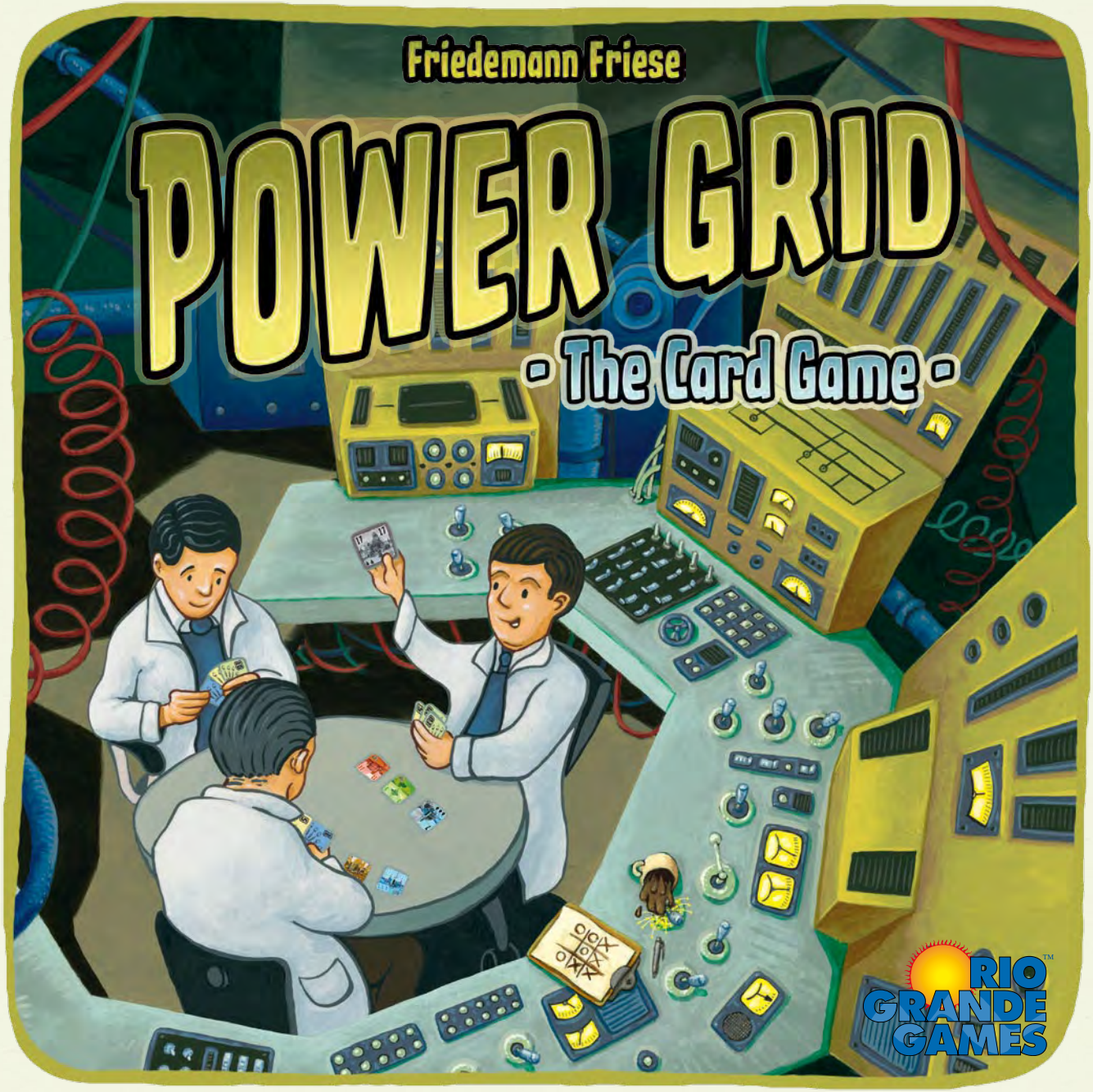

Friedemann Friese
POWER GRID
- The Card Game -
RIO GRANDE GAMES

Power Grid: The Card Game

An electrifying game by Friedemann Friese for 2-6 players of age 13+

Aim of the game

The players represent CEOs of mighty power companies producing electricity. During the game, the players bid for power plants at auctions and supply them with resources. Their income depends on the amount of electricity produced in each round. At the end of the game, the player who produces the most electricity wins the game.

