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APRIL 2025

AVEVA Unified Engineering 3.0

Brian Hughes, Head of Portfolio / Engineering, AVEVA

Ian Piggott, Sr. Principal Consultant / Presales, AVEVA

Paulo Andrade, Sr. Manager / Presales, AVEVA

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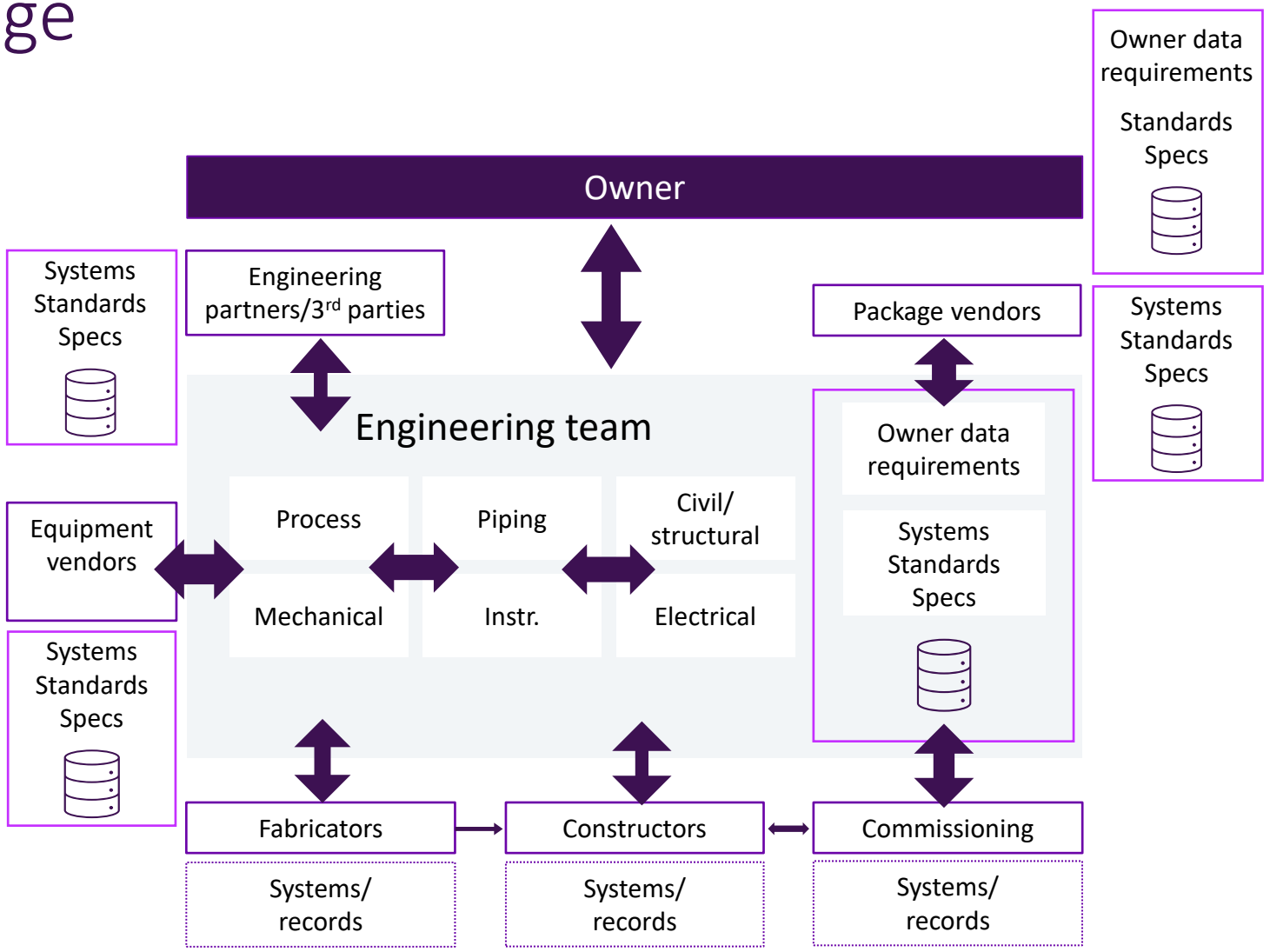
The Challenge



Engineering 3.0

Disconnected systems, teams and project data

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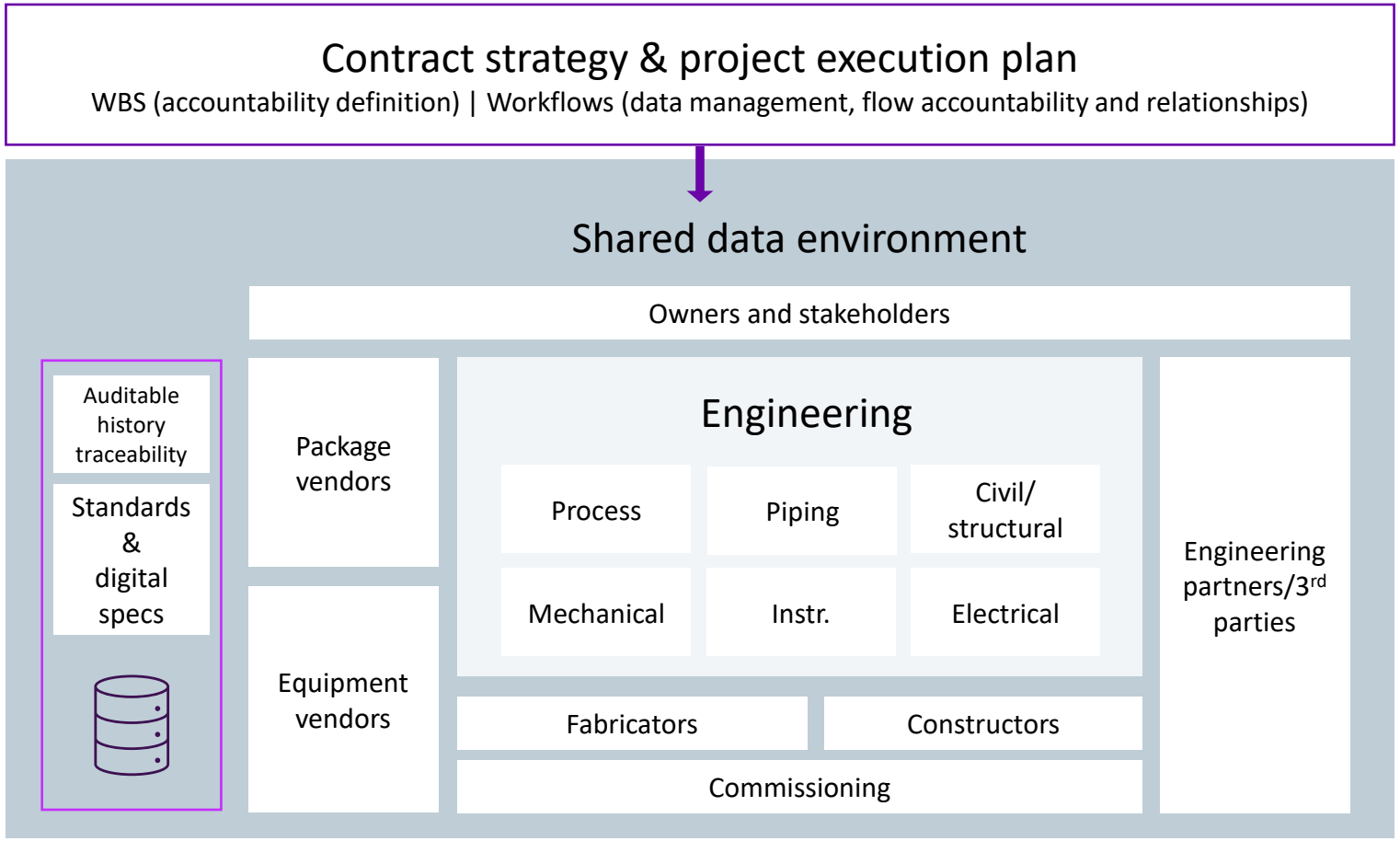
The Challenge



