



A DRAWDOWN-ALIGNED FRAMEWORK FOR THE

GAMING INDUSTRY

RECOMMENDATIONS FOR
AMBITIOUS CLIMATE ACTION
BY GAMING SOFTWARE
COMPANIES | 2023

PROJECT
DRAWDOWN

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INTRODUCTION

The gaming industry has a significant impact on the climate.

The gaming industry generates emissions all along the value chain, from manufacturing and data storage, to e-sporting events and packaging. Just the annual game-related energy usage in the United States is estimated to cause **24 million tons of carbon dioxide emissions**—the same amount as over 5 million cars.

But the industry also has a “climate superpower”: economic and cultural impact through its incredible number of users.

Globally, **over 3 billion people**—40% of the world’s population—play video games. At the same time, **most gamers** “say that the gaming industry has a responsibility to act” on climate. The industry not only has an *opportunity* to bring its emissions to zero, but also a ***responsibility to help the world reach zero emissions.***



Photo by Keatut Subiyanto



Photo by Luis Enrique

How can the gaming industry use its superpower to take climate action that matches the severity of the crisis?

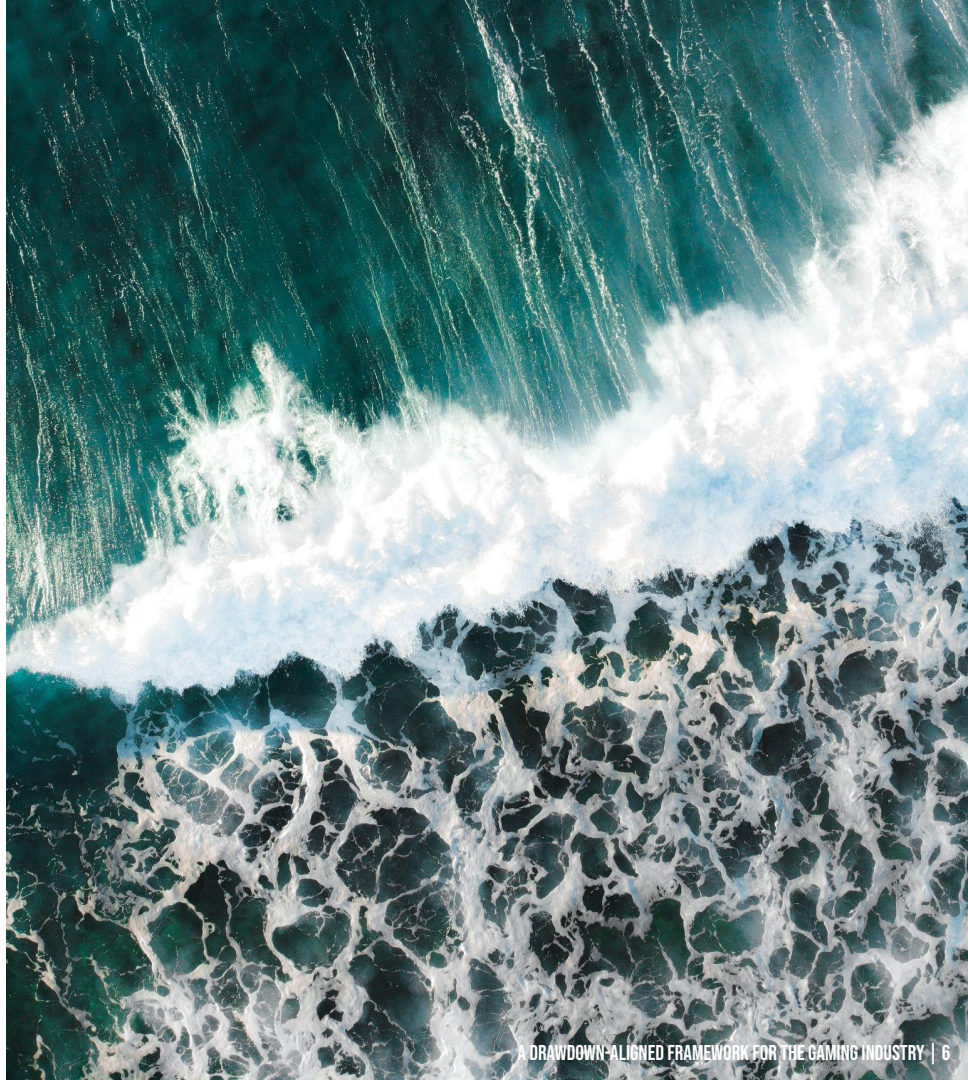
Using the [Drawdown-Aligned Business Framework](#) as a foundation, [Project Drawdown](#) brought together a group of industry experts to explore how gaming software companies can go beyond “net zero” and align with “[drawdown](#)”—the point in the future when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline.

