CARBON COUNTDOWN

INSTRUCTION MANUAL

©

AN EMISSIONS REDUCTION STRATEGY GAME FOR COLORADO STATE UNIVERSITY

REVISED ON
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DESIGNED BY
AIDAN LAWTON, MBA

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AIDAN LAWTON, MBA

INTRODUCTION

MEET THE DESIGNER

Aidan, a graduate from CSU's Impact MBA program, is passionate about helping people and organizations achieve their sustainability goals, not just set targets. Growing up in Colchester, England, his passion for sustainability was inspired by nature and his experience conserving sea turtles. This experience taught him the importance of collective effort in preserving the environment for future generations. Recognizing that people have different needs and thoughts about sustainability sparked his journey in this field.

Working for the President's Sustainability Commission at Colorado State University (CSU), Aidan designed a game to simulate future scenarios for CSU, allowing anyone to play and learn what needs to be done to achieve necessary reductions. Through extensive playtesting with industry professionals, faculty, students, and staff, he ensured the game is accurate yet educational, accessible to people of any background, and designed to impart key learnings through play. His vision is for faculty, staff, and students to play this game and deepen their understanding of emissions reduction strategies.



AIDAN LAWTON, MBA

Aidan fundamentally believes that the best learning comes through play, as these experiences are more memorable and impactful. While many people are familiar with sustainability, the game, Carbon Countdown, makes it more relatable by allowing players to see their footprint and understand the complexities of funding and project implementation, all in a fun and tangible way. The game can be played collaboratively or competitively, emphasizing that achieving our Net Zero goals requires cooperation and collaboration. Pursuing an MBA, he saw that both small and big businesses have the power to bring joy to people, and he wanted to do that for. He believes the biggest challenge is getting started, but emphasizes the importance of seeing where an idea can lead.

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INTRODUCTION

GAME BACKGROUND

In Carbon Countdown, participants are tasked with collaboratively transforming a university campus into a model of sustainability by minimizing emissions. The aim is to remove as many emissions tiles from the game grid as possible within 6 rounds (years), symbolizing a critical 6-year period for climate action and emissions reduction. Players strive not only for the highest overall emission reduction but also to achieve distinction in specific categories: Energy, Transportation, and Waste & Materials.



TEST PLAYING WITH PROS

The 6-year (round) game, challenges players to enact meaningful changes in line with real-world climate action timelines. Depending on the number of players, gameplay typically ranges from 30 to 50 minutes, ensuring a concise yet engaging experience.

Designed for 2 to 4 players, with the option for participants to form pairs, allowing up to 8 players per game board. This fosters teamwork and broadens participation.



TEST PLAYING ON CAMPUS

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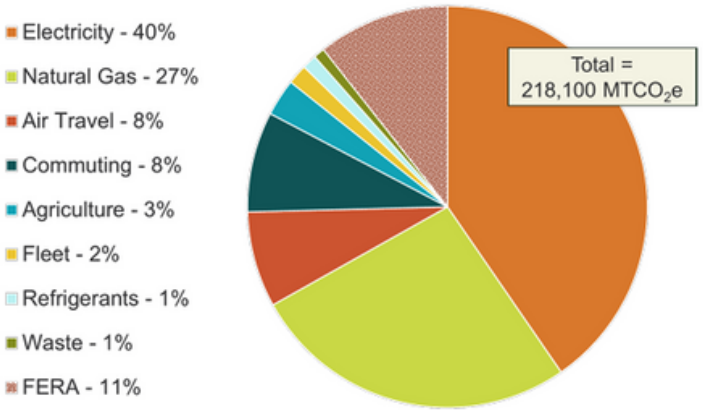
INTRODUCTION

THE SCENARIO

Organizations use greenhouse gas (GHG) inventories to measure the environmental impacts of their operations. Most of an organization's activities are accounted for, and the global warming potential of each gas is then converted into equivalent units of CO2 (carbon dioxide). Most higher education institutions complete an annual GHG inventory, as do many major businesses, cities, counties, and states. Each sector follows defined protocols to gather and report data. CSU follows criteria unique to higher education, which enables CSU to compare emissions within the higher education sector and consistently track progress over time. A GHG inventory tells a lot about an organization's operational impacts, and highlights areas that need the greatest focus to reduce GHG emissions.

CSU adopted its first Climate Action Plan (CAP) in 2010 to chart the course to reduce emissions. The plan is revised every few years. In 2021, CSU adopted a new goal of carbon neutrality by 2040. The current CAP, completed mid-2022, reflects this updated goal by outlining strategies for emission reductions in the key emission categories. Visit the Facilities Management Sustainability Reports Webpage to see previous versions of the CAP and past GHG Inventories.

Adjacent you will see the current emissions inventory for Colorado State University. This data inspires the game Carbon Countdown and you will work towards CSU's emissions reduction goals through play.