Engineering 4.0

Connected systems, teams and project data

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The Challenge

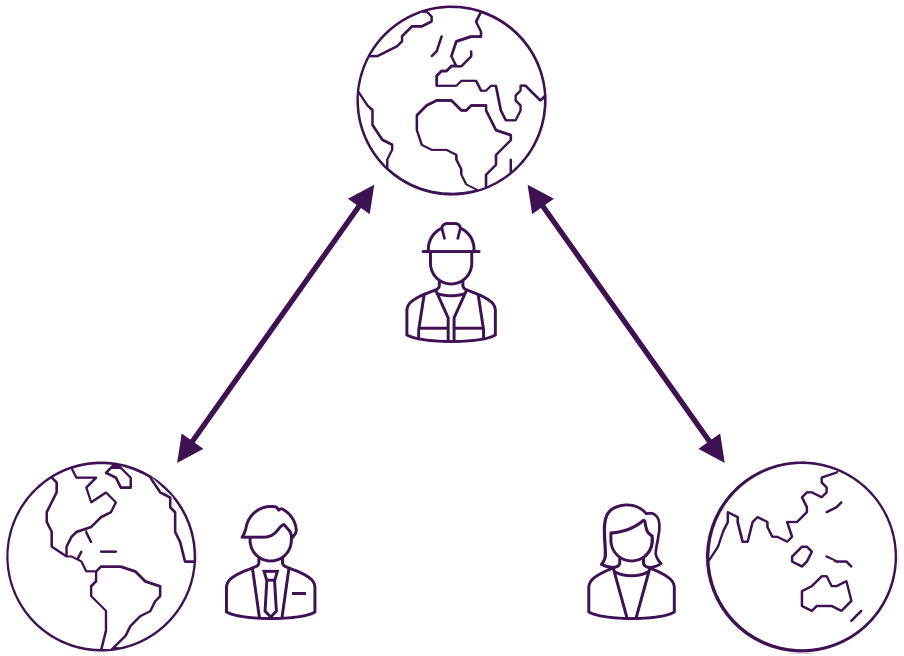
Collaboration challenges for current solutions

Multiple technologies drive incremental cost and have performance limitations

Significant time and cost for both setup and maintenance require experienced resources

IT security and data access controls demands limit extent of data sharing and collaboration

Brittle configurations that cannot be adjusted as projects, facilities, and businesses mature



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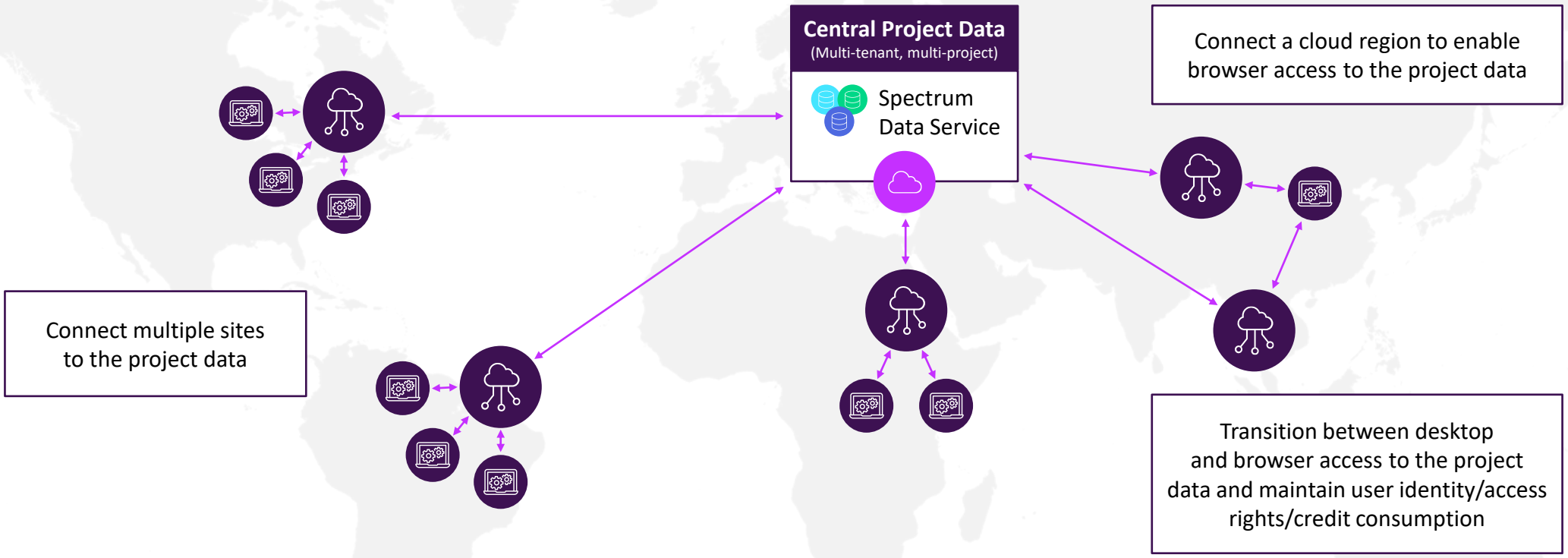
AVEVA Unified Engineering



