

This presentation was live at:



# Smart Buildings

**SHOW**

18-19 October 2023 • ExCel London



# Loading the dice in your favour at the Carbon Casino

**Paul Kraus**  
Product Development Manager  
SSE Digital Services

## **DIGITISING ENERGY SYSTEMS**

- Decarbonisation
- Net Zero
- Reducing Energy Costs
- Risk Management

## **DIGITISING OPERATIONS**

- Customer satisfaction
- Minimise downtime
- Profitability



# WHOLE SYSTEM THINKING

Making the whole  
system *think*



**Energy  
Generation**

**Energy Storage**

**Energy Demand**

**Energy Supply**





# Least carbon intensive *kWh*



# WHOLE SYSTEM THINKING

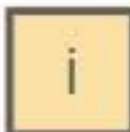
Making the whole  
system *think*





# 24/7 Greening and Carbon Free Energy





## 247 Greening

Asset Green Generation Simulator

Report author: DE DnA - Paul Mullins | Report version: 0.7



For a better world of energy

Monthly

Daily

Time Of Day

DateSelection

01/01/2021

03/11/2021

Demand Type

- ☐ Non REGO B...
- ☐ REGO Backed

Solar Asset Capacity (GW)

0.0

Offshore Wind Asset Capacity (GW)

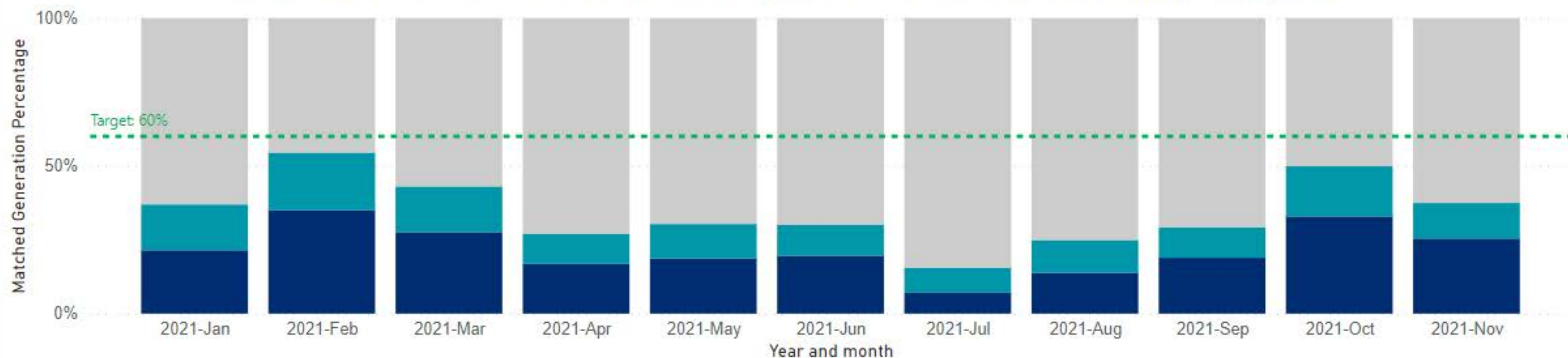
0.00

Onshore Wind Asset Capacity (GW)

0.00

### Generation Percentage Simulation

SolarSim OnshoreWindGeneration OnshoreWindSim OffshoreWindGeneration OffshoreWindSim GridImportSim



### Total Green Generation Percentage Simulation





# 247 Greening

## Asset Green Generation Simulator

Report author: DE DnA - Paul Mullins | Report version: 0.7



Monthly

Daily

Time Of Day

DateSelection

01/01/202103/11/2021

Demand Type

☐ Non REGO B...  
☐ REGO Backed

Solar Asset Capacity

2.0

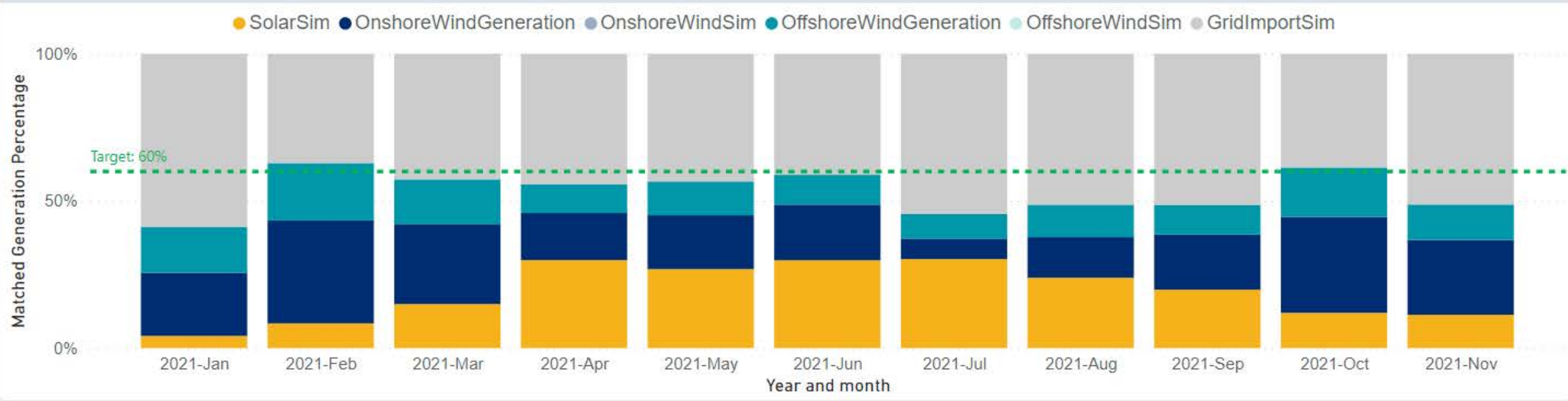
Offshore Wind Asset Capacity (GW)

