



## NL Flex, een systemische aanpak van Congestie

CSP Dag - Maart 2026 - Erwin van Laethem



BCG and Ecorys calculate  
the damage of grid congestion

up to €40 billion annually.

Systemic Transformation



# Change Approaches



# Change Leadership Practices



<p style="text-align: center;"><b>Attractor</b> creating magnetic energy</p> <ul style="list-style-type: none"> <li>• meaning and context</li> <li>• connect at emotional level</li> <li>• collective story</li> <li>• alignment &amp; movement to new</li> </ul>	<p style="text-align: center;"><b>Edge &amp; Tension</b> amplifies disturbance</p> <ul style="list-style-type: none"> <li>• challenging status quo</li> <li>• high standards,</li> <li>• urgency, momentum,</li> </ul>
 <p style="text-align: center;"><b>Transforming Space</b> creates movement</p> <ul style="list-style-type: none"> <li>• breaking patterns</li> <li>• interventions in the moment</li> <li>• transforming encounters</li> <li>• insight in the whole</li> </ul>	 <p style="text-align: center;"><b>Container</b> provides holding structure</p> <ul style="list-style-type: none"> <li>• Safe, calm &amp; confident</li> <li>• boundaries</li> <li>• aligns</li> </ul>

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# A Systems Approach to Change - What is really going on?

Understanding Current Reality - Seeing Deeply in order to Shift



**Ability To learn**

**Ability To Influence**

What just happened?

**Events**

React

Has it happened before?

**Patterns**

Anticipate

Why is this trend happening?

**Structures**

Create

**Behaviours**

What is it about our own way of thinking that allows it?

**Mental Model**

Transform

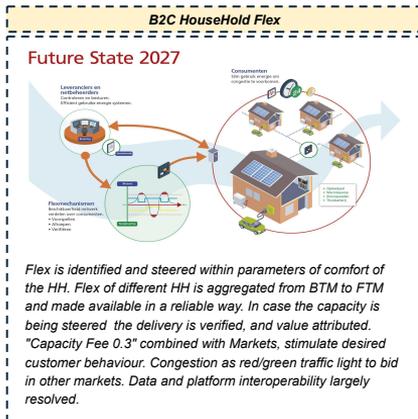
**Belief**

# B2C Household Flex

## Home Battery, EV Charging, Heatpump

# B2B Flex Contracts / BESS

## CSC - Re-dispatch - Flex Tenders

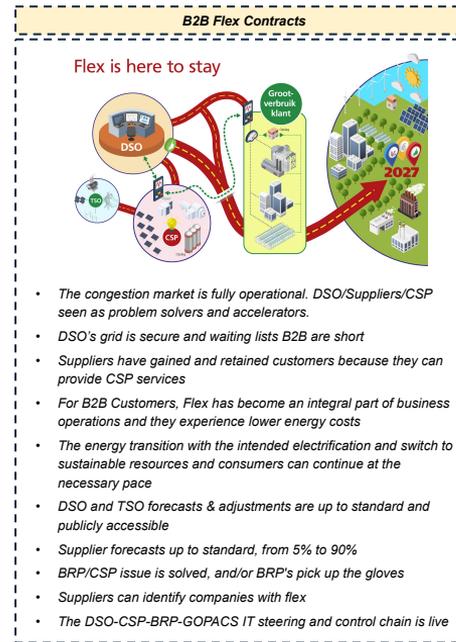


### Household Flex

Service	Liander	Frank Energie	Zonneplan	Vattenfall
Service description				
Service area				
Service status				
Service start				
Service end				
Service contact				

**Trial aim** - quantify by end SC I Household Flex

- Sector deal B2C Flex signed / LAN
- 5000 homes, in 10 LV\* areas of Enexis, 10 LV areas of Liander, and one MV\* area of Stedin manage power peaks during the winter of 2025-2026 - 5000 homes
- The go-to-market moment is at the end of May 2025. Until then, we will prepare the rollout commercially, procedurally, and technically



### B2B Flex

Service	Liander	Frank Energie	Zonneplan	Vattenfall
Service description				
Service area				
Service status				
Service start				
Service end				
Service contact				

**Trial aim** - quantify by end SC I max B2B Flex - Feed in / Offtake

- Sector deal B2B Flex signed / LAN.
- Scalable Roadmap to :
  - 1 GW Flex feed-in activated '25-26 - target '27 set
  - 0.3 GW Flex offtake activated '25-'26 - target '27 set
- Scalable Supplier/DSO value proposition, customer journey, E2E process, with competitive/attractive business case (incl CIA, CtS)
- Bring off-take congestion approach "from zero to one"



### 1. Seeing Systems



### 2. Common Platform of Understanding



### 3. Building Shared Vision



# NL Flex - Insights & requirements for scaling flexibility and impact



## Household Flex - B2B Flex Contracts - Large Scale Batteries - Flex Value - Flex Data

### **Customer Centricity** : Value proposition - Customer Journey - E2E Process

- **Customer Value Proposition**  
formulate a clear and attractive proposition that distributes the flex value fairly : simple for customers, market roles, processes and IT.
- **Customer Journey and Touchpoints**  
drive continuous customer experience improvement on touch points. Make space for insights/experimentation.
- **E2E Scalable Target Processes**  
know and understand the E2E process across the different market roles and at all levels. Articulate in customer centric language.