CSU EMISSIONS INVENTORY

FY23 – GHG Summary – Colorado State University		
Scope	Source / Category	Total Emissions $MTCO_2e$
Scope 1	Stationary Fuels – Natural Gas, Propane	57,800
	Fleet Fuels	3,500
	Refrigerants	2,500
	Agriculture – Animals & Fertilizers	6,500
Scope 2	Purchased Electricity	84,500
Scope 3	Faculty Commuting	1,100
	Staff Commuting	3,700
	Student Commuting	12,800
	Directly Financed Air Travel	16,800
	Solid Waste	1,900
	Scope 3 Transmission & Distribution Losses	3,700
	Fuel & Energy Related Activities (FERA)	23,300
Offsets	Additional Offsets (composting)	-300
	Non-Additional Offsets – already subtracted from Electricity Use	0
	Scope 1 total	61,100
	Scope 2 total	83,900
	Scope 3 total	45,400
	Total All Scopes	218,400
	Total Offsets	-300
	FY23 Net Emissions	**218,100**

GHG SUMMARY

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INTRODUCTION

LEARNING OUTCOMES

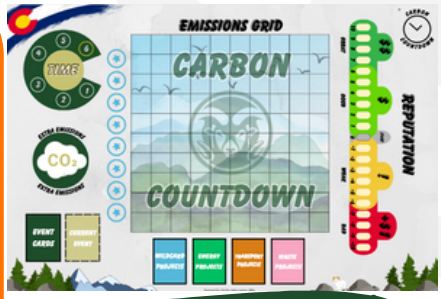
1. EXPLORE GHG REDUCTION STRATEGIES
2. UNLOCK REWARDS AND RISKS OF GHG REDUCTION
3. UNDERSTAND THE VALUE OF COLLABORATION
4. UNDERSTAND THE CHALLENGES WITHIN A CLIMATE ACTION PLAN (CAP)

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SET UP

GET READY TO PLAY

1. Lay out the 4 Board Pieces to match as pictured.
2. Assign a banker (they can play) to manage the money in the game.
3. Shuffle and place each of the three funding card decks face down next to the assigned banker.
4. Arrange the pretend money in piles next to the banker.
5. Select Your Hiker Token and place on the '1' spot on the 'Time C' in the top left of the board.
6. Take a 'Cam the Ram' and place on the 0 line (Start Space) on the reputation line.
7. Shuffle and place the project cards in their matching spot along the bottom of the board.
8. Select 6 Event Cards, Shuffle, Place face down in the Event Card spot (bottom left of the board).
9. Arrange the 8 Wildcard (Blue Star) tiles along the left side of the grid.
10. Arrange 67 Energy (Green Lightning) tiles on the 10x10 'Emissions Grid'.
11. Arrange 30 Transport (Orange Car) tiles on the 10x10 'Emissions Grid'.
12. Arrange 3 Waste & Materials (Pink Trash Can) tiles on the 10x10 'Emissions Grid'.



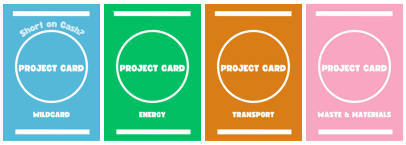
GAME BOARD



FUNDING CARDS



EVENT CARDS



PROJECT CARDS



EMISSIONS TILES



WILDCARD TILES

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SET UP

GET READY TO PLAY



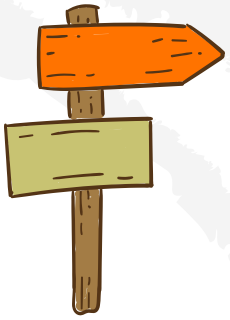
FINISHED SET UP



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LOGISTICS

HOW IT WORKS

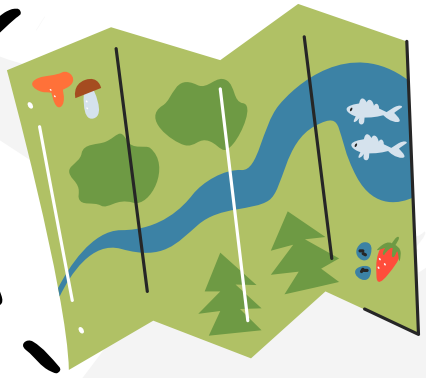


The flow of the game is designed to ensure each player gets to strategize and act in turn, reflecting the continuous cycle of planning, funding, and implementing emission reduction actions.

When a project card is implemented that removes emissions, the player will remove the indicated number of tiles from the game board grid. These tiles are sorted by their types - Energy, Transportation, or Waste & Materials and kept in front of the player as a score of their emissions reductions. Wildcard projects require increasing emissions, so the player needs to add that number of tiles back to the grid from the extras pile.



