our compost usage, and implementing our plan to reduce irrigation in the vineyard and water use in the winery.

Ridge Vineyards

APPLICANT

Joined IWCA in August 2021

Nearly 60 years ago in 1962, Ridge made our first Monte Bello, and two years later our first zinfandel. Since this time, Ridge has championed single vineyard winemaking, searching California for those rare vineyards where climate, soil, and varietal are ideally matched. Ridge Vineyards is the largest grower of organically certified grapes in Sonoma County and in the Santa Cruz Mountains appellation with 379 total certified acres. All of Ridge's vineyards in Sonoma County and Santa Cruz Mountains are Certified Sustainable by Fish Friendly Farming. Our photovoltaic panels supply 75% of the Lytton Springs winery's electricity needs annually.

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CLIMATE & SUSTAINABILITY HIGHLIGHTS

- In 2008, we began the process of certifying our estate vineyards as organically grown. Today, we have certified more than 98% of our estate vineyards. As of harvest 2021, the total of our organically farmed vines has reached 379 acres.
- All of our vineyards in Sonoma County and Santa Cruz Mountains are Certified Sustainable by Fish Friendly Farming.
- We constructed our Lytton Springs winery in 2002, utilizing as many environmentally friendly techniques as possible. We have installed almost 400 photovoltaic panels on the winery's south-facing roof, producing up to 65 kilowatts of electricity. The system supplies 75% of the winery's electricity needs over the course of a year.

Sula Vineyards

APPLICANT

Joined IWCA in July 2021

Sula was founded in 1999. Over the last two decades, we have grown and established ourselves as a pioneer, innovator, and market leader in the Indian wine industry. For Sula, sustainability is a guiding principle of life and business. We strive to be responsible stewards of our land, not just because it's the right thing to do but also because it's the best way to make authentic, distinctive wines. Sula generates almost 70% of its electricity through on-site installations of solar panels and we have driven sustainability in packaging by switching to lightweight glass bottles and localizing supply chains.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- This year, we are generating 70% of our required energy from on-site solar power—and we aim to reach 75% in the next year.
- We have eliminated the use of diesel for irrigation at our farms by installing solar pumps.
- We are using the wet waste from our restaurants to produce biogas, thereby reducing the use of liquified petroleum gas (LPG) cylinders.

Yalumba Family Winemakers

APPLICANT

Joined IWCA in August 2021

Yalumba Family Winemakers is a six-generation wine industry pioneer. Established in 1849 by first generation Samuel Smith, the company is a global winemaking and distribution business with a rich and diverse portfolio of leading fine wine brands, including Yalumba, Jansz Tasmania, Oxford Landing, Pewsey Vale Vineyard, and Dalrymple Vineyards. The Hill-Smith family has established five wineries in South Australia, Tasmania, and New Zealand, our own vine nursery and cooperage, and vineyards across Barossa Valley, Eden Valley, Coonawarra, Riverland, Limestone Coast, Tasmania, and New Zealand. Sustainability has been at the heart of Yalumba Family Winemakers since our beginnings, and generation after generation strives to enrich its environment, workforce, and community.

CLIMATE & SUSTAINABILITY HIGHLIGHTS

- We are investing in reducing our total energy inputs and grow solar power production on our sites. In 2016, we installed the largest solar system in an Australian winery, which generates approximately 20% of our on-site power use.
- We commit to Australia's National Packaging Targets of 100% recyclable or compostable packaging by 2025 and have developed a comprehensive program to reduce consumption and recycling waste across all of our sites.
- We take a holistic approach to viticulture to efficiently use natural resources. 60% of our vines are planted to drought resistant rootstock—driving water efficiencies of 20%. For every hectare of vineyard that we own, at least one hectare of native vegetation is retained. We also produce a yearly report card of biodiversity metrics.


