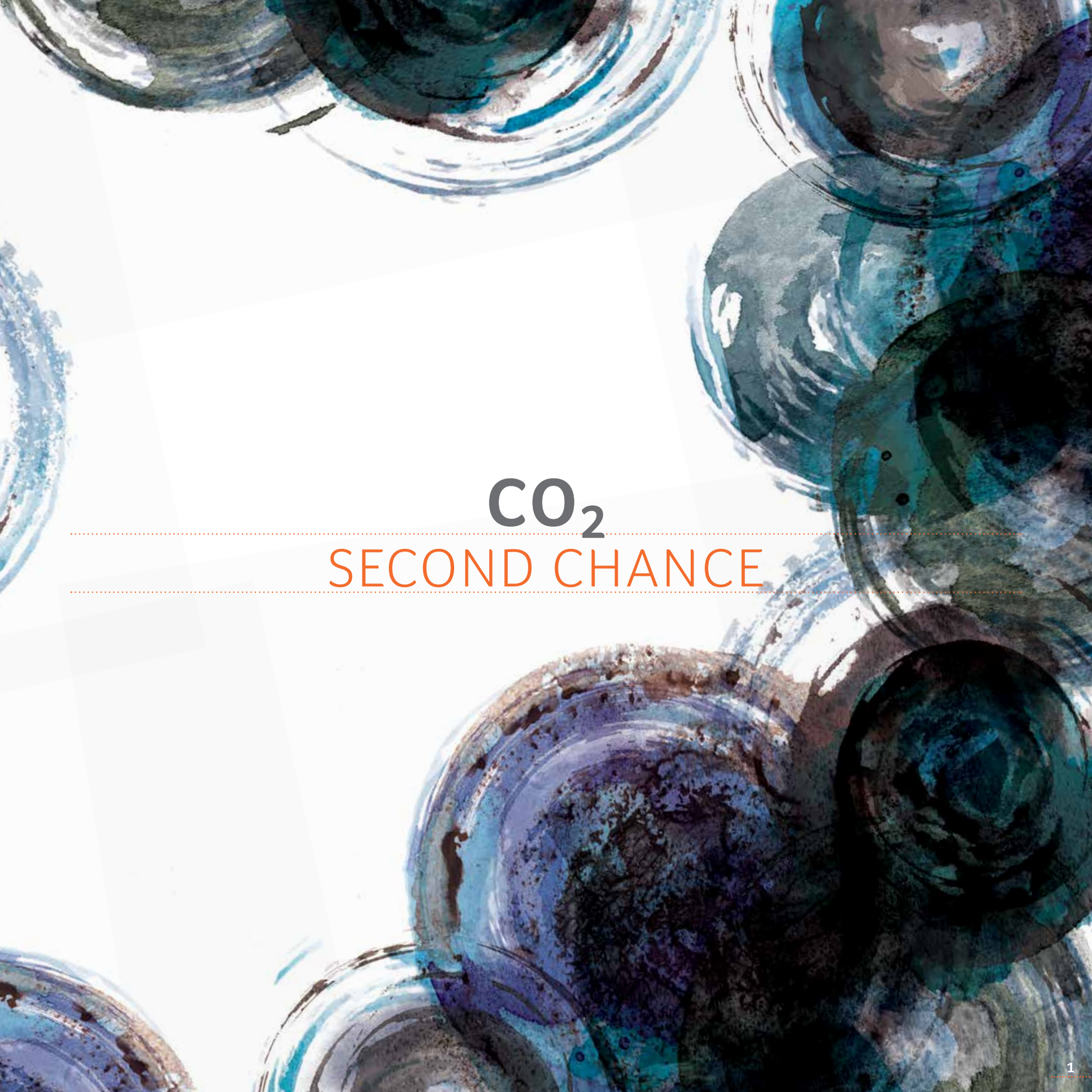


# $CO_2$
# SECOND CHANCE

# $CO_2$: SECOND CHANCE

*In the 1970s, the governments of the world faced unprecedented demand for energy, and pollutive power plants were built everywhere in order to meet that demand. Year after year, the pollution they generated increased, and far too little was done to reduce it.*

*In 2010, promises were made, summits were held, but not enough was done, and the impact of this rising pollution has become too great. As we watched $CO_2$ in our atmosphere increase from 350 ppm (parts per million) to 400 ppm, humanity started to realize that we are headed towards cataclysm. Now we have a second chance to save the earth from pollution and we are compelled to meet our energy demands through clean sources of energy.*

*Companies with knowledge in clean, sustainable energy are invited in to propose projects that will provide the required energy without polluting the environment. Regional governments are eager to fund these projects, and to invest in their implementation.*

*In the game $CO_2$: Second Chance, each player is the CEO of an energy company responding to government requests for new, green power plants. The goal is to stop the increase of pollution, while meeting the rising demand for sustainable energy — and of course to profit by doing so. You will need enough knowledge, money, and resources to build these clean power plants. Energy summits will promote global awareness, and allow companies to share a little of their knowledge while learning from others.*

***This game offers two modes of play: a fully cooperative mode of play, and the classic, mostly competitive mode, in which each player is striving to outperform the others. If too much pollution occurs, everyone loses, no matter how you play the game! You can use either mode of play for your first game, but the cooperative mode is the easier to learn and teach.***

## TABLE OF CONTENTS

# COMPONENTS

1 double-sided gameboard

4 player boards in player colors

4 player aids and 1 rulebook


1 Starting Player token and a 3-player Co-op token

36 Knowledge, Scoring, and Action markers in player colors

32 Infrastructure tokens in player colors

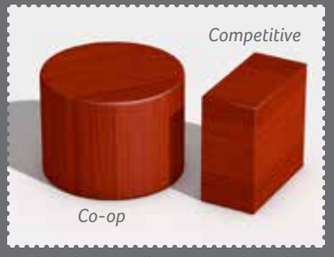
20 Control markers and 32 Control cubes, in player colors

4 Action markers and 16 Scientists in player colors

50 Carbon Emission Permits (CEPs) and 1 CEP Market Price marker

1 Team Score marker and 30 Tech cubes

1 Decade counter and 1 Operations Round counter




2 Global $CO_2$ Pollution Level markers, 1 for Co-op and 1 for Competitive


Currency: $1 billion, $2 billion, $5 billion, $10 billion


25 Power Plants (5 of each type)


25 Projects (2 level-1 and 3 level-2 of each type)


30 Fossil Fuel Power Plants in 3 types

8 Regional Agenda tiles


18 Energy Summit tiles in 3 different sizes


47 Environmental Goal tiles in 3 types, and 1 Bag - cooperative game


7 Event tiles - competitive game


36 Lobbyist cards


4 Configuration and Victory Epithet cards


45 UN Goal cards in 2 types


16 Cooperative Private Goal cards - cooperative game


10 Company Private Goal cards - competitive game

## COOPERATIVE SETUP

Place the gameboard in the middle of the table with the cooperative side face up.

1. Each player chooses a color. Then take:
   a. The player board in your player color.
   b. Wooden pieces in your player color: infrastructure tokens, discs, control markers, control cubes, and an action marker.
      i. Stack 3 discs on the executive action stack space (with a "3" in it) of your player board.
      ii. Place the pentagonal action marker on the action space (with a "1" on it).
   c. 1 scientist of your color (the other 3 go in the recruitment pool), 2 CEPs, 2 Tech cubes.

2. Whoever most recently planted a tree goes first, and takes the **Start Player token**.

### Scoring, Decade, Phase tracks

3. Place the **Cooperative Score marker** on space 0 of the score track on the gameboard. (You will use this marker to keep track of the group's victory points.)

4. Place the **Decade marker** on the first decade (2010).
   See **Special Rule** for **3-player Cooperative Games** on page 7

