

# Friedemann Friese POWER GRID

## USING THE NEW POWER PLANTS WITH ALL MAP EXPANSIONS

Official variant rules by Fraser McHarg

### Disclaimer

Since the release of the „New Power Plants“ expansion all over the world, Power Grid fans have asked how they should use the cards with the increasing number of map expansions. Thankfully for us, you are all very patient and have waited for several years without any signs of change.

Earlier this year Friedemann had finally started to tinker with variants and rules changes, when we received a very long and very well thought out mail with all the necessary rules changes for the New Power Plants and all maps – really ALL maps, even the most obscure.

So now ZF-Spiele officially presents the first rules set written by a Power Grid fan – thanks and honors to Fraser McHarg!

### Expansion 1: France/Italy

#### France

#### Preparation

- Coal, oil and garbage are placed as written in the basic game rules. Place uranium on spaces 5 to 16 of the resource market.
- Remove power plant 11 from the game.
- After setting out the initial 8 power plants, set power plant 19 and the Step 3 card aside. Shuffle the remaining cards and place them face down next to the board. Place the Step 3 card beneath the supply and power plant 19 face down on top of the supply.

#### Rationale

In the original rules for France the first available nuclear power plant 11 (1 uranium -> 2 cities) goes on top of the deck.

In the expansion deck, power plant 08 is in the initial market, so power plant 19 (1 uranium -> 3 cities) is the first available nuclear power plant on top of the deck.

#### Italy

No change required for the new power plant deck.

### Expansion 2: Benelux/Central Europe

#### Benelux

No change required for the new power plant deck.

#### Central Europe

No change required for the new power plant deck.

### Expansion 4: Korea/China

#### Korea

No change required for the new power plant deck.

#### China

#### Preparation

Depending on the number of players, remove the following power plants from the game and place them in the box:

- With 2 and 3 players: 01, 02, 08, 12, 15, 22, 27, 28, 32, 36, 42
- With 4 players: 01, 02, 08, 15, 27, 32, 36
- With 5 and 6 players: 01, 02, 32

Sort the remaining power plants as described below and place them as a face-down supply:

- Shuffle power plants 35–50 and place them face-down at the bottom of the supply.
- Shuffle power plants 30–34 (naturally without the 32), along with the Step 3 card, and place them face-down on top of the higher numbers already placed on the supply.
- Sort power plants 03–29 in ascending order with power plant 29 on the bottom and power plant 03 on the top and place them face-down on the supply.

The resulting supply will have power plants 03–29 from the top. Power plants 30–34 and the Step 3 card will be next, in random order, and power plants 35–50 will be at the bottom, also in random order.

Place coal on spaces 5 to 8, oil on spaces 9 to 12 and garbage on spaces 13 and 14 of the resource market. There is no uranium at the beginning.

## Phase 2: Auction Power Plants

In this version, there is no future power plant market. All power plants are always placed and available in the current market.

### The first round

In the first round, place one power plant in the power plant market for each player (with 2 players, use power plants 03 and 04, with 3 players use power plants 03, 04 and 05, etc.). The players buy power plants at auction as normal and each player must buy exactly one power plant in the first round.

### Rationale

Original Power Plant	New Power Plant	Rationale
03	02	Lowest oil plant
04	01	Lowest coal plant
09	12	1st oil plant consuming only 1 oil
11	08	1st nuclear plant (1 uranium -> 2 cities)
16	22	1st oil plant using 2 oil outside start market
18	15	1st environmental plant powering 2 cities
20	28	1st coal plant to power 5 cities
24	27	1st garbage plant to power 4 cities
30	42	1st garbage plant to power more than 4 cities
33	32	1st environmental plant to power 4 cities
44	36	Highest hybrid plant

## Expansion 5: Brazil/Spain & Portugal

### Brazil

#### Preparation

After laying out the starting market with power plants 01–08, sort out all the remaining biogas power plants (remember, these are the original garbage power plants) and set them aside. Then, continue with the power plant deck setup as in the basic game rules (remove random plants based on the number of players, etc.) Next, put power plant 21 directly under power plant 11 in the power plant deck and shuffle all other biogas power plants into the remaining deck.

#### Rationale

Power plant 21 is the first power plant to use garbage (aka biogas) outside of the initial market.

### Spain & Portugal

#### Preparation

- First, sort out power plants 15, 16 and 26 from the power plant deck and set them face up aside.
- Place coal on spaces 1 to 8, oil on spaces 3 to 8, garbage on spaces 6 to 8 and uranium on spaces 5 to 16 of the resource market.

#### Step 2

At the beginning of Step 2, place the three power plants 15, 16 and 26 on top of the power plant deck in ascending order, so that power plant 15 is on top, then 16, and finally 26. Thus, power plant 15 is drawn to replace the smallest power plant at the beginning of Step 2.

