
CraniO
CREATIONS
BARRAGE
TOMMASO BATTISTA
SIMONE LUCIANI
ANTONIO DE LUCA
RULEBOOK

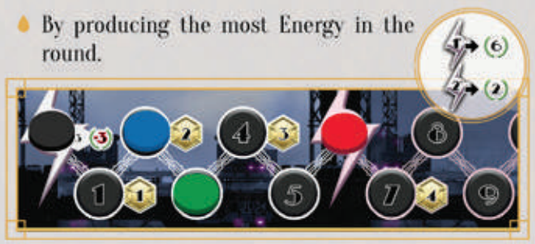
AIM OF THE GAME

In Barrage each player is one of four CEOs representing four national companies aiming to prevail in the race to produce energy. Players will have to buy and use equipment to build dams and hydro-electric powerhouses and to connect them by building conduits. This will enable them to use the water they have stored to produce energy and therefore fulfill contracts.
The player with the most Victory Points at the end of the game is the winner.

Victory Points (VPs) can be won in the following ways:

At the end of each round

- By producing the most Energy in the round.



USA is first on the Energy Track so they gain 6 VPs. Italy is second so they gain 2 VPs.

- By producing enough Energy to activate the Scoring tile for that round, i.e. reaching at least 6 Energy Units of production. There is a Scoring tile for each round and each one gives Victory Points for one type of structure which has been built or type of element by players.

The USA has crossed the 6 Energy Units limit and is now eligible to score 4 points for each dam base he has built, as shown on the first Scoring tile.

During each round

- By getting Income on a player's Company Board.

NB *VPs can be gained as income by building a number of Structure pieces.*

When Germany build the second Dam Base, they immediately gain 3 VPs. They will gain 3 VPs also on each next Income Phase.

- By fulfilling Contracts that have a VP gain as effect.

With a production of 3 Energy Units, the player who owns this Contract can fulfill it and gain 4 VPs (and also 2 HyCU)

- By using certain Advanced Technology tiles.

NB *The Advanced Technology tiles will not be used in the introductory game.*

When using this Technology tiles, the player gains 3 VPs for each Powerhouses they have built.

At the end of the game

- The player who has built the most Structure pieces to achieve the goal of the Objective tile.

In this example, the player who has built more structures into red spaces gain 15 VPs. The second player gains 10VPs, the third gains 5 VPs.

- For the remaining Resources available and the Water Drops held in a player's Dams.

For each set of 5 items between Excavators, Concrete Mixers, HyCU, and each Water Drop held on your Dams, you gain 1 VP.

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IMPORTANT CONCEPTS

The Game Map

The Map represents the French Alps and is divided horizontally into three areas: **mountains, hills** and **plains** from top to bottom. Each area is identified by a different color background and a different symbol. The type of area affects building costs and some **end-game** objectives. There are a number of basins in each of the three areas. Each basin has building spaces where players can build their structures. Basins are connected by natural rivers and by colored conduits.

The high part
Mountains

The middle part
Hills

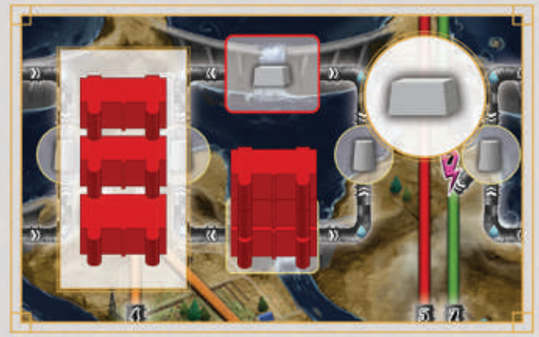
The low part
Plains

A typical basin configuration, which always contains two spaces for the Dams, two spaces for the Conduits and some space for the Powerhouses (0 in the Mountains basins, 2 in the Hills basins, 3 in the Plains basins). The basin at the bottom of the Map contains 4 Powerhouses, but no space for Dams and Conduits.

Structures

Players can build three types of structures on the map: **Dams, Conduits and Powerhouses.**
Two different structure pieces are used to create the Dams: the *Base* and the *Elevation*. The Base can only be built on the spaces on the map showing the relative icon. Elevations can be built over Bases. A Dam is thus made up of a Base upon which there can be up to two Elevations (0, 1 or 2). Its level can therefore vary from 1 (Base only) to 3 (Base plus 2 Elevations).

There are two types of Dam: neutral and personal.
Neutral Dams are placed at the beginning of the game and stay where they are for the entire game: players **cannot** modify these Dams.
Personal Dams are built by the players. Each personal Dam belongs to one particular player: you **cannot** build an Elevation over a Base belonging to another player.



The space for the Dams and its symbol on the map. In this example, a USA Dam of level 3.

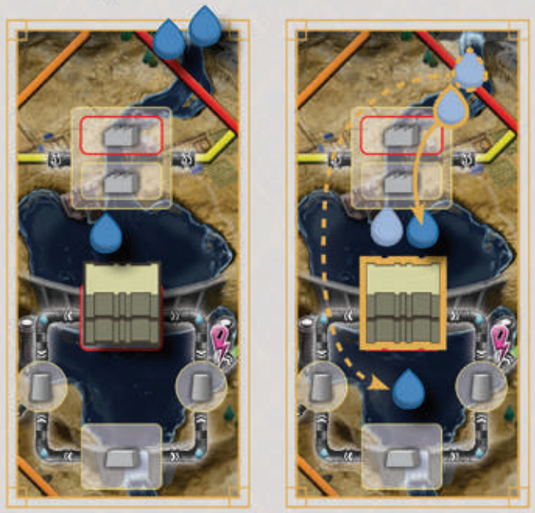
Conduits and Powerhouses are made up of one piece and can only be built in the spaces on the map with the related icon.