Power Grid: The Card Game offers all the tension and tactics well-known of its two big brothers Power Grid or Power Grid deluxe without using the different maps. Players get the full Power Grid emotions in an intensive 60 minutes playing time!

Game Components

① **43 power plant cards**, consisting of:
- 13 small power plants with a dark green back
- 29 big power plants with a light green back
- 1 "one more round" card

② **51 resource cards**, consisting of:
- 36 resources (12x coal, 10x natural gas, 9x oil, 5x uranium)
- 7 "single"-resources (2 each of coal, natural gas, oil, and 1 uranium)
- 4 "+"- and 4 "++"-resources

③ **12 CEO cards** (1 set of 2 cards for each player)

④ **4 resource prices cards** (1-4 Elektro)

⑤ **2 arrow cards** for the player order

⑥ **1 discount token** "Minimum bid of 1 Elektro"

⑦ **paper money** (40 x 1 Elektro, 20x 5 Elektro, 40x 10 Elektro)

⑧ **Variant: 6 Demolition Contractor cards**



Power Grid: The Card Game for 2 players: "Against the Trust"

Power Grid: The Card Game is a game for 2-6 players. To give 2 players an exciting experience, they will play with the Trust acting as a third player. While challenging the opponent, they must incorporate the schemes of the competing Trust in their plans and use these schemes against their opponent. If necessary, we add the small adjustments necessary for 2 players in each of the following chapters.

Power Grid: The Demolition Contractor

This box also includes a new variant, the Demolition Contractor, playable for the card game using the front side of 5 demolition contractor cards and for ***Power Grid*** or ***Power Grid deluxe*** by using the backs of 6 of these cards. The rules for this variant are at the end of this rules booklet.

The Power Plants







① **The number:** This is the minimum acceptable bid when the plant is auctioned. Players use that number to sort the power plants by size in the power plant market. Players also use that number to determine the player order when several players received the same income.

② **The picture:** This is an illustration of the power plant and has no role in the game.

③ **The color and resource symbols:** The symbols in the lower left corner show the resource type(s) and the number of resources required to produce electricity. Players may never use more or fewer resources to produce power with the power plant than the number shown on the card. Players may only store the resource type needed for production in their personal storage area and at most may store twice as many resources as the power plant has resource symbols.

 coal  natural gas  oil  uranium

Hybrid power plants have a blue/black color and have two resource symbols. Players may choose to buy and use any combination of natural gas and/or oil. Usually, players will choose to buy the cheaper resource. Players need the stated number of resources (of either or both in any combination) to produce electricity and may store a total of twice as many resources of both (not each) types.

Ecological power plants have a green color. They do not require any resources and, so players cannot store any for them.

④ **The income:** The players receive the income from the bank if that power plant produces electricity. Players cannot choose to use only half of the necessary resources to get half of the income. Although they may store twice as many resources in their central storage as needed for the power plant, it cannot produce power for twice as much income in a round.

Example: *the number 12 power plant has a minimum bid of 12 Elektro. It needs exactly 3 coal to produce electricity, so a player may store up to 6 coal in their personal storage area for this power plant. They receive an income of 9 Elektro when the power plant produces electricity.*

The number 7 hybrid power plant may use any combination of 3 natural gas and oil (3 natural gas, 3 oil, 1 oil and 2 natural gas, etc.) to generate an income of 8 Elektro. Players may store up to 6 resources of the two types (e.g. 3 each of oil and natural gas, 6 oil, or any other combination adding to 6 or less).

The number 8 ecological power plant does not need any resources and cannot store them. It generates an income of 6 Elektro.

The Resource Cards



① **The resource symbol**: The resource symbol shows the avalaible type, see above for coal, natural gas, oil and uranium.