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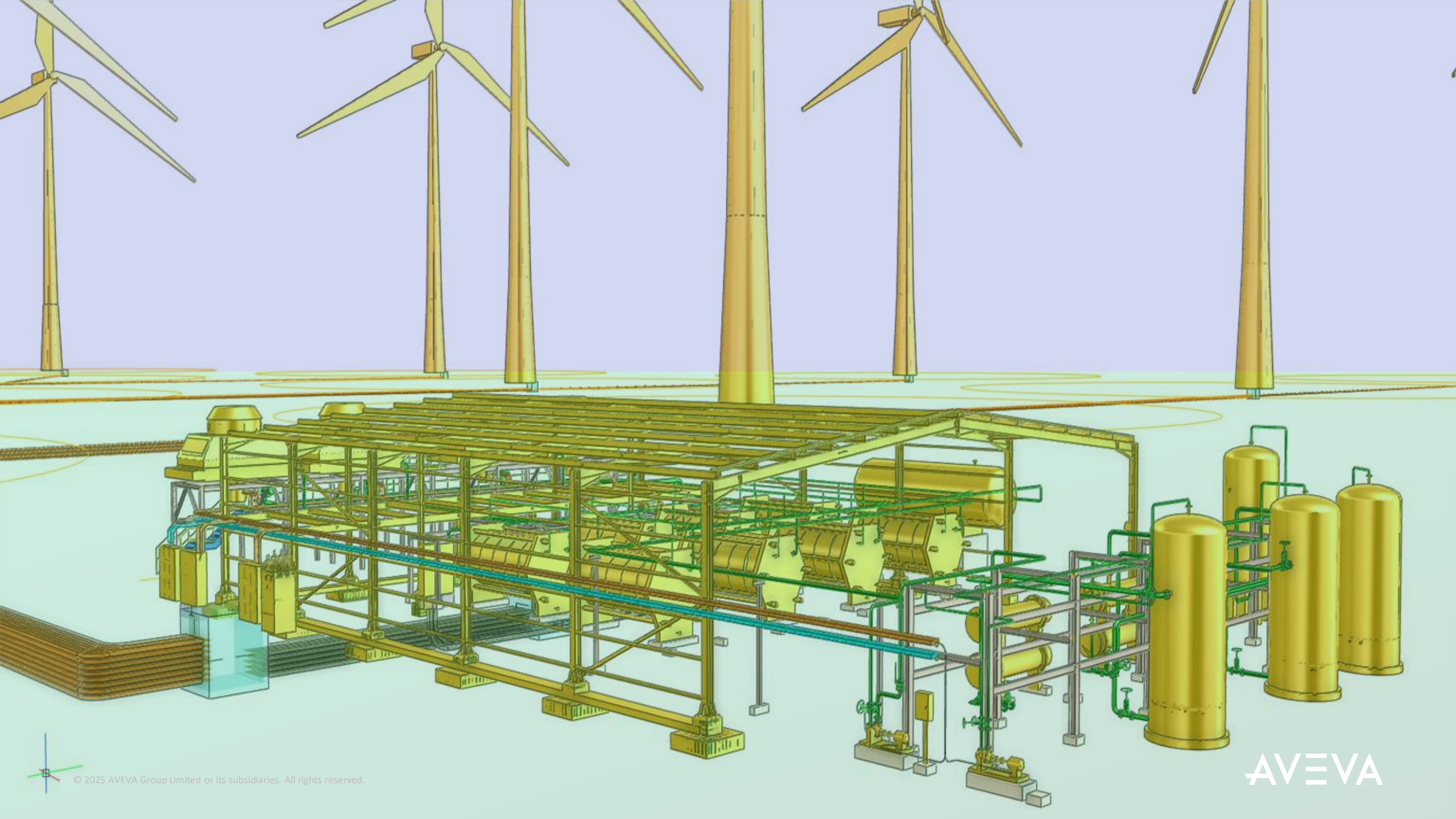

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AVEVA™ Unified Engineering 3.0

Process engineer

SIMULATE
set parameters for high wind case

RELEASE TO ENGINEERING
design cases

Mechanical engineer

IMPORT
design cases update functional item & PFD

UPDATE
functional item datasheet

CREATE
standby pump and update PID

Electrical engineer

UPDATE
KOL, cable sizing, cabling

UPDATE
cable length from 3D

Design engineer

UPDATE
major equipment, piping, cabling

Iteration process

Seamless solution integration

Seamless solution integration

Data in context

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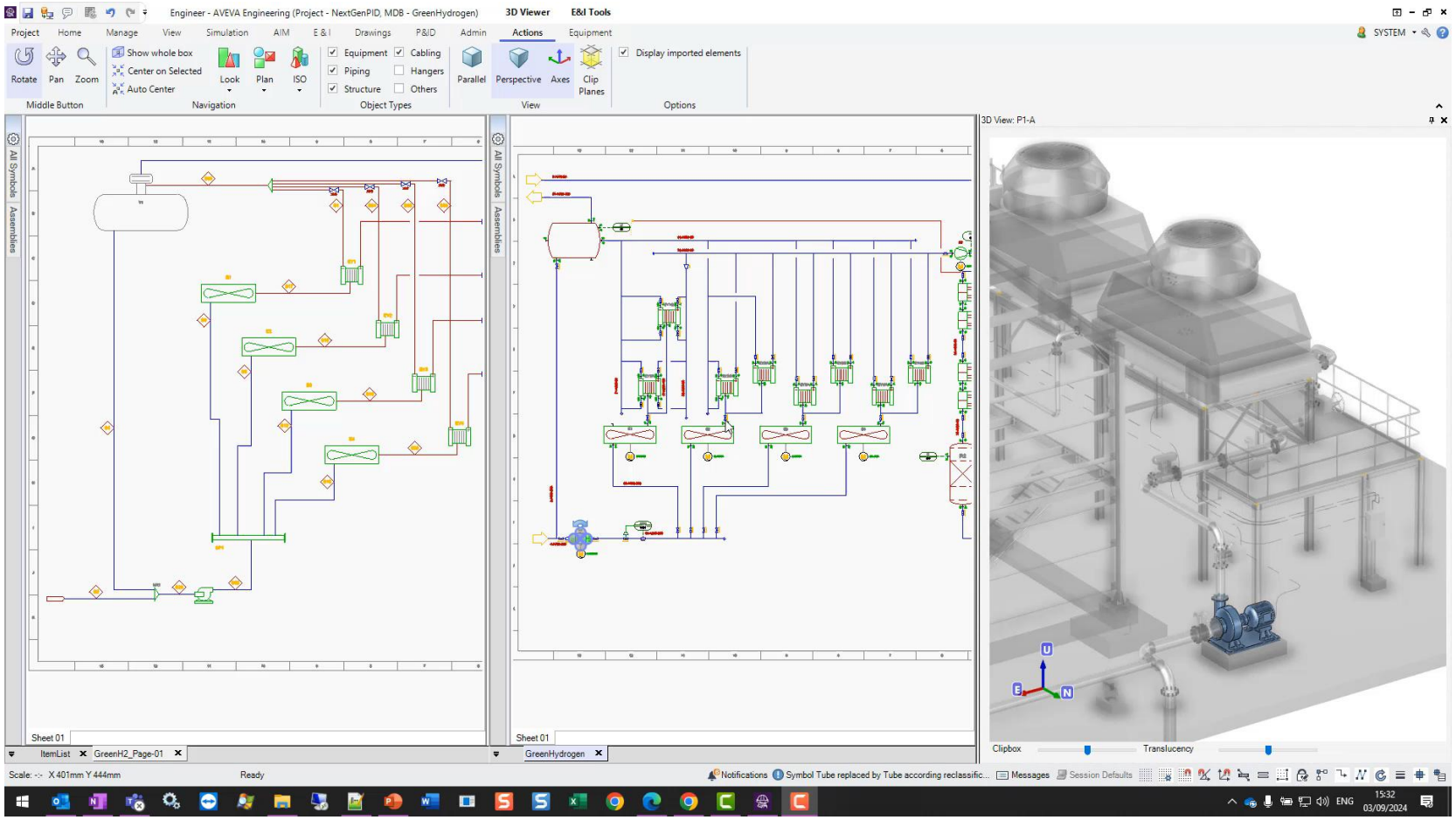
Existing plant in operation



