

07-11

Attentie!

Door thermisch belasten van het net wordt BV Nederland gered



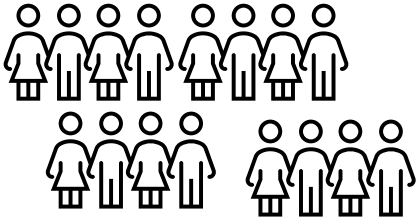
SPREKER:

Laurent van
Groningen

Welke verandering moet er doorgevoerd worden en durven we het?
(ja, met) Grid as a Service

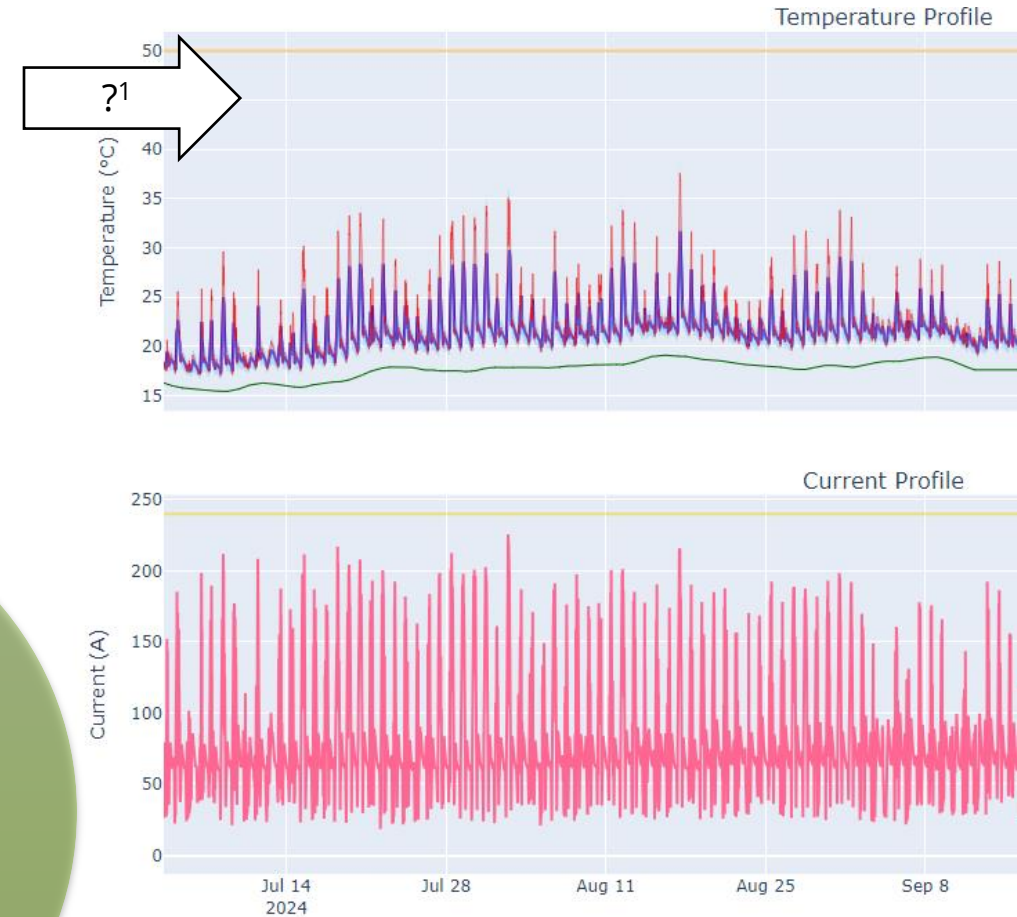
Waarom Grid-as-a-Service...

...als uitvoering van Alliander's System Operations?



2. Flexibiliteren Beter Benutten Net

1. Verzwaren Verzwaren Verzwaren



De randvoorwaarden en hun invulling

...waaraan wordt gewerkt



Aan de hand van wat we nu hebben (GaaS), bespreken we 3 randvoorwaarden¹ hoe we het aandurven.

1. Systeemveiligheid expliciet en op Schaal!
2. Doorgronden: b.v. welke limiet, welk Risico?
3. Wendbaarheid "in the edge".