The building spaces for Powerplants (on the left) and Conduits (on the right) and their symbol on the map.

Water

Water is the most precious resource in the game. Players don't own water but they will try to control it. The Water Drops enter the game at the Headstreams at the top of the Map. Some Water Drops are placed according to the indications on the Headstream tiles during the Water phase, and others are placed by players through actions and special effects.
Water normally flows following the natural course of rivers travelling downhill.
Basins are connected to one another by rivers which serve to indicate the natural movement of water. If a Water Drop reaches the basin at the bottom of the Map it is removed. The natural flow of water is interrupted

by the presence of Dams.
The level of a Dam (the number of pieces it is made up of) corresponds exactly to the amount of Water Drops that it can hold. If a Water Drop meets a Dam as it flows along its natural course it stops behind it, as long as the Dam is not already full, that is to say, as long as it does not already have a number of Water Drops equal to its level. If the Dam is already full the water passes it and continues its natural flow as if the Dam wasn't there. Water Drops are moved one at a time.



A water flow example. 2 Water Drops are flowing into a basin where there is a Dam at level 2 that is already holding a Water Drop (on the left). This Dam will hold 1 flowing Water Drop, while the other will pass the Dam and continue flowing (on the right).

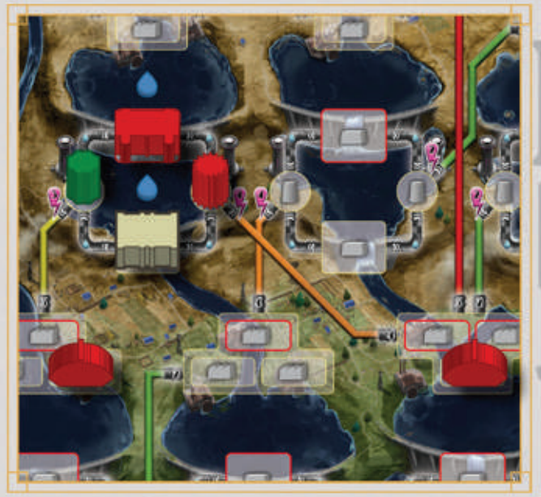
Water Drops which are being held in a Dam cannot move until a player performs a production action.

Production

The key of the game is the production of energy. In order to produce energy a player needs three elements: **a Powerhouse**, **a Dam** with *at least* **one Water Drop** and a **Conduit** connecting them.

Connections

For the purpose of production you must work out whether a Dam is connected to a Powerhouse. To do so you can look at the basins which contain structures. The grey tubes drawn in the basins help to show the Dams and the related Conduits. the colored conduits drawn on the Map represent possible connections which only become active when a player places a Conduit piece in the building space to show that it has become active.
Players must build Conduits to connect the various structures. An active Conduit connects **all** the Dams on the basin where it begins to **all** the Powerhouses on the basin where it ends. A Dam and a Powerhouse which are in the same basin are not considered connected.



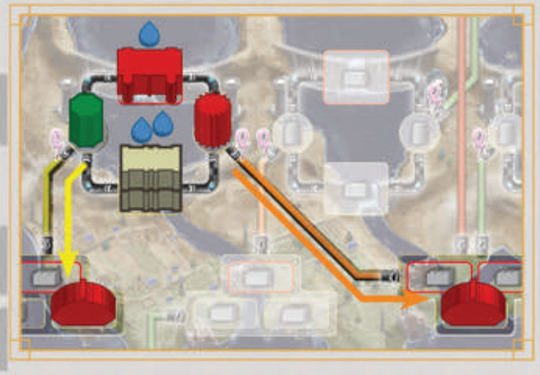
In this example, the red Powerplant on the right is connected to the red and to the neutral Dam in the upper-left basin via a red Conduit. The red Powerplant on the left is connected to the same Dams via a green Conduit.

The structures involved in production

- The Powerhouse **must** belong to the player performing the production action.
- The Dam which the Water Drop comes from must belong to the player concerned or be neutral.
- The Conduit connecting the two structures can be any color: if it is of a player's own color there is no extra cost. If the Conduit is of another player's color, the player performing the production action must pay 1 HyCU to the player who owns the Conduit and the player who built the Conduit gains 1 Victory Point, *for every Water Drop which travels down the Conduit.*

Powerhouse	*Your color*
Dam	*Your color or neutral*
Conduit	*Your color or another player's color.*

Each Conduit has a production value depicted on the Map. Each Water Drop which travels along a Conduit generates an amount of Energy Units equal to its production value.
When production is finished the Water Drops leave the Powerhouse used for production and follow their natural course following basins, rivers and possibly on to other Dams.



In this example, the red Powerhouse on the right is connected to the red and to the neutral Dam in the upper-left basin via a red Conduit. The red Powerhouse on the left is connected to the same Dams via a green Conduit. Powerplant on the left is connected to the same Dams via a green Conduit.

"Energy production is the key of Barrage. It is very important to start producing as soon as possible. Connecting a Powerhouse to a Neutral Dam is the fastest way, but Neutral Dams will soon show their weak point: all players can use them and exploit the water they hold!"

Using Energy

Energy Track

When a player produces Energy Units, they are recorded on the Energy Track. All the Energy produced by players in a round is recorded on the Energy Track: this determines the amount of each player's HyCU income for the following round, their eligibilty to score Victory Points thanks to the Scoring tiles and Victory Points for the player who produced the most Energy Units during the corrent round.

The Energy Markers are used to record the amount of Energy produced.