② **The number of resources**: Each resource card offers between 1 to 3 resources of the matching type. Each time the player uses one or more of these resources to produce electrictiy, he turns the card to the appropriate lower number. If the card shows "0", the resources of the card deplete and the player discards the card to the resource discard pile.

③ **The number of players and other symbols**: There are three types of resource cards distinguishable by symbols in the bottom right. The normal resource cards show the number of players, which use this card during their games. The "+" and "++" cards are used later during the game. The "single"- resources are used for surplus resources and do not show a symbol.



Game Preparation

① **Player order:** The players each take a set of two CEO cards and place one in front of them as a reminder of their chosen color (1a). Then, the players randomly determine the player order by shuffling the other CEO cards and placing them in a single row. During the whole game, the left most card shows the first player, and the right most card the last player. The players place the two arrow cards to the left and right of the player order, so that their arrows point into the player order (1b). The arrow cards remind the players about the correct playing order in the three phases of each round.

2 players: They are joined by the Trust acting as a third player. The Trust gets its own set of CEO cards. The players place one CEO card next to the game area and use the other for the player order. During the whole game the Trust is always second in player order. So only the two players shuffle their CEO cards and place them left and right to the Trust's CEO in the player order.

② **Money:** The players place the playing money sorted by value next to the playing area (2a). Each player takes 12 Elektro as their personal cash (2b).

2 players: The Trust plays without money.

③ **Power plant market:** Below the player order, the players prepare the power plant market. They take the 13 small power plant cards with the dark green backs and shuffle this pile. Afterwards, they draw the topmost 8 power plants one after the other and place them face up, sorted in ascending order by their numbers. Some of these small power plants have the same numbers. Thus, if the players later draw a power plant with the same number as a power plant drawn earlier, the new power plant is considered "more expensive" and placed to the right of power plants with the same number. After drawing 8 power plants, place those with the smallest numbers in the top row of the market (the current market) in ascending order, left to right. Then place the remaining four in the bottom row (the future market) in ascending order, left to right (3a). Place the discount token next to the smallest power plant (3b).

Example: *Preparing the power plant market*



④ **Power plant stack:** The players prepare the power plant stack. They set aside the "one more round" card and shuffle the big power plants with the bright green backs. Then, they randomly remove a number of power plants as shown in the table, both small power plants and big power plants. They set these cards face-down in the box, without looking at them.

Then, the players set aside 1 of the remaining small power plants, shuffle all remaining small and big power plants together and place them as a draw stack face-down next to the power plant market (4a). They place the "one more round" card face-down under this stack (4b) and the small power plant, that had been set aside, on top of the stack (4c). The differently colored backs show players whether the power plant on top of the draw stack is a small or big power plant.

Depending on the number of players, the following number of power plants must be removed:

	small power plants with dark backs	big power plants with bright backs
2 players	1	5
3 players	2	6
4 players	1	3
5-6 players	none	none

⑤ **Resource market:** Below the power plant market, the players prepare the resource market. They place the 4 resource prices cards in an ascending line from 1-4 Elektro (5a) and place all 7 "single"-resource cards face up next to this row (5b).

The players take the normal resource cards matching the number of players (check the symbols on the bottom right: "2-6", "4-6" "5-6") and shuffle this stack. Then, they draw a number of resource cards from this stack as shown in the table and place them face up in 3 columns below the "resource price" cards for 2, 3 and 4 Elektro (5c). The column for 1 Elektro remains empty! They place the remaining cards as a face-down draw stack next to the "single"-resource cards (5d).

	Resource cards per column (2, 3, 4)
2-3 players	4
4 players	5
5-6 players	6

For a better overview the players sort all resource cards in the resource market by (available) type in each of the columns from top to bottom: From top to bottom coal, natural gas, oil, uranium. Additionally, for each resource type they sort them by the number of resources in ascending order: cards offering less resources on top, then cards offering more resources.

Finally, the players take the set of "+" resource cards (1 each of coal, natural gas, oil and uranium) and place these 4 cards face up as the first discard pile next to the draw stack (5e). When shuffling the discard pile the first time during the game, they need the second set of 4 "++" resource cards for the new discard pile (5f).