1: **Systeemveiligheid expliciet op schaal**



In de praktijk op een rustige dag

alllander

The screenshot shows the Gridmeister web application interface. The browser title is "Gridmeister". The application header includes the logo "GRID MEISTER version 0.13.9" and navigation tabs: "Cases", "Contingencies", "Assessments", "Customers", and "Archive & log". On the right side of the header, there are icons for a line graph, settings, and a user profile.

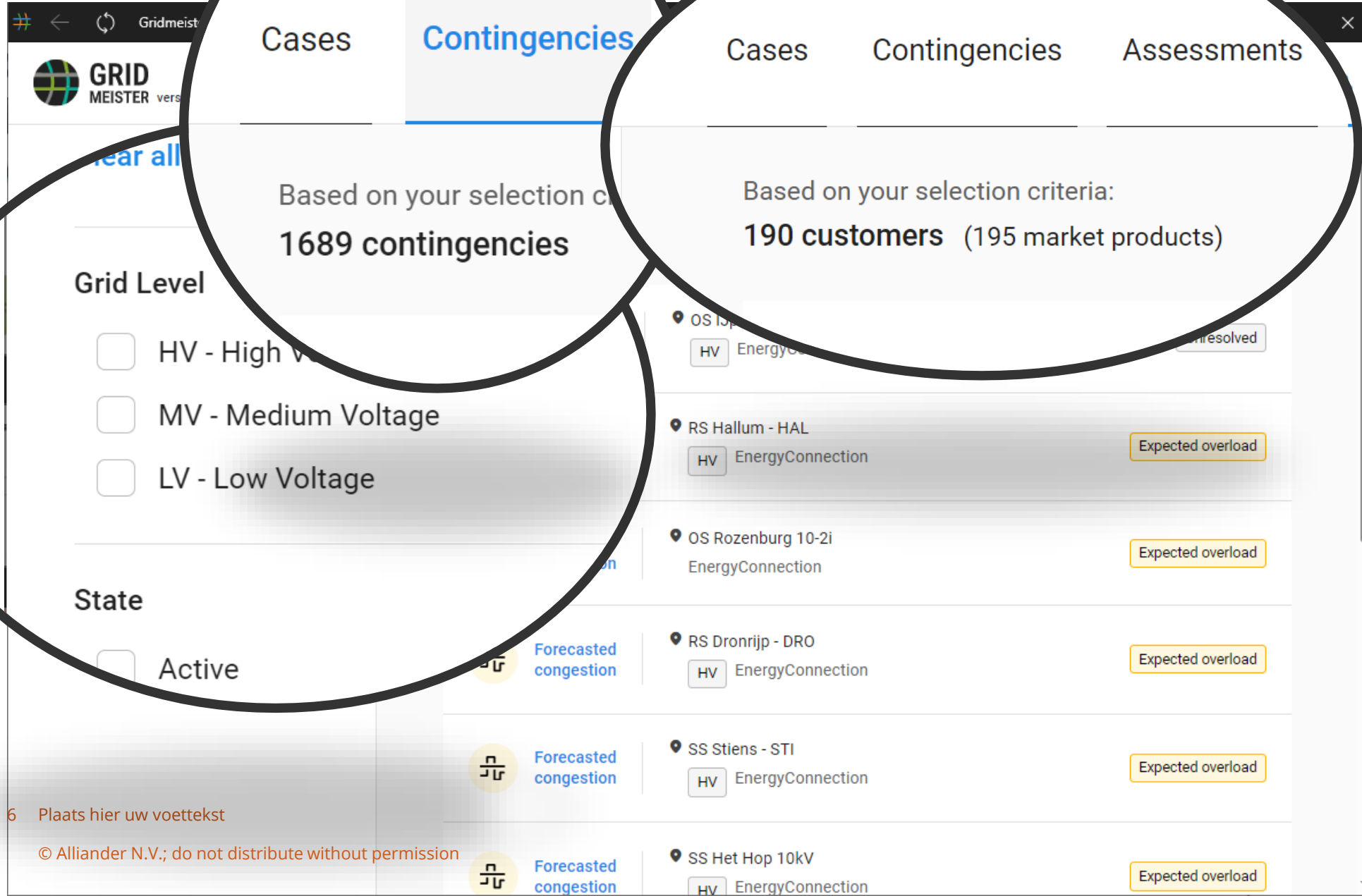
The main content area is titled "Cases" and displays a list of grid issues. At the top, there are date filters for "Mon 11 04/11/2024", "Tue 5 05/11/2024", and "Wed 2 06/11/2024", along with a "State" dropdown menu. The list of cases includes:

- Manual curtailment** at OS IJpolder (HV EnergyConnection) with status "Unresolved".
- Forecasted congestion** at RS Hallum - HAL (HV EnergyConnection) with status "Expected overload".
- Forecasted congestion** at OS Rozenburg 10-2i (EnergyConnection) with status "Expected overload".
- Forecasted congestion** at RS Dronrijp - DRO (HV EnergyConnection) with status "Expected overload".
- Forecasted congestion** at SS Stiens - STI (HV EnergyConnection) with status "Expected overload".
- Forecasted congestion** at SS Het Hop 10kV (HV EnergyConnection) with status "Expected overload".

On the left side, there are filter options:

- Stations:** With Solution fulfillment, Only monitoring.
- Grid Level:** HV - High Voltage, MV - Medium Voltage, LV - Low Voltage.

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The screenshot displays the 'Contingencies' tab of the GRID MEISTER application. The interface is divided into several sections:

- Navigation:** 'Cases', 'Contingencies', and 'Assessments' tabs are visible at the top.
- Summary:** A central message states 'Based on your selection criteria: 1689 contingencies'.
- Grid Level:** A section with three radio button options: 'HV - High Voltage', 'MV - Medium Voltage', and 'LV - Low Voltage'. The 'HV' option is selected.
- State:** A section with one radio button option: 'Active', which is selected.
- Results Table:** A list of contingencies with the following columns: Location, Voltage Level, EnergyConnection, and Status.