0.00

Onshore Wind Asset Capacity (GW)

0.00

### Generation Percentage Simulation



### Total Green Generation Percentage Simulation







## 247 Greening

### Asset Green Generation Simulator

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- ☐ Non REGO B...
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Solar Asset Capacity (GW)

2.0

Offshore Wind Asset Ca

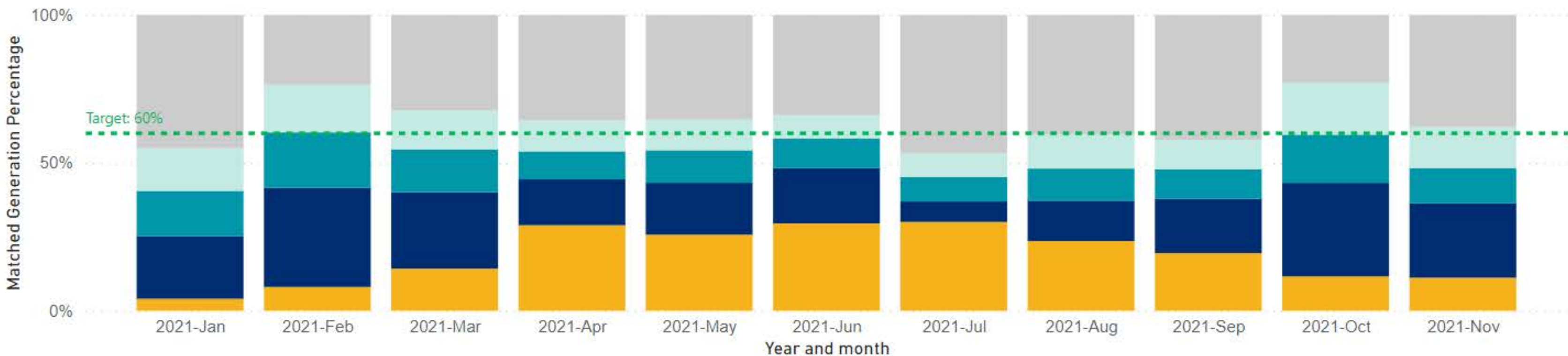
0.50

Onshore Wind Asset Capacity (GW)

0.00

### Generation Percentage Simulation

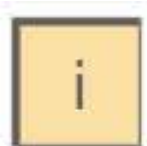
SolarSim OnshoreWindGeneration OnshoreWindSim OffshoreWindGeneration OffshoreWindSim GridImportSim



### Total Green Generation Percentage Simulation







# 247 Greening

## Asset Green Generation Simulator

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Demand Type

- ☒ Non REGO B...
- ☒ REGO Backed

Solar Asset Capacity (GW)

2.0

Offshore Wind Asset Capacity (GW)

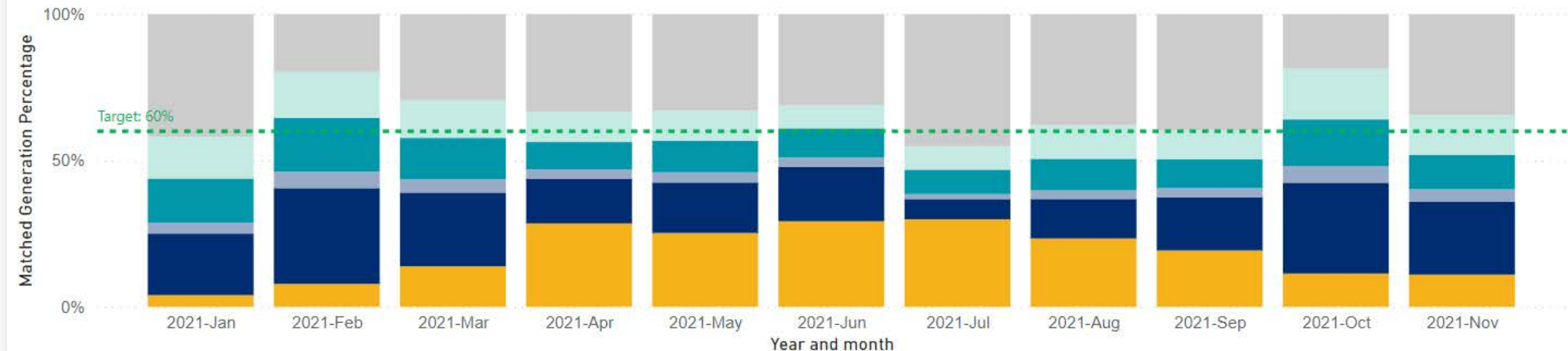
0.50

Onshore Wind Asset Capacity (GW)