This guide is an overview of how the industry, specifically software companies, can level up its climate impact, doing more than just reducing its own operational emissions. **With recommended actions across leverage points and real-life examples from the working group, this guide can help gaming software companies become “drawdown-aligned.”**

Gaming employees who are on sustainability teams or are generally looking to take climate action at work can use this framework to:

- 1)** find ways to integrate climate action into your and your team's roles
- 2)** evaluate your company's climate goals and identify areas for improvement
- 3)** communicate to leadership ideas for climate action and real life examples of success
- 4)** if you're in a leadership role, formulate long-term strategies for your team and company

Photo by Nick Jones



THE FRAMEWORK

A DRAWDOWN-ALIGNED FRAMEWORK FOR THE GAMING INDUSTRY

This framework highlights key leverage points the gaming industry (namely, software companies) can utilize to align their businesses with drawdown—the future point in time when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline. Each leverage point includes an illustrative list of high-impact actions companies can pursue to help the world achieve drawdown quickly, safely, and equitably. Employees and decision makers should use this framework as a guide for stepping up their ambitions and becoming corporate climate leaders in the gaming industry and beyond.

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EMISSIONS REDUCTIONS

- Ensure data centers run on 100% renewable energy
- Optimize energy efficiency
- Address players' emissions and advocate for renewable energy policies
- Tie executive compensation to climate goals
- Institute an internal carbon tax
- Integrate diversity, equity, inclusion, and justice

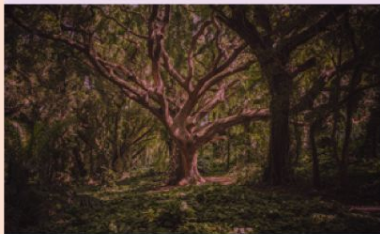


CLIMATE DISCLOSURES

- Disclose supply-chain climate risk to investors
- Support mandatory disclosure

GAMER AND COMMUNITY ENGAGEMENT

- Integrate climate solutions into games
- Support climate readiness of workers
- Mandate or incentivize employee climate education
- Educate executives and board members on climate



CLIMATE POLICY ADVOCACY

- Advocate for climate policy consistently and at multiple levels
- Ensure political activities support climate action
- Push industry groups to advocate for climate policy



PRODUCTS, PARTNERSHIPS, AND PROCUREMENT

- Design games with climate solutions in mind
- Push cloud and web services to reduce emissions
- Limit ads to climate-friendly brands
- Share climate goals with partners
- Favor suppliers with emissions reductions goals



BUSINESS MODEL TRANSFORMATION

- Embed climate into KPIs for every business unit
- Shape business around climate solutions

INVESTMENTS AND FINANCING

- Offer climate-friendly retirement and pension plans
- Push banks/asset managers to align with the Paris Agreement
- Steer insurance companies away from carbon-intensive projects
- Financially support climate solutions



LONG-TERM THINKING

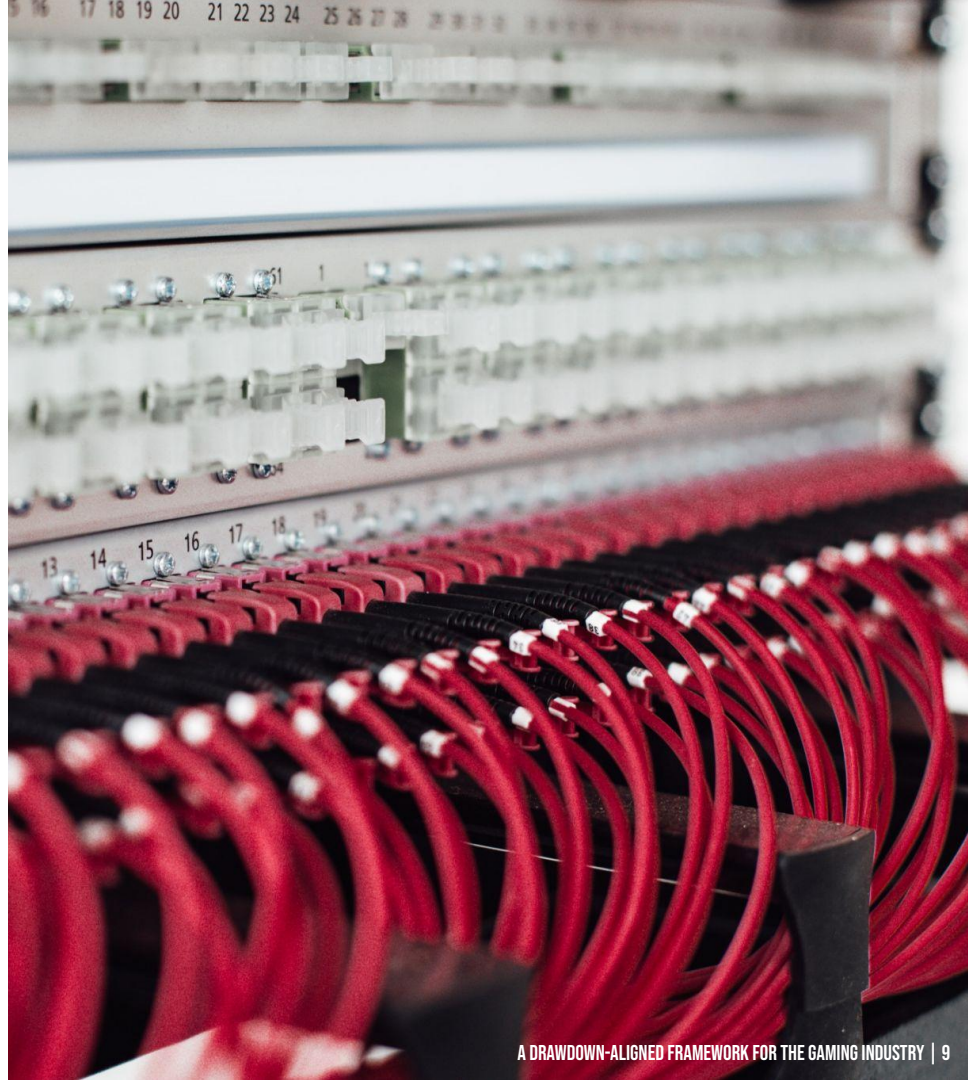
- Take the long view with climate plans
- Rethink company design