Crimson Wine Group (California, United States)


Sula Vineyards (India)


Ridge Vineyards (California, United States)

Hunt Country Vineyards (New York, United States)


Medlock Ames (California, United States)


A to Z Wineworks (Oregon, United States)


Château Troplong Mondot (France)


Herència Altés (Spain)


Constellation Brands Fine Wines (California, United States)


Yalumba Family Winemakers (South Australia)


Gloria Ferrer (California, United States)

Cakebread Cellars (California, United States)

JOIN IWCA

Jackson Family Wines
(California, United States)

Our vision cannot be achieved without the participation and leadership of individual wineries.

IWCA is open to any winery that is involved in the production process from winegrowing to bottling, recognizes that climate change is the most significant threat to the wine community, and is guided by the urgency for strategic action to accelerate innovative climate solutions. IWCA welcomes wineries big or small, from any part of the world. By joining IWCA, wineries benefit from a collaborative community of like-minded businesses, exchange of ground-truthed knowledge and best practices, and access to technical guidance and tools.

Detailed application information and FAQs are available on **our website**, and we encourage wineries to **contact us** directly through our website to express interest—even if very preliminary!

Why Join IWCA?

- The more wineries that participate in IWCA, the louder our voice will be to raise awareness on climate change and to urge immediate, global action.
- Given the science-based approach of IWCA and the strictness of our requirements, participating wineries are perceived as strongly and sincerely committed in the fight against climate change.
- IWCA creates a space for collaboration that encourages the sharing of best practices for mitigating climate impacts in vineyard and winery operations.

ANNEX A

Greenhouse Gas (GHG) Emissions Inventory Guidance

GHG Inventory Protocol:

World Resources Institute GHG Protocol (primary methodology), adhering to ISO-14064 process

3rd Party Auditor:

Required to be audited ISO-14064 by internationally accredited third party

Total Scope:

Primary production facility(ies), vineyards, and all business operations. Scopes 1, 2 , and 3 (from the vineyard to the final disposal of the waste once the product is consumed)

Baseline Year:

Determined by individual winery / approved by IWCA Founding Members

Production Unit:

Chosen by the winery. The final result needs to be calculated in terms of CO_2-equivalent/production unit.

Initial Considerations about the GHG Inventory:

- It must include the main winery (in case/bottle production) of the organization.
- It must include any other winery in the region so that the audit represents at least 90% of the organization's volume in the specified region. The wineries' facilities also need to be included (owned logistics warehouse, water treatment plant, hospitality centers, etc.).
- Emissions reductions must be based on own efforts (i.e., no external compensations, no CO_2 stored in the vineyard, stoppers, barrels).
- Own reforestation initiatives on owned land are accountable for emissions reduction.
- Green electricity purchase will only be considered as 0 emissions for providers on their own GHG footprint.
- IWCA will not consider short cycle emissions (vineyard photosynthesis and wine fermentation).
- Purchases or sales of Renewable Energy Credits (RECs) do not satisfy IWCA's renewable energy criteria.
- Renewable energy purchased from the public electricity grid does not satisfy IWCA's renewable energy criteria (unless local grid is 100% renewable).

All the following inputs must be considered.*

Not necessarily grouped under the same packages but following these scopes' groupings:

** Exceptions: If a winery can demonstrate that any given emissions category is less than 1% of its total annual emissions, and ongoing data collection is determined to be overly time consuming or unreliable, it is acceptable to only perform the GHG calculation in the baseline year and reuse the calculated emissions number for future years without recalculating it, unless the production varies by more than 10% vs. the baseline year. In this latter case, the emissions number has to be recalculated proportionally.*

SCOPE 1	
Direct Emission Sources	Any/all fuel use for company business (stationary vineyard pumps, company owned vehicles and ag equipment, etc.)
	Change in land use (i.e., deforestation to plant new vineyards)
	Fugitive emissions from refrigerant gas leaks
	CO_2 used in winemaking or any other process
	Vineyard soil emissions (NOx emissions from nitrogen application)
	On-site waste (methane from wastewater treatment)
	Any other accountable category that represents more than 1% of annual emissions