Some projects might also change the Reputation, for better or worse, and the player will update the reputation tracker to show this new standing. At the end of their turn, each player returns all unimplemented cards back to their decks but can retain 1 card if they want to hold onto for the next round, putting the rest back under their respective decks. The game will continue to flow in this way so that actions a player takes on their turn will impact the next player in some capacity.



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COMPONENTS

READING THE CARDS

The Project Cards

Project cards are the primary method to reduce emissions, with each card's suit corresponding to a specific emissions category.



BONUS EFFECT

Handshake Symbol (Collaboration Card):

- Allows shared funding between players.
- Ensures even distribution of removed emission tiles.

Reputation Needed Symbol: R ≥ 4

- Card can only be played if the reputation is at or above the indicated threshold.

"A" Symbol (Action Card): A

- Indicates an action is associated with the card.
- Read this action out loud before proceeding.

CARD ATTRIBUTES

Cost:

- How much you need to pay the bank to play the card

Reputation Change:

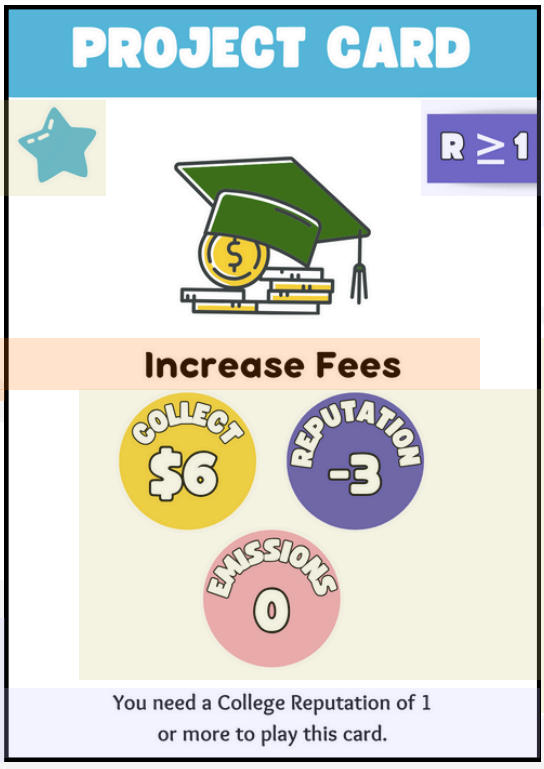
- How much you will adjust the reputation once you play the card

Emissions Change:

- How many emissions tiles you will add or remove to/from the emissions grid. **The circle color determines the type of emissions based on suit.**

The Wildcards

Wildcards are free to play. Remove a wildcard tile from the row and add it to your score when playing a wildcard. A wildcard tile must be present in the row to play a wildcard.



BONUS EFFECT

Reputation Needed Symbol: R ≥ 4

- Card can only be played if the reputation is at or above the indicated threshold.

CARD ATTRIBUTES

Collect:

- How much you will collect from the bank when you play this card

Reputation Change:

- How much you will adjust the reputation once you play the card

Emissions Change:

- How many emissions tiles you will add to the emissions grid once you play the card. **The circle color determines the type of emissions based on suit.**

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COMPONENTS

UNDERSTANDING PROJECTS

The Project Cards

Players have access to four types of project decks (suits):
Energy, Transportation, Waste & Materials, and Wildcard.

The first three are designed for emission reduction on the game grid, mirroring reduction initiatives. Wildcards, however, can provide funding opportunities at no financial cost but might increase emissions and/or negatively affect the college's reputation. Wildcards provide the players an alternative way to collect funding. A Wildcard can only be played if there's a corresponding Wildcard tile available adjacent to the emissions grid, adding a layer of strategic planning regarding their use.

Before playing a card, assess its cost, its effect on emissions, and how it influences reputation. A player will either remove tiles from the grid to represent a decrease in emissions or add tiles to reflect an increase. The reputation tracker should be adjusted to mirror any changes.

Special symbols on cards indicate additional considerations, (Bonus Effects):

- A Handshake symbol denotes a Collaboration card, allowing shared funding between players but ensuring even distribution of removed emission tiles.
- The Reputation Needed symbol means the card can only be played if the reputation is at or above the indicated threshold.
- An "A" symbol indicates an action is associated with the card; read this action at the bottom of the card out loud before proceeding.

Once a project card is purchased, place it face down in front of you to keep track of your actions.