EMISSIONS REDUCTIONS

In addition to taking steps to directly reduce operational emissions, like ensuring [data centers](#) run on renewable energy, gaming software companies must work to reduce large downstream emissions (such as the emissions generated by players when playing their games). Luckily, there are a number of actions you can take to achieve emissions reductions across all scopes. Actions like instituting an [internal carbon tax](#) can help fund reduction efforts and direct investments to other initiatives that are good for the climate.

Photo by Lars Klemke



EMISSIONS REDUCTIONS

KEY ACTIONS

- Ensure data centers run on 100% renewable energy.
- Optimize energy efficiency for both game development and gameplay.
- Address Scope 3 emissions, including players' end-device emissions—especially by engaging policymakers to accelerate the renewable energy transition.
- Tie executive compensation to meeting climate goals.
- Institute an internal carbon tax and invest taxes into reducing greenhouse gases.
- Integrate diversity, equity, inclusion, and justice (e.g., partner with Native-owned renewable energy companies).

GAMER & COMMUNITY ENGAGEMENT

The gaming industry’s “climate superpower” is its massive reach: Over 3 billion people play video games—an incredible opportunity to normalize climate action. Effective player engagement necessitates an engaged company that players can look to for climate content and that can point to trusted climate solutions resources. When employees feel they have the right information and tools, it raises not only their own awareness and ability to act on climate, but also that of the players.

Photo by Priscilla Du Preez



GAMER & COMMUNITY ENGAGEMENT

KEY ACTIONS

- Understand gamer appetite for climate solutions, and integrate meaningful climate solutions storytelling and activations into games.
- Support climate readiness of your current and future workforce through training, mentorship, and educational programs.
- Mandate or incentivize employee climate education, tailored to specific functions.
- Provide climate literacy education for executives and board members.

PRODUCTS, PARTNERSHIPS, & PROCUREMENT

From designing differently to pushing cloud service providers to decarbonize, gaming software companies can have a significant impact on climate. Gaming software companies must account for the full scope of climate impacts from how they design their products, with who they partner to develop and sell their products, and their procurement policies.

Photo by Samsung Memory on Unsplash



PRODUCTS, PARTNERSHIPS, & PROCUREMENT

KEY ACTIONS

- Design games with both climate solutions-centric themes and emissions in mind (e.g., impacts of graphical quality, game elements, and player experience).
- Push cloud and web services to reduce their emissions.
- Ensure in-game promotions support climate-friendly brands.
- Be open about climate goals and strategies and include in partner communications.
- Develop a policy that favors suppliers with science-based emissions reductions goals.

INVESTMENTS & FINANCING

There's no doubt that money holds tremendous power, much of which is currently being funneled toward fossil fuels and other extractive industries. This makes gaming companies' capital an undeniable tool for helping mitigate climate change. Redirecting company cash and investments toward climate solutions, by rethinking things like banking relationships and employee retirement funds, can be a massive catalyst.