This completes the game preparation. We hope you enjoy playing the game!

Example: *Game preparation for 2 players playing with the Trust.*



Playing the game

The game is played over several rounds. Each round of the game has 3 phases. In each phase, all players take their actions in the order specified for the phase before the game continues to the next phase. The 3 phases are:

1. Auction Power Plants
2. Buy Resources
3. Bureaucracy

As soon as the players draw the "one more round" card, they finish the current round and play one more final round without the third phase "Bureaucracy". The player with the most VP for their power plants and remaining cash wins the game.

1. Auction Power Plants



The first player begins!

In this phase, each player may buy at most 1 power plant.

First, place the discount token on the smallest power plant in the current market. The minimum bid for this power plant is reduced to 1 Elektro independent of the actual number of the power plant.

This phase is played in player order beginning with the first player (the player with their CEO card on the left most space of the player order). The player chooses between the following two actions:

a. Choose a power plant for auction

The player chooses one of the 4 power plants in the current market to start the auction. Then, the player makes a bid to purchase the power plant. The minimum bid must be at least matching the number of the power plant, but may be higher. Continuing in clockwise order, all players may raise the bid or pass. When a player passes, the player may not reenter this auction. Players keep bidding or passing in clockwise order until only one player remains. This player pays their highest bid to the bank and takes the power plant.

Immediately, the players replace the sold power plant by drawing a new power plant from the draw stack. They place it in the power plant market by rearranging all power plants in ascending order of numbers: the 4 lowest in the current market, and the 4 higher power plants in the future market. Again, if the players draw a power plant with the same number as a power plant already lying in the market, the new power plant is considered "more expensive" and placed to the right of power plants with the same number.

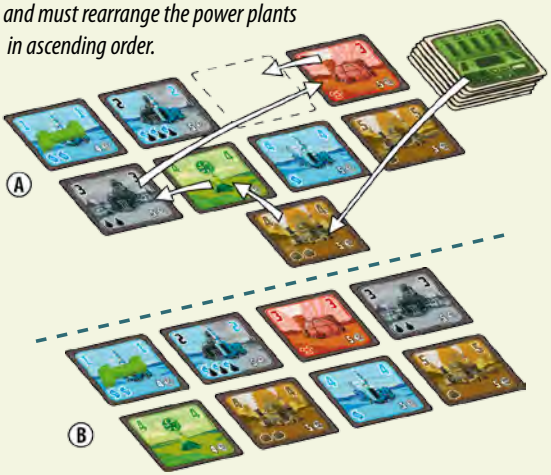
The players **follow these rules during the auctions**:

- During the first round each player must buy 1 power plant.
- Once a player has purchased a power plant in a round, they cannot bid in another auction in the same round, nor can they offer a plant at auction.
- When the auctioning player wins the auction and buys the power plant, the next player in turn order takes their turn if they have not already purchased a power plant this round. If a player other than the player who started the auction wins the auction, the auctioning player may choose to auction a different power plant from the current market.

Example: *Anna chooses the third power plant of the current market for the auction.*



Example: *The players replace the sold power plant with a new one and must rearrange the power plants in ascending order.*



- During the game each player may own only 3 power plants at any time. When a player buys a fourth plant, they must scrap 1 of their 4 power plants and remove it from the game. The player may store resources from the scrapped power plant in their storage area if one or more of the remaining power plants can use these resources. If there is no capacity left or no matching power plant for the resources from the scrapped power plant, the player discards the resources without substitution (see "The power plant cards" on page 3 and "Buy resources" on page 8).

- The last player to start an auction in a round pays the minimum bid to buy the power plant they choose.

- As long as the discount token is on the lowest power plant, the minimum bid for that power plant is 1. If a player buys that power plant, they place the discount token next to the market. The players place it again on the smallest power plant at the start of the next round's first phase.

- As long as the discount token is on the lowest power plant, the first time the players draw a replacement power plant with a printed number lower than the printed number of the discounted power plant, the players remove that newly drawn power plant from the game and remove the discount token from the smallest power plant. The players immediately draw another power plant to refill the power plant market.