### **Enabling and Unlocking Scaling** - Data - Value - Capability

- **Flexibility Data** - key to enable  
address the data layer on flex quantity, location, profile, type and value as a foundational layer and essential for analysis, modelling and quantification.
- **Flexibility Value** - key to unlock  
develop and substantiate a common framework for business case / investment security quantification (from asset, market and return perspective)
- **Capability and Knowledge development**  
institutionalise capability building and knowledge of end to end processes, markets, participants, systems, interdependencies

### **Change & Transformation** : Space - Container - Execution

- **Transformation space**  
to be carved out: right people/capabilities, working at same time, in the same place on the same topic. Progress over perfection. Activation.
- **Container:**  
apply focus and prioritise (backlog of) desired outcomes. Leverage delivery on content to address systemic changes concurrently. Start-finish.
- **Execution Engine:**  
execution team with the capabilities to operate autonomously while staying connected; Oversight by CEOs; connect the execution layer to executive layer.

# NL Flex - Insights & requirements for scaling flexibility and impact



## Household Flex - B2B Flex Contracts - Large Scale Batteries - Flex Value - Flex Data

### CEO commitment - accelerators of the energy transition

- **Ceo visible commitment** - regular joint Ceo sessions  
Empowering NL Flex teams, prioritising time and resources and resolving issues in support of overall NL Flex objectives.
- **Systemic Change** : at least 2 suppliers & 2 DSO per workstream in order to work with 'system/sector'  
5# PoC as concrete drivers (progress over perfection, act into thinking), open and inclusive towards other market participants
- **Zero to One** (experimentation, growing the more) **vs Maturity** (strengthening the core)  
Instill Supplier/DSO Team trust, and empower experimentation in the 'zero to one' phase (e.g. tariffs, markets, approaches, ...)

### People - 'Who'

- **Best people assigned to 'what matters most'** : carving out time/space - backfilling:  
Prioritise, and avoid delegating down - Growing the more (vs strengthening the core) requires setting and 'holding' the frame
- **Lead for, and from 'the whole'**  
Participants feel empowered to make progress and act in the interest of the 'whole' (within CEO frame) vs primarily 'representing 1 participant'
- **Develop capabilities, and absorb SME knowledge**  
Deploy internal talent and build internal capabilities, limit external support to one-off and absorb capability from SME

### Connecting the Parts - Stakeholders - Interfaces

- **LAN/PON - ACM**  
DSO Ceo's actively connect, and communicate what belongs where; unlock the potential of LAN, provide suppliers opportunity to influence
- **Position paper**  
Sprint cycle III identifies Issues for further scalability of flex products and process, and topics for external position paper
- **Communication and Frame setting:**  
Bi-weekly updates from NL Flex team and the emerging frame, to communicated via internal communication channels

# NL Flex - Key Focus Areas and Challenges for Scaling

## Household Flex - B2B Flex Contracts - Large Scale Batteries - Flex Value - Flex Data



### Data & forecasting

- DSOs should produce **granular congestion forecasts** at connection level (EAN/DSOP).
- Differentiate **Actual** (short term, 0–2 years) from **Planned** (>2–3 years) congestion and publish separate maps.
- Increase **forecast frequency and automation**.

### Market & customers

- Suppliers/CSPs must systematically **profile B2B customers** for flexibility potential: location, timing, technology and steerability.
- Co-develop the **DSO value proposition** and jointly map the customer journey; extend to LAN and POM.
- Define an attractive '**zero-to-one**' **commercial** valuation framework to unlock early participation.

### Processes & operations

- Establish **end-to-end BRP/CSP/DSO** processes and governance to enable scaling.
- Enable B2B flexibility for **smaller assets** through robust CSC activation and redispatch processes.
- Implement the **full redispatch cycle** at asset level: measurement → modelling → forecasting → verification.

### System coordination & assets

- Create an integrated TSO-DSO view of **residual capacity** (“restruimte”) at MSR and EAN level.
- Fast-track BESS deployment and standardise technical assessments to **reduce lead times** and build confidence.