Photo by Luis Cortes



INVESTMENTS & FINANCING

- Offer employees climate-friendly retirement and pension plans.
- Push banks and asset managers to align investments with the [Paris Agreement](#).
- Steer insurance companies away from underwriting fossil fuel and other carbon-intensive projects.
- Provide direct grants, loans, and investments for climate solutions, action, and advocacy efforts.

KEY ACTIONS

CLIMATE DISCLOSURES

It's important for you to transparently track and report all of your company emissions. Good emissions data help the climate-concerned public make informed decisions about which products to buy and which companies to invest in as they work to hold the private sector accountable for climate progress. Check out guidance and standards such as [CDP](#), the [Task Force on Climate-Related Financial Disclosures \(TCFD\)](#), and [Sustainability Accounting Standards Board \(SASB\)](#), and accounting tools like [Net Zero Cloud](#).

Photo by Brian Garrity



CLIMATE DISCLOSURES

- Assess all supply chain activities and publicly disclose climate risk in profit projections and investor information—and always explore how to improve these data.
- Support policies and regulations for mandatory disclosure of comprehensive emissions data and climate risk.

KEY ACTIONS

CLIMATE POLICY ADVOCACY

Good policy can help lay the groundwork for industry-wide climate action and is often required for companies to have the best chance at meeting their climate goals. Gaming companies can help move the needle on climate action by consistently voicing their support for climate policy and working together to influence industry associations, such as the [Entertainment Software Association \(ESA\)](#) and the [Interactive Software Federation of Europe \(ISFE\)](#), to publicly advocate for climate policy.

Photo by Erol Ahmed



CLIMATE POLICY ADVOCACY

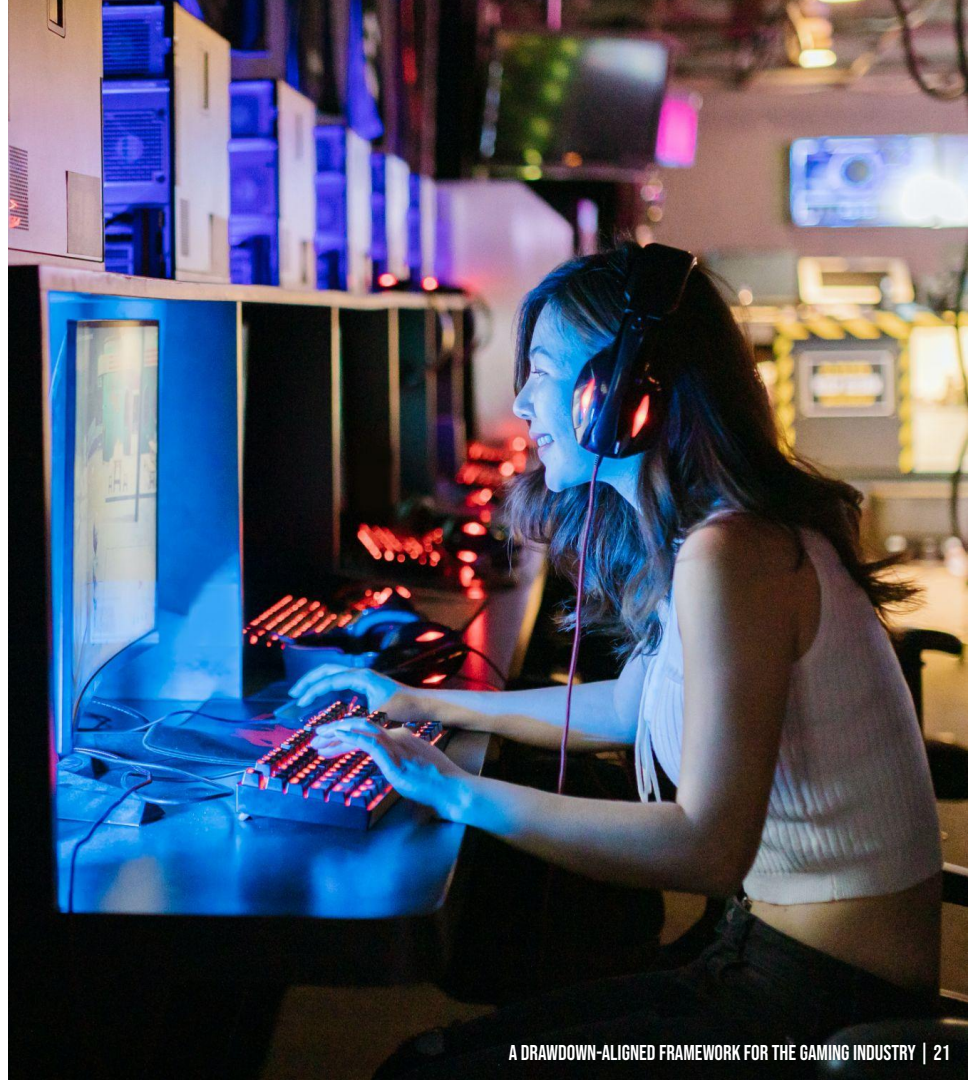
- Unequivocally advocate for climate and clean energy policy at the regional and federal levels rather than only taking an opportunistic or piecemeal approach.
- Ensure political contributions and lobbying support rather than undercut climate action and climate-friendly candidates.
- Push industry groups to advocate for climate policy.