- If nobody buys the discounted power plant the players **remove it from the game** at the end of the phase. They replace it by drawing a new power plant from the draw stack.

- If the players draw the "one more round" card they place that card as the highest card in the future market and shuffle all remaining power plant cards in the draw stack. At the end of this phase, after possibly removing and replacing the discounted power plant, they remove the "one more round" card together with the lowest power plant of the current market from the game. Thus, they reduce the power plant market to 6 power plants. During the following final round, the players may choose any of these 6 power plants for auction.



Example: *The newly drawn power plant is smaller than the discounted power plant. Thus it is directly removed together with the discount token!*



Example: *After the card "one more round" is placed in the market, at the end of this phase it will be removed together with the smallest power plant. Thus, the power plant market is reduced to 6 available power plants.*

b. Pass the auction

If the player does not want to offer a power plant for auction, they must opt out of this phase. When they do so, they cannot bid in later auctions during this phase and, thus, will not get a new power plant this round. The next player takes their turn if they have not already purchased a power plant this phase.

2 players: Only the two players bid for the power plants, the Trust never participates in the auctions. After one of the two players has bought the first power plant, or after the first player opted out, the Trust takes the biggest power plant in the current market and places it next to its CEO. It always takes the fourth power plant of the current market except during the last round when it takes the sixth. There is no auction for this power plant! The Trust places all its power plants in a row and adds new power plants to the right. If the Trust gets its fourth power plant, it scraps its oldest, left-most power plant and removes it from play.

After each player has either bought a power plant or opted out, this phase ends.

Exception for the first round: because the player order was determined randomly during game preparation, FOR ONE TIME ONLY players determine the player order again at the end of this phase. First player is the player among them with the highest numbered power plant. As some players may tie on the number of their power plants, the tied players switch their relative places in the player order. In a three way tie, the first and third switch the places.

2. Buy resources

In this phase, the players may buy resources for their power plants from the resource market.

This phase is played in reverse player order, beginning with the last player (the player with their CEO card on the right most space of the player order), continuing with the second-to-last player and so on until the first player takes their turn, finishing this phase. The player order in this phase is very important as resources are only refilled during Phase 3 "Bureaucracy", so players may not get needed resources if too many of them need the same type.



The last player begins!

The resources are offered in 4 columns. Above each column the resource price cards show the prices for the resource cards in each of the columns, either 1, 2, 3, or 4 Elektro. The normal resource cards are available in the columns for 2-4 Elektro, while surplus "single"-resources are only available in the first column for 1 Elektro.

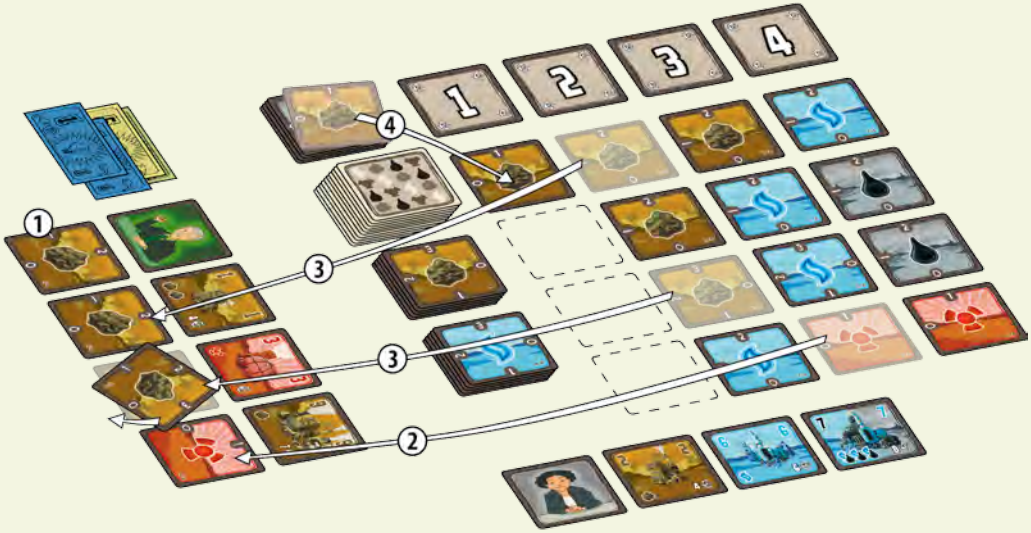
In their turn, the player may buy any number of resource cards as long as their power plants need them to produce electricity (see above in chapter "The Power Plants" on page 3). The player may only store the resource types needed by their power plants and up to twice the number of resources as written on each power plant. As long as they still have free storage space the player may buy matching resources for their power plants.