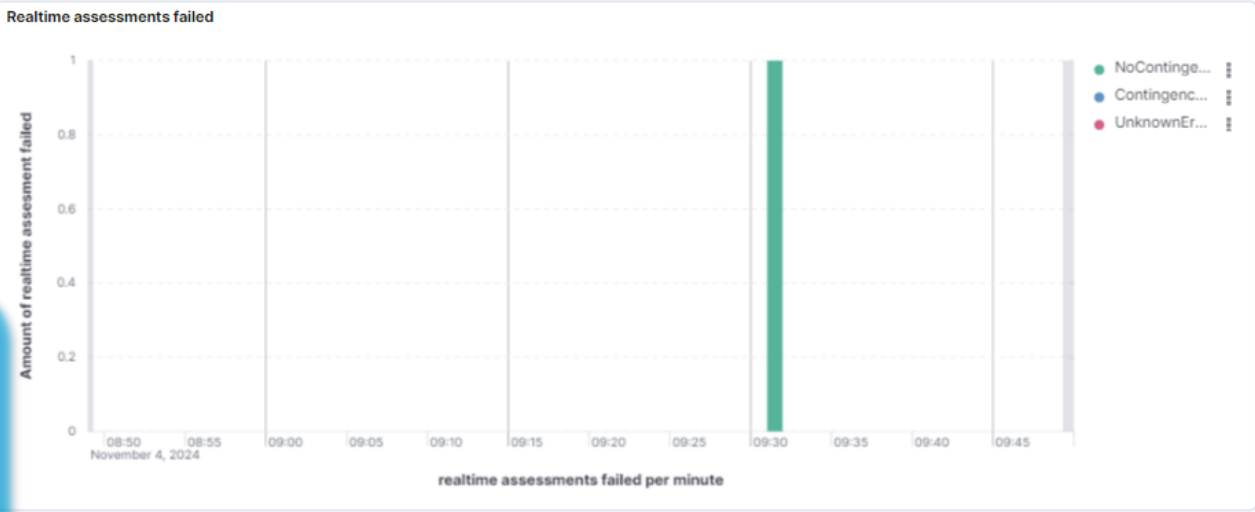
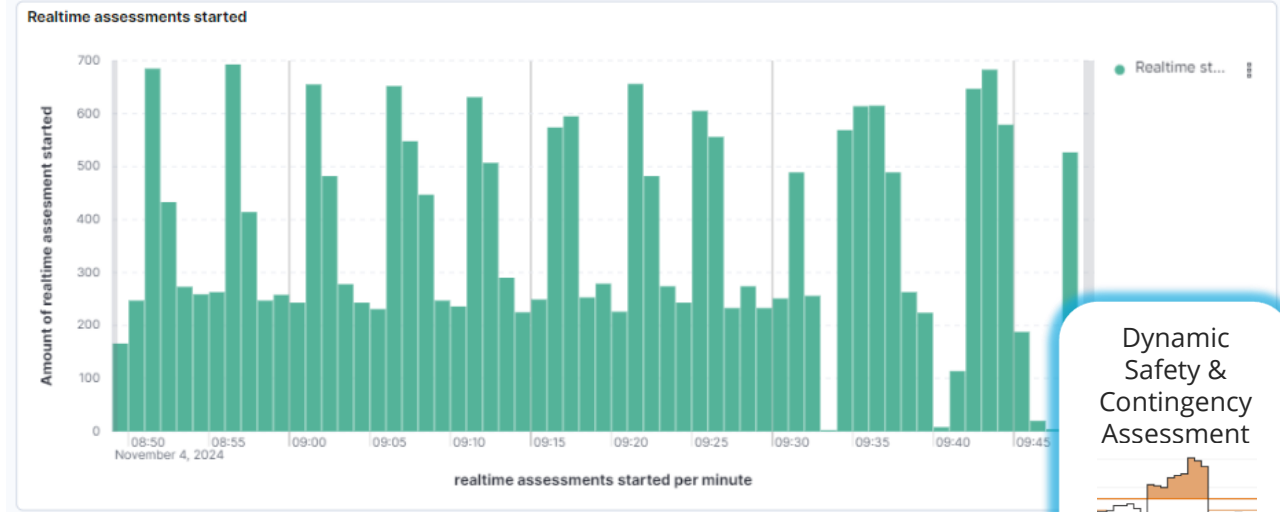
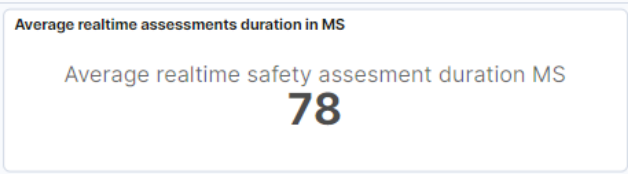
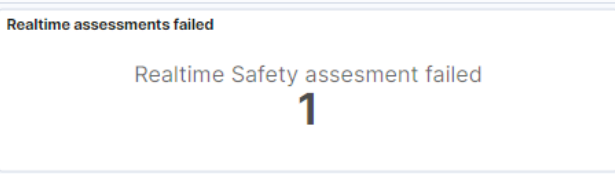
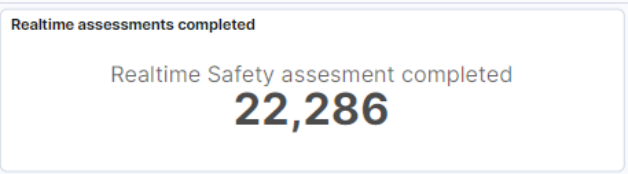
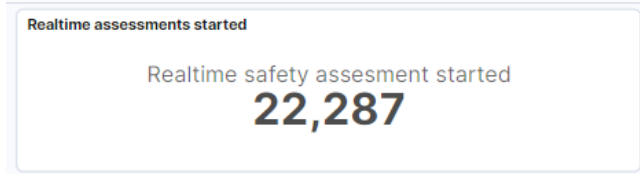
Location	Voltage Level	EnergyConnection	Status
OS IJ...	HV	EnergyC...	Resolved
RS Hallum - HAL	HV	EnergyConnection	Expected overload
OS Rozenburg 10-2i		EnergyConnection	Expected overload
RS Dronrijp - DRO	HV	EnergyConnection	Expected overload
SS Stiens - STI	HV	EnergyConnection	Expected overload
SS Het Hop 10kV	HV	EnergyConnection	Expected overload

HOW does System Operations do this?