KEY ACTIONS

BUSINESS MODEL TRANSFORMATION

Every business must strive to rethink how its goods and services can help scale just climate solutions. At the end of the day, all gaming companies will need to transform how they do business to ensure they can thrive in the era of climate change. Companies will need to integrate climate solutions into their internal systems that drive day-to-day decision-making across all parts of the business model.

Photo by RODNAE Productions



BUSINESS MODEL TRANSFORMATION

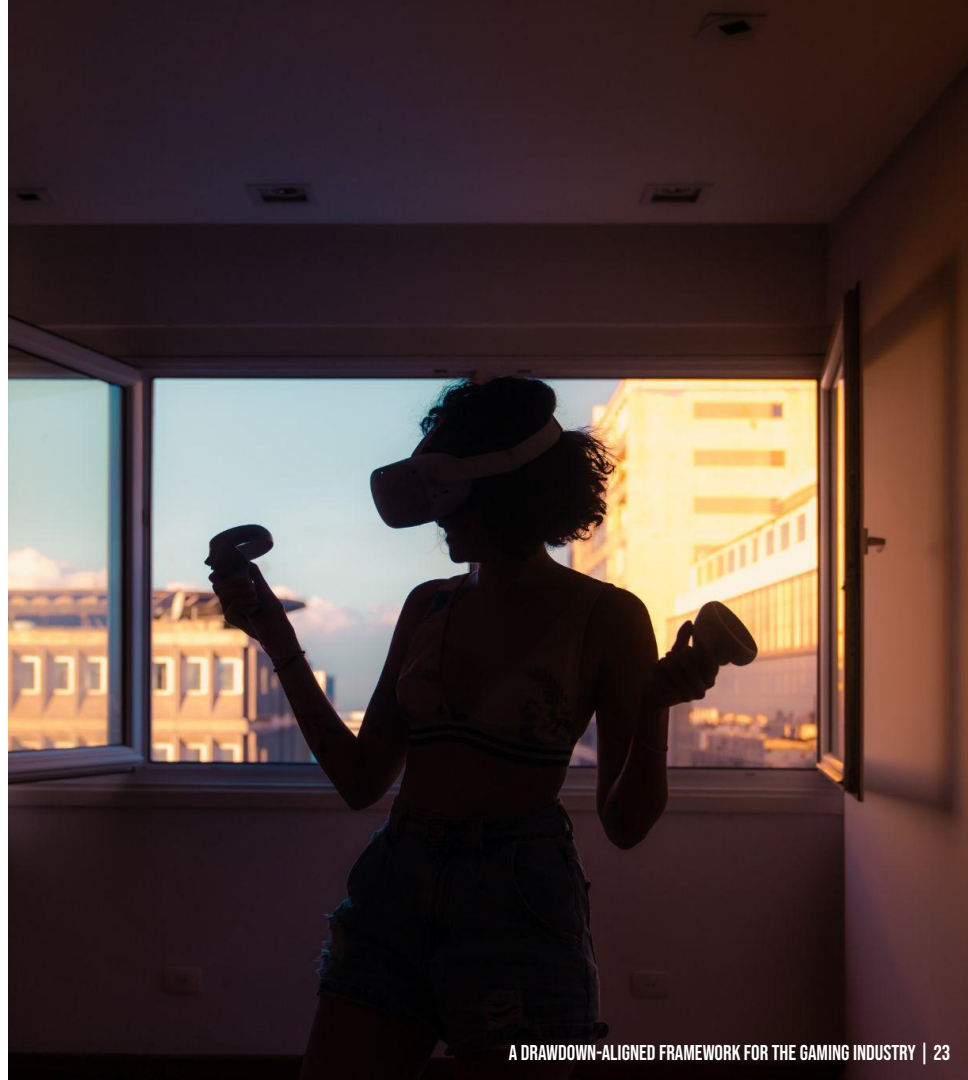
- Explore strategies that embed climate considerations into every part of the business—apply a “climate lens” to every executive and programmatic decision and create climate-relevant KPIs for each business unit.
- Shape business models to promote climate solutions and phase out activities that are incompatible with drawdown.