SCOPE 2	
Market-Based Electricity	Electricity purchased from local utility grid (can use local emissions factors)
	Onsite renewable electricity generated (if REC ownership is retained)

SCOPE 3	
Emissions from non-direct (i.e., supply chain) sources from the vineyard to the final disposal of the waste once the product is consumed	Purchased products (purchased grapes, bulk wine, barrels, fertilizers, municipal water, etc.)
	Packaging materials (glass, cork, cartons, labels, etc.)
	Outsourced transportation (third party grape, wine and finished case goods, wine barrels, bottles, etc.)
	Outsourced production (third-party grape harvesting and production/bottling)
	Business travel related to company business and daily commutes (passenger car, train, air travel, etc.)
	Offsite waste / loss (solid waste to landfill, recycling, composting, etc.)
	Post-consumption (product disposal at end of life)
	Any other accountable category that represents more than 1% of annual emissions

Acceptable GHG Emissions Compensation (to be applied to the result from the above inventory)	
Reforestation	Reforestation in owned land to sequester atmospheric CO_2

Optional Best Practice: Short Term Carbon Cycle (tracked annually but not included in Scopes 1, 2, and 3)	
Short-Term Carbon Cycle (i.e., biogenic emissions)	Vineyard biomass photosynthesis
	Wine fermentation emissions
	Row cropping sequestration

Additional Links

Greenhouse Gas Protocol
www.ghgprotocol.org

ISO-14064 Process
www.iso.org/standard/66453.html

GHG Inventory Consultant *(recommended IWCA vendor)*
www.sustridge.com

ISO-14064 Accredited Auditor *(recommended IWCA vendor)*
www.lr.org/en-us/iso-14064/certification

ANNEX B

2020 Inventory Guidance Memo

Executive Summary

2020 was an exceptional year due to the global COVID-19 pandemic. As it relates to greenhouse gas (GHG) emissions, most organizations across the industry are anticipating significant absolute emissions reductions due to the limitations the pandemic placed on activities such as transportation and business travel, as well as the sale of wine to on-premise accounts. As such, it is difficult for new IWCA Applicants to use 2020 as a baseline year for target setting because their inaugural emissions calculations will be artificially low. As a result, IWCA will not require members to incur the additional expense of submitting their 2020 GHG inventory for third-party ISO-14064 audit. Additionally, 2020 has implications for existing IWCA Members that are looking to move from the Silver- to the Gold-level membership category.

This memo explains IWCA's position and guidance on how IWCA Members and Applicants should approach the GHG emissions inventory and auditing process for 2020. This guidance will also be reflected in IWCA's Annual Report to the UN Race to Zero Campaign.

Guidance for New IWCA Applicants

For new IWCA Applicants who are currently working on compiling their baseline GHG emissions inventory, IWCA recommends using 2020 as an 'interim baseline' for informational purposes only. IWCA ***does not*** require that the 2020 inventory be third-party ISO-14064 audited but ***does*** require that the 2020 inventory be replaced by an ISO-audited 2021 inventory, when available. The 2021 audited inventory will then serve as that Applicant's baseline inventory moving forward. For small winery members, their next ISO-audited GHG emissions inventory would be required in 2023, and for large winery members, their next audited inventory would be required in 2022.

If a new IWCA Applicant has sufficient historical data to use 2019 or prior as a baseline year, IWCA recommends this approach. Assuming this is the case, a new IWCA Applicant can provide an ISO-audited GHG inventory for 2019 (or prior) as their baseline year and does not need to get their 2020 GHG inventory audited. For small and large winery members alike, their next ISO-audited GHG emissions inventory would be required in 2021.