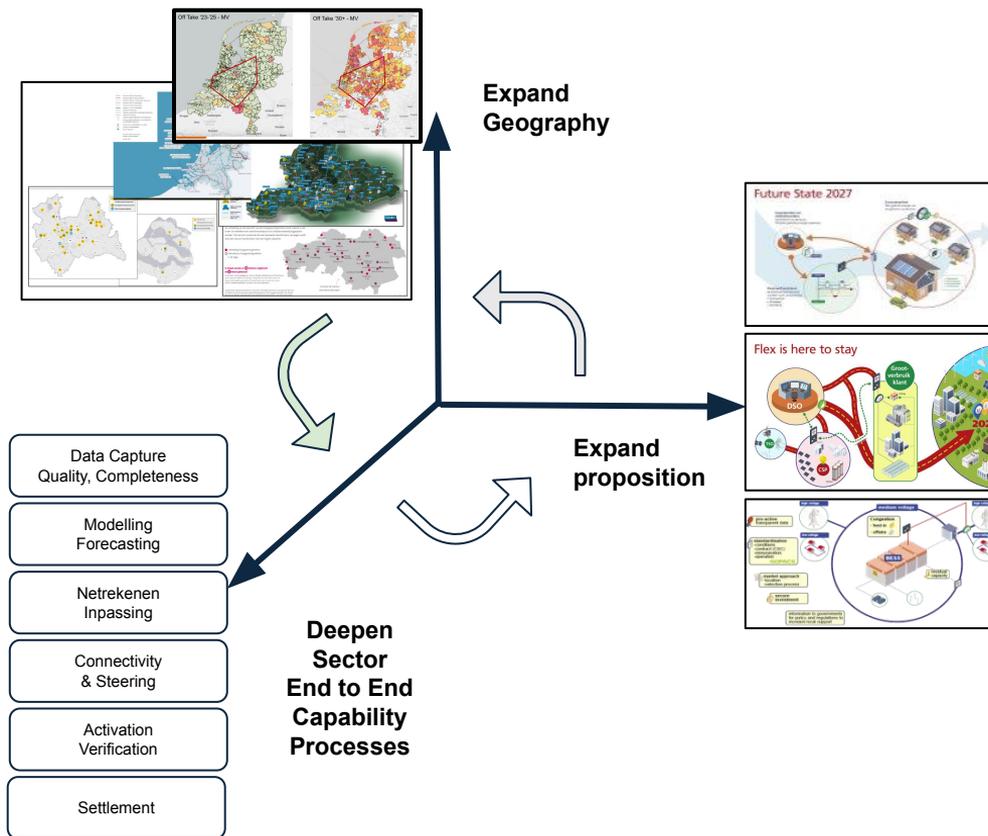
### Governance & performance

- Implement **C-level** monitoring and steering with a dashboard of **leading and lagging KPIs** (metering coverage, forecast precision, activations, queue lengths).



# Approach to Scaling :

## Expand Proposition - Expand Geography - Scalable end-to-end Process



HHFlex	Expanding to HEM (EV, Batt, HP, Solar)d, unlock HHFlex @ Scale
B2B Flex	Enable Re-dispatch, congestion location/profile, flex @customer
BESS	Auction BESS @ Scale & Location, beyond congestion, incl Tennet



# Vijf fase proces voor gebiedsgerichte aanpak

Met processtappen per stakeholder

- Netarchitecten K&C Flex
- Account managers
- Externe communicatie
- Project managers intake GV/R&N
- Operationeel medewerker congestie (T&T)
- Gebiedsregisseur & stakeholder managers
- Doorslaggevende sessie
- Project leider
- Portfolio
- Mijlpaal