5. Place the **Phase marker** on the Energy Supply space of the Phase track on the gameboard.

### Money

6. Make a bank outside the board.

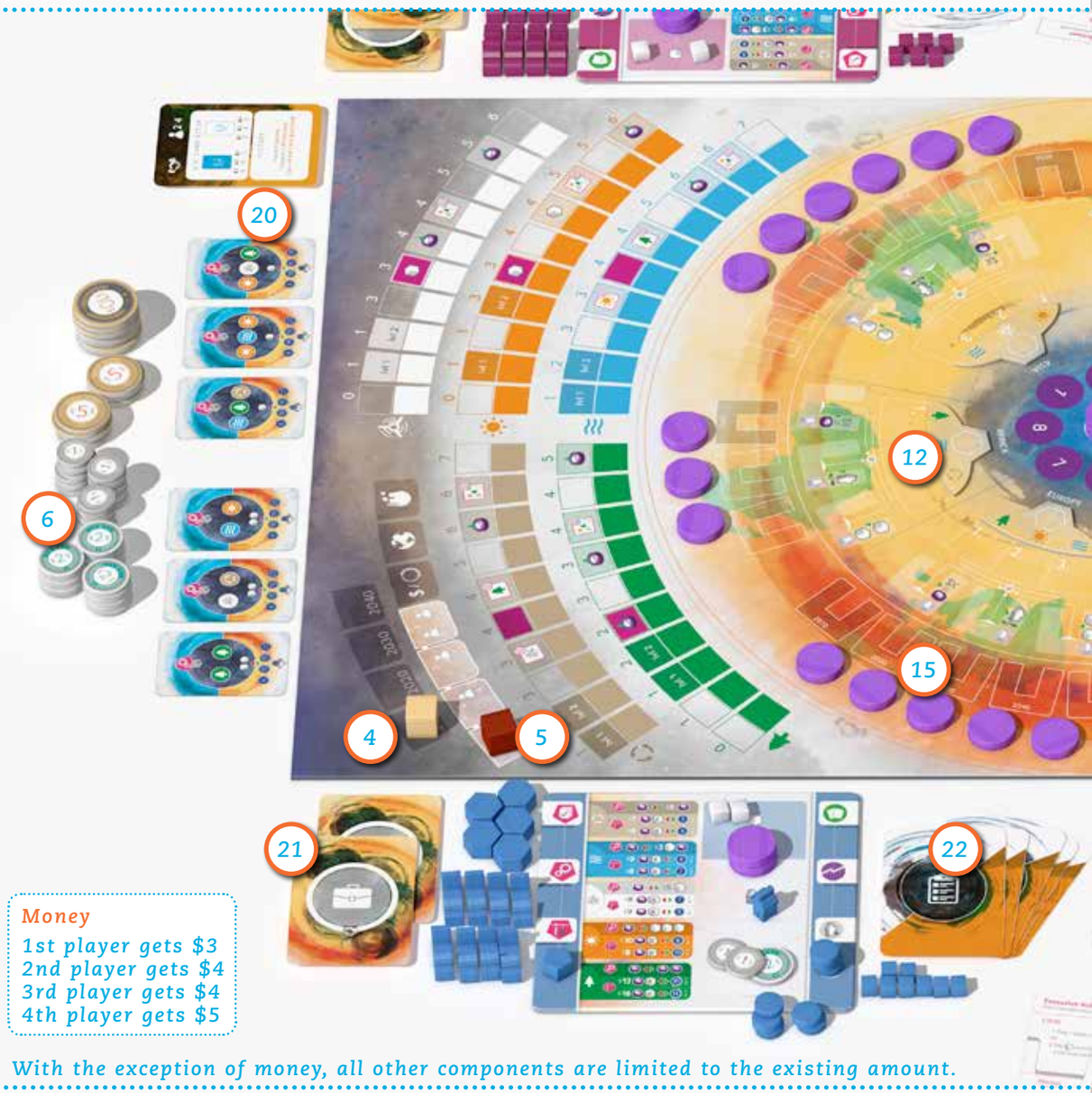
   Give each player money in clockwise order starting with the start player: **1st player gets $3; 2nd and 3rd players get $4; 4th player gets $5.**

   Your money is public information.

### Tech cubes

7. Place the **Tech cubes** on their space on the gameboard to form the general pool.

*The illustration depicts a 4-player cooperative game setup*
*For the competitive game consult page 19*




**Money**

1st player gets $3
2nd player gets $4
3rd player gets $4
4th player gets $5

*With the exception of money, all other components are limited to the existing amount.*

### Projects

8. Separate the **projects** by type, and place them on their appropriate spaces on the board, sorted with the level-1 projects on top and the level-2 projects on bottom.

### Green Power Plants

9. Separate the **green power plants** by type, and place each type by the board near the matching Project tiles.

### World Summits

10. Shuffle the **Energy Summit tiles** to form a face-down deck.
11. Place a face-up **Energy Summit tile** in each such space on the board.

### Regional Agenda tiles

12. Place a random **Regional Agenda tile** on each region's space. Return the rest to the box.

*In the cooperative game, you are working together to keep global $CO_2$ emissions below 500 ppm and to achieve pre-determined worldwide environmental goals.*


## Fossil Fuel Power Plant tiles

13. Shuffle all the **Fossil Fuel Power Plant tiles** and form 3 face-down stacks of similar size, then place them next to the board.


**3-player game:** Return 6 of the Gas ("20") tiles to the box.

14. Place the **Global $CO_2$ Pollution Level marker** on 400 ppm of the $CO_2$ track.

## Carbon Emissions Permits (CEPs)

15. Place 1 **CEP** in each marked space in each region.
16. Pile the rest near the board as a **CEP bank**.

## Market

17. Place **2 CEPs** in the middle of the **CEP Market**.
18. Place the **CEP Price marker** on the "3" space of the CEP Market.

## Environmental Goal tiles

19. Set up the **Environmental Goal tiles** as follows, filling the 21 spaces:
    - Shuffle the tiles in the bag.
    - Fill the first group of spaces with 8 random Power Plant goal tiles (green tiles), placed face up.
    - Fill the second group of spaces with 5 random Knowledge goal tiles (pink tiles), placed face up.
    - Fill the third group of spaces with 8 Summit goal tiles (blue tiles), placed face up.
    - Return the bag to the box.

## UN Goal cards

20. Shuffle both UN Goal cards decks separately, and create a display of face-up cards near the board; the number of UN Goal cards in the display depends on the number of players: Refer to the Configuration card that matches the number of players.

Example: in the 4-player games make a display of 3 cards of each type.

## Cooperative Private Goal card

21. Give 2 secret **Cooperative Private Goal cards** to each player. Return the rest to the box.

**Important:** You are not allowed to discuss cards in your hand during the game!

## Lobbyist cards

22. Shuffle all the **Lobbyist cards** and give 5 to each player. Return the rest to the box.

**Important:** You are not allowed to discuss cards in your hand during the game!

## Lobbyist Draft variant

Once you are familiar with the game, you should draft your initial hand of Lobbyist cards.

Choose 2 of the 5 Lobbyist cards you have, and pass the other 3 to the player on your right. Then from the 3 received, take 1 and pass 2 to the right. From the 2 received, take 1 and pass 1 to the right.

You are ready to start playing!

# OVERVIEW

A game of $CO_2$: Second Chance lasts **4 decades,** and each decade is divided into the following 5 phases:

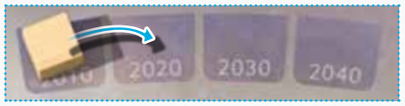
1. Operations
2. Income
3. Environmental Goals
4. Energy Supply
5. End of Decade


Operations

Income


Environmental Goals


Energy Supply



End of Decade

1. The Operations phase is where the real action takes place. Over the course of the game, you will **propose projects** to stop $CO_2$ emissions from increasing. Then any company can **prepare the infrastructure** to handle the new power plant — taking such initiative is rewarded by the UN. Finally, any company can actually **build the power plant**. Through this process, the global situation is improved, and the economy is stimulated! You will **gain knowledge** by sending **scientists to work on new projects**, and to present their findings at **energy summits**. You will also be able to manipulate the **Carbon Emission Permit** (CEP) market and utilize **lobbyists** to help you achieve your goals.

2. In the Income phase, the industry experts in each energy type reap the fruits of their labor in the form of **money and/or victory points**, as they choose.

3. In the Environmental Goals phase, you lose victory points for any environmental goals the group has **not yet achieved**.

4. In the Energy Supply phase, each region whose energy requirements are not met **will meet their own needs with fossil fuels**. To prevent regions from building fossil fuel power plants, you must forecast their energy demands and **build sufficient green power plants to meet their future needs!** With each new fossil fuel plant, more $CO_2$ emissions pollute the planet, which also requires the region to spend a Carbon Emission Permit.

5. The End of Decade phase merely prepares the game setup for the next decade.

Operations


Income

Environmental Goals


Energy Supply

End of Decade

# HOW IT ALL ENDS

In $CO_2$: Second Chance, victory points represent your reputation, your knowledge about the different clean sources of energy, and the work you have done to help preserve the environment.

**If the group's victory points are below zero at the end of any decade, you all lose the game.** Otherwise, the game ends after **4 decades**.

# PLAYING A DECADE

**Each decade** plays out over the 5 phases briefly described above. On the following pages, you will find the detailed, step-by-step instructions for these phases. You will keep track of the current phase by advancing the Phase marker as you go.

**Note:** *During the game you are not allowed to trade money, CEPs, or any other resources with other players unless it is explicitly written in the rules.*

# 1. OPERATIONS PHASE

Move the Phase marker to the first **Operations Phase** space, on the left.

In each round every player takes one turn. Once you play the last **Operations** round, you advance the Phase marker on the Phase track.

The number of rounds in the Operations phase is as follows:

**1 - 2 players - 4 rounds**

**3 players - 3 rounds** (skip round 4)

**4 players - 2 rounds** (skip rounds 3 and 4)

**Starting with the start player** and going **clockwise,** in **each round** every player takes **one turn.**

On your turn, you **must** take **1 Main action**, and you may take **any number** of **Executive actions,** but you can only take **each Executive action once per turn**. You may take your actions in any order.

At the end of your turn, always check whether any **energy summits** have been completed *(see energy summits, page 15)*, then prepare for the next player's turn.

## *Special Rule for 3-player Cooperative Games*


Place the 3-Player Co-Op token on the 4th decade space. When the 4th decade arrives, flip and move the token to cover the 3rd Operations space.

In the 4th decade, you will play only 2 Operations rounds instead of the usual 3. This ensures that the 3-player game has roughly the same number of turns as a 2- or 4-player game.