Contracts

As well as being recorded on the Energy Track, the energy produced can be used to fulfill a Contract. Each Contract has an energy value shown on the left part. If the amount of Energy Units produced reaches or exceeds that value, the player immediately obtains the effects shown on the right part of the Contract. The effects can be a gain of VPs, HyCU or resources, or an immediate special action. Each Contract can only be fulfilled once in the game.

NB *It is only possible to fulfill one Contract with a single production.*

The Contract shown requires 3 Energy Unit to be fulfilled

THE RULES

Barrage is a complex game. For this reason we have decided to use introductive rules which leave out certain components during the setup and some mechanics during the gameplay.

ADVANCED RULES

You can find the additional rules explained in special boxes in the rulebook.

If you are playing the introductive game we advise you to ignore the advanced rules: you can read them when you are ready to play your first full game. You will also find some tips from the game designers to help your strategy in your first games as you read through the rules!

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GENERAL SET UP

1. Place the Map board in the center of the table.
2. Place the Energy Track board and the Management board next to the map as shown.
3. Place the Excavator and Concrete Mixer cubes in two stockpiles nearby.
4. Divide the HyCU tokens into their different values and place them nearby.
5. Place the Water Drops next to the Map to form a stockpile.
6. Shuffle the Headstream tiles and randomly place 4 tiles in the appropriate spaces on the Map board.
7. Remove the Scoring tile depicted in the Setup image and shuffle the others. Randomly place 5 Scoring tiles face-up in the appropriate spaces of the Energy Track. Put the leftover tile back in the box.

ADVANCED RULES

Shuffle all the Scoring tiles and randomly place five of them on the Energy track. Put the leftover tile back in the box.

8. Randomly place 1 Objective tile in the appropriate space at the end of the Energy Track. Put the leftover tiles back in the box.
9. Shuffle the National Contract tiles. Draw a number of Contracts equal to the number of players minus one and place them face-up in the appropriate spaces on the Management board. Put the leftover National Contract tiles back in the box.
10. Divide the Private Contract tiles according to their back. Shuffle the three piles separately and place them in the appropriate space on the Management board. Draw two tiles from each pile and place them face-up next to their respective piles.
11. Divide the Neutral Dams Setup tiles according to their backs, then randomly draw one from each pile. Place the Neutral Dams in the building spaces of the basins indicated on the tiles you picked. There is always a Dam at level 1 in the Mountains, a Dam at level 2 in the Hills and a Dam at level 3 in the Plains. Place 1 Water Drop behind each Dam. Put the starting set-up tiles back in the box.
12. Leave the Advanced Technology board and all the Advanced Technology tiles in the box. You will not need them for the introductive game.

ADVANCED RULES

Place the Advanced Technology board next to the Map. Divide the Advanced Technology tiles according to their backs and shuffle the three piles separately. Place the three piles in their corresponding places on the left of the Advanced Technology board. Draw the first three tiles from the pile 'I' and place them face-up in the appropriate spaces on the right of the board.

This image shows a setup for a 4-player game.
If there are less than four players some action spaces on the Management board will not be used. In a three-person game place Engineers from a not used faction on the action spaces showing the 4 symbol. In a two-person game place not used Engineers on the spaces showing the 3+ and 4 symbols. To know which are the not used factions, see the Appendix.

INTRODUCTIVE PLAYERS SETUP

1 For the introductive game assign the Company boards and Executive Officer tiles between the players according to the table.
Place each Executive Officer tile on the left of the associated Company board.

2 Each player receives all the components in the color which belong to their Company board and a Construction Wheel which they place next to their Company board with the entry space facing upwards.

	1st Player	2nd Player	3rd Player	4th Player
Company Board	USA *Marguerite Grant* Red	Germany *Oberst Dassler* Black	Italy *Enrico Olivi* Green	France *Joseph Fontaine* Blue
Executive Officer	Wilhelm Adler	Jill McDowell	Solomon P. Jordan	Viktor Fiesler
Starting Contract	3	3	2	4

1

3

Components:

A. *5 Base pieces*
B. *5 Elevation pieces*
C. *5 Conduit pieces*
D. *4 Powerhouses pieces*
E. *5 basic Technology tiles*
F. *1 Construction Wheel*

2

♦♦♦ *Place all the structure pieces (Dam Bases, Elevations, Conduits, Powerhouses) in their relative spaces on the Company board. Place the starting resources in your personal supply on your Executive Officer tile. Keep your Technology tiles and your Starting Contract next to your Company board.*

4

3 Each player receives 6 HyCU, 6 Excavators and 4 Concrete Mixers.

4 Players take the Starting Contract tiles which matches their company as shown on the table.

5 Place the Order of Turn marker according to the order shown in the table.

N.B. *N.B. In a three-player game the 4th space in the order of turn will not be used. In a two-player game the 3rd and 4th spaces will not be used.*

6 Place the Energy marker in the starting space of the Energy Track.

7 Place the Victory Point markers in space "10" on the scoring track.

ADVANCED RULES

♦ Players choose their Company boards and Executive Officers. Randomly pick a number of Company boards equal to the number of players and place them in the center of the table *(if you are a playing a two- or three-person game, put any leftover board back in the box)*. Take a number of Executive Officer tiles equal to the number of players and randomly combine them with each Company board. Put any leftover tile back in the box. Randomly pick the first player. The first player chooses one of the Company Boards with its combined Executive Officer tile and places it in front of them. In a clockwise direction all players then choose their combination of Company boards and Executive Officer tiles.

♦♦ The order of turn markers are placed in the opposite order to that with which players chose their boards. Therefore the player that chose their company board first will place their order of turn marker in last position and the player who chose their board last will place their order of turn marker in first position.