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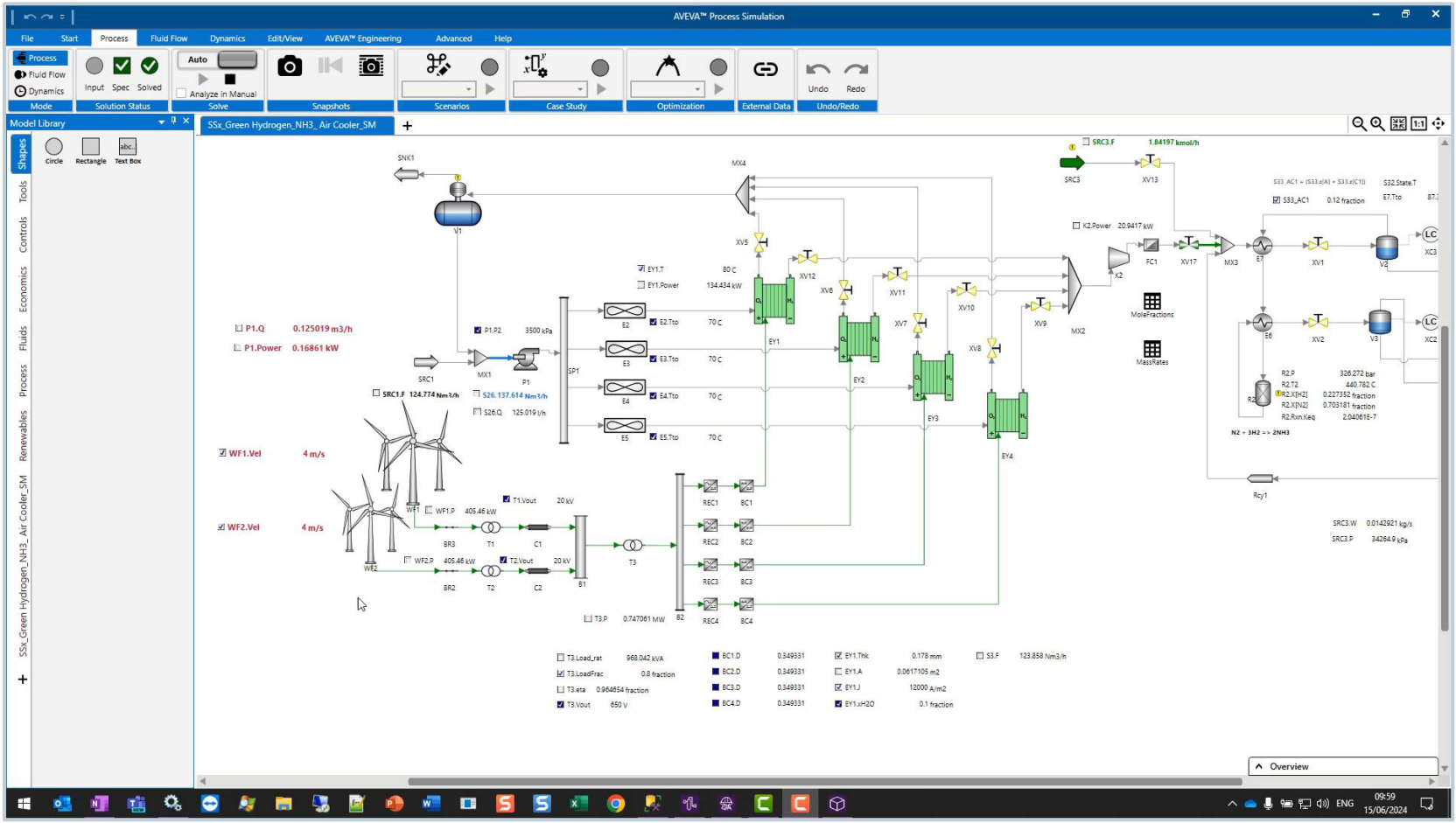
AVEVA™ Process Simulation

Simulate high wind case and publish to engineering



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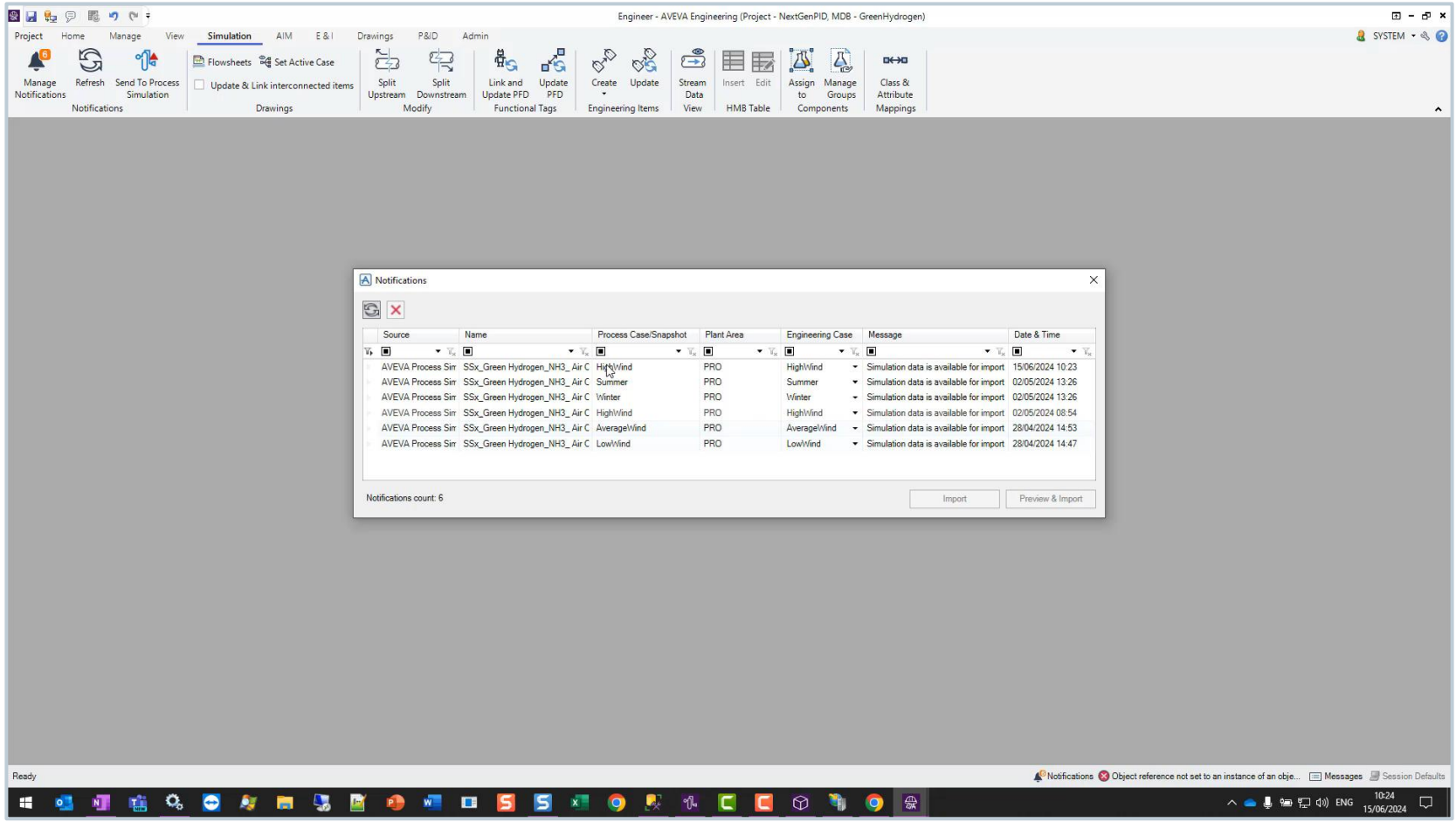
AVEVA™ Engineering