As the resource cards offer up to 3 resources, the player may not be able to store all of them. When a player buys a resource card offering too many resources they must reduce the bought resource card by turning it to the appropriate number and place the surplus resource(s) as "single"-resource cards in the first column of the resource market. There is no limit for the number of "single"-resource cards in this first column. All players may buy these "single"-resource cards for 1 Elektro. The player does not get any compensation for losing these surplus resources.

The player places all their bought resource cards in their central storage, with the highest number pointing to the top. Only if they use the resources to produce electricity during the third phase during Bureaucracy, the player turns them to show the remaining resources. If the card shows a "0", the player discards the card.

The power plants may share resources from the same resource card and the player stores all their resource cards in a central storage. Of course, a single resource can only be used by a single power plant.

Example: *Anna still has 2 coal from the former turn (1). Now, she buys the following resources for her 3 power plants. An uranium card with 1 uranium for 3 Elektro (2) and 2 coal cards with 3 and 2 coal, each for 2 Elektro (3). She pays the total of 7 Elektro. As she can only store up to 6 coal for her 2 coal power plants, she must reduce one of the newly bought coal resorce cards and places a surplus "single"-coal card in the first column (4). All players now may buy that single coal for 1 Elektro.*



Exception for the final round: During the final round of the game players are not allowed to buy excess resources to store them in their central storage! If they do not have enough resources for producing electricity, they may buy the available matching resource cards but can only keep the necessary resources for a single (final) production. They must place all excess resources as "single"-resource cards in the first colum of the resource market. If they still have excess resources from former rounds, they simply cannot buy any new resources of that type.

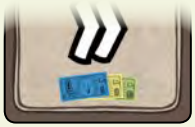
2 players: The Trust always takes all the necessary resources for all of its power plants for a normal production, so it can supply electricity with all of its power plants during Phase 3 "Bureaucracy". It never stores resources in its power plants. It always takes the cheapest resource cards, beginning with available "single"-resource cards in the first column, then normal resources in the second column and so on. If the Trust takes too many resources by a normal resource card, it places the surplus as "single"-resource cards into the first column (same as the players). If there are not enough resources of the needed types in the market, the Trust takes as many as possible. If the Trust owns a hybrid power plant, again it takes the cheaper available resource first. In case of the same price it first takes the available natural gas. If the Trust owns both natural gas and/or oil power plants AND hybrid power plants, first it takes the resource cards for the normal power plants and keeps additional resources for the hybrid power plant. Only afterwards it takes necessary resources for the hybrid power plant as explained above.

Example: *After Anna bought resources for her power plants, the Trust now takes resources. First it takes the "single"-coal card for its coal power plant (1). Then it takes the natural gas card with 2 natural gas (2). The natural gas power plant only needs 1 natural gas, but the Trust can keep the second natural gas for its hybrid power plant. Then the Trust takes the natural gas card with 3 natural gas (3). As this exceeds its storage for a normal production, it must reduce that resource card and places a surplus "single"-natural gas card in the first column (4).*



3. Bureaucracy

In this phase, the players move through 3 steps. First the players produce electricity to get income. Then, they rearrange the player order, resupply the resource market and finally update the power plant market. This phase is skipped in the last round of the game, so players do not get income in that round!



The first player begins!