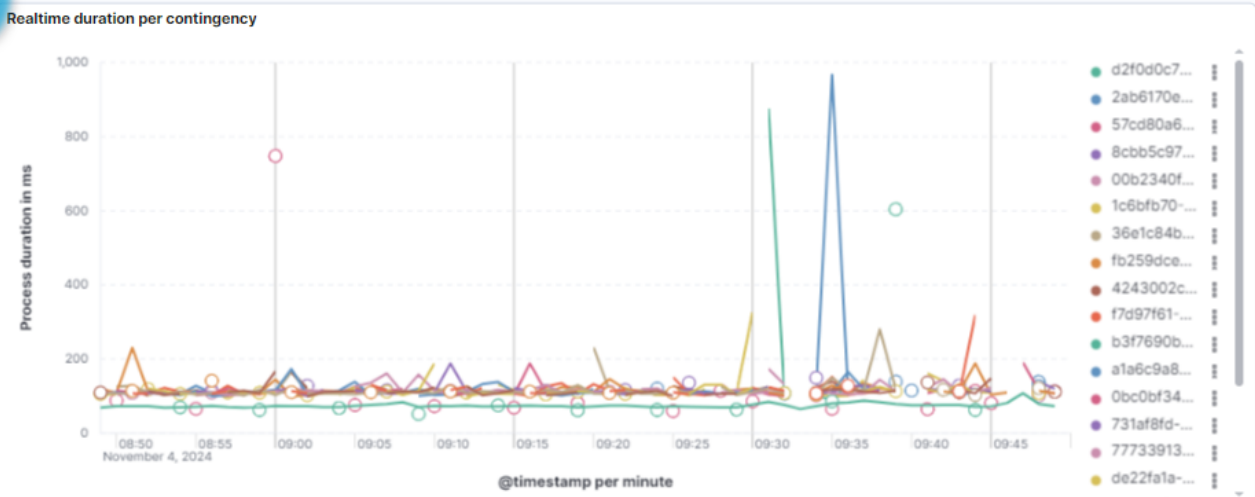
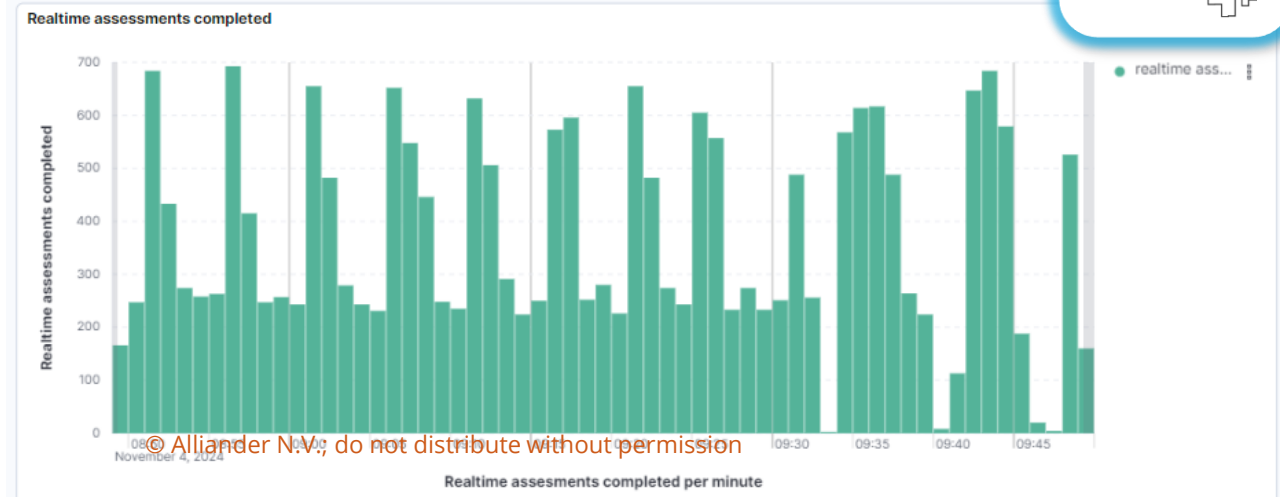