Import simulation case and update functional item on PFD



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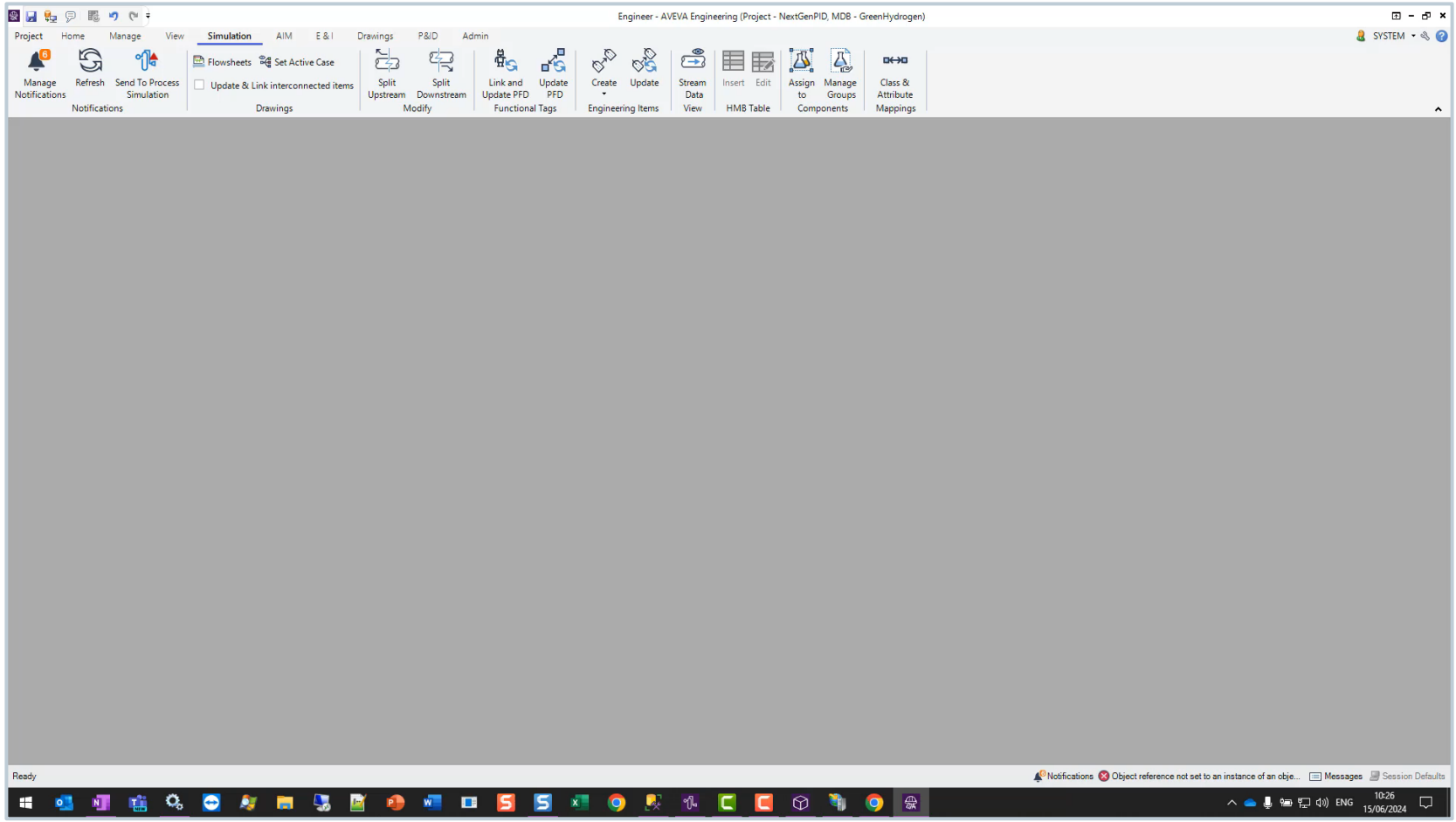
Define governing case



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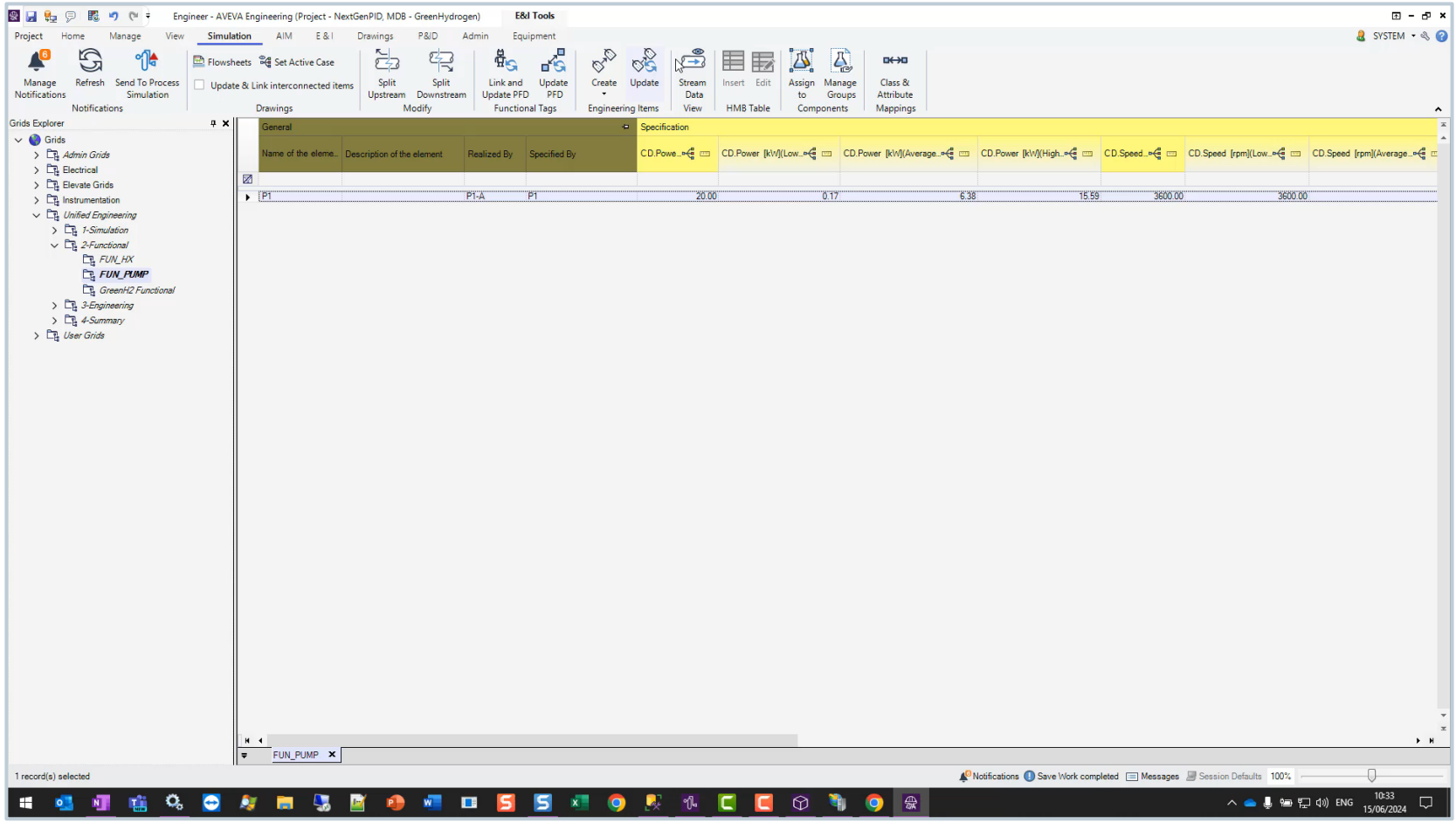
Update engineering items visible on P&ID