Any IWCA Applicant who submits a GHG inventory that conforms to IWCA standards will be recognized immediately as a Silver-level member, as follows:

- **2019 or Prior —** Baseline GHG inventory must conform to IWCA GHG guidelines and be ISO-14064 audited.
- **2020 —** 'Interim Baseline' GHG inventory is acceptable without ISO-14064 audit, *but Applicant must provide proof of contract or confirmation email from an ISO-14064 accredited auditing firm that binds them to perform the audit with their 2021 data.*

Guidance for Existing IWCA Members Moving from Silver- to Gold-Level Membership

For current IWCA Silver-level members who want to use their 2020 GHG emissions inventory to demonstrate emissions reductions consistent with moving them into the Gold-level member category, the guidance is as follows:

- If the winery provides an ISO-14064-audited 2020 GHG inventory that shows reductions in line with the baseline year in the GHG Reductions Table (see **Annex C**) *AND* the winery also meets the onsite renewable energy generation requirement (20% from onsite renewables), the winery *IS* entitled to move from the Silver- to the Gold-level membership category.

- BUT if the winery cannot sustain those reductions in subsequent audited inventories, it may be moved back to Silver-level membership.

****It is ultimately up to each individual winery to determine how much of their 2020 emissions inventory reductions can be attributed to COVID-19 and how much of those gains they think are sustainable into the future.****

Example for Context

An IWCA Silver-level member with a baseline GHG emissions inventory year of 2019, which requires an annual linear emissions reduction of 3.23%.

If the member provides an ISO-14064 audited 2020 GHG inventory that details a 9% absolute reduction in emissions, they are entitled to move to the Gold-level membership category (assuming they also meet the 20% onsite renewables criteria).

BUT in order to maintain that Gold-level membership category in subsequent years, the winery must maintain at least a 6.5% absolute reduction in 2021 from the 2019 baseline year (if they are a large winery) and a 9.7% emissions reduction in 2022 (if they are a small winery), based on the annual/bi-annual auditing requirements for small and large wineries.

Audited GHG Emissions Inventories are required for 2020 for all applicable Members.

IWCA will require third-party-audited ISO-14064 GHG inventories for all applicable Members, including:

- Large wineries whose membership requirements stipulate an annual GHG emissions audit
- Small wineries that last submitted an audited GHG emissions inventory in 2018

Small wineries that last submitted an audited GHG emissions inventory in 2019 are NOT REQUIRED to submit an audited GHG emissions inventory for 2020; their next audit is required with their 2021 GHG emissions inventory, but IWCA still recommends that small wineries complete an unaudited 2020 inventory so they can track changes year over year.*

ANNEX C

Greenhouse Gas (GHG) Emissions Linear Reductions Table

This table provides guidance for IWCA members and applicants regarding their annual linear emissions reductions targets to achieve Gold-level member status and remain on track to become net zero by 2050.

In brief, the requirement is to demonstrate a minimal % of reduction of CO_2 emissions from a baseline emissions inventory year, as proof of proactive ongoing commitment. This percentage is dependent on the baseline year and proportional toward the net zero target for 2050, calculated as:

$$\text{XX\%} = \frac{\text{XX\% = 2050 Net Zero Reduction Target (\%)}}{\text{Net Zero Target Year — Audit Baseline Year}}$$

GHG Emissions Reductions Required to Achieve and Maintain IWCA Gold-Level Membership (in %)