Filter your data using KQL syntax

kubernetes.container.name: dsa-realtime-assessment

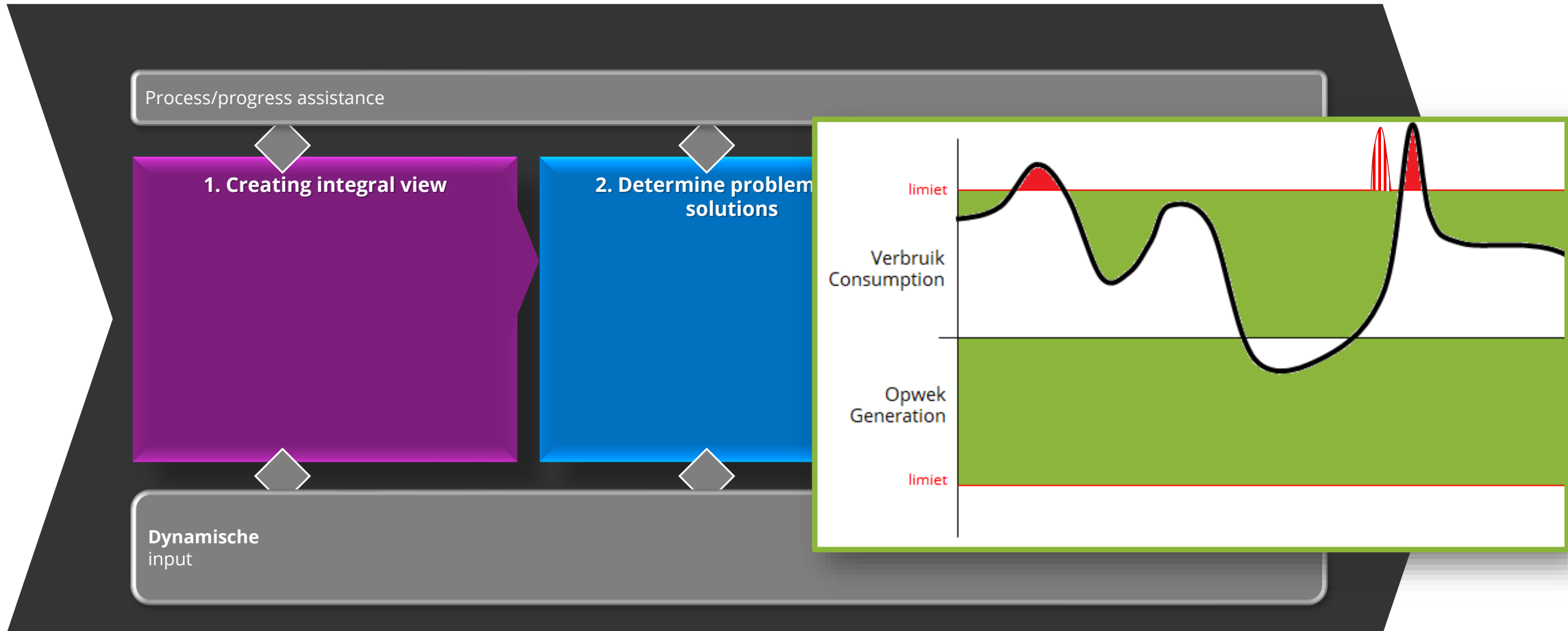


Dynamic Safety & Contingency Assessment