♦♦♦ Instead of receiving automatic Starting Contracts players will choose them. Shuffle the Starting Contracts tiles and draw a number of tiles equal to the number of players. Place these contracts face-up next to the board (if you are a playing a two- or three-person game, put the leftover Starting Contract tiles back in the box). Going on in an anti-clockwise order (starting therefore with the last player in the order of turn) each player chooses one starting contract and places it face-up next to their board.

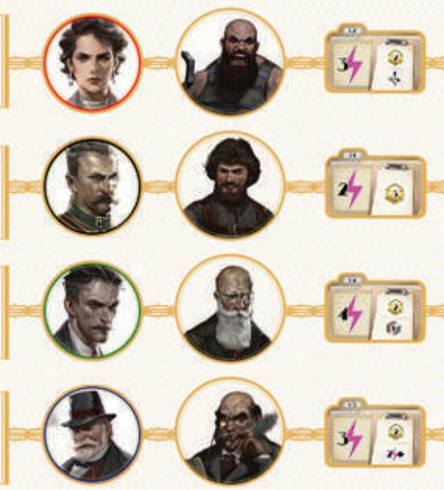
♦♦♦♦ Place the joker basic technology tiles back in the box. They will not be used in the full game.

Paul
3° player to chose
2nd player to play

Joanna
1° Player to chose
4th player to play

Viktor
2° Player to chose
3rd player to play

Sophia
4° Player to chose
1st player to play



In a 4-player advanced game, players randomly form the depicted combination. Joanna chooses first and she decides to play with Germany and with Starting Contract of value 2; the black marker is placed in the last position of the Turn Order track. Viktor is the second to chose and he picks up Italy and the Starting Contract of value 4; the green marker is placed in the third position of the Turn Order. Paul is third and he chooses USA and the depicted Starting Contract of value 3; the red marker is second in the Turn Order. Sophia will play with France and with the remaining Starting Contract; the blue marker is first on the Turn Order.

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THE GAME

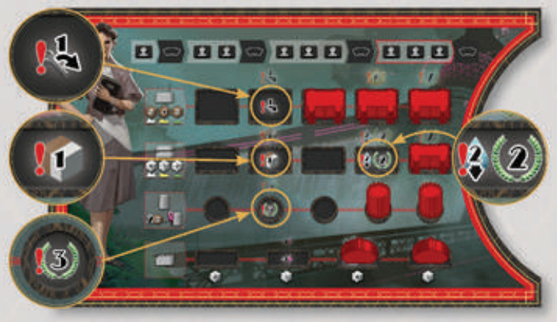
A game is divided into **five rounds**, each of which is made up of **four phases** which are played in the following order:

- Income and Headstreams
- Actions
- Water Flow
- Scoring
- End of Round

INCOME AND HEADSTREAM

All players get the active income on their Company boards.

Income is represented by the symbol 'I'.
In order to activate income you must build structures. When you build a structure, you must take that piece on your Company board from left to right (see page 453682 Construction Action).
By building the second piece of your Dam Bases, Dam Elevations and Conduits, you receive the first income related to that element. By building the fourth piece of these structures, you receive the second income (more profitable than the first). By building the fifth piece you receive the third income.
The first two types of income in each line are different for each company board. The third income is the same for all companies (7 VPs).
This phase of the game can be played simultaneously by all players.



After USA has built many structure pieces they activate the depicted income on their Company board.

"You will need structures of different type to produce energy, but if you build more pieces of the same structure you will activate your company income, which is one of the key to win!"

Powerhouses do not provide income but they boost the Energy production. You will find all the details regarding your company boards on page.... of the rulebook.

Place Water Drops on the Headstreams tiles according to the number shown on the tile for the current round.

Each Headstream tile has four spaces that contain the number of Water Drop you must place on the tile. During the fifth and last round there won't be placed any Water Drop on the Headstream tiles during this phase, but players can always place them using actions and special effects.
These Water Drops will start to flow on the Map during the Water Flow phase (see page 624572654).

During the first round you will place 2 Water Drops on this Headstream tile.

ACTIONS

Players play their turns one after the other following the order of turn shown by the order of turn markers on the turn order track. When it is a player's turn they MUST place Engineers into an action space to perform the corresponding action.

Each action space requires from one to three Engineers: this request is depicted by the Engineer symbols on the same line on the left or on the right of the action space.

If an action space has a red border this means that the action has an extra cost of 3 HyCU.

To perform this action you need to place 2 Engineers on the action space on the left, or 3 Engineers on the action space on the right: in this case you will also need to pay 3 HyCU.

If you don't have in your supply the Engineers *(or the additional HyCU)* requested by an action space, you can't perform that action. You can't place Engineers in an action space and don't perform the corresponding action.
When a player has no more Engineers to place their turn is over. When all players have placed all their Engineers the action phase is over.

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Construction Actions

There are four action spaces on each company board: each player has their own spaces *(they cannot be used by any of the other players).*
The request of these spaces increases from left to right: the more structures you build during a round the more Engineers you will need to do it.

Building the first structure piece in a round requires 1 Engineer. Building the second structure piece requires 2 Engineers. Building the third and fourth structure piece requires 3 Engineers. To build the fourth structure piece in the same round, you must also pay 3 HyCU.

These actions enable you to build various structures.
In order to perform a construction action you must follow these steps:

1. ***Place the requested Engineers in the first free construction space on your board starting from the left.***

(If you place your Engineers in the final space with a red border you must also pay an extra fee of 3 HyCU.)

2. ***Place the Technology tile for the structure you want to build in the entry space on your Construction Wheel.***

Take from your supply the Technology tile showing the symbol of the structure you want to build.
If you have neither the Technology tile for a given structure nor a joker tile you cannot build that structure.