KEY ACTIONS

LONG-TERM THINKING

Beyond just business models, gaming companies will ultimately need to **redesign their entire enterprise**, from governance and ownership to company culture. Success of a business must be measured in the long term and in terms of the public good. *How can gaming be used to **help build** a world where all living things can thrive?*

Photo by Vinicius Amano



LONG-TERM THINKING

KEY ACTIONS

- Integrate a long-term outlook into climate plans to ensure they contribute to the public good for all future generations.
- Rethink the design of the company itself, reevaluating purpose, networks, governance, ownership, and finance.
 - Use this [free tool](#) created by Doughnut Economics Action Lab (DEAL), that guides businesses through a workshop to become regenerative and distributive in their strategies, operations, and impacts.

IMPORTANT CONSIDERATIONS

Implementation and impact of actions will vary from company to company.

The actions laid out in the framework range from low to high levels of involvement, and their implementation and subsequent impact will depend on individual companies. **It's important you contextualize the information and recommended actions** for your own company depending on its size, capabilities, and available resources.

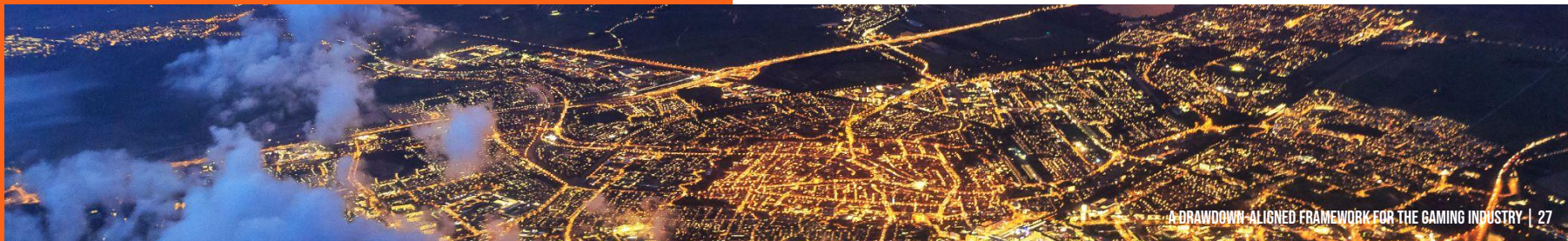
EXAMPLES OF THE FRAMEWORK IN ACTION

EMISSIONS REDUCTIONS

Address Scope 3 emissions, including players' end-device emissions—especially by engaging policymakers to accelerate the renewable energy transition.

Xbox

The company now offers **carbon aware downloads and updates**—meaning when a console is plugged in, connected to the Internet, and regional emissions data are available, downloads and updates will occur at times when a “higher proportion of electricity is coming from **lower-carbon sources** on the electric grid.”



EMISSIONS REDUCTIONS

Address Scope 3 emissions, including players' end-device emissions—especially by engaging policymakers to accelerate the renewable energy transition.

Rovio

Rovio **ensures their players' emissions are included in their own greenhouse gas accounting**, adding an “additional emission category” for “device energy use of [their] YouTube viewers.” **For players**, they “changed the calculation model to be based on actual play/view time instead of the previous rough assumption of one daily active user consuming full battery a day.”

EMISSIONS REDUCTIONS

Tie executive compensation to meeting climate goals.

Ubisoft

The variable **compensation of Ubisoft's CEO and deputy CEOs** depends on whether the company reaches its **carbon intensity reduction goals**.

EMISSIONS REDUCTIONS

Institute an internal carbon tax and invest taxes into reducing greenhouse gases.

Xbox

Microsoft utilizes an [internal carbon tax](#) to help reach its goal of becoming carbon negative by 2030. The company charges its internal business groups a fee that covers all scopes of emissions to help fund carbon reduction efforts.



GAMER AND COMMUNITY ENGAGEMENT

Understand gamer appetite for and integrate meaningful climate solutions storytelling and activations into games.

EA Sports

In 2022, EA Sports [partnered with the brand PARK](#) to **reduce carbon pollution by buying emissions allowances so that big polluters in the global carbon marketplace couldn't**. Each game played with PARK's featured team in FIFA22's "Featured Squad Battle" took 100 grams of carbon out of the carbon marketplace—with the goal of 1 million games played and 100 metric tons of carbon emissions avoided.

Photo by Karine Avetisyan



GAMER AND COMMUNITY ENGAGEMENT

Understand gamer appetite for and integrate meaningful climate solutions storytelling and activations into games.

Green Game Jam

The [Green Game Jam](#), an initiative of the United Nations Environment Programme (UNEP)'s Playing for the Planet, brings together studios to **integrate activations into popular existing games** or create new ones. Activations range from climate solutions–focused themes and messages to in-game donation opportunities.



GAMER AND COMMUNITY ENGAGEMENT

Mandate or incentivize employee climate education, tailored to specific functions.