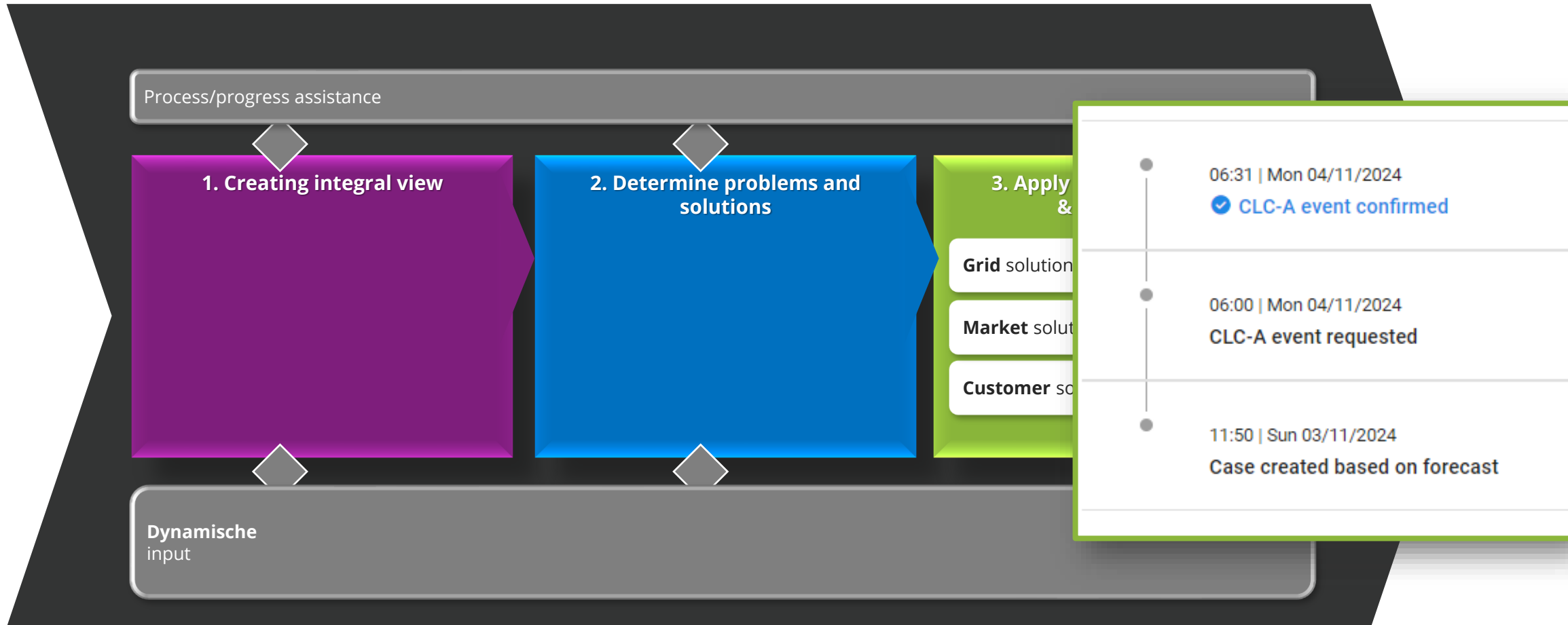


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HOW does System Operations do this?