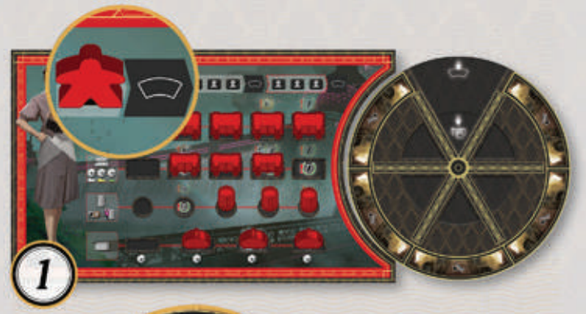
3. ***Place the resources you must pay to build that structure in the segment inside the Construction Wheel which corresponds to the tile you have just placed.***

Each structure has a different cost; some costs also depend from the area of the Map where you want to build. see next page.

4. ***Rotate the Construction Wheel by one segment.***

5. ***Build the structure piece. If you are building a Dam Base or a Powerhouse in a red building space, you must also pay 3 HyCU.***

Take from your Company Board the first corresponding structure piece from the left and place it in one of the building spaces for that type of structure on the Map.
If you do not have all the resources *(or HyCU if you are building in a space with a red border)* required, you **cannot perform** the construction action.
If, by building a structure, you discover a space with an income, you get that income immediately. You will get it again during Income phase (see page 47653485).



Usa want to build a Dam base in the Hills area.

1) This is the first Construction action of their round, so they need 1 Engineer on the first action space.

2) and 3) They place the Technology tile for the Dam Base inside the Construction Wheel together with 4 Excavators requested for the Hills area.

4) The Construction Wheel makes one turn clockwise.

5) They get the first Dam Base from their Company board and place it on the Map.

You can build **4 types of structure**. Each structure has a different function and a different cost.

A Dam base

It is used to collect and hold the water you will need for production.

- It can be built in any free base space.
- It costs 3 Excavators if built in the Plains area, 4 Excavators if built in the Hills area and 5 Excavators if built in the Mountain area.
- If built in a base space with a red border has an extra cost of 3 HyCUs.
- You cannot place two Dam bases of the same color in the same basin.

A Dam elevation

- It is used to increase the amount of water that a Dam can hold.
- It costs 2 Concrete mixers if built in the Plains area, 3 Concrete mixers if built in the Hills area and 4 Concrete mixers if built in the Mountain area.
- You don't pay 3 additional HyCU if you build in a base space with a red border.
- It is always built over a Base or another elevation of your color.
- There can never be more that two elevations on the same base *(a Dam's maximum height is three)*.

A Conduit

- It is used to bring Water Drops from a Dam to a Powerhouse.
- It costs 2 Excavators multiplied by the production value of the Conduit you wish to build *(eg. if the Conduit has a production value of four it costs eight Excavators)*.
- It can be built in any free conduit space.

A Powerhouse

- It is used to activate the production of energy.
- It costs 2 Concrete mixers plus 1 extra Concrete mixer for every Powerhouse the player has already built.
- It can be built in any free Powerhouse space.
- If built in a Powerhouse space with a red border has an extra cost of 3 HyCUs.
- You cannot built two Powerhouses of the same color in the same basin.

	Plans	Hills	Mountains
Dam Base	3 Excavators	4 Excavators	5 Excavators
Elevation	2 Concrete Mixers	3 Concrete Mixers	4 Concrete Mixers
Powerhouse	2 Concrete Mixers + 1 Concrete Mixer *x previously builtt Powerhouse*		
Conduit	2 Excavators *x production value*		

A cost reminder is also shown on the Company boards.

"Chosing which structure and where to build is one of the most important and strategic decision in Barrage. You might win even if you don't produce energy during the first rounds, but being able to activate a production from the beginning of the game is usually the easiest solution. Try to connect your Powerhouses to a Dam as soon as you can!"

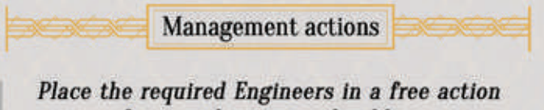
Resources, HyCU and Technology tiles

- Excavators and Concrete Mixers are unusual resources. When you use them to build a structure they are not 'spent': they are invested on the Construction Wheel until they become available again after a complete rotation. When you get a resource *(in any way)*, take it from the general supply and add it to your personal supply *(do not put it on the Construction Wheel: the resources you get are immediately available to you)*.
- HyCU are never placed on the construction wheel. When they are spent they are always put in the supply.
- There are five types of technology tiles, one for building each of the four structure pieces, and one joker Technology tile that can be used to build any of the four structures. Technology tiles work in the same way: they stay on the Construction Wheel until they return to the entry space and become available again.

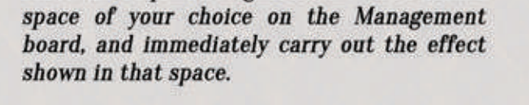
Management actions

Place the required Engineers in a free action space of your choice on the Management board, and immediately carry out the effect shown in that space.

The Management board is common to all the players, meaning that players are in competition with one another to occupy the action spaces: the first player to place an Engineer in an action space renders this space out of action for all the other players for the entire round.
Every Management action has two spaces where you can place your Engineers, one on the left and one on the right of the effect symbol: the action space on the right costs more than the first, but it gives you a second chance to perform an action if the first space is already occupied. Both action spaces can, in different turns, be occupied by the same player.
The actions on the Management board are divided into different sections for each category so that actions of the same type with similar effects are in the same area of the board.
Action spaces **with a red border** require an extra fee of 3 HyCU.
The cost of some actions is shown in the action's effect. This cost must be paid when the Engineer is placed together with any extra costs for red-bordered spaces. You must have all the required HyCU to be able to place your Engineer in a given space. **You cannot place an Engineer in a space if you cannot perform the action.**



Effect of the action — 3 HyCU



Cost of the action — 3 HyCU

TURBINE STATION

Production is the main action you will use in order to produce energy. This production is activated through actions performed using the Turbine Station on the Management board.

