

# CONGESTION KLAVERJASSEN

## A Grid Flexibility Simulation

### THE CHALLENGE

The Dutch grid is congested. Your table is a developer. Build a flexibility strategy that earns revenue — while keeping the grid manageable for Stedin. Choose your cards wisely. Then defend your hand when the twist hits.

### YOUR FOUR CARD SUITS — BUILD YOUR HAND

#### TECH

Your asset

Pick 1–2. The battery you deploy. 2h vs 4h, co-located vs standalone. Each has different grid implications and market access rules.

#### CONTRACTS

How you earn

Pick 1–2. The market or contract that generates revenue. Some are stable; others are pure exposure. Some cannot be combined — check exclusion rules.

#### ACM

The rulebook

Pick 1. The regulatory product defining your grid access rights. Some unlock queue priority; some restrict when you can use the grid.

#### RISK

Your mindset

Pick 1. Full merchant = max upside, hardest to finance. Contracted only = stable and bankable. The Venture Capital Card must be earned from the finance expert.

### HOW TO PLAY — 30 MINUTES AT YOUR TABLE

1

#### Read the cards

Cards are face up. Read through them together — what does this card mean? What could we combine it with?

2 min

2

#### Build your hand

Choose 1–2 Tech, 1–2 Contract, 1 ACM, 1 Risk card. Check exclusion rules. Agree a one-sentence pitch: "We earn by... and help the grid by..."

8 min

3

#### The twist

The moderator announces a system shock. Something in the grid or market has changed — listen carefully, it will affect your strategy.

5 min

4

#### Adapt or defend

Declare immediately: adapt (swap cards) or defend (hold your hand). Every card you swap costs Risk Resilience points.

60 sec

5

#### Pitch

Tell the room: what did you pick, how does it earn, how does it help the grid? Experts challenge you live.

60 sec

### CARD EXCLUSION RULES — YOU CANNOT COMBINE THESE

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#### aFRR + FCR

Cannot be played for the same time period — both require full contracted capacity ring-fenced.

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#### aFRR + DSO Congestion Contract

You cannot serve the national balancing market while location-locked to a local grid area.

×

#### Battery 2h + Capacity Control Contract (TenneT)

2-hour duration is too short for the TDTR grid buffering requirement at TenneT level.

×

#### Full Merchant + Venture Capital Card

No finance expert will grant the card without a contracted revenue floor.

×

#### Non-Firm Grid Access + any fixed revenue contract

You can be cut off at any time — fixed revenue commitments become unreliable.

# SCORING & EXAMPLE OUTCOME

## HOW SCORING WORKS

### ■ GRID IMPACT -5 to +5

Facilitator scored after pitch

- +5 Actively reduces peak load with a binding commitment (e.g. CSC) — gives Stedin a predictable load curve.

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- +3 Reduces grid stress meaningfully but without a binding contract, or some unpredictability remains.

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- +1 Grid-neutral — CBC restriction in place but no active peak reduction contribution.

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- 3 Strategy creates predictable conflicts, e.g. aFRR on 2h battery with no restriction.

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- 5 Actively worsens congestion with no mitigation whatsoever.

### ■ RISK RESILIENCE -5 to +3

Mechanical — recorded at the twist

- +3 Strategy defended — no cards swapped.

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- +2 One card swapped.

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- +1 Two cards swapped.

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- 0 Three cards swapped.

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- 2 Four or more cards swapped.

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- 5 Entire hand replaced.

### ■ REVENUE VIABILITY 0 to +5

Facilitator scored after pitch

- +5 Strong floor, Venture Capital Card granted, no violations, real market understanding demonstrated.

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- +3 Viable with some gaps — single revenue stream or a key assumption not addressed.

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- +1 Thin case — revenue source identified but no credible path to project financing.

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- 0 No credible revenue case, or exclusion rules render the strategy non-functional.

### ■ RED CARD PENALTY -5 flat

ACM facilitator — immediate

- 5 Illegal card combination on your table. Cannot be appealed. Resolve it before pitching.

**TOTAL = Grid Impact + Revenue Viability + Risk Resilience – Red Card penalties**

Tiebreaker: Grid Impact wins · Maximum: +13 · Minimum: -15

## EXAMPLE OUTCOMES

### Table A — High Risk

Battery 2h   aFRR   Grid-neutral   Full Merchant

"We maximise revenue through balancing markets."

Grid -5   Revenue +4   Risk -2

**TOTAL: -3**

### Table B — Balanced

Battery 4h   CSC Contract   Congestion Reliever   Blended

"We solve congestion and secure stable income."

Grid +5   Revenue +3   Risk +3

**TOTAL: +11 ✓**