What emissions each suit contains:
Energy: Electricity, Natural Gas, Refrigerants
Transport: Campus Fleet, Commuting, Air Travel, Agriculture Equipment
Waste & Materials: Solid Waste, Agricultural Materials
Wildcard: Non-Sustainability projects to raise funds

FOUR SUITS:

ENERGY

TRANSPORT

WASTE & MATERIALS

WILDCARD

Bonus Effects


Collaborate



Reputation Needed


Action









CARD EXAMPLES

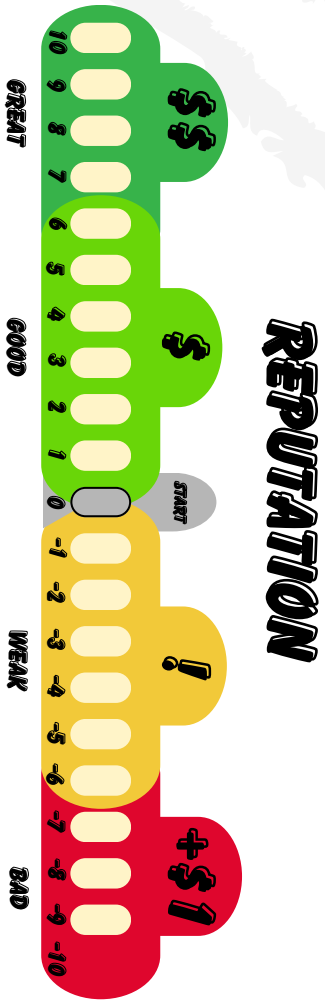
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COMPONENTS

REPUTATION & FUNDING

The Funding Cards

Funding Cards dictate how players secure financial resources critical for implementing emission reduction projects. The type of funding card you draw is determined by the current reputation at the start of your turn. Here's how it works:



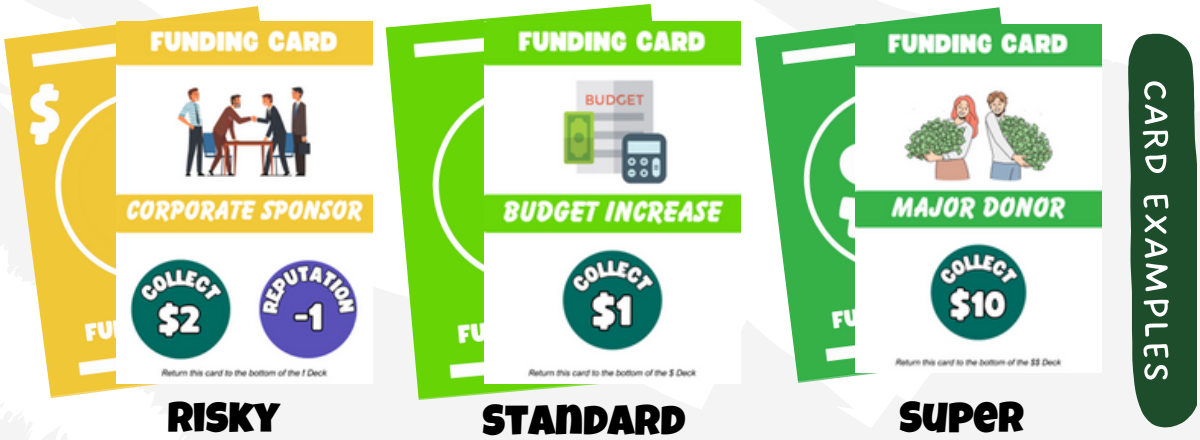
Super Funding = **Reputation 7 to 10:** This tier is accessible when the Reputation is high, indicating strong support and trust. The player draws from the Super Funding Deck, symbolizing premium funding options with potentially greater benefits. After collecting the funding from the bank and applying effects, the card is placed at the bottom of the Super Funding Deck.

Standard Funding = **Reputation 0 to 6:** With a Reputation within this more stable range, the player draws from the Standard Funding Deck. This represents a balanced approach to financing, reflecting a moderate level of financial security and risk. The player proceeds to collect the funding from the bank and implement any effects, then returns the card to the bottom of the Standard Funding Deck.

Risky Funding = **Reputation -10 to 0:** If the Reputation is in this range, the player draws from the Risky Funding Deck. This deck represents higher-risk financial strategies that might come with certain challenges or conditions. The player collects the allocated funding from the bank and applies any associated effects (like limiting their hand size). After use, the funding card is placed back at the bottom of the Risky Funding Deck.

Bad Reputation = **Reputation -7 to -10:** **INCREASE** the cost of ALL Projects by $1. Continue to draw from the Risky Funding pile.

Special Note: At a Reputation of **0,** players are granted the flexibility to **choose** between Risky and Standard Funding, allowing strategic decision-making based on their current situation and future plans.



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COMPONENTS

HOW EVENTS WORK

The Event Cards

Each "year" (round) in Carbon Countdown starts with an Event Card. These cards bring unpredictable challenges or opportunities, much like real-world events, and must be addressed first. They reflect global or local issues of a single year, impacting every player. After all players take their turn, a new Event Card is drawn, adding fresh dynamics and pushing the game's narrative, which mimics the ongoing journey of emission reduction efforts.



Event Cards are designed to simulate a future that we have to adapt to. Sometimes Event Cards will benefit all players, and sometimes they will be difficult to deal with, just like real life.