*Flip and move the token to the 3rd operations space. In 2040, play only 2 rounds, and move to the next phase.*

## *EXAMPLE*

*It's the end of the Operations round of a 4-player game. Only 2 rounds are played with this player count.*

*The last player in the round finished his turn. There aren't any completed summits to be resolved. Then the phase marker on the round track is moved to the next phase space on the Phase track.*


## *Executive and Main Actions*

*There are 3* ***Executive*** *and 3* ***Main*** *actions in the Operations Phase. Because they are all interconnected, please be patient and read through them all. Don't panic: They will all make sense in the end.*

***Executive actions***

a. *Move a Scientist (page 8).*
b. *Visit the CEP Market (page 10).*
c. *Play a Lobbyist card or Claim a UN card (pages 10-11).*

***Main actions***

a. *Propose a Project (page 12).*
b. *Prepare Infrastructure (page 13).*
c. *Build a Power Plant (page 14).*

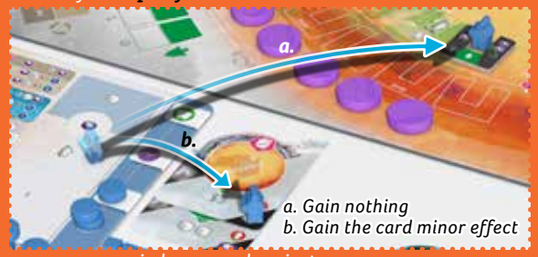
## *Green Power Plants — a deeper look*

*Clean, "green" power plants are the future of sustainable global power production.*

*Energy companies will soon realize that not only is clean power becoming much cheaper, generating higher profits after the initial investment, but also that their current knowledge of power distribution gives them an advantage over startups. These experienced companies will abandon fossil fuel, and with it, the big taxes, carbon footprint fines, and pollution control costs.*

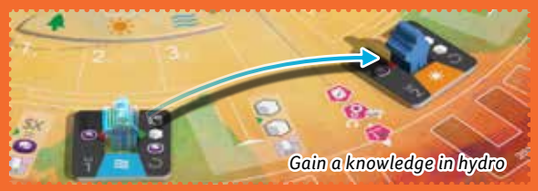
## Your scientist can move:

*From your **player board** to:*




*a. any unoccupied proposed project;*
*b. any unoccupied lobbyist card.*

*From a **proposed project** to:*




*a. any unoccupied empty proposed project,*


*b. any unoccupied lobbyist card played by any player,*


*c. any unoccupied energy summit talk of the same type,*


*d. your player board.*

## Scientists — a deeper look

*The scientific community has shown that climate change has been accelerating in recent decades, and that certain human activities have had significant impact. Among the major human factors is the release of carbon dioxide from fossil fuel power plants.*

# 1.1. EXECUTIVE ACTIONS

You may do each one of these once during your turn, **before** or **after** your **Main action**. When you perform an **Executive action,** cover its space on your player board with an action disc.

**a. Move a Scientist**

**b. Visit the CEP Market**

**c. Play a Lobbyist card or Claim a UN goal card**

## a. Move a Scientist

*Scientists enable you to gain knowledge through their project experience and by attending energy summits. Knowledge will bring income and victory points, and allow you to build better power plants.*

Move one of your scientists as follows:

From your **player board** to:

a. any unoccupied **proposed project** *(see propose a project, page 12)* or,

b. any unoccupied **Lobbyist card played by <u>any</u> player** to make use of the card's **minor effect** *(see playing a Lobbyist card, page 10)*.

Or from a **proposed project** to:

a. any unoccupied **proposed project**,

b. any unoccupied **Lobbyist card played by <u>any</u> player** to make use of the card's **minor effect**,

c. any unoccupied **energy summit** talk about the same energy type *(see Energy Summits, page 15)* or,

d. your player board.

### Scientist Restrictions:

- Only **one** scientist can be on each project or on each lobbyist card.
- Scientists never move to a project with **infrastructure** *(see Prepare Infrastructure, page 13)*.
- The only way for a scientist to speak at an **energy summit** is by moving off a project.
- A scientist can **never** move to a summit directly from the player board.
- Once a scientist is on a summit, **he/she remains there** until the summit is resolved.
- Once a scientist is on a lobbyist card, **he/she remains there** until the end of the game.

**Important rule:**

Whenever you **move** your scientist **from a proposed project**, for any reason, **gain 1 knowledge** in the **proposed project's energy type** *(see Gaining Knowledge, below)*.

In the 4 examples on the sidebar of the left page, the movement of the Blue scientist away from a proposed project will get him 1 knowledge.

*When the scientist leaves the project he/she was researching, he/she gets knowledge in that type of energy. In this case it's hydro. Place or advance a disc one space on the hydro knowledge track.*

## Gaining Knowledge

*Knowledge represents the know-how of the Companies in each of the green energy sources in the game.*

When you gain knowledge about a type of energy, advance your disc to the right along that knowledge track. If your disc lands on or passes over a space with an icon above it, immediately apply the icon's bonus. This bonus can be applied **to any one player of your choice**; it doesn't have to be you!

If it is your first knowledge point in that energy source, move one of your player-color discs from your player board to the first space on the respective track. When a disc is at the end of a knowledge track, it cannot advance further, and any knowledge gained beyond that point is lost.

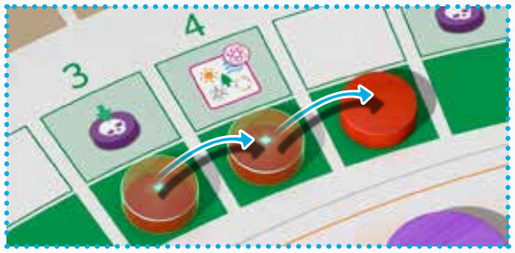
The **bonuses** are:

| | |
|---|---|
|  **Energy type icons** | You gain 1 point of **knowledge** in the indicated energy type. |
|  **Tech cube icon** | You receive 1 **Tech cube**. Take it from the general pool. |
|  **Region CEP icon** | You place a **CEP** from the market on any region of your choice with space for **CEPs**. Each region can only have 1 **CEP** per **CEP** space. If there aren't any spaces available you have to choose another region. |
|  **Generic Energy icon** | You gain 1 point of **knowledge** in **any** energy type. |

**Note:** *It is possible to create a chain of combos with these bonuses!*

### *Example*

***Red*** *moves his scientist from a proposed project and gains 1 knowledge in forestation. This allows him to advance the disc he already has on the forestation track one space. The disc lands on the space below the Generic Energy icon.* ***Red*** *decides to advance again in forestation.*



### *EXAMPLE*

*Because she moved a scientist from a hydro project,* ***Yellow*** *gains 1 knowledge in hydro. Since this is the first time she gained knowledge of this type of energy source, she moves one of her discs from next to her board onto the first space of the hydro knowledge track.*

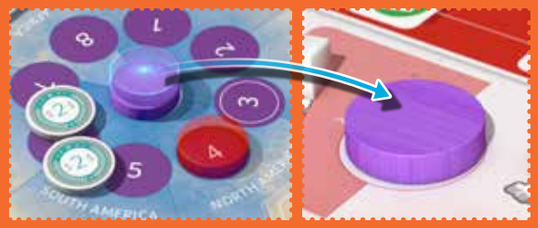
*Later in the game* ***Yellow*** *reaches a space with a solar energy icon above it. She decides to offer this bonus to the* ***Blue*** *player who needs it more than she does.* ***Blue*** *advances one space on the solar track. This means* ***Blue*** *hits a space on the track with a Tech cube icon on it, and decides to pay the favor back to* ***Yellow*** *by offering the Tech cube to her. He also could have kept it or offered it to any other player.*

### *Knowledge — a deeper look*

*As investments in research have increased over the years, analysis of capital markets indicates that the world of finance is reshaping to align with the sustainable development imperatives of the 21st century. Such investments have nurtured specialized companies with new inventions and cheaper processes, producing more power at lower prices, thus increasing their profits. Hopefully companies like Tesla and green energy projects such as Solar City will ultimately be more profitable than fossil fuels, such that fossil fuel companies slowly change their core business to more lucrative, yet cleaner power sources.*

## EXAMPLE

*Red buys a CEP from the market. He pays the $4 indicated under the price marker and moves the CEP from the market to his player board. The price marker does not move because the market still has one CEP.*



*Blue decides to sell a CEP at the market. To do this, he must have a CEP on his player board. Then he returns the CEP to the bank, receives the $4 indicated by the price marker, and moves the price marker one space down, from 4 to 3.*

*Yellow's main action rewarded her with a CEP. She takes the last one from the market, thus increasing the price by 1, and closing the market. Now she refills the market with 2 new CEPs from the bank.*

*She can no longer take the* **Visit the CEP Market** *executive action this turn because the market has closed. If she needed to buy a CEP, she should have done it before her main action.*

## *Carbon Trading — a deeper look*

*Carbon trading is a market incentive to limit greenhouse gas emissions. Governments have a cap on their carbon footprint. Companies with insufficient allowance for the emissions their projects would generate must either trim the project or purchase carbon emission credits. Where there is a market, speculative investment soon follows…*

## b. Visit the CEP Market

*Companies are allowed to buy and sell Carbon Emission Permits to meet their pollution quotas or just to speculate on the market price and improve their profits.*

By taking this **Executive action** you may either:

- **Buy 1 CEP** from the market at the price specified by the red CEP Price marker, then move the CEP from the market to your player board. After buying, if the market still has any CEPs, the price does not change; otherwise, see *The CEP Market Is Empty* below.