EZE-processtap	Waarof 0	Fase 1	Fase 2	Fase 3 & 4	Fase 5	Realiseren
	<b>Dataschoning &amp; Mobilisatie</b>	<b>Netsituatie &amp; Gebiedsstrategie</b>	<b>Gebiedsvorbereitung</b>	<b>Uitvoering Gebiedsbenadering &amp; Contractering</b>	<b>Handover (naar Beheer)</b>	<b>Fysieke Realisatie</b>
Doel	<ul style="list-style-type: none"> <li>Valideren en updaten van alle benodigde klant- en technische data in systemen vooraf aan start GGA</li> <li>Mobiliseren en samenstellen van het team per gebied</li> </ul>	<ul style="list-style-type: none"> <li>Schetsen netsituatie en vaststellen flex-to-find in gebied</li> <li>Schetsen klantstatus en te betrekken stakeholders voor klantbenadering</li> </ul>	<ul style="list-style-type: none"> <li>Informeren van alle te betrekken externe partijen (overheden, marktpartijen en -partijen) in het gebied die op een of andere manier contact hebben met klanten</li> </ul>	<ul style="list-style-type: none"> <li>Informeren van en uitvragen klantbehoeftes</li> <li>Ingassen/metrekken van alle klantaanvragen</li> <li>Contracteren van een flexoplossing</li> </ul>	<ul style="list-style-type: none"> <li>Vastleggen en overdragen van alles wat in een gebied besproken en gecontracteerd is, incl. duiding van mogelijke risico's + overdracht naar realisatie/beheer onderdelen</li> </ul>	
Beschrijving van processtappen in fase	<ul style="list-style-type: none"> <li>0. Start uitgaand gebied</li> <li>0.1 Mobiliseren gebiedsteam</li> <li>0.2 Mobiliseren regio team</li> <li>0.9 Outa gereedschap</li> </ul>	<ul style="list-style-type: none"> <li>1. Kick-off gebied</li> <li>1.1 Netanalyse &amp; Technische situatie schets</li> <li>1.2 Stakeholder situatie schets</li> <li>1.3 Pits analyse</li> <li>1.4 Klant &amp; gebiedsanalyse</li> <li>2. Technische kick-off</li> <li>2.1 Gebiedsstrategie &amp; communicatie aanpak</li> <li>2.2 Algemene boodschap gebiedsaanpak</li> </ul>	<ul style="list-style-type: none"> <li>3. Kick-off gebiedsbenadering</li> <li>3.1 Ronde 1: Netrekenen &amp; Ingassen</li> <li>3.2 Afstemming stakeholders</li> <li>3.3 Informeren provincie &amp; gemeentes</li> <li>3.4 Online social media campagne</li> <li>4. Start informeren klanten</li> <li>4.1 Brede benadering bestaande klanten</li> <li>4.2 Mail klanten met fysieke aanpak in aanvultcategori</li> </ul>	<ul style="list-style-type: none"> <li>4.4 Mail naar wachttijde klanten &lt;500kW</li> <li>5. Start aanbieden aan klanten</li> <li>5.1 Contracteren flex bij bestaande klanten</li> <li>5.2 Contracteren wachttijde klanten &gt; 500 kW</li> <li>5.3 Contracteren wachttijde nieuwe/ bestaande klanten, met een fysieke aanpak in aanvultcategori</li> <li>5.4 Contracteren klanten van de wachttijde &lt; 500 kW (via MijLander)</li> <li>6. Start ronde 2</li> <li>6.1 Ronde 2 Contracteren uitzendingsklanten</li> <li>6.2 Ronde 2 Netrekenen en ingassen</li> </ul>	<ul style="list-style-type: none"> <li>7. Contracting periode</li> <li>7.1 Registratie alle data in systemen*</li> <li>7.2 Vastleggen lessons learned*</li> <li>7.3 Communicatie success verhalen*</li> <li>7.4 Handover naar beheer en/realisatie</li> <li>7.5 Aanscherpen GGA</li> <li>8. Overgedragen aan beheer / portfolio</li> <li>* 7.1 en 7.2 door alle teams uit voeren</li> </ul>	
Processen die GGA ondersteunen	<ul style="list-style-type: none"> <li>Dataschoning</li> <li>Interne communicatie</li> </ul>	<ul style="list-style-type: none"> <li>DMO</li> </ul>	<ul style="list-style-type: none"> <li>Toolbox</li> <li>DMF's</li> </ul>			

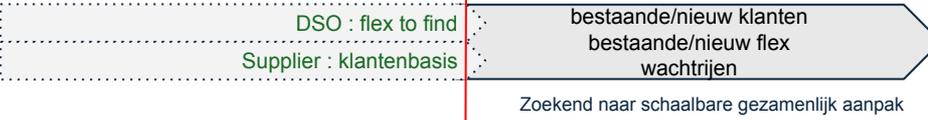
5 BBN GGA | Deep dive | 15 Juli 2025

Geogr (MVP)



- HH Flex
- B2B Flex
  - nieuwe producten schalen
  - bestaande (versie 1.0) producten versnellen
  - Klant-input ophalen voor verbetering (versie 1.1, 2.0)
- BESS
  - Congestieverzachter?
  - Achter de Meter (BTM) opslag?, Buutbatterij?
- Andere
  - ...

B2B Flex (PoC)