Electronic Arts (EA)

EA provides employees the opportunity to work on innovative projects outside of their main roles. Through this program, members of EA's Global Green Team created a [dashboard for individual employees](#) to see their real-time daily and annual carbon emissions, to **inspire colleagues to reduce their climate impact at work.**

GAMER AND COMMUNITY ENGAGEMENT

Mandate or incentivize employee climate education, tailored to specific functions.

Ubisoft

Ubisoft partners with The Climate School to **supply their employees courses on the climate crisis** and its causes, and **provides insights and advice to employees** based on their specific team and job function.

Photo by The Climate Reality Project



GAMER AND COMMUNITY ENGAGEMENT

Support climate readiness of your current and future workforce through training, mentorship, and educational programs.

International Game Developers Association (IGDA)

The [IGDA](#) Climate Special Interest Group (CLIMATE SIG) partners with game developers, impact organizations, and higher education to co-create resources, events, and workshops that **prepare the current and next generation of developers** for climate resiliency.

→ See: pilots with [Cologne Game Lab](#) and [Indiecade](#); Game Developers Conference Climate Design Workshop with the [Adrienne Arsht – Rockefeller Foundation Resilience Center](#).



PRODUCTS, PARTNERSHIPS, AND PROCUREMENT

Develop a policy that favors suppliers with science-based emissions reductions goals.

Ubisoft

Ubisoft's [Supplier Code of Conduct](#) includes environmental criteria, and the company has committed that 67% of its **suppliers will have science-based targets** by 2026.

Sony

The company requests [suppliers and subcontractors](#) to “**set medium- and long-term targets for emissions reduction** and perform progress management,” and provides science-based target guidance and support to some suppliers.

PRODUCTS, PARTNERSHIPS, AND PROCUREMENT

Be open about climate goals and strategies and include in partner communications.

Rovio

The company ensures it **integrates climate considerations into all relevant partner discussions**, which has opened up new possibilities for emissions reductions. When choosing a service provider company, Rovio is transparent about their requirements and expectations. This has revealed that seemingly similar providers actually have very different approaches to sustainability.

Photo by Charles Deluio



INVESTMENTS AND FINANCING

Offer employees climate-friendly retirement and pension plans.

Unity

By providing its employees with **ESG-screened funds for 401(k) investments**, Unity is ensuring **retirement funds are not invested in fossil fuels** and reducing its impact from overall financed emissions.

Photo by Marc Najera



BUSINESS MODEL TRANSFORMATION

Explore strategies that embed climate considerations into every part of the business—apply a “climate lens” to every executive and programmatic decision and create climate-relevant KPIs for each business unit.

Unity

Unity created a [Sustainability Oversight Committee](#) to advise on strategy and implementation of **climate actions across all of the company’s business units**. In addition to becoming carbon neutral as of 2020, Unity has also set annual emissions reductions targets that are shared by all business units.

Photo by Redd F



BUSINESS MODEL TRANSFORMATION

Explore strategies that embed climate considerations into every part of the business—apply a “climate lens” to every executive and programmatic decision and create climate-relevant KPIs for each business unit.

Ubisoft

Ubisoft **integrates climate across teams** to transform their climate commitments into tangible results, and **includes sustainable development criteria in operational decision making**: “engagement is animated at all levels of the company.”

BUSINESS MODEL TRANSFORMATION

Shape business models to promote climate solutions and phase out activities that are incompatible with drawdown.

IGDA Climate Special Interest Group

By creating the [Climate Games Database](#), a living collection of over 400 games and digital prototypes that include environmental or climate-conscious themes, the special interest group is **helping companies more effectively integrate climate solutions into business models**. The initiative will conduct a meta-analysis of what currently exists in the market, how well the games were commercially received, what proven impact they enabled, and what has yet to be explored.

BUSINESS MODEL TRANSFORMATION

Shape business models to promote climate solutions and phase out activities that are incompatible with drawdown.

Sankari Studios

The company's **innovative platforms** are **focused on providing game content that drives positive impact in the real world**. Sankari Studios' mobile game, KATOA, educates players on nature conservation, and allows them to earn impact currency that is underwritten by the company and its sponsors. This game currency turns into real money, democratizing the funding of global climate initiatives.



LONG-TERM THINKING

Integrate a long-term outlook into climate plans to ensure they contribute to the public good for all future generations.

Rovio

Long-term perspective is core to the company's sustainability **strategy**: “We have also clarified our way of working, as we build our sustainability with continuous improvement and **focus on long-term perspective instead of quick wins**. Going forward, we want to see sustainability even deeper embedded into our core business and operation.”

Photo by Felix Mittermeier



KEY GAPS

INVESTMENTS AND FINANCING

Few companies are pulling this powerful lever at all.