- **Sell 1 CEP** at the price specified by the red CEP Price marker, then decrease the CEP price by 1 (min. $1). The CEP you sell must come from your player board, and returns to the bank next to the board.

### *The CEP Market Is Empty*

*Any time the CEP Market becomes empty (you will see the market icon on the board as a reminder), immediately increase the CEP price by 1 (max. $8), and add 2 CEPs from the bank. Once you see the market icon, the market closes for the remainder of your turn, which means that you can no longer* **Visit the CEP Market** *this turn.*

## c. Play a Lobbyist card or Claim a UN goal card

*Competition in energy production is fierce, and no Company could survive it without persuasive lobbyists to remove troublesome obstacles and open important doors. Achieving UN goals will help a Company gain recognition and influence.*

By taking this **Executive action** you may either:

- **Play a Lobbyist card**

Play a Lobbyist card from your hand next to your player board, either for its main effect in the middle, or for the minor effect in the bottom right. The card effect must be applied during the current turn:


**Main effect:** Play this **before or after** taking the **action depicted in the middle of the card** (which will be either a main action or one of the other two executive actions), then receive the benefit depicted below the green arrow pointing down from the action.

*The card to the left says: When you use the* **Visit the CEP Market** *executive action to sell a CEP, receive an additional $3.*

**Minor effect:** There are no requirements for doing this. Just play the card, and take the benefit in the lower-right corner.

***Example:*** *The card to the left says: Get a Tech cube from the general pool.*

**Note:** *Because you or another player can move a scientist onto the minor effect of any card after it's been played (see page 8), the card's minor effect can be used twice during the game!*

## EXAMPLE

*It's **Blue's** turn. He plays a card next to his player board to get its minor effect, the Tech cube. In a later turn **Yellow** moves one of her scientists to the same card and gets a new Tech cube. The scientist will remain there until the end of the game as a reminder that it's not possible to get that minor effect again.*

## EXAMPLE

*It's **Red's** turn. He plays a card showing a summit symbol as the action and the Wind Energy sign as specifics. He has a scientist on a wind project. He moves that scientist to a summit to give a talk on wind by taking the **move a scientist** executive action. He immediately advances 2 steps on the wind knowledge track; 1 for moving the scientist **out** of the wind project, and another one for playing the card.*

- **Claim a UN card** from the display:

Each UN Goal card depicts several green power plant types (sometimes including more than one of a single type!), as well as a cost in Tech cubes.

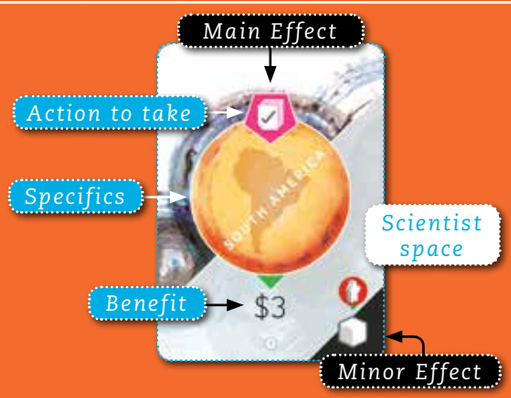
If you have **infrastructure** *(see Prepare Infrastructure, on page 13)* supporting all the **built plants** depicted on the card, then pay the Tech cubes shown on the top of the card to claim it. Flip the card face down in the display to show that it was claimed. The group immediately earns 2 victory points.

## EXAMPLE

*It's **Purple's** turn. She has Infrastructure in the built power plants indicated by one UN card in the display. So, she pays the 2 Tech cubes shown on the card and flips it face down on the display, immediately scoring 2 points. **Yellow** could not have claimed the card because the hydro project for which she has provided the infrastructure has not yet become a power plant.*


**Note:** *Find all card descriptions on page 23.*

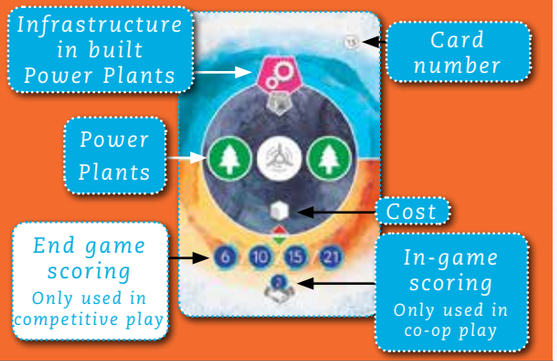
## Lobbyist Cards




*In this case: Propose a project in South America and receive $3. Or just play the card and get a Tech cube.*

## UN Cards

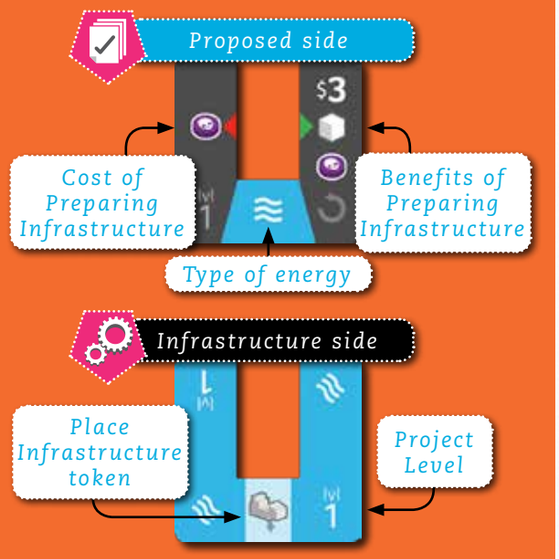
*You will find this group of 2 icons on all UN cards, so remember it. This indicates that only the player who prepared the infrastructure can claim the card, **but not until the power plant is already built.** It does not matter who built the power plant.*




## UN Goals for 2030: Targets

- *Ensure access to affordable, reliable, sustainable, and modern energy for all.*
- *Substantially increase the share of renewable energy in the global energy mix.*
- *Double the global rate of improvement in energy efficiency.*
- *Enhance international cooperation to facilitate access to clean energy research and technology, and promote investment in energy infrastructure and clean energy technology.*
- *Expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all.*

## *Project tile*




## *EXAMPLE*

*Purple decides to propose a project in North America. North America's Regional Demand tile indicates that the region wants solar, hydro, and/or recycling. She proposes a solar project. She takes the tile from the pool, gains one point of knowledge in solar (her first in this type of energy), and places the tile in the money space of the region. Since the region has 5 CEPs she receives $5.*

## *Operations — a deeper look*

*The game abstracts the construction of power plants into 3 steps:*

*PROJECT PROPOSAL, in which you present blueprints and models for your sustainable energy project.*

*INFRASTRUCTURE PREPARATION, which represents not only the preparation of the power grid, but also preparation of the construction site, parking lots, roads, and any landscape alterations for power lines.*

*POWER PLANT CONSTRUCTION, which involves construction of the plant itself and establishing energy distribution.*

*Often, these three steps will be carried out by different companies/players.*

# 1.2. MAIN ACTIONS

You **must** perform **precisely one** of the three main actions on your turn, before or after any Executive Actions. Mark the action you choose on your player board with your pentagonal Action marker. If you cannot take any of the steps described, you cannot take the action.

### a. Propose a Project → b. Prepare Infrastructure → c. Build a Power Plant

### a. Propose a Project

*You propose a green energy project for a region, and in return, the region provides you with a grant. The region takes ownership of the project, which can then be initiated by any player's company.*

To **Propose a Project** perform the following steps:


1. Take the top power plant tile of any energy type from the display and place it 'proposed side up' in an empty project space.
   The **Region Agenda** tile in that region **must depict that type of energy.**
   The level of the project only affects the Build a Power Plant action, to be performed on this project later.

2. Gain 1 knowledge in the **project type** of energy *(see Gaining Knowledge, page 9)*.

3. Take the grant depicted in the space you covered, either:

| | | |
|---|---|---|
| $X = | Money | Take money from the bank equal to the number of CEPs the region has.<br>*Example: 3 CEPs = $3* |
| | Tech cubes | Take 2 Tech cubes from the supply. |
| +/→ | Scientists | Choose 1:<br>• Recruit one scientist. To recruit a scientist, move one of your scientists from the recruitment pool to your player board. When you recruit a scientist gain **1 knowledge** in **any type of energy** *(see Gaining Knowledge, page 9)*, **or**<br>• Move one of your scientists *(see Move a Scientist, page 8)*. |

**Note:** *The ◀ icon represents the cost; The ▶ icon represents the benefit*

## b. Prepare Infrastructure

*A modern green power plant requires equally modern infrastructure to support it and to distribute its power. You prepare the infrastructure for a project, which provides you with immediate and long-term benefits, and lays the groundwork to build the power plant*

To prepare the infrastructure, perform the following steps:

1. Choose a proposed project on its proposed side.
2. Pay 1 CEP as indicated by the red arrow on the project tile. Any time you pay a CEP, it can come from your stock, or any region whose energy supply you control *(see Controlling a Region's Energy Supply, page 15)*; CEP's always return to the bank.