#### Rationale

Power plants 18, 22 and 27 are the first three environmental plants in the original deck after the 13 and power 2, 2 and 3 cities respectively. In the new deck, power plants 15, 16 and 26 match this.

## Expansion 6: Russia/Japan

### Russia

#### Preparation

- Remove power plants 06 and 21 from the game and place them back in the game box.
- The power plant market contains only six (2 rows of 3) power plants. Power plants 01, 02 and 03 are in the actual market, and power plants 04, 05 and 07 are in the future market. After the starting market is prepared, set aside power plants 08, 09 and 11. Prepare the remaining power plants as usual (depending on the number of players, remove a certain number of random plants from the game, etc.). Then take the top three power plants from the shuffled draw stack and power plants 08 and 09, shuffle these 5 cards and place them back on top of the stack. Finally, as usual, place power plant 11 on top of the draw stack.
- Place coal on spaces 3 to 8, oil on spaces 1 to 8 and uranium on spaces 6 to 16 of the resource market. There is no garbage at the start of the game.

#### Rationale

Power plants 06 and 14 are the two lowest garbage plants in the original deck, 06 and 21 are the equivalents in the new deck.

Power plants 10, 11 and 13 are the first power plants to power two cities after the initial market and the normal top of the deck starting card. In the new power plant deck, the equivalent plants are the 08, 09 and 11.

## Japan

No change required for the new power plant deck.

## Expansion S1: Québec/Baden-Württemberg

### Baden-Württemberg

No change required for the new power plant deck.

### Québec

#### Preparation

- In addition to placing power plant 11 on top of the deck, also place power plants 15 and 16 on top of the deck (in ascending order (11-15-16 with the 11 at the top).  
In games with 2 to 4 players, none of the cards removed during the preparation should be a green power plant.
- Place coal on spaces 2 to 8, oil on spaces 2 to 8, garbage on spaces 7 to 8 and uranium on spaces 14 to 16 of the resource market.

#### Rationale

In the original deck, power plants 13, 18 and 22 power 1, 2 and 2 cities. In the new power plant deck, the equivalent are power plants 11, 15 and 16. This does mean that in the new deck power plant 10 is an additional green plant that may appear.

## Expansion 8: Northern Europe/United Kingdom & Ireland

### Northern Europe

#### Preparation

The new power plant deck does not match power plant number for power plant number the original deck. So for the plants that need to be swapped out for Northern Europe different numbered plants will generally be removed as per the following table. During the game, if there are two power plants with the same number in the power plant market, place the second drawn power plant after the first power plant with the same number (the second power plant is considered as the "bigger power plant").

Region	Northern Europe Plant	Remove New Power Plant
Baltic States	18	15
Baltic States	22	16
Denmark	19	27
Denmark	26	22
Finland	32	25
Finland	44	39
Norway	7	7
Norway	46	36
Sweden (South)	10	9
Sweden (South)	39	38
Sweden (North)	21	29
Sweden (North)	25	28

#### Rationale

The working assumption was that any plants removed from the New Power Plant deck should be functionally similar to the original plants, or a best fit. Thus they should use the same resources and have a similar profile where possible in terms of amount of resources consumed and cities powered, that said this is not always possible.

Old	New	Rationale
7	7	Closest fit oil plant (3 oil -> 2 cities vs. 2 oil -> 2 cities)
10	9	Closest fit coal plant (2 coal -> 2 cities vs. 3 coal -> 3 cities)
18	15	Equivalent environmental plant
19	27	Closest fit garbage plant (2 garbage -> 3 cities vs. 1 garbage -> 4 cities)
21	29	Closest fit hybrid plant (2 hybrid -> 4 cities vs. 3 hybrid -> 5 cities)
22	16	Equivalent environmental plant
25	28	Closest fit coal plant (2 coal -> 5 cities vs. 3 coal -> 5 cities)
26	22	Closest fit oil plant (2 oil -> 5 cities vs. 2 oil -> 4 cities)
32	25	Closest fit oil plant (3 oil -> 6 cities vs. 3 oil -> 5 cities)
39	38	Equivalent uranium plant
44	39	Equivalent environmental plant
46	36	Closest fit hybrid plant (3 hybrid -> 7 cities vs. 2 hybrid -> 6 cities)

### United Kingdom & Ireland

No change required for the new power plant deck.

## Expansion 9: Australia/Indian Subcontinent

### Australia

#### Preparation

Before preparing the power plant deck, remove the nuclear power plant #19. Place the removed power plant back into the game box, it is not used in the game.

#### Phase 5 - Bureaucracy

The #50 is an extra large uranium mine, so the owner of this mine places 2 uranium tokens on the uranium market.

### Indian Subcontinent

#### Preparation

Before preparing the power plant deck, remove the nuclear power plant #8. Place it back into the game box, it is not used during the game.

Note: because the #8 is part of the starting market the #9 power plant must be moved to the starting market before preparing the power plant deck as usual.

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