Event Cards can be arranged in any order you like but to aid new players, a **Paths of Play** section in this guide will help you customize and set the game up to a difficulty that suits the players, especially playing for the first time.

Each game of Carbon Countdown uses SIX event cards to simulate the next 6 years of the scenario. Feel free to mix it up and try different events and orders.

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GAMEPLAY

HOW TO PLAY

‘A Year of Play’

1. Event Card: Each year (round) begins with turning over a new Event Card, setting the stage with global or local events that impact all players. This card must be resolved before any player actions.

2. Funding Phase: The first player starts by drawing funding based on the current position on the reputation tracker. The type of funding (Risky, Standard, or Super) directly correlates with the reputation range at that moment. Once the funding card has been turned over the banker allocates that amount to the player. The reputation begins at neutral (zero on the reputation scale) at the beginning of the game.

3. Project Card Phase: After securing funding, the player draws **5 Project Cards** to fill their hand, selecting from the Energy, Transportation, Waste & Materials, and Wildcard decks as they prefer. **(A Players Hand Contains 5 Cards Maximum).**

4. Play Phase: In the Play Phase, the player reviews their hand and decides which Project Cards to use or whether to play a Wildcard, considering their available funding and goals. They can purchase as many projects as they can afford or choose to save their money for the next round and not play any cards. Once the player has finished implementing projects or wildcards, they return their unused hand to the bottom of the respective decks. The player may keep one card to carry over to the next turn.

5. Next Player's Turn: The next player then follows the same sequence:
   - Funding Phase: Draw funding based on the reputation, which may have changed during the previous player’s turn.
   - Project Card Phase: Draw up to 5 cards in total, from the Energy, Transportation, Waste & Materials, and Wildcard decks as they prefer.
   - Play Phase: Implement projects or Wildcards as desired, then discard down to 1 card to carry over.

6. End of Year (Round): Once all players have taken their turn, the year concludes. A new Event Card is drawn to mark the beginning of the next year, and the cycle repeats. Move the hiker token to the next year on the time tracker. If you have selected to hold 1 card for next year, then you only draw 4 cards at the start of your turn.

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WINNING THE GAME

HOW TO WIN

The champion of Carbon Countdown is determined by calculating each player's score. To calculate the scores, each player follows these steps:

1. Add all the emissions tiles in front of you.
   Each tile you removed counts as **1 point.**
2. Count all your remaining dollars.
   Each dollar left at the end of the game is worth **1 point.**
3. Determine how many wildcard tiles you have collected.
   Each wildcard tile is worth **1 point.**

The winner is the player with the highest score after summing their points. This achievement highlights their strategic prowess in balancing initiatives across energy, transportation, and waste & materials. Alongside this, players can also earn accolades as Campus Energy, Transportation, or Waste & Materials Champions by excelling in specific areas of emissions reduction.

ACCOLADES FOR SPECIALIZED EXCELLENCE:

CAMPUS ENERGY CHAMPION: Recognizes the player who removes the most energy-related emissions.

CAMPUS TRANSPORTATION CHAMPION: Recognizes the player who removes the most transportation related emissions.

CAMPUS W&M CHAMPION: Recognizes the player who removes the most waste & materials related emissions.

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PATHS OF PLAY

CRAFTING SCENARIOS

To tailor Carbon Countdown to your group's experience level, choose the appropriate **path of play** by selecting Event Cards that match your desired difficulty. Each game will use six event cards to represent the next 6 years of the scenario. The game offers three distinct paths: Easy, Medium, and Hard. Each path escalates the challenge, making the journey toward campus emission reductions increasingly complex:



- **Easy Path:** Ideal for newcomers or those seeking a more relaxed gameplay experience. The Easy path introduces fundamental concepts of emissions reductions and strategic decision-making without overwhelming players with too many complexities.
- **Medium Path:** A step up in difficulty, the medium path is suited for players familiar with the game's mechanics or those with some knowledge of greenhouse gas emission reduction strategies. Expect a balanced mix of challenges and opportunities that require thoughtful planning and collaboration.
- **Hard Path:** Designed for experienced players or those well-versed in emission reduction strategies. The Hard path presents the most demanding challenges, simulating the intricate obstacles and high stakes often encountered in real-world efforts.

Selecting the right path ensures the game remains engaging and appropriately challenging, providing a fun experience that reflects the players' expertise and comfort level with the game's themes.



Of course, you may chart your own path and select whichever six event cards you like to play.

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PATHS OF PLAY

EASY PATH

The Easy Path of Play is ideal for new players who are unfamiliar with sustainability or emission reduction strategies. Below are two examples of pathways for you to set up when you prepare to play. These cards have been selected to introduce events that make the game easier to manage and for new players to learn about our future climate scenarios.

EASY PATH 1

EVENT CARD



Greener Grid

Your Utility company has successfully implemented 75% of electricity from renewables. This consequently reduces your emissions.