   If there is a **scientist on this project,** the scientist's employer (player with the same color of the scientist) immediately **moves the scientist for free**, and thus gains knowledge *(see Move a Scientist, page 8)*.

**Note:** *Moving **your own** scientist this way **on your turn** is also free and does not count as an **executive action**.*

3. Receive the benefits shown by the green arrow on the project tile.
4. Flip the project tile.
5. Slide one of your infrastructure tokens into the project tile.

*Proposed project* *Pay CEP* *Receive benefits* *Flip tile* *Place infrastructure*

The **benefits of Preparing an Infrastructure** are the following (you can also find these benefits on your player board):

| | | | |
|---|---|---|---|
| | **Recycling** | Take $5 from the bank and 1 CEP from the market. | |
| | **Hydro** | Take $3 from the bank, 1 Tech cube from the general pool, and 1 CEP from the market. | |
| | **Wind** | Take $5 from the bank and 1 Tech cube from the general pool. | |
| | **Solar** | Take 3 Tech cubes from the general pool. | |
| | **Forestation** | Take 2 CEPs from the market. | |

**Note:** *The player who Prepares the Infrastructure is the one who will get access to the UN cards later, **but not until the project is complete and the power plant is built** (see Build a Power Plant, page 14).*

**Note:** *You can only prepare infrastructure for a proposed project, and only if you still have infrastructures in stock.*

### *EXAMPLE*

*It's **Yellow's** turn. She covers the Prepare Infrastructure main action with her pentagonal Action marker, and chooses the proposed recycling project in Africa. The chosen project has a blue scientist on it, so the **Blue** player moves this scientist for free.*

*He decides to move his scientist to another empty proposed project, also in Africa.*

*Because he moved a scientist from a project, he immediately advances one step in the matching knowledge track: recycling.*

*Now **Yellow** can proceed with her action. She pays a CEP from her player board to the bank, receives $5 and a CEP from the market, flips the tile, and finally slides one of her infrastructure tokens into it.*

### *Infrastructure — a deeper look*

*Proposing clean energy production is the crucial first step, and building the green power plant completes the project; however, a power plant alone solves nothing without improving the distribution network to deliver the clean energy to people's homes. There's also no way around the fact that it is still a construction project, with its own pollution and costs. It is quite common for different companies to propose a project, prepare the infrastructure for it, and ultimately build the power plant.*

## EXAMPLE

*Purple wants to build a solar power plant. The Solar power plant is level-1. Her knowledge marker on the Solar track allows her to build it.*

*After consulting her player board she pays $10, 2 Tech cubes, and 1 CEP to the bank.*


*The region does not have any empty spaces. So, Purple discards the leftmost fossil fuel power plant, which is a gas power plant, and thus reduces the $CO_2$ emissions by 2 steps.*


*Now, she moves the infrastructure to the newly empty space, inserts the matching power plant, and the group gets 8 points. Finally, she places a control cube in the solar space under the Regional Agenda tile, and checks to see if she now controls the region's energy supply.*


### *Forestation in the game*

*Forestation is truly an important element in the control and reduction of global $CO_2$ emissions, and thus was an imperative element to include in this game. In an effort to keep the gameplay and rules terminology streamlined, forestation is being treated as a green energy source.*

## c. Build a Power Plant

*Building upon prepared infrastructure, you finally construct the green power plant proposed in the first place.*

To build a power plant, perform the following steps:

1. **Choose an infrastructure** whose level is no higher than your knowledge in that energy type *(see Knowledge, page 12)*.

**Note:** *Once your knowledge in an energy type reaches the space depicting a power plant level, you are able to build that level of that type of power plant.* **Until then, you cannot** *(see Example: Levels of Knowledge below)*.

2. **Pay** the **CEP, money, and Tech cubes** according to the plant type and level (consult your player board to find these costs).
3. **Move the infrastructure** to the region's leftmost empty energy demand space. If there is no empty space, replace the oldest fossil fuel plant, then reduce the global $CO_2$ levels by the amount the fossil fuel plant emitted (the global $CO_2$ level cannot go below 400 ppm).

**Note:** *Green Power Plants cannot be replaced. If a region only has green power plants, it is no longer possible to build power plants in that region.*

4. **Insert the matching power plant** into the infrastructure.
5. **Receive points** according to the plant type and level (also on your player board).
6. **Place 1 of your control cubes** under the Regional Agenda tile, on the space matching the energy type. Each space can hold any number of cubes, from the same or different players.
7. **Check** to see **if you took control** of the region's energy supply *(see Controlling a Region's Energy Supply, page 15)*.

## EXAMPLE

*Red decides to build a power plant. Yellow's infrastructure on which he wants to build requires a level-1 recycling plant. His knowledge in recycling is 1, the minimum he needs to build this power plant. After consulting his player board, Red pays $7, 1 CEP and 1 Tech cube, and earns the group 5 points. Now, he moves the infrastructure to the leftmost empty energy demand space in the region, and places a recycling plant on the infrastructure. Finally, he places one of his Control cubes under recycling, and sees that he now controls the region's energy supply.*

*Choose Infrastructure*

*Pay building costs*

*Earn points for the group*

*Move the infrastructure*

*Insert Power Plant*

*Place control cube and check for control*

## EXAMPLE: Levels of Knowledge

*Blue's knowledge marker on the wind track is 1 space short of the "level 2" space. He can build level-1 wind power plants, but he cannot yet build level-2 wind power plants.*

## Controlling a Region's Energy Supply

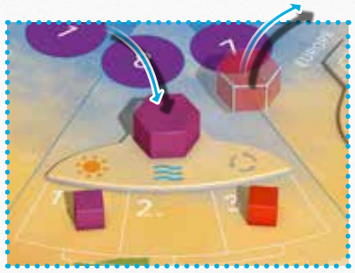
*Whenever you build a new green power plant, check to determine if you seized control of the Region's energy supply.*

**Control** of the energy supply of a region is **checked only when a power plant is built.**

You **take control** of a region's energy supply:

1. If you have **control cubes** **in the most energy source spaces** below the Regional Demand tile.
2. If you are tied, you take control if you **provide the most preferred energy sources** (further left on the Regional Demand tile).
3. If you are still tied, you take control if you have **more knowledge in the type** you just built.
4. If you are still tied, you take control because you are the **active player**.

If you took control, replace the hexagonal control marker on the Regional Agenda tile with yours. Return the displaced Control control marker to its owner.



***Reminder:*** *The only projects / power plants allowed to be in a region are those on its Regional Agenda tile.*

## Energy Summits

*Companies can send their Scientists to energy Summits in order to gain knowledge about the Energy sources discussed at the topics of those summits.*

After you have completed your actions for the turn, resolve each energy summit that has all of its topics covered by scientists. If more than one energy summit was completed this turn, resolve them in the order they were completed. Resolve each one as follows:

1. In clockwise order, **ending with the player who completed the summit** by placing the last scientist on the Energy Summit tile, **each scientist** on the tile gains its employer **2 knowledge in any energy type(s) discussed at the summit** (2 of one, or 1 each of two different), then returns to its owner's board.
2. Discard the Energy Summit tile, and replace it with the top tile from the Energy Summit deck.

***Reminder:*** *A scientist can only be moved to a summit from a matching **proposed project**. Once at the summit, the scientist cannot move away until it is completed.*

### EXAMPLE

*Yellow completes a summit featuring forestation, solar, and wind. Red has scientists speaking on 2 topics: solar and wind. Yellow is speaking on 1 topic: forestation. Red decides to gain 1 knowledge in solar, 1 knowledge in wind, and 2 knowledge in forestation. Yellow decides to increase her solar and forestation knowledge 1 each.*

## End of Turn

After resolving any completed energy summits, remove all action markers from the action spaces on your player board.

### EXAMPLE

*Whoever provides the region with more types of energy will control the region.*

*Red satisfies more of the region's political agenda by supplying two of the region's desired types of energy source. Even though Purple has more total power plants, Red has control in this region.*

### EXAMPLE

*Both players have power plants in 2 different types of energy source. They both supply the region's #1 preferred energy type, so they check the #2 energy type: solar. Blue is in control here.*

### EXAMPLE

*There is a tie for region control, because each player provides only 1 source of energy, and of the same type. Whichever player has more expertise in solar (Purple) takes control. If they had the same amount of expertise in solar, the active player would have taken control.*

### 2015 Paris Summit

*The 2015 United Nations Climate Change Conference negotiated the Paris Agreement, a global agreement on the reduction of climate change impact, the text of which represented a consensus of the representatives of the 196 parties attending it. All parties agreed with the final global pact to "pursue efforts to" limit the temperature increase to 1.5°C.*

*The goal will require reducing emissions close to zero, sometime between 2030 and 2050, according to some scientists.*

### EXAMPLE

**Blue's** disc is in the first stack on hydro energy source and he also has a disc on the second stack in solar. Above the two blue discs on their respective knowledge tracks, he sees "4" and "3". So, **Blue** receives 7 income for the turn. He decides to take the 7 income as $4 and 3 victory points.