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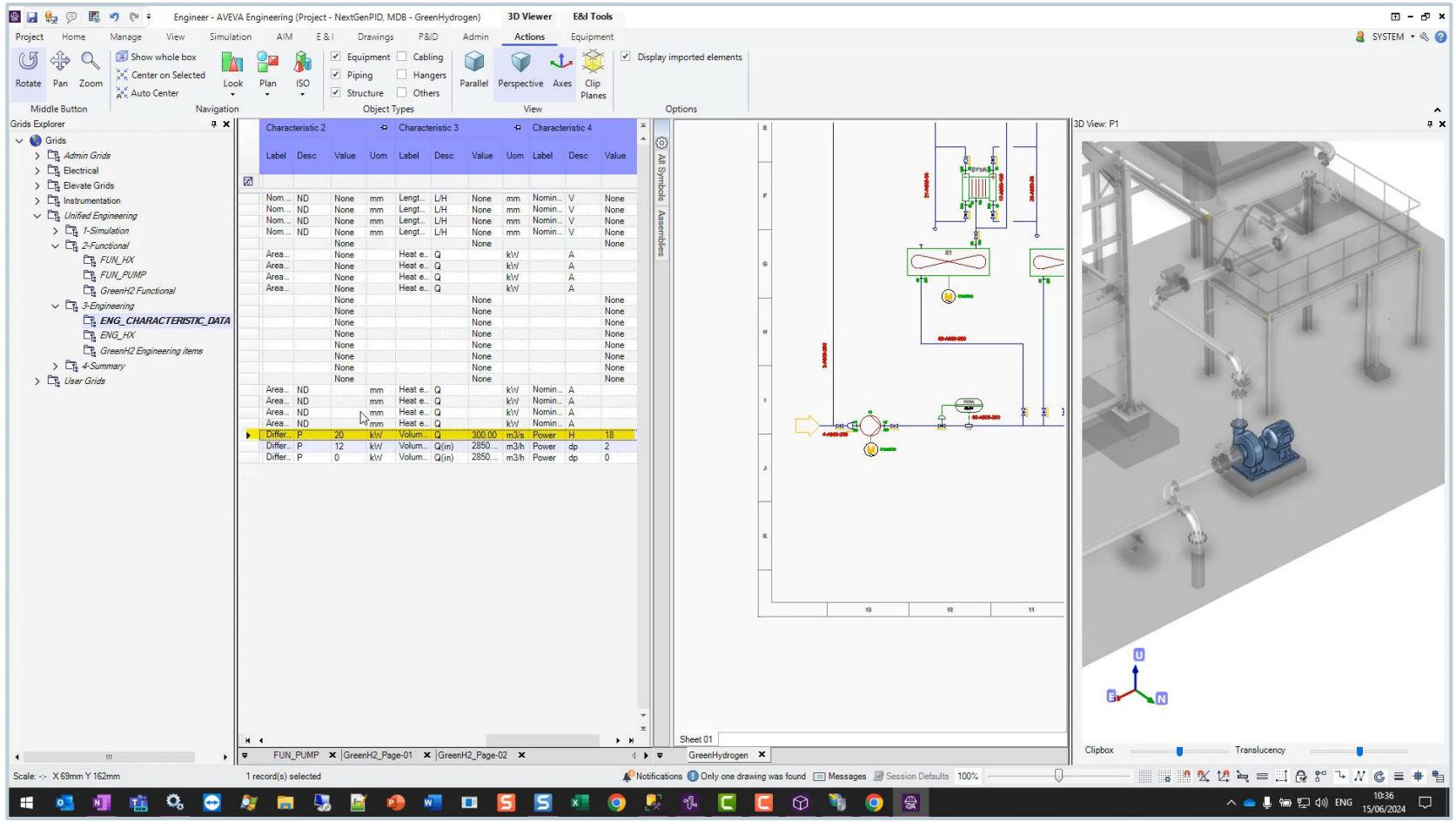
Duplicate feedwater pump