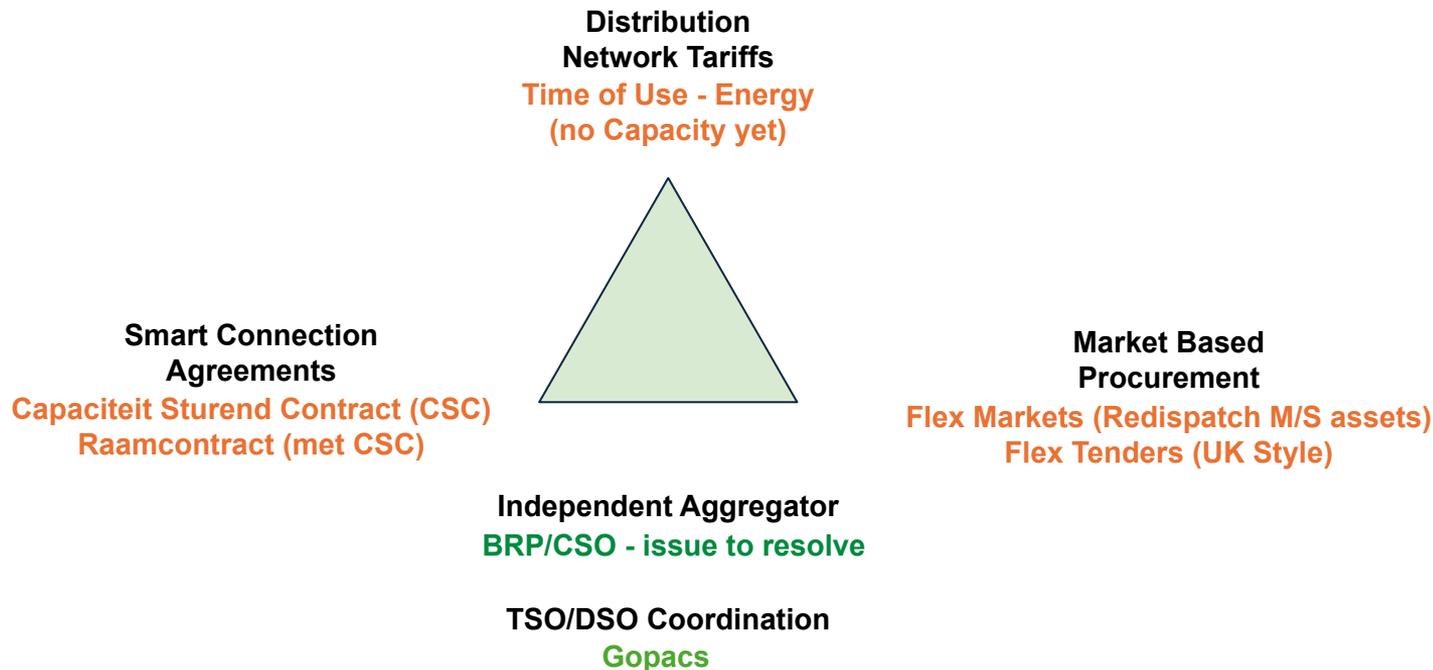
- B2B Flex
  - bestaande (versie 1.0) producten versnellen
  - Klant-input ophalen voor verbetering (versie 1.1, 2.0)
  - Conceptontwikkeling tot xxx MW
  - Wachtrijen / Nijmegen / Drachten

draft - for discussion purpose only

# Five Building Blocks for Mitigating DSO-level Congestion (Tim Schittekatte - FTI/CL)



## 3 Regulatory Tools - 2 Coordination Mechanisms



*Commercial (remuneration) framework  
for Indirect Channel*

- Suppliers / CSP
- CSP - BRP/Supplier

*Joint DSO initiative*

- Digital / IT - end-to-end process
- Data

# Distribution Network Tariffs

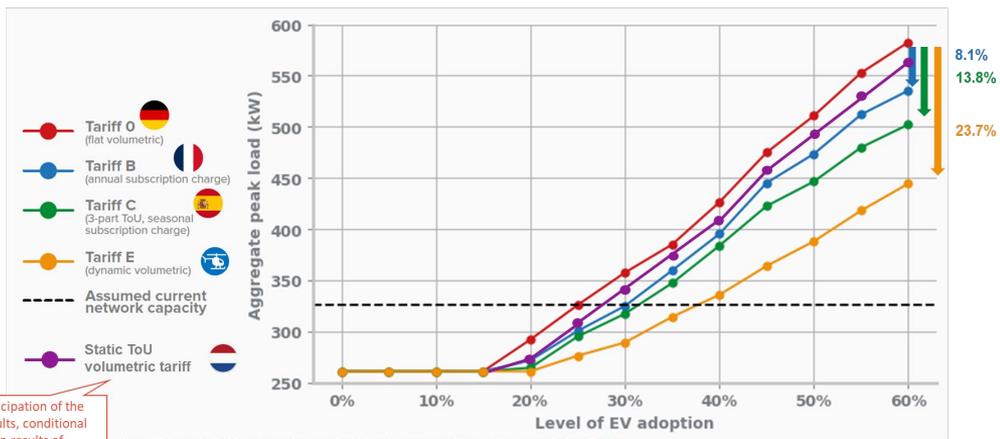


**FIGURE 2 — Relative performance of modelled network tariffs at 5%, 20%, and 40% EV adoption. For any given performance metric, the further out to the edge of the circle a tariff sits, the better its performance.**



Source: FTI Consulting

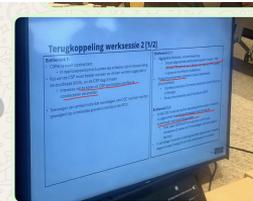
**Simulation of the evolution of the aggregate peak load for a population of 200 households connected to a single feeder subject to dynamic energy prices plus different network tariffs at varying levels of EV**



Anticipation of the results, conditional upon results of actual modelling

# Capaciteit Sturend Contract

## From 'Consultation' to 'Co-Creation' - I support what I create



FYI - voorbeelden van aantal zaken die moeten opgepakt worden ihkv 'toepasbaarheid CSC' (nog los van 'uitvoerbaarheid')

Constructieve sfeer, er wordt geluisterd, en ge-co-creëerd (van 'consultatie' naar 'co-creatie')



- capaciteitssturingcontract versie 1.0 -

Lange termijn capaciteitssturingcontract, bestaande uit capaciteitsbeperking (als bedoeld in artikel 9.1.1 en bijlage 12 van de Verordening Elektriciteitswet) en/of capaciteitszeker met één aangesloten, of dan niet vertegenwoordigd door een CSP, i.b.v. voorgelegd management (14-10-2025).