### EXAMPLE - planning ahead during the income phase

It's the 3rd decade (2030). Before receiving income, players notice that there are still 5 Environmental Goals tiles left unaccomplished. The price of each unachieved goal at this decade is 3 points. The team needs to pay 15 points to keep playing, but they only have 5. To make sure they can keep playing, they agree to receive at least 10 points before receiving any money from income. They will need even more to make it through the Supply phase.

### Environmental goals

To accomplish the different agreements and programs established by almost all nations in the world, small steps must be taken every decade, every year, every month, every day. New agreements at summits, new advances in technology, and the implementation of sustainable energy projects in the most needy and most polluting regions of the world are urgent steps to be completed as soon as possible. The later those are fulfilled, the more expensive and difficult they become to reach.

## 2. INCOME PHASE

Move the Phase marker to the Income Phase space.

In turn order, for each energy source, the players whose markers are in the **two stacks** furthest along its **knowledge** track will get income (**2-player game:** only the furthest stack). Each of these players receive income as indicated by that space. When you receive income, you choose how much of it to receive in money, and how much in victory points. **Money cannot be shared between players.**

*Purple gets 5 income. Yellow gets 4 income. Red and Blue get nothing.*

*Red and Yellow get 4 income. Purple gets 3 income. Blue gets nothing.*

*Purple gets 4 income. Blue and Red each get 3 income. Yellow gets nothing.*

*All players get 1 income.*

*2-player game: Yellow gets 5 income. Blue gets nothing.*

*2-player game: Blue and Red each get 5 income.*

### Tip: Spending victory points before receiving income

It's easier to plan if you spend victory points required by the later phases before choosing to gain income, making the calculations and this decision quicker.

## 3. ENVIRONMENTAL GOALS PHASE

Move the Phase marker to the Environmental Goals Phase space.

1. Flip achieved **Environmental Goal** tiles *(see Environmental goals description, page 22)*.
2. For each remaining face-up Environmental Goal tile, lose victory points equal to the decade you are playing:

| 2010 | –1 point | 2020 | –2 points | 2030 | –3 points | 2040 | –4 points |
|---|---|---|---|---|---|---|---|

### EXAMPLE

*During the second decade (2020), after checking if there were any accomplished environmental goals to flip, the team has to pay 16 points because there are 8 unaccomplished goals remaining. The team only has 13 points, so they lose the game.*

If the score is **below 0 victory points** at the end of this phase, **the game is over** and everyone loses.

**Tip**: *To simplify maintenance and aid planning, you can flip the environmental goal tiles as soon as you accomplish each goal.*

# 4. ENERGY SUPPLY PHASE

Move the Phase marker to the Energy Supply Phase space.

For each region (start with the region in which you are playing this game, and go clockwise), perform the following steps:

1. If the **current decade's** space in the region has a power plant, skip to the next region.

2. Otherwise, fill the empty space by randomly drawing a fossil fuel power plant from one of the Fossil Fuel Plant decks.

3. Increase the global $CO_2$ levels by the emissions ppm number depicted on the fossil fuel power plant.

4. Move a CEP from the region onto the Fossil Fuel Plant tile. If the region has no CEPs, instead move the region's control marker from the regional agenda tile (belonging to a player) onto the tile.

5. The Region must pay 1 CEP (remove it from the Fossil Fuel Plant tile and return it to the bank).
   - If the Region cannot pay (and thus a Control marker is on the plant, instead), the player controlling the energy supply for that region (i.e. the player with a Control marker on the plant) must **pay a fine** *(see paying a fine, below)*. Return the Control marker to the Regional Agenda tile.



### *Paying a fine*

If you are unable to spend a CEP during the Energy Supply phase, then you must take one from the CEP Market to spend, and lose victory points equal to the current CEP Market Price.

### *EXAMPLE*

*During the Energy Supply Phase* **Red** *needs to pay a CEP, but he has none in his hand and there aren't any in his controlled regions. So he must pay a fine. The CEP market price is $4. So the group loses 4 points and sends a CEP from the market to the bank.*

### *EXAMPLE*

*During the energy supply phase, players decide to begin in North America. The decade energy space does not have a green power plant, so North America needs energy.*

*They take a tile from the fossil fuel stacks which turns out to be an oil power plant. The tile is placed on the plant space, and the $CO_2$ marker advances 3 spaces. Since no one controls that region they cover the tile with a CEP from the region.*



*Now players move to South America. The decade energy space is filled with a green power plant. So players move to the next region - Europe.*

*There is no power plant in the energy space and Europe is controlled by* **Red**. *A coal power plant is placed on the matching space, and 4 more spaces are advanced on the $CO_2$ track.* **Red** *needs to* ***spend*** *a CEP because a fossil fuel power plant was built in a region he controls. Europe does not have any CEPs, but he controls Africa, which still has CEPs. So, he covers the coal power plant with a CEP from Africa.*

*After all regions are checked all the CEPs on the fossil fuel power plants are returned to the bank.*

### *Why the need of a supply phase*

*With the growing of the world population, the world's energy needs increase every year. If companies and governments together don't agree on an effective, efficient, and sustainable way of supplying that power, fossil fuel energy is the easiest, cheapest, and most lucrative way of doing it.*

### EXAMPLE

*During the supply phase of the 3rd decade (2030) the $CO_2$ levels reached 540 ppm.*

*The group has to spend at least 12 points to keep playing. They have 16 points, so they reduce pollution 50 ppm (3 points per 10 ppm) ending up at 490 ppm with 1 point left. The group manages to survive to the 4th decade.*

### EXAMPLE

*During the supply phase of the 1st decade (2010) the $CO_2$ levels have reached 520 ppm.*

*2 points are needed to not lose (1 point per 10 ppm), but the group only has 1 point, which is not enough to push pollution below 500 ppm. The group loses the game.*

### UN INSPECTORS VARIANT

*During setup, place a Tech cube as a UN Inspector next to the upper-left green Environmental Goal tile; place another next to the upper-left blue one. Do not put one on the pink box. Now, Advance the Inspectors.*

***Advance the Inspectors***

*For green, then blue, do the following:*

- *Draw a Fossil Fuel Power Plant tile.*
- *Advance the inspector clockwise along the tiles in the box (skipping empty spaces): 2 spaces for a 20, 3 spaces for a 30, 4 spaces for a 40.*
- *Tuck the Plant tile face down under the tile deck.*

***Example**: During setup, you reveal a gas plant (20 ppm) for the "green" inspector, so that inspector advances onto the 2nd green tile.*

*If you fail to achieve an environmental goal with an inspector on it, the goal's value is doubled for the current decade.*

***Example**: You haven't fulfilled the inspector's goal during the second decade (2020), so you lose 4 points for it, instead of just 2.*

*In the End of the Decade Phase, Advance each of the Inspectors in the same way described above.*

## Reducing pollution levels

After new fossil fuel power plants increase the pollution level, you have a chance to reduce the $CO_2$ pollution level by spending victory points.

You must reduce the $CO_2$ at least to 500 ppm, but you usually want to reduce it as much as you can below this level, because reducing it later will only cost more!

The number of points you must spend to reduce $CO_2$ pollution depends on the decade:

| Decade | Number of points spent |
|---|---|
| 2010 | **–1 point** per 10 ppm |
| 2020 | **–2 points** per 10 ppm |
| 2030 | **–3 points** per 10 ppm |
| 2040 | **–4 points** per 10 ppm |

If the score is **below 0 victory points** at the end of this phase, **the game is over** and everyone loses because $CO_2$ pollution will be above 500 ppm!

# 5. END OF DECADE PHASE

Prepare for the next decade as follows:

1. Advance the Decade marker.
2. Pass the Start Player token to the right (counterclockwise).
3. Check **Game End**.


**Reminder: In a 3-player game**, when you advance the Decade marker to the 4th decade, move the 3-Player Co-Op token to cover the 3rd Operations space on the phases track: **In the final decade, you will play only two rounds of the Operations phase.**

## GAME END

The game ends at the end of the 4th decade.

**The group loses if:**

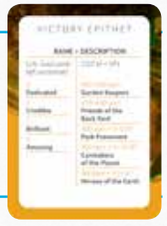
- The group **doesn't finish the 4th decade**
- Any player has completed **neither** of their **private goals**.
- There are **more than 3 UN Goal cards left** unclaimed.

**Otherwise, the group wins! Congratulations!**

Please refer to the Configuration card to earn your ***Victory Epithet***.

### *Example:*

*The group succeeds in keeping the $CO_2$ pollution levels at 430 ppm after the supply phase of the 4th decade. All players manage to achieve one of the goals in their private cards, and only 2 UN goal cards remain unclaimed. The group wins, and qualifies for the* ***Credible Friends of the Back Yard Victory Epithet!*** *— [Rank + Description]*



# COMPETITIVE PLAY

In the competitive game, you are competing to maximize your profit while ostensibly "working together" to reduce global $CO_2$ emissions.

If you wish to play the game competitively, **apply the changes in the following 3 pages.** All other rules remain the same.

# SETUP

Use the **competitive side of the board**. Look for this icon around the globe in the gameboard.