Some companies are taking investments and financing into consideration, but are not yet implementing initiatives at scale. Understandably, one barrier for companies—especially small and medium businesses—is the time and resources involved in researching and finding a sustainable bank, and changing payroll and finance systems. Some also feel as if they don't have much leverage in this space. **However, smaller companies might actually have more flexibility to choose sustainable bank partners.**

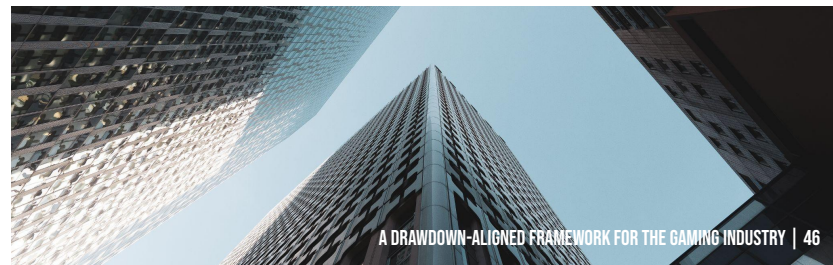
INVESTMENTS AND FINANCING

The impact of corporate cash on the climate is significant.

For many companies, “the carbon footprint generated by their investments and cash held in big banks are a significant source, and **sometimes their largest source, of emissions,**” according to [The Carbon Bankroll report](#).

→ To learn more, check out Project Drawdown’s [two-part webinar series](#) on greening retirement funds and decarbonizing corporate cash.

Photo by Sirisvisual on Unsplash



CLIMATE POLICY ADVOCACY

Few companies are pulling this lever to its full extent.

Companies have historically approached policy advocacy in a piecemeal and opportunistic manner. But we need constant pressure on governments to create lasting change. There are **many benefits** to consistent corporate climate advocacy, from reduced risk and cost to improved consumer reputation.

Some industry associations are already engaged (for example, major European and Australian associations are part of **Playing for the Planet Alliance**), but groups can do more to enable strong and ongoing advocacy.

→ Check out Project Drawdown's **webinar** on why policy advocacy should be a key part of corporate climate strategies.

CALLS TO ACTION



Photo by Louise Viallesoubranne

If you are an employee who works on a sustainability team or is generally climate concerned, consider the following calls to action:

- 1) **First, start with your own and your team's work:** Share this document with your team and find ways to integrate the framework actions into your roles. *What actions can you and your team take today?*
- 2) **Then, evaluate your company:** Compare your own company's climate goals with the framework to see where your company can improve.

→ Use this **template** we've created to conduct your own evaluation.

3) **Communicate to and work with leadership to incorporate the framework actions into your company's corporate sustainability targets:**

Once you've evaluated your company's climate strategy and identified areas for improvement, share your ideas—as well as examples of the framework in action—with your supervisor or other leadership. Explain the need to improve climate action in the gaming industry and note the many proofs-of-concept from other companies.

4) **Finally, use the framework to formulate long-term strategy:** If you're in a leadership role, refer to the framework when speaking with other leaders, investors, and board members about long-term company outlook.



ADDITIONAL RESOURCES



Photo by Fausto Sandoval

If you want to dive deeper into how gaming industry employees and companies can take high-impact climate action, check out:

- [Climate Solutions at Work: unleashing your employee power](#) [Drawdown Labs]
- [Job Function Action Guides](#) [Drawdown Labs]
- [IGDA Climate Special Interest Group](#)
- [Environmental Game Design Playbook](#) [IGDA]
- [What Do Video Gamers Think About Global Warming?](#) [Unity and Yale Program on Climate Change Communication]
- [Climate Game Toolkit for Content Creators](#) [Arnaud Fayolle, Ubisoft]
- [Digital Games After Climate Change](#) [Dr. Ben Abraham]
- [Green Games Guide](#) [Ukie]

WORKING GROUP MEMBERS

Thank you to the many experts who contributed to this resource:

- **Ben Abraham**, Author, *Digital Games After Climate Change* and Founder, AfterClimate
- **Sam Barratt**, Chief, Environmental Education and Youth Unit, United Nations Environment Programme (UNEP)
- **Paula Escudra**, Senior UX Strategist, Xbox Game Studios Cloud Publishing and Co-Founder, IGDA Climate Special Interest Group
- **Nicolas Hunsinger**, Director of Environmental Sustainability, Ubisoft
- **Tommi Lappalainen**, Senior Sustainability Manager, Rovio
- **Marina Psaros**, Head of Sustainability, Unity*
- **Xiao Wang**, Decarbonisation Lead – Playing for the Planet, UNEP



* Drawdown Labs business partner



Photo by Jan Vasek

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