1. Earning cash and determining the player order: starting with the first player, all players decide which of their power plants produces electricity. To produce electricity, the power plant needs the printed type and number of resources. Each player may choose how many and which of their power plants they use, as this may influence their place in the player order for the next round.

For each of the running power plants the players take the income from the bank. They place that money for the moment separately from their cash (to determine the player for the next round). A player who does not produce any electricity gets 1 Elektro (the guaranteed minimum).

The players use the necessary resources in their storages and discard all resource cards showing "0". They place the "single"-resource cards back next to the draw stack.

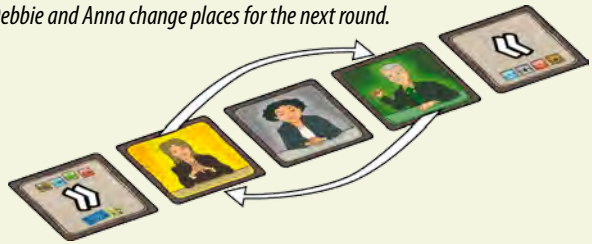
Example: *Anna decides to produce electricity with all 3 power plants. She needs the uranium and 3 of the stored coal. Thus, she discards the uranium card and one of the coal cards. She turns one of the remaining coal cards to "1". She gets an income of 16 Elektro.*



Then, the players determine the player order: the player with the highest income places their CEO card to the left most space in the player order, followed by the player with second highest income and so on. If two or more players are tied for the highest income (which happens often), first player is the player among them with the highest numbered power plant. Again, some players may tie on the number of their power plants (most often at the start of the game). Then, the tied players switch their places in the player order compared to this round.

2 players: The Trust discards all its resources but does not get any income. It remains in second place of the player order, so only the 2 players may rearrange their positions depending on their income.

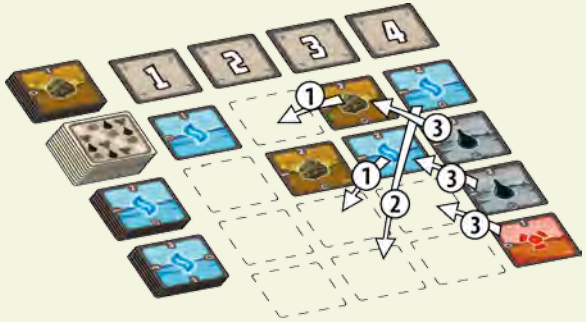
Example: *After producing electricity, Anna had an income of 16 Elektro, and Debbie of 18 Elektro. The Trust keeps its second place in player order, so only Debbie and Anna change places for the next round.*



2. Resupply the resource market: First, the players move the resource cards still lying in the resource market to the cheaper columns to fill any empty slots in these columns (remember the number of resource cards per column depending on the number of players). They start by moving cards from column 3 to column 2, then if necessary from column 4 to column 2, and finally from column 4 to column 3. Thus, the normal resource cards never move into column 1!

The players move the resource cards from one column to the adjacent as follows, until all empty slots are filled: first coal, then natural gas, oil, and finally uranium. And for each resource type first cards offering less resources, then cards offering more resources.

Only after moving all resource cards available in the market, the players draw new resource cards from the draw stack to refill the remaining empty slots of the market. They start with the empty slots of the lowest column and so on. Finally, they sort the resources in all columns again by type and amount of resources.



Example: *To resupply the resource market, the players first fill the second column by moving the coal card and the natural gas card from the third column (1). As there is still an empty slot in the second column, they move the natural gas card from the fourth column to the fourth slot of the second column. Then, they move the other 3 resource cards from the fourth column to the third (3).*

If the players need more cards but the draw stack is empty, the players shuffle the discard pile and continue to fill the resource market. If this happens the first time, they take the set of "++" cards to start a new discard pile. After shuffling a second time, the discard pile begins empty.

Each time the players must shuffle the discard pile, they **remove the smallest power plant** in the current market from the game and replace it with a new power plant from the draw stack. They rearrange the power plant market appropriately.