## PLAYER SETUP:

a. Place 1 disc of your color on space 0 of the score track. In this game version each player earns their own points, so keep track of each player's score separately.

b. Instead of the **Cooperative Private Goal cards**, use the **Company Private Goal cards**. Each player receives 2 random secret Company Goal cards, immediately chooses one and discards the other one to the box. (Remove the cards with this symbol  from the 2-player games.)

## BOARD SETUP:

1. Place the Global $CO_2$ Pollution Level marker on **50 ppm**.
2. Instead of the **Environmental Goal tiles**, use the **Event tiles**.

   Shuffle all the Event tiles to form a face-down Event deck. Place this deck on the orange circle (the **Upcoming Event space**) near the corner of the board.

   Reveal and move the top tile to the white circle (the **Current Event space**), then flip a new tile from the Event deck. Now 2 events are visible.
3. Shuffle both UN Goal card decks separately, and create a display of 10 face-up cards near the board: 5 cards depicting 2 energy types from one deck, and 5 cards depicting 3 energy types from another deck. Return the rest of the cards to the box.

# OVERVIEW

A competitive game of **$CO_2$: Second Chance** lasts **5 decades**. The **Environmental Goals phase** is replaced by an **Events phase**, and the **Energy Supply phase** is the **first phase each decade**, rather than the fourth. Thus, each decade is divided into the following **5 phases**:

1. **Energy Supply**
2. **Operations**
3. **Income**
4. **Events**
5. **End of Decade**

If the **$CO_2$ pollution levels ever reach 500 ppm**, all **players immediately lose the game.** Otherwise, after 5 decades, whoever earned the most victory points wins.

# PLAYING A DECADE

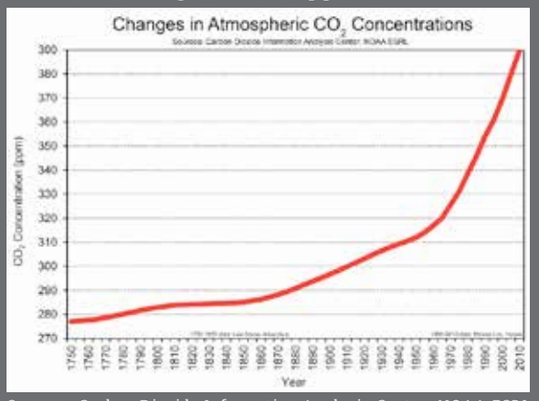
- In competitive game, there are no difficulty levels.
- **During your turn, you can discard your Company Private Goal Card face-down in exchange for $8** (check the bottom right corner of the card).

## PLAYER SETUP


## BOARD SETUP


### *Some Scientific data*

*Since around 1750 until now, measured atmospheric concentrations of carbon dioxide have climbed to 100 parts per million (ppm) higher than pre-industrial levels, reaching over 400 ppm in 2018.*

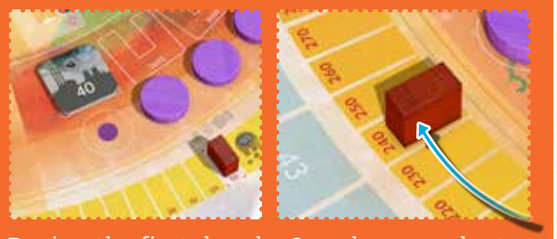



*Sources: Carbon Dioxide Information Analysis Center; NOAA ESRL*

### *SUPPLY PHASE IN THE 1ST DECADE*

*Notice that in the first decade there aren't any power plants on the board, so all regions receive a fossil fuel power plant at random, and each region pays one CEP to the bank. Then the $CO_2$ marker advances the total amount depicted in drawn tiles.*

### *EXAMPLE: SUPPLY PHASE*



*During the first decade, 2 coal power plants, 3 oil power plants, and 1 gas power plant were placed, increasing a total of 190 ppm on the Global $CO_2$ Pollution track: 80 for coal (2×40) + 90 for oil (3×30) + 20 for gas (1×20). Players advance the marker accordingly on the $CO_2$ Pollution track.*

*Since the $CO_2$ marker starts at 50ppm, after the first Energy Supply phase the Global $CO_2$ Pollution Level marker will be at the number 240 on the Global $CO_2$ Pollution track.*

### *EXAMPLE: BUILD A POWER PLANT*

**Blue** *is building a Solar power plant in Africa. This will cost him a CEP, $10 and 2 Tech cubes. Since there are 2 cubes left in the region due a previous event phase,* **Blue** *discards one cube from the region and pays the other from his own stock.*

### *Are we prepared for extreme conditions?*

*If the $CO_2$ pollution levels keep rising, Earth is expected to experience even more extreme weather conditions. A rise in temperature and higher sea levels would endanger global food supplies, cause mass migrations, and probably destroy more rain-forests through drought and fires.*

*Just since the release of the first edition of this game in 2012, $CO_2$ levels have risen 50 ppm.*

# 1. ENERGY SUPPLY PHASE

When playing competitively, the rules for this phase are almost the same; however:

- You cannot spend victory points to reduce pollution.
- If a player needs to pay a fine, the points are taken from him.
- **If the $CO_2$ levels are above 500 ppm, the game is over and everyone loses!**

# 2. OPERATIONS PHASE

## 2.1. EXECUTIVE ACTIONS

### c. Play a Lobbyist card or Claim a UN Goal card

**Claiming a UN Goal card** works differently than in the cooperative game. Check below.

When you claim a **UN Goal card** from the display, place it next to your player board. The more of these you have, the more victory points you will get at the end of the game; however, you do not get any immediate points for it *(see End of the Game, next page)*.

## 2.2. MAIN ACTIONS

### c. Build a Power Plant

Step 2 gives you an additional option in the competitive game. Due the **Energy Supply Phase** the regions may receive Tech cubes.

When you pay the **Tech cubes** portion of the cost to **build a power plant**, if the region has any **Tech cubes**, you may use 1 of them to help cover the cost.

# 3. INCOME PHASE

As in the cooperative game, when you receive income, you choose how much of it to receive in money and how much in victory points; however, in the competitive game, **you each earn your own points, and you do so in turn order.**

### *Example:*

**Purple** *has 10 income to receive. She decides to receive $3 and 7 points. She collects the money and advances her points marker 7 spaces.*

# 4. EVENTS PHASE

*You must provide aid to regions in need. If you already have infrastructure or power plants in the region, your contributions are already appreciated; if you don't, you must save face by providing Tech cubes and CEP support.*

**The Events phase completely replaces the Goals phase of the cooperative mode.**

**Proceed as follows:**

1. Move the Phase marker to the Events Phase space.
2. Discard 1 Tech cube from each region (that has any) to the bank.
3. The Event tile on the **white circle** is now triggered. The region indicated suffers a disaster.

   Each player that has **neither built a power plant in that region nor an infrastructure supporting a built power plant** in that same region **must contribute 1 of their own** Tech cubes to the region, **and pay 1** CEP on its behalf *(see also paying a fine, page 17)*. Send the CEP to the bank and place the Tech cube on the proper space of the region.

   Each player who is unable to provide the Tech cube to the region, **loses 2 victory points**. You cannot choose to keep the Tech cube and instead lose 2 victory points.
4. If the $CO_2$ pollution level is **at or above 400 ppm**, the face-up Event on top of the deck (in the orange circle Upcoming Event space) also occurs, as well. Follow the same procedure as in the previous step.
5. Discard the Event tile(s) that took effect.
6. Reveal the top tile from the deck (if not revealed yet) and move it to the white Current Event space, then flip the top Event tile of the deck face up, so again 2 Event tiles are visible.

During the Events phase, look for these icons below the Events icon on the game board. They remind you want is required of you if a disaster strikes the region:

- **Either** you must have an infrastructure supporting a built power plant in the region;
- or you must have built a power plant in the region;
- or you must pay 1 CEP and give 1 Tech cube to the region.

# END OF THE GAME

If the **$CO_2$ level ever reaches 500 ppm, everyone loses the game immediately**. Otherwise, the game ends after the **5th decade**.

If you successfully reach the end of the game, each player performs the following steps for final scoring:

1. Collect all CEPs from the regions whose energy supplies you control.
2. Sell all your CEPs (collected and in hand) at the CEP Market Price, **without reducing the price**.
3. If you didn't discard your Company Goal card yet, you can **discard it now to receive $8**, or **reveal it to gain victory points** as indicated on the card *(see Company Private Goal cards, page 23)*.
4. Gain **1 victory point for each $2** you have.
5. The player with the most Tech cubes gains **3 victory points**. If several players are tied for the most, each of them gets the 3 victory points.
6. Gain **victory points** depending on the number of **UN Goal cards you have claimed**:

| 1/2/3/4+ UN Goal cards | **6/10/15/21** Victory points |
|---|---|

The player with the most victory points wins. The tiebreakers, in order, are as follows:

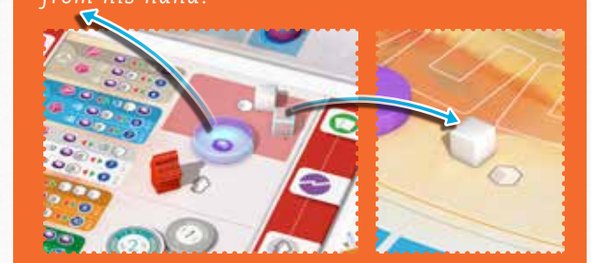
- most UN Goal cards;
- most **green power plants**;
- most **infrastructures**;
- most **money**.