ADVANCED RULES

You can also activate production with the effect of an advanced technology tile. See Appendix.

Whenever you see this symbol you can activate production applying the eventual bonus or malus shown.

To be able to perform a production action you must have:

- At least one Water Drop on a Dam of your color or a neutral Dam;
- A Powerhouse of your color already built on the Map;
- A Conduit (of any color) which directly connects the relevant Dam to your Powerhouse.

Take as many Water Drops as you wish from the relevant Dam and move them along the Conduit to reach your Powerhouse. Immediately produce a quantity of energy units equal to the Conduit's production value multiplied by the number of Water Drops that you decided to move.

If you are using a Conduit of another player, give that player 1 HyCU for each Water Drop. That player also gains 1 Victory Points for each Water Drop.

The various production action spaces have different energy bonuses: once you have calculated the total amount of energy produced, apply the production bonus/malus of the space you used.

"Don't worry if you end up getting a malus on production sometimes, energy production is fundamental to scoring points and fulfilling Contracts!"

Usa is performing a production action with a bonus of +1. They take 2 Water Drops from a Neutral Dam using an Italian Conduuit of value 3. The amount of Energy Units produced is 7: 3 (conduit value) x 2 (Water Drops) + 1 (space action bonus). Usa must give Italy 2 HyCU and Italy gains 2 Victory Points.

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Effects of production

Record the Energy produced by moving your Energy marker on the Energy Track by a number of spaces equal to the amount of energy produced.

The Energy Track shows the total amount of energy produced by each player in the current round.

Usa has produced 7 Energy Units with their last action and they have already produced 5 Energy Units with a previous action. Their marker record the total amount of Energy produced this round.

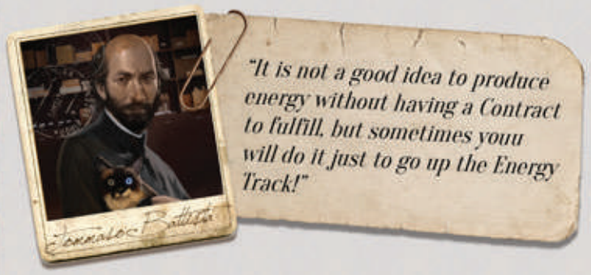
If you have a Contract in your supply with an energy value equal or inferior to the amount of energy you have produced, you can fulfill that Contract.

Immediately receive the return shown on the Contract and turn it face-down: you cannot fulfill this Contract again in this game.

You can fulfill only one Contract at a time when you perform a production action.

This means you cannot put two production actions together to fulfill a Contract, and you cannot fulfill two Contracts with one production action even if the amount of energy produced would be enough to fulfill both.

With a total production value of 7, Usa can fulfill both of their Contracts, but they must choose only one to fulfill. They choose the 3 value Contract to move their marker on the Energy Track of 3 more steps and rotate their Construction Wheel of two segments.



National contracts

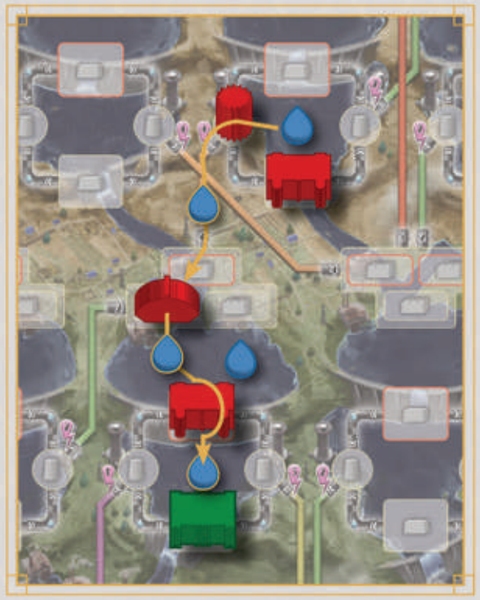
If you produce an energy value equal or superior to the amount of energy required by a national contract you can fulfill directly that contract instead of a contract you own.

National Contract tiles do not go into the players' supply, but they can be satisfied by the first player producing the amount of energy required.

The first player who is able to produce 14 Enery Units or more can decide to fulfill one of the National Conttracts depicted.

Where does the water go?

The water which reaches a Powerhouse thanks to the effect of a production action follows its natural course flowing through basins, rivers and Dams. When water arrives at a Dam it stops until the Dam is full; however if the Dam is already full the water simply overflows and continues its course towards the lower basin.



Red player starts a production using their hill Dam. It contains one drop of water, that passes through their Conduit and drives to their Powerhouse, generating 4 Energy Units (plus any bonuse). After this, water keeps flowing, arriving to the downhill basin. However, the basin on which the Red player has a dam is at full capacity, so water overflows and it's finally captured by the Green Dam.