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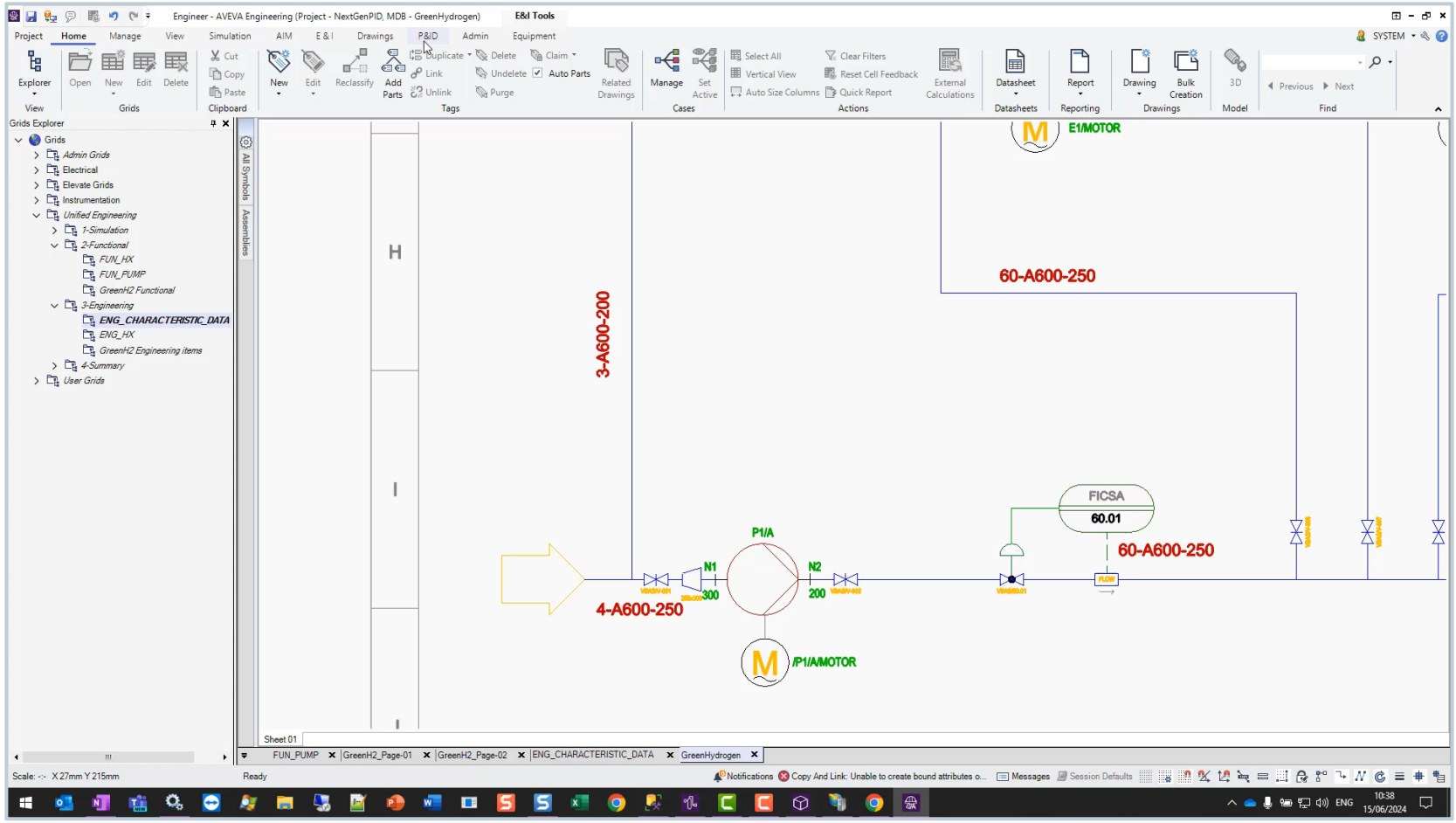
Update P&ID



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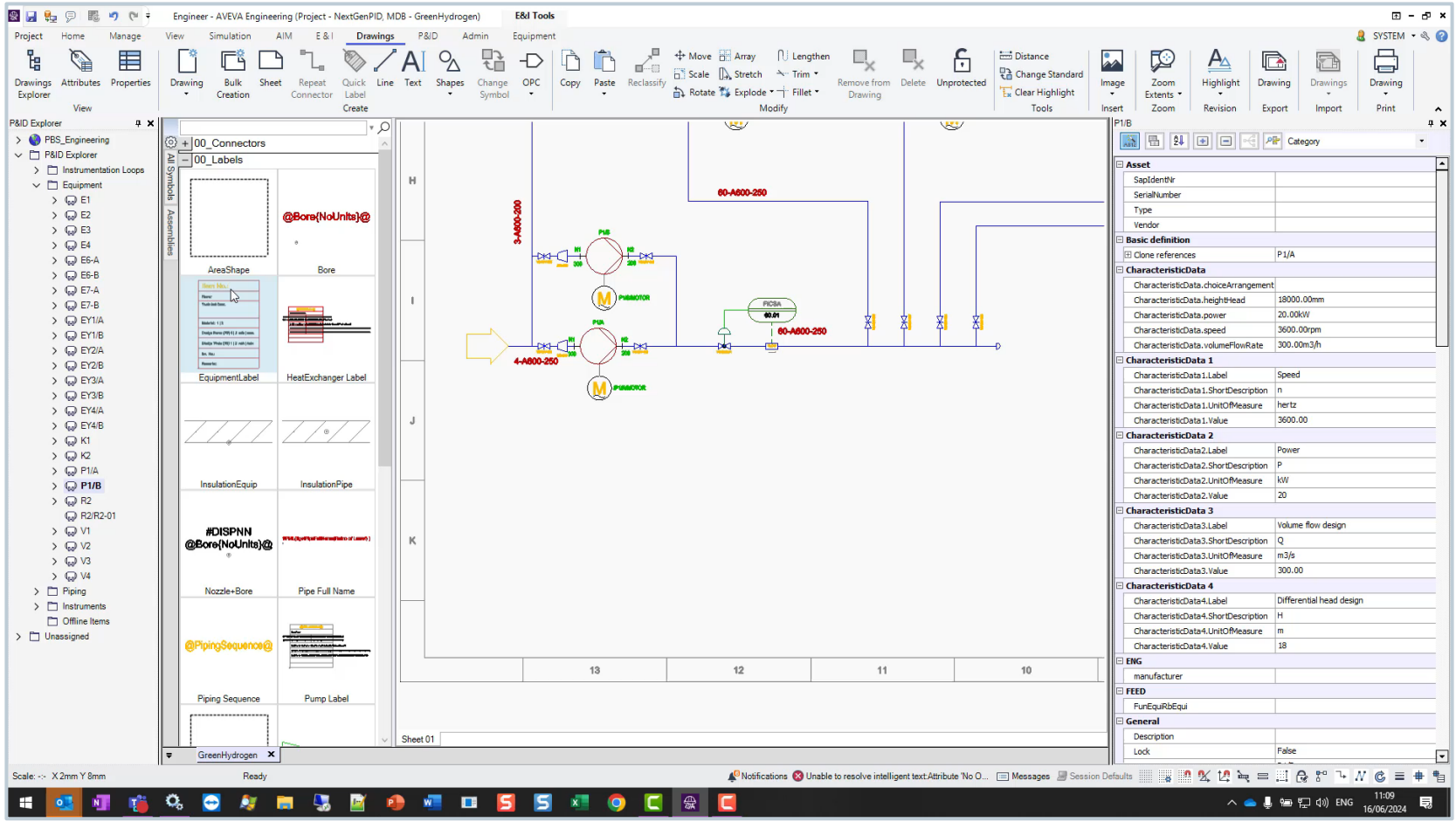
Add labels to the equipment bar on P&ID