0.20

### Generation Percentage Simulation

SolarSim OnshoreWindGeneration OnshoreWindSim OffshoreWindGeneration OffshoreWindSim GridImportSim



### Total Green Generation Percentage Simulation





# Digital Twin - Energy System Optimisation



Site Performance Graphs

Home

Latest Plant Status

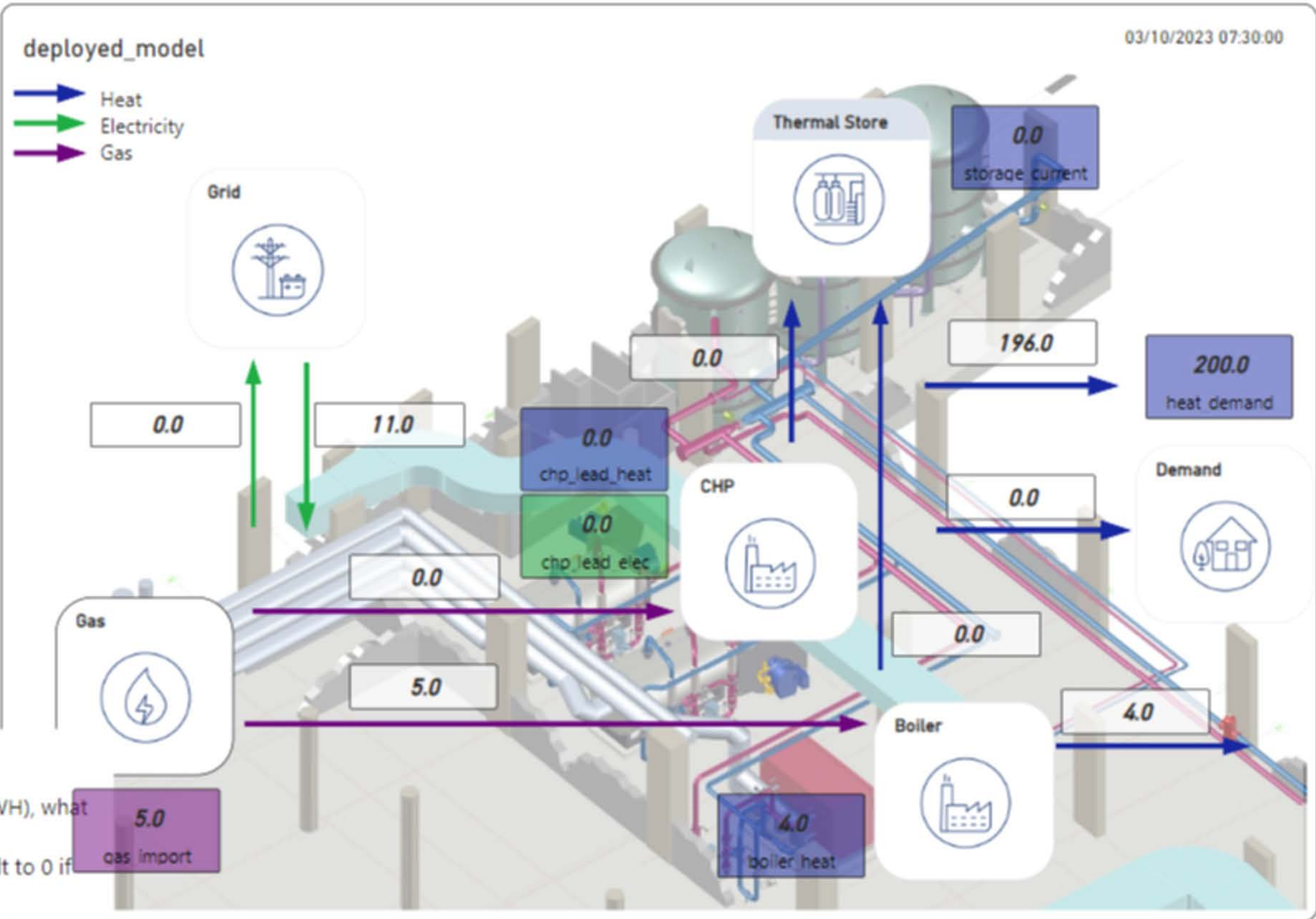
Show Actual

Show Model

Digital Shadow

Information

Showing the latest 30mins energy data (KWH), what we expect (deployed\_model) and actual (deployed\_actual). Some values may default to 0 if missing.





# Using data and analytics to beat the house



# Q&A

**We're at Stand E26**

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# Smart Buildings

## SHOW

9-10 October 2024 • ExCeL London

We look forward to seeing you in 2024