ISO-14064 Audit Baseline Year	Annual target	GHG Reduction Target											Milestone					Milestone					Net Zero
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2032	2034	2036	2038	2040	2042	2044	2046	2048	2050
Baseline 2008	2.38%	26.2	28.6	31.0	33.3	35.7	38.1	40.5	42.9	45.2	47.6	50.0	52.4	57.1	61.9	66.7	71.4	76.2	81.0	85.7	90.5	95.2	100
Baseline 2009	2.44%	24.4	26.8	29.3	31.7	34.1	36.6	39.0	41.5	43.9	46.3	48.8	51.2	56.1	61.0	65.9	70.7	75.6	80.5	85.4	90.2	95.1	100
Baseline 2010	2.50%	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0	100
Baseline 2011	2.56%	20.5	23.1	25.6	28.2	30.8	33.3	35.9	38.5	41.0	43.6	46.2	48.7	53.8	59.0	64.1	69.2	74.4	79.5	84.6	89.7	94.9	100
Baseline 2012	2.63%	18.4	21.1	23.7	26.3	28.9	31.6	34.2	36.8	39.5	42.1	44.7	47.4	52.6	57.9	63.2	68.4	73.7	78.9	84.2	89.5	94.7	100
Baseline 2013	2.70%	16.2	18.9	21.6	24.3	27.0	29.7	32.4	35.1	37.8	40.5	43.2	45.9	51.4	56.8	62.2	67.6	73.0	78.4	83.8	89.2	94.6	100
Baseline 2014	2.78%	13.9	16.7	19.4	22.2	25.0	27.8	30.6	33.3	36.1	38.9	41.7	44.4	50.0	55.6	61.1	66.7	72.2	77.8	83.3	88.9	94.4	100
Baseline 2015	2.86%	11.4	14.3	17.1	20.0	22.9	25.7	28.6	31.4	34.3	37.1	40.0	42.9	48.6	54.3	60.0	65.7	71.4	77.1	82.9	88.6	94.3	100
Baseline 2016	2.94%	8.8	11.8	14.7	17.6	20.6	23.5	26.5	29.4	32.4	35.3	38.2	41.2	47.1	52.9	58.8	64.7	70.6	76.5	82.4	88.2	94.1	100
Baseline 2017	3.03%	6.1	9.1	12.1	15.2	18.2	21.2	24.2	27.3	30.3	33.3	36.4	39.4	45.5	51.5	57.6	63.6	69.7	75.8	81.8	87.9	93.9	100
Baseline 2018	3.13%	3.1	6.3	9.4	12.5	15.6	18.8	21.9	25.0	28.1	31.3	34.4	37.5	43.8	50.0	56.3	62.5	68.8	75.0	81.3	87.5	93.8	100
Baseline 2019	3.23%		3.2	6.5	9.7	12.9	16.1	19.4	22.6	25.8	29.0	32.3	35.5	41.9	48.4	54.8	61.3	67.7	74.2	80.6	87.1	93.5	100
Baseline 2020	3.33%			3.3	6.7	10.0	13.3	16.7	20.0	23.3	26.7	30.0	33.3	40.0	46.7	53.3	60.0	66.7	73.3	80.0	86.7	93.3	100
Baseline 2021	3.45%				3.4	6.9	10.3	13.8	17.2	20.7	24.1	27.6	31.0	37.9	44.8	51.7	58.6	65.5	72.4	79.3	86.2	93.1	100
Baseline 2022	3.57%					3.6	7.1	10.7	14.3	17.9	21.4	25.0	28.6	35.7	42.9	50.0	57.1	64.3	71.4	78.6	85.7	92.9	100
Baseline 2023	3.70%						3.7	7.4	11.1	14.8	18.5	22.2	25.9	33.3	40.7	48.1	55.6	63.0	70.4	77.8	85.2	92.6	100
Baseline 2024	3.85%							3.8	7.7	11.5	15.4	19.2	23.1	30.8	38.5	46.2	53.8	61.5	69.2	76.9	84.6	92.3	100
Baseline 2025	4.00%								4.0	8.0	12.0	16.0	20.0	28.0	36.0	44.0	52.0	60.0	68.0	76.0	84.0	92.0	100

We are looking forward to building on our early momentum to continue growing a science-based, impactful effort to decarbonize the wine industry in the coming year and beyond. We are grateful for our members' deep commitment to tackling the climate crisis and thankful for their collaboration. We hope you will be equally inspired by their actions and consider joining us as a member winery or as a Friend of IWCA.

www.iwcawine.org

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