WATER MANAGEMENT

This action allows you to add water to the headstream. Water can be collected in headstreams in a number of ways. At the beginning of each round each headstream automatically produces a number of Water Drops as shown on the headstream tile. There are two effects which add water to the headstreams:

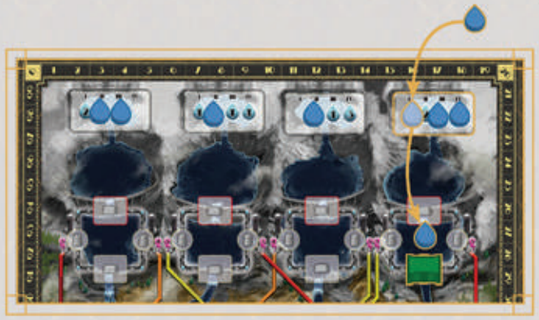
Place 2 Water Drops on one or two Headstream tiles.

You can decide on which headstream to place them and you can also divide the Water Drops between two or more headstreams. You can even place only one water drop, if you wish. These Water Drops will only flow down during the water phase.

When players place 2 Water Drops they can decide to place them on two different Headstream tiles.

Place 1 Water Drop on a Headstream tile. The drop you have just placed flows down immediately following the rules of water flow.

You can decide on which headstream to place them and you can also divide the Water Drops between two or more headstreams. The Water Drops which were already on the headstream do not move.
There is no limit to the number of Water Drops which can be present on a headstream.
Players can add water to the headstreams through the water management action, through the effect of certain Contracts and through some types of income on their company boards.



The Water Drop placed starts immediately to flow down the river.

BANK

Take a number of HyCU equal to the number of Engineers you placed in this action space.

The Bank is a single action space that works differently from the others: you can place here any number of Engineers with a single action. This is also the only non-excluisive action space. A player can always place Engineers in the Bank, even if the space is already occupied by their or other players' Engineers.

WORKSHOP

Workshop actions can be used to rotate the Construction Wheel to speed up the return of Technology tiles and resources.

Rotate your Construction Wheel by a number of segment equal to the number depicted on the Workshop action. If there is a HyCU on the action space, pay that amount of HyCU.

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After each individual rotation of the wheel *(each segment)* you must immediately take back any resources or Technology tiles that is back in the entry segment.

Italy is performing this Workshop action: they pay 2 HyCU to rotate the wheel of 2 segments. The result is shown in the second image. They get back the Technology tiles and the resources invested when they come back to the entry space of the wheel.

Players can make the Construction Wheel rotate through Workshop actions, through the effect of some Contracts and through certain types of income on their company boards.

MACHINERY SHOP

Buying actions can be used to purchase resources for construction.

Pay the amount of HyCU shown on the left and take the resources on the right.

Take the resources from the supply and place them in your personal supply on your Executive Officer tile. Players can buy resources at the Machinery Shop, but they can also get them as an effect of certain Contracts and certain types of income from their company boards. Some actions allow you to choose whether to take an Excavator or a Concrete mixer.

CONTRACT OFFICE

Your Engineers can go to the Contract Office to acquire **Contract tiles**.

Take 1 Contract tile for free or take 2 Contract tiles paying 1 HyCU.

You can choose which Contracts to take, but only from those which are face-up and place them face-up next to your board. Contract tiles are replaced by the topmost tile of the corresponding pile *(so that there are always 2 contracts available for each level)* only at the end of the turn.

You cannot have more than 3 Contracts face-up in front of you.

If, after performing this action, you have more than two Contracts in front of you, you must immediately discard them until you have only three. You are free to choose which Contracts you discard.
At the end of player's turn refill the contract tiles.

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ADVANCED RULES

TECHNOLOGY DEVELOPMENT ACTIONS

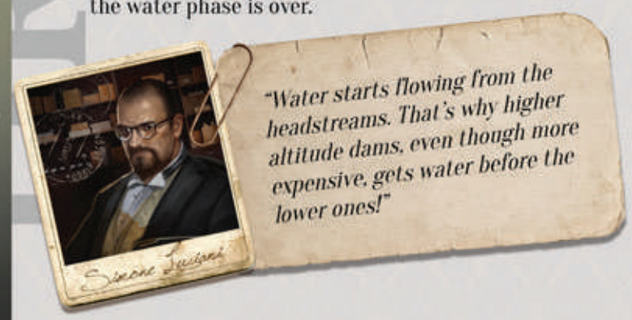
The advanced technology tiles are not used in the introductory game. The dedicated action spaces will therefore not be available.

Pay 5 HyCUs to buy an advanced technology tile.

There are three action spaces, each of which is associated with a tile. When you perform this action take the tile you have chosen and add it to your personal supply: it becomes immediately available during this round. Advanced technology tiles allow you to build structures in the same way as the basic technology tiles, but they have an additional effect when they are used. In Appendix 4 you will find details of these special effects. Tiles will be replaced only at the end of the round (see page 363547653)

WATER FLOW

At the end of the action phase the water phase begins. During the water phase all the Water Drops on the headstreams flow down according to the normal rules, following rivers and basins. Water Drops are moved one at a time filling the Dams they flow into. When a Dam is full *(the number of Water Drops equal to the Dam's maximum capacity, that is, its height)* the next Water Drops flow past it. When all the Water Drops have been placed or removed if they have reached the lower basin, the water phase is over.



Example 1 (left): Drops 1 and 2 start flowing downstream. They reach the Mountain basin level 1 dam, already at its full capacity. Both the drops overflow and continue their movement. Then tey reach the Plains basin level 3 dam, that can store one more drop of water. Drop 1 is captured by the dam; drop 2 overflows (now the dam is at full capacity) and finally reach the end of the map, where is lost.

Example 2 (right): the three drops start flowoing. Drop 1 is immediately captured by the Mountain level 2 dam, filling it. Drops 2 and 3 keep flowing. Next up, drop 2 is captured by the upper Hill dam, filling it. Drop 3 overflows and gets captured by the lower level 2 neutral dam.