If there is still a tie, the tied players share the victory. ***Have fun!***

## *EXAMPLE: EVENTS PHASE*

**Yellow** *must pay a penalty to North America, but she has no Tech cubes or CEPs on her hand, but she controls Africa. So, she sends a CEP from Africa to the bank, and loses 2 points for not being able to pay a Tech cube to the region.*

*Since the $CO_2$ level is above 400 ppm, a 2nd event will take place in Asia. This time it is* **Red** *who does not have any presence in Asia. So he sends a cube to Asia and pays a CEP from his hand.*



## *EXAMPLE: END GAME SCORING*

**Purple** *controls Africa and Oceania. Those regions have 1 CEP each.*

- *She takes the CEPs from those regions to her hand.*
- *She already has 3 more in her hand.*
- *She sells all 5 to the market at the market price of $5, gaining a total of $25.*
- *To that money, she adds $5 from her hand, and changes the result for points, totaling 15 points.*
- *Her Company Card is worth 12 points.*
- *She is tied with another player for the most Tech cubes, earning her 3 more points.*
- *She has 2 UN Goal cards worth 10 points.*
- *She has 75 points on the scoring track.*

**Purple's** *final score is:*

**15 + 12 + 3 + 10 + 75 = 115 Points.**

# QUICK REFERENCE

## CEPs

- After setup, every **CEP** that enters play **is taken from the market.**
- When the **market** empties, move 2 from the **bank** to the market and increase the price by 1.
- Every **CEP** paid or sold **goes to the bank.**
- When you need to pay a **CEP**, you can take it from any **region you control or from your hand.**
- **If you don't have any CEPs to pay you cannot take the action.**
- If you have to pay a fine you **must take a CEP from the market** in exchange for points equal to the market price.
- You can only sell a **CEP from your hand**. You cannot sell a **CEP** from a region, even when you have control (you cannot use the regions for your own profit).
- Some of the spaces on the knowledge tracks enable you to move a **CEP** from the **market to a region** of your choice, unless the region's **CEP** spaces are full.

## UN cards

- In order to claim a **UN card**, **the appropriate power plants must be built on your infrastructure**. If the power plants are not built yet, you cannot take the **UN card**.
- If the **UN card** shows **2 power plants of the same type**, you must have infrastructures in 2 power plants of the same type of energy.

## Knowledge

- You earn 1 point of knowledge in **an energy type of your choice** when you **Recruit** a Scientist or cover the Generic Energy icon on the **knowledge** track.
- You earn 1 point of knowledge in a **specific energy type** when you Propose a project to a region, one of your **Scientists** leaves a **Proposed project** for any reason, or you cover an energy type icon on the **knowledge** track.
- At the end of a turn in which a Summit **is completed**, **you earn 2 points** of **knowledge** in **any energy type matching the 'topics'** of that **summit**, **per** each of your own participating **scientists**.

The **benefits** of knowledge are:

- At the **Income Phase**, the players with discs in the 1st and 2nd stacks in each energy type receive money **and/or** victory points.
- In order to **build a power plant**, the players **must have** enough **knowledge** in the energy source of the power plant.
- **Knowledge** is a **tie breaker** when determining **Region Control**.
- When the **knowledge** disc covers specific spaces, a **bonus** is gained.

## Infrastructures

- In the competitive version of the game, when an Event affects a region, having infrastructure **supporting a power plant** there means you don't have to pay anything

## Region Control

- **Control** of the energy supply of a region is **checked only when a power plant is built.**
- When determining **Control** of the energy supply in a region by the most **knowledge**, it's **decided only at the time of building.** If later in the game, the players' **knowledge** increases and changes for the tied players, **Control** of the region **doesn't change**.

## Scientists

- If you have your own **scientist** in a project and decide to prepare an infrastructure there, **you do not need to use your executive action to move the scientist out**. The **movement** of that scientist **is mandatory and free**. You can still use your executive action to move the same or a different scientist.

## Tech cubes and Regions (competitive version)

- If an Event occurs in a region and you **have neither a power plant nor an infrastructure supporting a power plant** in that region, you must give the region a Tech cube and pay 1 CEP.
- At the beginning of each **Event phase**, **each region discards 1 Tech cube**, if it has any.
- Each time you build a power plant, the region **pays 1** of the required Tech cubes, if it has any.

# Environmental goal tiles

*These are only used in the cooperative version of the game. If goals are not achieved, they will penalize the group based on the current decade.* ***Note****: If 2 tiles with the same goal are shown, the group has to accomplish both tiles separately.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Building Goals | AFRICA | 12 tiles | Build a power plant in the depicted region. | | 10 tiles | Build a power plant in the depicted type. |
| | Knowledge Goals | | 5 tiles | Reach the top of the Knowledge track of the depicted energy type. | 5 | 5 tiles | Reach the pink space (halfway point) of the Knowledge track of the energy type depicted. |
| | Summit Goals | x3 | 5 tiles | Complete a Summit with the size indicated on the tile. | | 10 tiles | Complete a Summit that has the type of energy depicted. |

# Game Cards

**Lobbyist cards**

| Major effects: | | These are used in both versions of the game. They can only be played using an executive action. | | | |
|---|---|---|---|---|---|
| Propose a project | 01-06 | Propose a project in the depicted region, then take $3. | 07-09 | Propose a project in the grant space depicted, then take $3, take 2 Tech cubes, or move a scientist. | |
| Prepare infrastructure | 10-14 | Prepare infrastructure of the depicted energy type, then take $3, take 2 Tech cubes, or take 2 cubes or $2. | 15-19 | Prepare infrastructure of the depicted energy, type then get one knowledge in the same type of energy. | |
| Build a Power Plant | 20-24 | Build a power plant of the depicted energy type, then take $3. You can use that money to pay for the build. | 25-29 | Build a power plant of the depicted energy type, then get one knowledge in the same type of energy. | |
| Scientist to Summits | 30-34 | Send a scientist to a Summit of the depicted energy type, then get one knowledge in the same type of energy. (This can only happen during your turn, because it's the only time you can play these cards.) | | | |
| Use Market | 35 | Buy a CEP, then earn 2 points. | 36 | Sell a CEP, then get an additional $3. | |
| Minor effects: | Take a CEP from the Market, Take a Tech cube, take $2, move a scientist | | | | |

**Co-op Private Goal cards**

*These are only used in the Cooperative version of the game. Each player gets two random Goal cards during setup. One of the conditions of winning the cooperative game is that each player accomplishes one of their two Goal cards. With the exception of card number 3, all cards remain secret until the end of the game.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01 | Have at least 6 CEPs in your hand. | 02 | Control one region with at least 4 CEPs. | 03 | Complete a size-2 summit by yourself. *(reveal this card as soon as you complete it)* | 04 | Have 3 Tech cubes. |
| 05 | Have all scientists hired. | 06 | Have at least $10 in your hand. | 07 | Maximize your knowledge in at least 2 types of energy. | 08 | Control the number of regions shown at the bottom of the card. *(check the number of players)* |
| 09 | Prepare the number of **same**-type infrastructures depicted at the bottom of the card. *(check the number of players)* | 10 | Prepare the number of **different**-type infrastructures depicted at the bottom of the card. *(check the number of players)* | 11 | Build the number of **same**-region power plants depicted at the bottom of the card. *(check the number of players)* | 12 | Prepare the number of Infrastructures in **different** regions, shown at the bottom of the card. *(check the number of players)* |
| 13 | Build the number of **same**-type power plants depicted at the bottom of the card. *(check the number of players)* | 14 | Build the number of **different**-type power plants depicted at the bottom of the card. *(check the number of players)* | 15 | Build the number of **same**-region power plants depicted at the bottom of the card. *(check the number of players)* | 16 | Build the number of Power Plants in **different** regions, shown at the bottom of the card. *(check the number of players)* |

**Company Private Goal cards**

*These are only used in the Competitive version of the game. They will be scored at the end of the game or you can discard yours at any time in exchange for $8, and forgo scoring it. These cards remain secret at all times, even if they are discarded.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01 | 2 points for each CEP in hand and in regions you control. *Maximum of 16 Points* | 02 | 4 points for each knowledge track you lead (ties count as leads). *Maximum of 16 Points* | 03 | 3 points for each UN Goal card you have scored. *Maximum of 15 Points* | 04 | 4 points for each region you control. *Maximum of 16 Points* |
| 05 | 3 points for each region in which you have at least 1 power plant. *Maximum of 15 Points* | 06 | 3 points for each different energy source of power plant you have built. *Maximum of 15 Points* | 07 | 3 points for each power plant you have built beyond the first one. *Maximum of 15 Points* | 08 | 3 points for each region in which you have at least 1 infrastructure. *Maximum of 15 Points* |
| 09 | 3 points for each infrastructure you have prepared from a different energy source. *Maximum of 15 Points* | 10 | 3 points for each infrastructure you prepared beyond the first one. *Maximum of 15 Points* | 2 | Remove the cards with this symbol from the 2-player games. | | |

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