**DE ONDERGETEKENDEN:**

..... (naam netbeheerder), statutair gevestigd te ....., te dezer zake rechtsgeldig vertegenwoordigd door ....., in de functie van hierna te noemen "Netbeheerder"

en

Indien aangesloten niet vertegenwoordigd wordt door een CSP [verwijderen indien nvt] ....., (naam aangeslotene), statutair gevestigd te ....., inschrijfnummer Kamer van Koophandel ....., te dezer zake rechtsgeldig vertegenwoordigd door ....., in de functie van ....., hierna te noemen "Contractant"

Indien aangesloten niet vertegenwoordigd wordt door een CSP [verwijderen indien nvt] ....., (naam aangeslotene), statutair gevestigd te ....., inschrijfnummer Kamer van Koophandel ....., te dezer zake rechtsgeldig vertegenwoordigd door de CSP ....., statutair gevestigd te ....., inschrijfnummer Kamer van Koophandel ....., te dezer zake rechtsgeldig vertegenwoordigd door ....., in de functie van ....., hierna te noemen "Contractant"

**Netbeheerder en Contractant** worden hierna gezamenlijk ook wel aangeduid als "Partijen".



Einde vd CSC doorbraakdag.

Ben onder de indruk hoe jullie collega's hebben samengewerkt. Positieve vibe!

Deelnemers lijken echt wel persoonlijk achter de conclusies en voorstellen te staan.

Maandag komen ze terug 'in het systeem'. Dan wellicht fijn om te voelen dat er interesse en aanmoediging is van uit FLT.

EnergieNL (Huub) wil binnen 2 weken terugkomen met resultaat consultatie achterban.

NetbeheerNL kon het nog niet aangeven wanneer. Zou uiteraard fijn als er kan gezorgd worden dat het minder dan 2 weken is 😊.

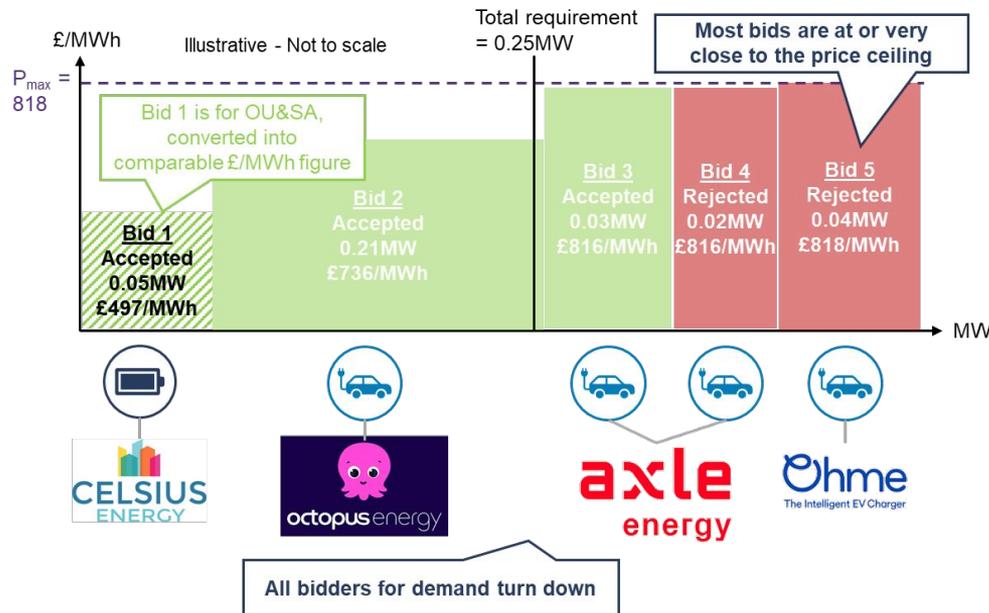
Na deze sfeer geproefd te hebben ga ik (opnieuw) positief het weekend in. Fijn weekend iedereen!