3. Update the power plant market: The players place the highest numbered power plant from the future market face down below the power plant stack and draw a new power plant to replace it. They rearrange the power plant market appropriately. By doing this, the highest numbered power plants are collected below the "one more round" card in the draw stack and become available again at the end of the game.



Example: *Afterwards, the players fill the empty slot in column 3 (1) and then all four slots in column 4 (2) by drawing cards from the draw stack. In the fourth column they need to sort them again by type and number of resources.*

If the players draw the "one more round" card during this phase, they remove that card together with the lowest power plant of the current market from the game. They shuffle all remaining power plant cards in the draw stack. If they already reduced the power plant market to six power plants in the first phase of the round, FOR ONE TIME ONLY they **remove the smallest power plant** in the current market from the game and replace it with a new power plant from the draw stack. The players will finish this phase AND play one more final round, when they can buy all 6 power plants in the market.

Bureaucracy is now finished. A new round starts with the first phase "Auction power plants".



Example: *After the card "one more round" is placed in the market, at the end of this step it will be removed together with the smallest power plant. Thus, the power plant market is reduced to 6 available power plants.*

Game End

If there are only 6 power plant cards in the market at the start of a round, the players only play the two phases "Auction power plants" and "Buy resources". They skip the phase "Bureaucracy" and finish the game with a final scoring. The players do not get a final income!

Each player produces electricity with their power plants and gets VP for them equal to the printed income of these power plants. If the player does not have enough resources for one or more power plants, they do not get VP for them! Additionally, the players trade in 1 VP for each full 10 Elektro in cash, which they saved in the last round.

The player with most VP wins the game! In case of a tie, the tied player with more remaining cash wins (this is an amount between 0-9 Elektro). If there is still a tie, the tied player with the bigger power plant wins the game.



Example: *Anna gets a total of 28 VP. She has the resources to produce electricity with her 3 power plants, so she gets 26 VP for them (7 + 9 + 10). She also has 23 Elektro in cash, so she gets another 2 VP for the full 20 Elektro.*

In case of a tie in VP, she has 3 Elektro left. If she is tied again with another player, her biggest power plant is the 19.

Variant "Demolition Contractor"

This variant can be played with ***Power Grid: The Card Game*** or a copy of ***Power Grid*** or ***Power Grid deluxe*** and any of their expansions! The rules of these 3 games remain the same, except for the following modifications and special features of this variant.

Aim of the game

A demolition contractor offers its service and gives players good money for their scrapped power plants. If one or more players scrap power plants in a round, they receive some compensation money in return. Even better, afterwards the demolition contractor raises the prices!

Preparation

To play this variant with the card game, the players need the 5 cards with the dark border side face up. To play this variant with one of the board games (and any of the available map expansions), the players need the 6 cards with the bright border side face up.

Sort the cards in a face up stack with the "1" on top and the "5" (or "6" for the board game) on the bottom.

Playing the game

Only the phase "Auction Power Plants" is affected.

Earliest in the fourth round of the game, when a player scraps their first power plant by buying their fourth power plant (if playing with the original 2 player rules without the Trust: the fifth Power Plant), the player gets the compensation money from the Demolition Contractor as written next to the symbol 1. The player takes the money from the bank, AFTER paying for the new power plant, which he bought in the auction. All other players scrapping a power plant in the same phase only get the money as written next to the symbol .

At the end of the phase "Auction Power Plants", after at least 1 player scrapped a power plant and got compensation, the players remove the topmost card of the Demolition Contractor stack from the game, so next time the players get more money for scrapping their power plants.

The players do not remove the final card from the stack and it remains in play until the game ends. As a reminder it shows the symbol .



Example: *Anna is the first player to scrap the first power plant during the game. She receives 1 Elektro from the Demolition Contractor. When other players also scrap a power plant dunring this phase, they do not get any Elektro as compensation. Tough luck!*

© 2016 2F-Spiele, Germany
Author: Friedemann Friese
Graphics & Design: Harald Lieske
Development: Henning Kröpke

Rio Grande Games
PO Box 1033
Placitas, NM 87043, USA
RioGames@aol.com
www.riograndegames.com