Implement:

EMISSIONS -30

EVENT CARD



Carbon Credits

At the start of your turn, you can sell removed carbon tiles to the bank for money. Each player who sells loses reputation once. Wildcard tiles can't be sold.

Rate: 2 Carbon Tiles = $1.

REPUTATION -2 EACH PLAYER

EVENT CARD



Fundraising

Your college hosts a major fundraising event, showcasing transportation projects as a draw for donations.

Each Player/Team Implement:

COLLECT $1 PER TRANSPORT TILE REMOVED

EVENT CARD



State Support

The State backs higher education sustainability. They allocate funding to support your efforts.

Each Player/Team Implement:

COLLECT $1 PER WILDCARD TILE REMOVED

EVENT CARD



Hot Summer

An unusually hot summer requires you to use more energy to cool the campus. Energy Emissions Increase.

Implement:

EMISSIONS +2

EVENT CARD



STARS Platinum Award

Your sustainability efforts have earned your campus an award. Congratulations!

Implement:

REPUTATION +2

MIX IT UP

SHUFFLE

PLAY

REDUCE

LEARN

ADAPT

EASY PATH 2

EVENT CARD



Under Pressure

If your campus has a Negative Reputation. You must decide this turn from the following effects. If your campus does not have a Negative Reputation, proceed your turn as normal.

COST $2 EACH PLAYER / HAND LIMIT 2 EACH PLAYER

Hand Limit restricts the maximum number of cards in a hand.

EVENT CARD



New Administration

A new presidential administration has been elected they add funding for renewable energy.

Implement:

COLLECT $1 PER ENERGY TILE REMOVED

EVENT CARD

Bitterly Cold Winter

An unusually cold winter requires you to use more energy to heat the campus, Energy Emissions Increase.

Implement:

EMISSIONS +6

EVENT CARD



Positive Press

Some fantastic articles have been published about your college. The public views your campus as a sustainability leader.

Implement:

REPUTATION +3

EVENT CARD



Celebrity Endorsement

A celebrity endorses your sustainability efforts. They donate based on the structure of your current sustainability grid.

Each player/team choose one of following:

COLLECT $1 PER ENERGY TOKEN / REPUTATION +1 PER WASTE TOKEN

EVENT CARD



Potential Opportunity

A private investor will fund your climate plan in exchange for 4 Wildcard Tokens. Decide within 60 seconds. To accept, continue to:

COLLECT $24 SPLIT BETWEEN ALL PLAYERS

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PATHS OF PLAY

MEDIUM PATH

The Medium Path of Play is designed for experienced players who are familiar with sustainability or emission reduction strategies. Below are two examples of pathways for you to set up when you prepare to play. These cards have been selected to introduce events that introduce challenge but maintain ease of play and the opportunity to learn about our future more challenging climate scenarios.

MED. PATH 1

EVENT CARD

Greener Grid

Your Utility company has successfully implemented 50% of electricity from renewables. This consequently reduces your emissions.

Implement:

EMISSIONS -20

EVENT CARD

Carbon Credits

At the start of your turn, you can sell removed carbon tiles to the bank for money. Each player who sells loses reputation once. Wildcard tiles can't be sold.

Rate: 2 Carbon Tiles = $1.

REPUTATION -2 EACH PLAYER

EVENT CARD

Fundraising

Your college hosts a major fundraising event, showcasing waste reduction projects as a draw for donations.

Each Player/Team Implement:

COLLECT $1 PER WASTE TILE REMOVED

EVENT CARD

Economic Recession

Due to an economic downturn and campus budget cuts, you must draw from the RISKY Funding Deck this turn, regardless of your campus's reputation.

EVENT CARD

Behavior Change

Your curriculum has produced positive behavior amongst students to reduce their waste.

Implement the following:

EMISSIONS -1 REPUTATION +1

EVENT CARD

Staff Protests

Departments on campus are concerned that you aren't supporting their interests and aren't bought in on your sustainable mission.

Implement:

COST $3 EACH PLAYER REPUTATION -2

If any player/team cannot pay the cost DOUBLE the reputation loss

MIX IT UP

SHUFFLE

PLAY

REDUCE

LEARN

ADAPT

MED. PATH 2

EVENT CARD

Positive Relations

You have convinced the community to support your efforts. As such reputation has improved.

Implement:

REPUTATION +1

EVENT CARD

Under Pressure

If your campus has a Negative Reputation. You must decide this turn from the following effects. If your campus does not have a Negative Reputation, proceed your turn as normal.

COST $2 EACH PLAYER / HAND LIMIT 2 EACH PLAYER

Hand Limit restricts the maximum number of cards in a hand.

EVENT CARD

Extremely Hot Summer

An unusually hot summer requires you to use more energy to cool the campus, Energy Emissions Increase.