SCORING

The first player on the Energy Track gains 6 Victory Points; the second gains 2 VPs.

In case of a tie for the first position, sum up both the bonus (6 and 2 VPs) and split them evenly between all the tied players, rounded down. Any other player don't get any bonus. In case of a tie for the 2nd position, all the tied players get 1 VP.

At the beginning of the Scoring Phase, the Red player is on the lead on the Energy Track, so she scores 6 points. Black and Blue players share the same spot, so they split evenly the 2 points awarded to the second player on the track (one for each).

Take HyCU according to your position on the Energy Track.

Every player gets the amount of HyCU shown on the Energy Track space they've reached or surpassed. If a player has produced no energy, they gain 3 HyCU but lose 3 Victory Points as shown on the "0" space.

Red player gets 4 HyCU, Blue and Black get 3. Green player gets 3 HyCU too, but he loses 3 VPs.

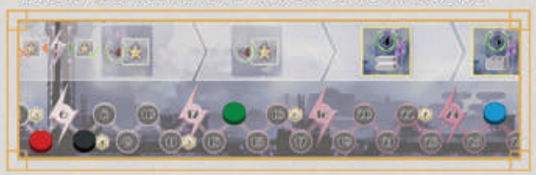
Eligible players gain VPs for the active Scoring tile.

The active Scoring tile is the leftmost visible tile on the Energy Track. For a detailed explanation of each Scoring tile see Appendix X at page Y.
Eligible players are the ones who produced a minimum of 6 Energy Units during the current round. Any player below this minimum threshold are **not** eligible, thus getting no bonus.
Eligible players multiply the number of points indicated by the tile for the number of corresponding requirement they have accomplished.

Red is the only eligible player, since she's the only one to have reached (or surpassed) the 6-Energy Units minimum threshold.

Discard the Scoring tile of the current round.

Remove from the game the leftmost Scoring tile. This will uncover a –4 VPs symbol that will affect next rounds Scoring Phases.
Starting from round two, Eligible players will need to check their position on the Energy Track according to each new round full bonus threshold. This threshold is 12 Energy Units for round two, 18 for round three, 24 for round four and 30 for the last round. Any eligible player who does not reach this threshold will need to subtract from the Scoring Bonus 4 VPs for each section between their marker and the threshold.



It is the end of the third turn. Red player is not eligible, so he get no bonus. Blue player is eligible, and he surpassed the 18-Energy Points current round threshold, so he gets the full bonus. Green player is eligible, too, but he is 1 section behind the current round threshold: he gets the bonus minus 4 VPs. Black player is eligible and lose, from the bonus, a total of 8 VPs.

Players can **never** lose points from the Scoring tile: if the total malus is higher than the bonus granted by the tile, the player just doesn't gain VPs.

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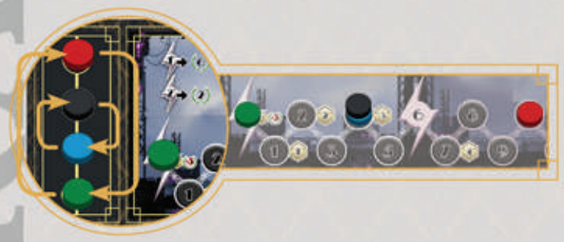
END OF ROUND

Update the turn order.

The player who produced the least energy in the current round becomes the first player, and so on. If there is a tie in the amount of energy produced by two players then invert the order of play of the previous round.



Green player has produced the least energy, so they goes first in the next round. Red player produced the most, so they jump to the last position. Black and Blue player produced the same amount of energy, so they switch position on next round turn order track.

Place all the energy tokens on the "0" space of the Energy Track.

All players take their Engineers from action spaces back in their personal supply.

ADVANCED RULES

If there are any Advanced Technology tiles left on the board, discard them putting them back in the box. Take three new Advanced Technology tiles and place them face-up in the appropriate spaces. First, take the tiles with I on the back; when depleted, take those with II on the back and finally those with III on the back.

END OF THE GAME AND FINAL SCORING

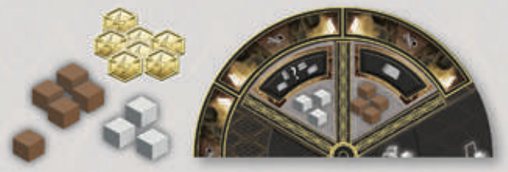
The game ends after the Scoring Phase of the fifth round. The final scoring then takes place.

Players gain Victory Points according to the objective tile.

Each objective shows a certain condition according to which the structures built on the map will be counted. The player that satisfies the most this condition wins 15 points, the second 10 and the third 5. If there's a tie for the first position, sum up the 15 and 10 points and split the result between the tied players (rounded down). The same process is applied for the second and third position, if a tie occours.
For a detailed explanation of each Objective tile see Appendix X at page Y.

Players gain Victory Points for the resources they have left available in their supply.

Add the resources *(Excavators, Concrete Mixers, HyCU)* together: 1 Victory Point every 5 item of any type. Any resources still on the Construction Wheel are not counted.



The Green player holds 3 Concrete Mixers, 5 Excavators and 7 HyCUs at the end of the game. 3+5+7 = 15 resources, for a total of 3 VPs. They don't count the 3 Concrete Mixers and the 4 Excavators still locked in their construction wheel.

Players gain 1 Victory Point for each Water Drop held on their personal Dams.

Red player hold two Water Drops on their dam. Each one of them is worth 1 VP, for a total of 2 VPs.

The player with the most Victory Points wins.

In case of a tie, the player who produced most Energy Units during the last round is the winner *(the last round ends before the End of Round phase, so each player position on the energy track should be preserved).*