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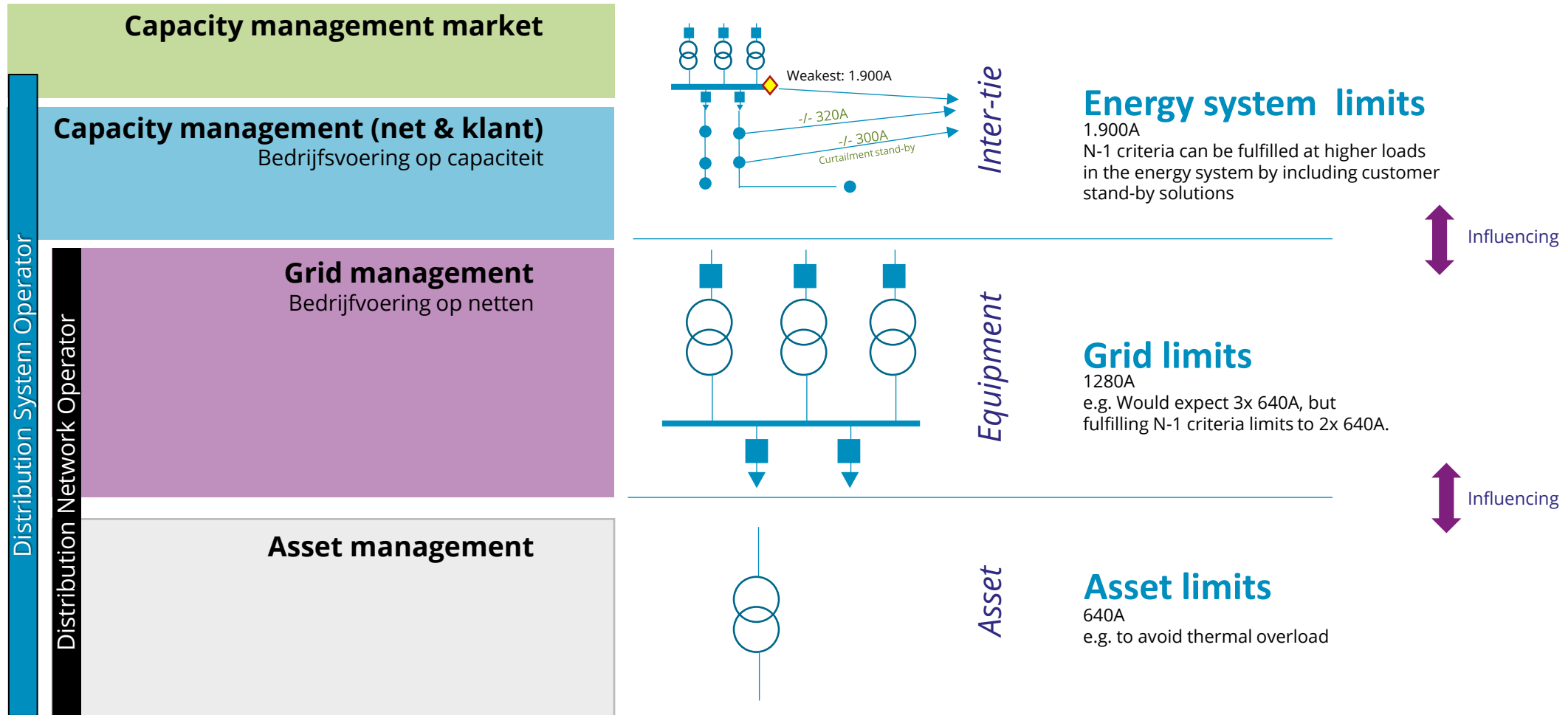


2: Doorgronden – b.v. welke limiet, welk risico?

Verschillende perspectieven (business-area's)



Asset limieten zijn en blijven dominant voor de werking van het energiesysteem



Samenvatting en 3: Wendbaarheid “in the edge”



Samenvatting



1. Systeemveiligheid expliciet en op schaal!

Dit is niet binair; voldoende in staat zijn een risico-afweging te kunnen nemen.



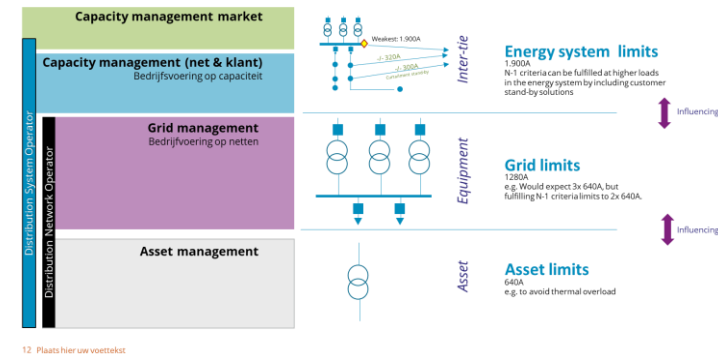
2. Doorgronden: b.v. welke limiet, welk Risico?

Theorie: Waardevolle standaarden

Praktijk: Energiesector in begrippen nog sterk versplinterd

Wat bedoelen we écht?

Aanpak: Aanpakken



3. Wendbaarheid "in the edge".

1. Klaar voor dynamische overbelastingbeveiliging
2. Maar ook: Frequentiebeveiliging (LFDD) dynamisch op orde
3. Data-geïntegreerde sensoriek t.b.v. constant beeld centraal (=start bij engineering)



**BEDANKT
VOOR UW
AANDACHT**