Implement:

EMISSIONS +8

EVENT CARD

State Support

The State backs higher education sustainability. They allocate funding to support your efforts.

Each Player/Team Implement:

COLLECT $1 PER WILDCARD TILE REMOVED

EVENT CARD

Celebrity Endorsement

A celebrity endorses your sustainability efforts. They donate based on the structure of your current sustainability grid.

Each player/team choose one of following:

COLLECT $1 PER ENERGY TOKEN / REPUTATION +1 PER WASTE TOKEN

EVENT CARD

Emissions Scandal

A journalist has revealed that your college manipulated its emission records. Now, you must add emissions tokens to your game grid.

Implement:

EMISSIONS +4 EMISSIONS +4 REPUTATION -4

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PATHS OF PLAY

HARD PATH

The Hard Path of Play is designed for experienced professionals or players who are very familiar with sustainability or emission reduction strategies. Below are two examples of pathways for you to set up when you prepare to play. These cards have been selected to introduce events of significant challenge and the opportunity to learn about our future more challenging climate scenarios.

HARD PATH 1

EVENT CARD



Influencer Critique

A viral video by a popular influencer criticizes your sustainability efforts and spreads distrust.

Implement:

REPUTATION -5

EVENT CARD

Bitterly Cold Winter

An unusually cold winter requires you to use more energy to heat the campus, Energy Emissions Increase.

Implement:

EMISSIONS +6

EVENT CARD



Emissions Scandal

A journalist has revealed that your college manipulated its emission records. Now, you must add emissions tokens to your game grid.

Implement:

EMISSIONS +4 EMISSIONS +4 REPUTATION -4

EVENT CARD



State Support Drops

The State has pulled back on supporting higher education sustainability, cutting off funding for your initiatives.

Your college cannot draw from ANY funding deck this year, regardless of campus reputation.

EVENT CARD



Fundraising

Your college hosts a major fundraising event, showcasing new construction projects as a draw for donations.

Each Player/Team Implement:

COLLECT $1 PER WILDCARD TILE REMOVED

EVENT CARD



Staff Protests

Departments on campus are concerned that you aren't supporting their interests and aren't bought in on your sustainable mission.

Implement:

COST $3 EACH PLAYER REPUTATION -2

If any player/team cannot pay the cost DOUBLE the reputation loss

MIX IT UP

SHUFFLE

PLAY

REDUCE

LEARN

ADAPT

HARD PATH 2

EVENT CARD



Student Protests

Students demand faster action to reduce emissions on campus.

Implement:

REPUTATION -6

EVENT CARD



Negative Press

An established newspaper has published an article that criticises your college's sustainability reputation, distrust spreads.

Implement:

REPUTATION -4

EVENT CARD



Extremely Hot Summer

An unusually hot summer requires you to use more energy to cool the campus, Energy Emissions Increase.

Implement:

EMISSIONS +8

EVENT CARD



State Support

The State backs higher education sustainability. They allocate funding to support your efforts.

Each Player/Team Implement:

COLLECT $1 PER WILDCARD TILE REMOVED

EVENT CARD



Potential Opportunity

A private investor will fund your climate plan in exchange for 7 Wildcard Tokens. Decide within 60 seconds. To accept, continue to:

COLLECT $36 SPLIT BETWEEN ALL PLAYERS

EVENT CARD



Economic Recession

Due to an economic downturn and campus budget cuts, you must draw from the RISKY Funding Deck this turn, regardless of your campus's reputation.

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BEYOND THE GAME

DISCUSSION GUIDE

Carbon Countdown offers a hands-on exploration of the complexities involved in campus-wide emission reduction initiatives and climate action planning. By simulating financial decisions, reputation management, and the spatial considerations of project implementation, the game provides valuable insights into the multifaceted challenge to reach net-zero. It encourages critical thinking, collaboration, and strategic planning, mirroring the real-world challenges and rewards of pursuing emission reduction in a campus setting.

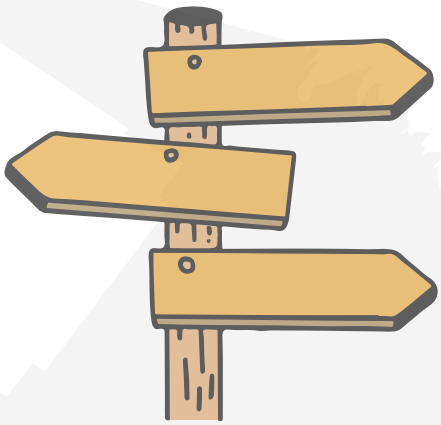
At the conclusion of Carbon Countdown, it's vital to reflect on the broader message and lessons learned from the game. Some key takeaways and reflection questions to inspire action and deeper understanding, could be:

1. **How much did everyone spend in total?**
2. **How many emissions were left?**
3. **What tactics worked well, and what didn't?**
4. **What did you learn that you had not considered before play?**



Reflecting on these points and discussing them with fellow players can deepen the understanding of emission reductions and broader sustainability challenges and inspire real-world action. Carbon Countdown is more than a game; it's a call to think globally, act locally, and help to make emission reductions and sustainability a part of your life and career.