# Flex Tenders - UK Style



## Utilisation and availability bids compete against each other in long-term tenders, with most bids being close to the price ceiling

Historical example: Spring 2025 long-term tender – Sutton B HV demand – Competition



- Utilisation and availability products compete against each other, giving FSPs the choice of product.
- The flexibility requirement is indicative only. In this example, procured volumes exceed the requirement, but in others there is a shortfall:

*“UK Power Networks may consider procuring more or less than this amount based on the bids received in the zone, budget available, other mitigating network measures, changes in load growth forecasts, and future tendering opportunities.”*

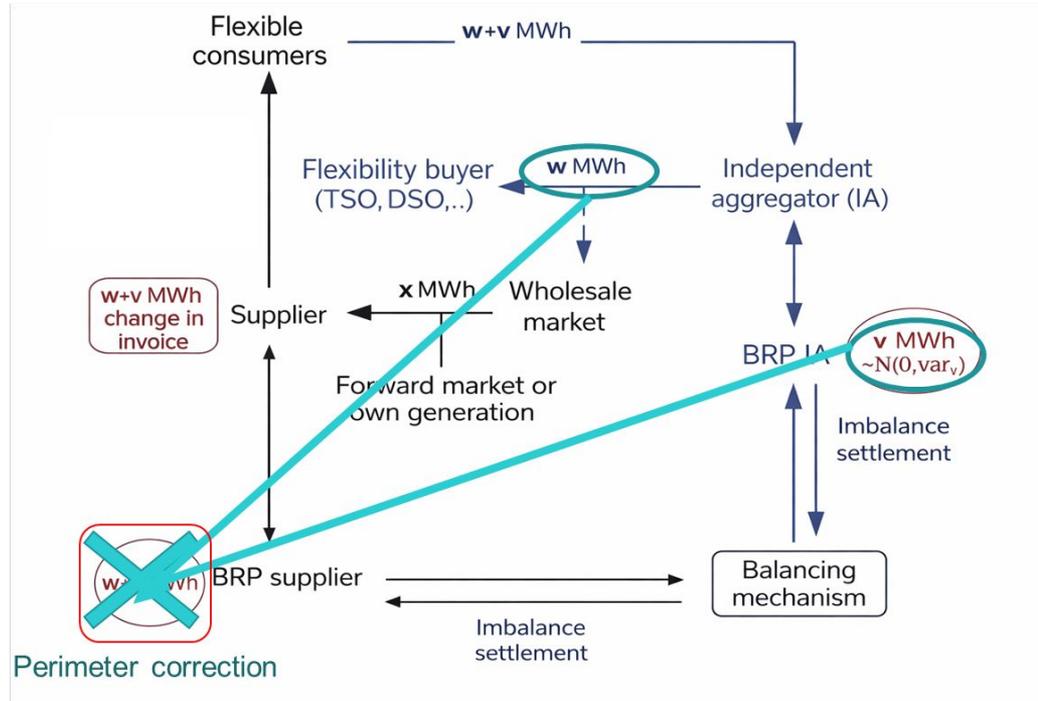
- In this example, there are multiple participants and offered capacity exceeds the requirement, but in many other instances there is a **shortfall of bids**. In these instances, UKPN will procure more volumes in future long-term tenders or at day-ahead.

Sources: [1] UKPN – [Participation guidance](#), [Spring 2025 long-term tender](#); [Post-tender report](#).

# BRP / CSP - Compensation for imbalance?



## Q1: The compensation/correction of the supplier's BRP



**Q1:** Shall the supplier's BRP be compensated for the imbalance caused by the actions of the independent aggregator?

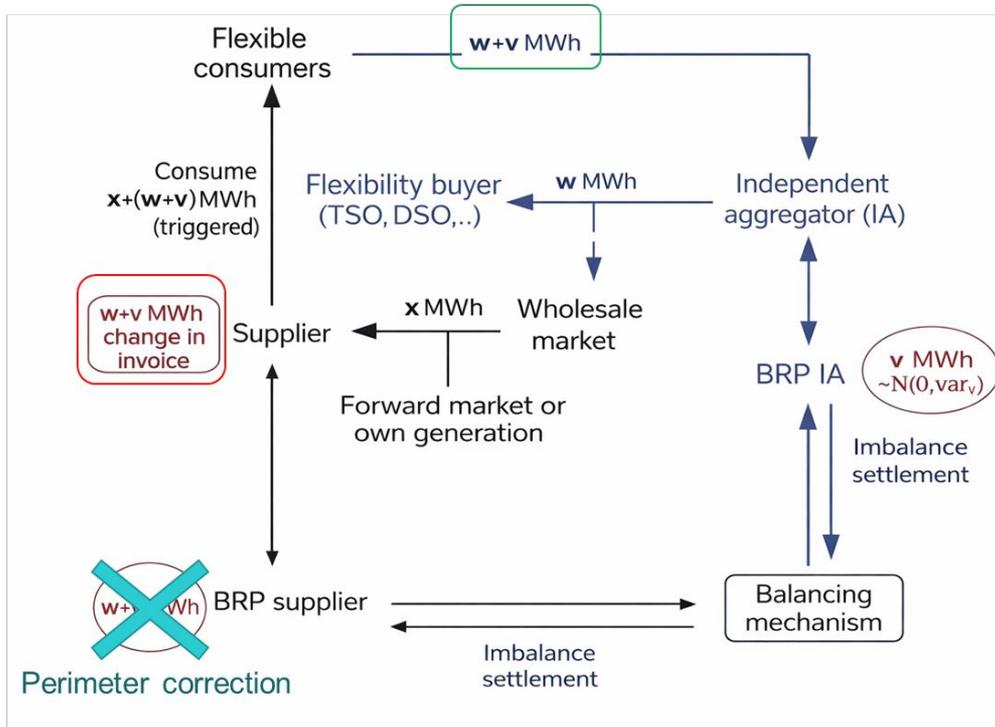
Yes, via a perimeter correction to avoid "double counting" of an imbalance