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BEYOND THE GAME

EMPOWERING ACTION

EMPOWERMENT: Understand that students have a significant voice and the power to influence university policies and practices that inform initiatives towards emission reductions and campus sustainability. How can you use your voice effectively?

FOCUS AREAS FOR CARBON REDUCTION: Recognize the critical sectors like energy, transportation, and waste & materials where strategic actions can lead to significant carbon reductions. Which areas do players see holding the most potential for impact?

SOLVABILITY: Acknowledge that climate change and carbon reductions are challenges that can be addressed with real, actionable strategies. After playing the game, what strategies seem most feasible and impactful to you?

APPROACH: Consider that policy and strategic planning often play a more significant role than just technological solutions in addressing climate issues. How can policy changes influence emission reduction strategies and/or support technological advancements?

INCREMENTAL PROGRESS: Embrace the concept of tackling large problems in manageable steps - "Finish the puzzle one piece at a time." What small steps can you take now towards the bigger goal?

INCREMENTAL PROGRESS: Understand the importance of prioritizing funding and resources towards the most impactful emission reduction efforts. How can institutions better allocate resources for maximum impact?

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BEYOND THE GAME

GOING FORWARD

REFLECTIVE LEARNING: Reflect on what you wish you knew about emission reduction strategies and climate action six years ago. How has your understanding evolved, and what do you still wish to learn?

COMMUNITY AND LEADERSHIP: Recognize the role of student organizations like the Student Sustainability Center, ASCSU Environmental Affairs, Eco Leaders, and Zero Waste Team for example. As a student or employee, how can you contribute, or start a movement within your college / major / areas of interest / and community?

ACTION BEYOND BLAME: Move past assigning blame for environmental issues and focus on constructive actions. What positive steps can you take today?

PERSISTENCE AND GLOBAL THINKING: Maintain ongoing efforts for carbon reduction and remember the global impact of local actions. How can your actions contribute to global emission reduction goals and broader sustainability goals?

TRIPLE BOTTOM LINE: You may have noticed that many of the projects in the game included environmental, economic, and/or social aspects of sustainability, these 3 considerations are referred to as the Triple Bottom Line. How do you see the Triple Bottom Line being balanced in the actions you support?

OPTIMISM AND CAREER OPPORTUNITIES: Leave with a sense of optimism, not doom. Emission reductions and sustainability challenges bring job opportunities and career paths. How will you integrate sustainability into your career?

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ACKNOWLEDGEMENTS

THANK YOU

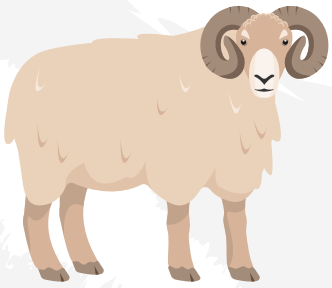
Carbon Countdown would not have been possible without the incredible support and collaboration of many individuals and organizations.

First and foremost, I extend my deepest gratitude to CSU's President Sustainability Commission for their unwavering support and guidance throughout this journey. Special thanks to Carol Dollard - Energy Engineer, Stacey Baumgarn - Campus Energy Coordinator, and Tonie Miyamoto - Executive Director, Division Communications and Sustainability. Your expertise, dedication, and passion for sustainability have been invaluable.

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A special thank you goes to the eco-leaders, professors on campus, and industry professionals who contributed their time and insights during the extensive playtesting process. Your feedback and encouragement have been crucial in refining and perfecting Carbon Countdown.

This game is a testament to the power of collaboration and the collective effort to educate and inspire future generations about the importance of sustainability. Thank you all for your contributions and support.





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WHAT'S IN THE BOX?

COMPONENTS INVENTORY

Game Board

- 4 equal-sized pieces

Project Cards (100 Total)

- Energy Cards: 35
- Transportation Cards: 27
- Waste & Materials Cards: 18
- Wildcard Cards: 20

Funding Cards (81 Total)

- Risky Funding: 27
- Normal Funding: 27
- Super Funding: 27

Event Cards (36 Total)

Carbon Tiles

- Energy Tiles: 80
- Transportation Tiles: 40
- Waste & Materials Tiles: 10
- Wildcard Tiles: 8

Note: There are more tiles than needed for emissions, providing spares in case additional emissions need to be added.

Game Pieces

- Hiker Piece (Time Tracker)
- Cam The Ram (Reputation Tracker)

Game Money

- $1 Bills
- $5 Bills
- $10 Bills

Note: The amount of Bills Needed to play varies on how many players are active.

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