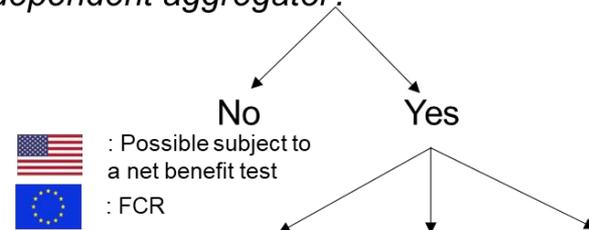
# Supplier / CSP - Compensation for foregone revenues?

## Q2: The compensation of the supplier



Article 17  
Demand response through aggregation

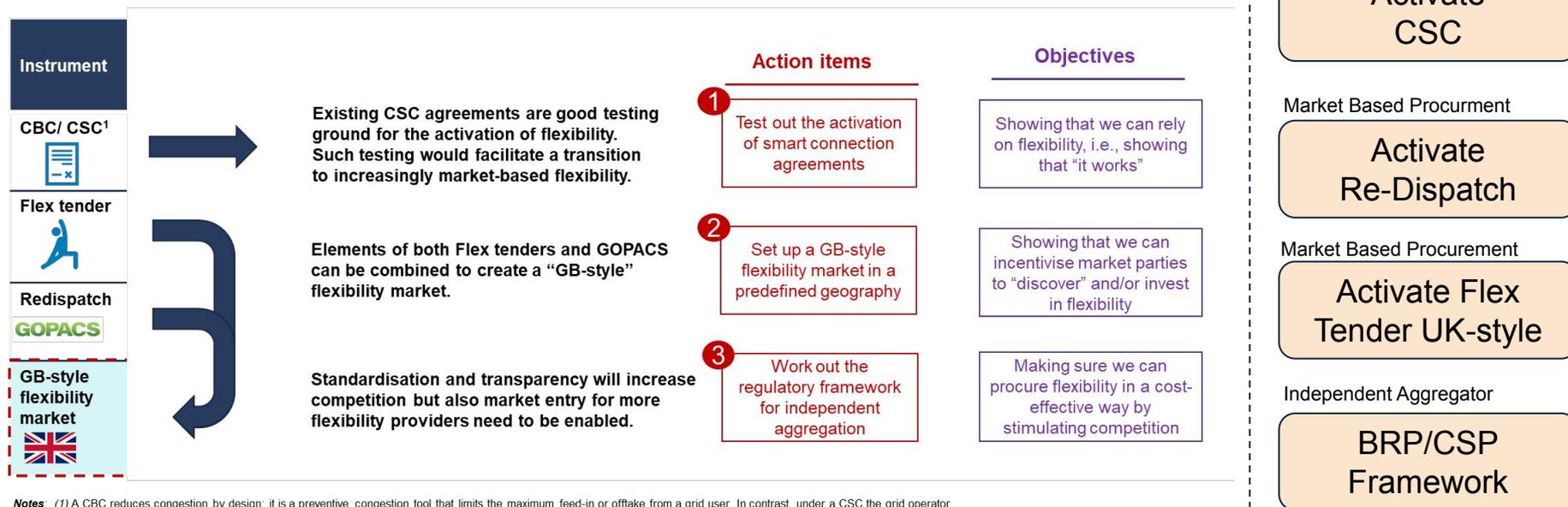
**Q2: Shall the supplier be compensated for the foregone revenues due to the actions of the independent aggregator?**



	Regulated	Corrected	Contractual
Level compensation	Regulated methodology	Retail price	Bilateral deal
Who typically pays compensation?	Independent aggregator	Consumer	Independent aggregator
Example countries			

# Moving Forward - Focus on Reliability and Building Trust

Our gap analysis resulted in a scope consisting of three action items that can be developed in the next NL Flex phase



**Notes:** (1) A CBC reduces congestion by design; it is a preventive congestion tool that limits the maximum feed-in or offtake from a grid user. In contrast, under a CSC the grid operator actively requests an increase or decrease. Availability and/or activation payments are predetermined, i.e., they are not determined by a market mechanism.



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Non-Executive Director — Energy, Infrastru...



**NL Flex, een systemische aanpak van Congestie**

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**Thank you !**