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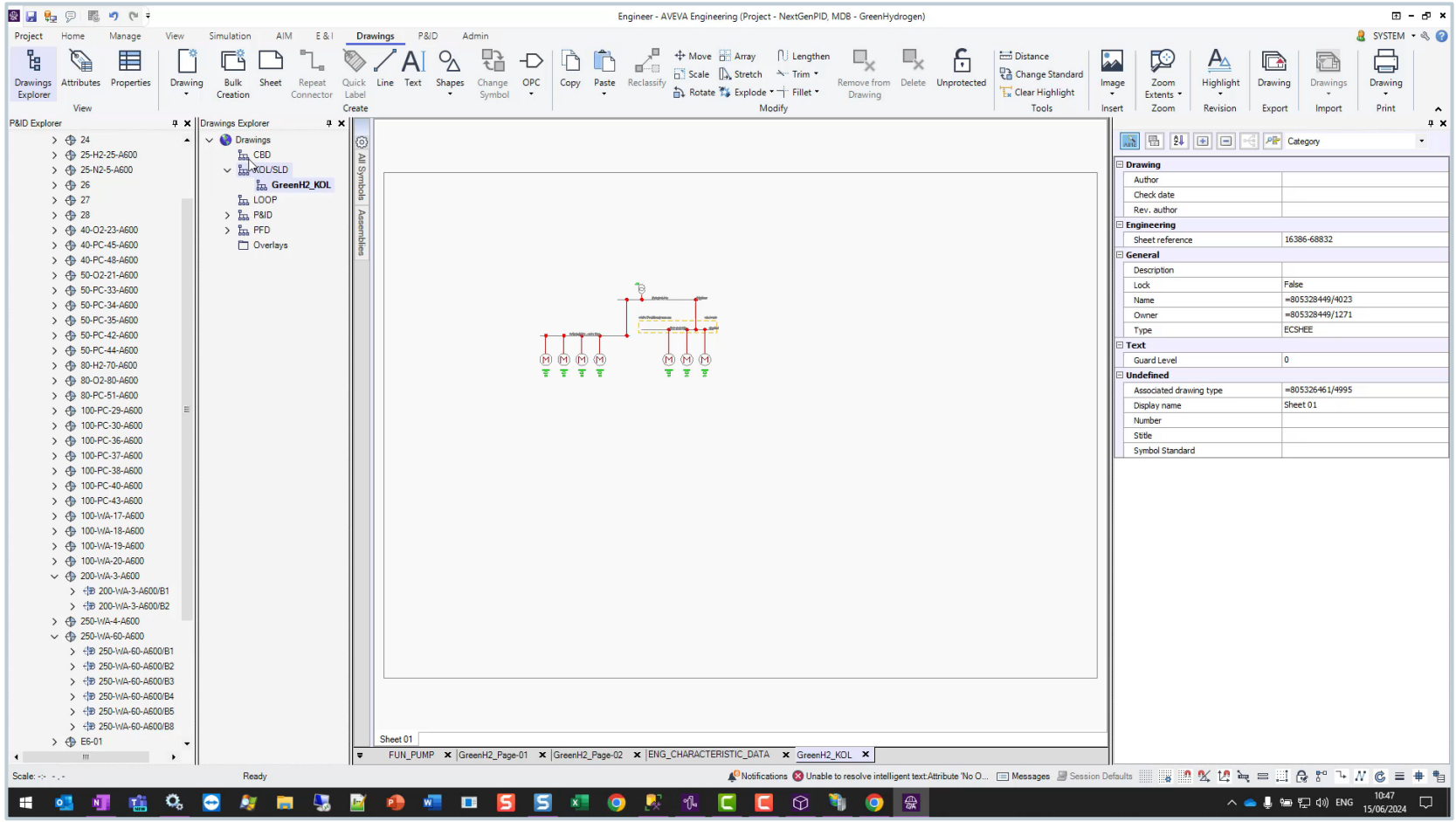
Update KOL drawing



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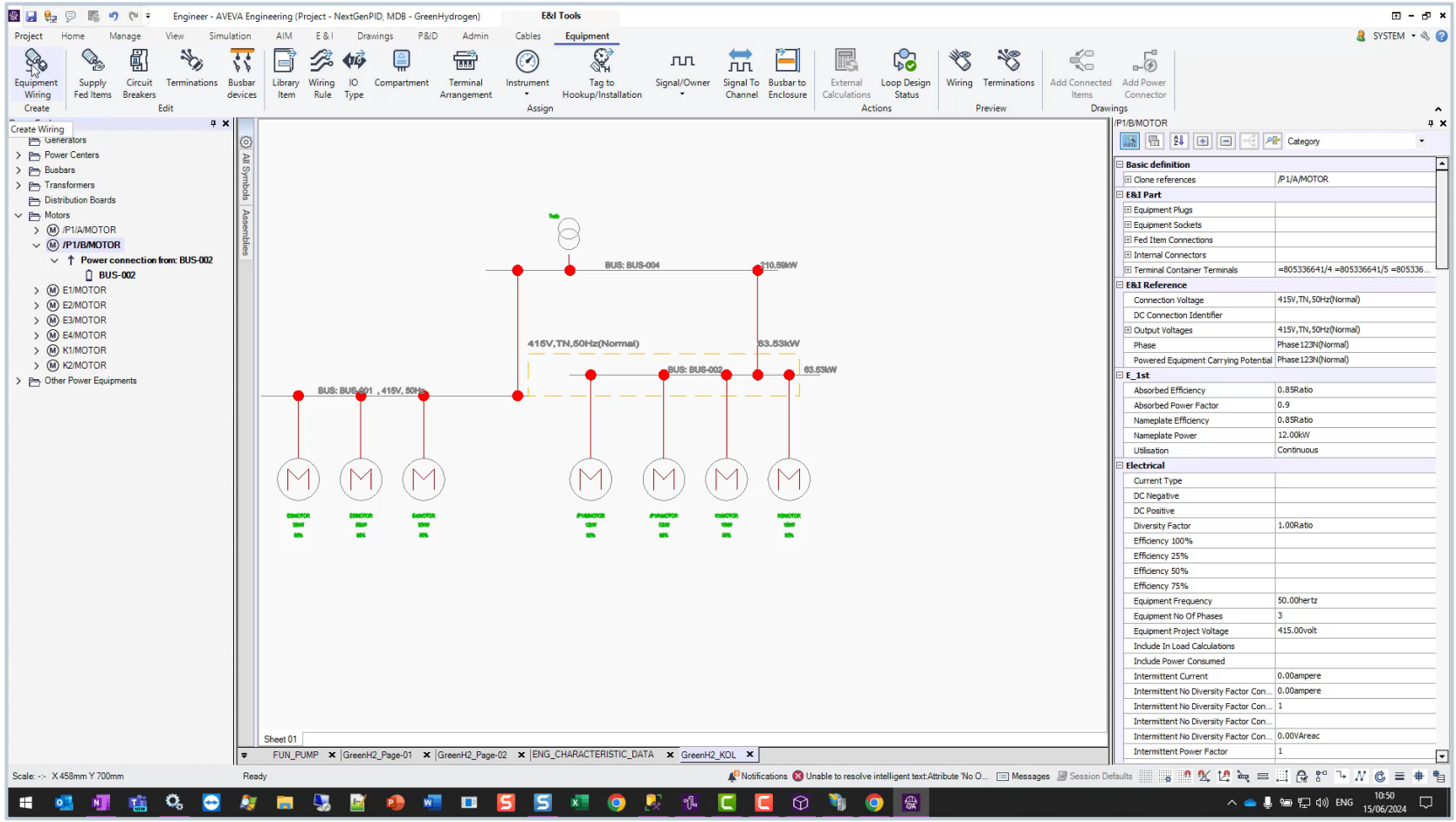
Create cable sizing and power cable



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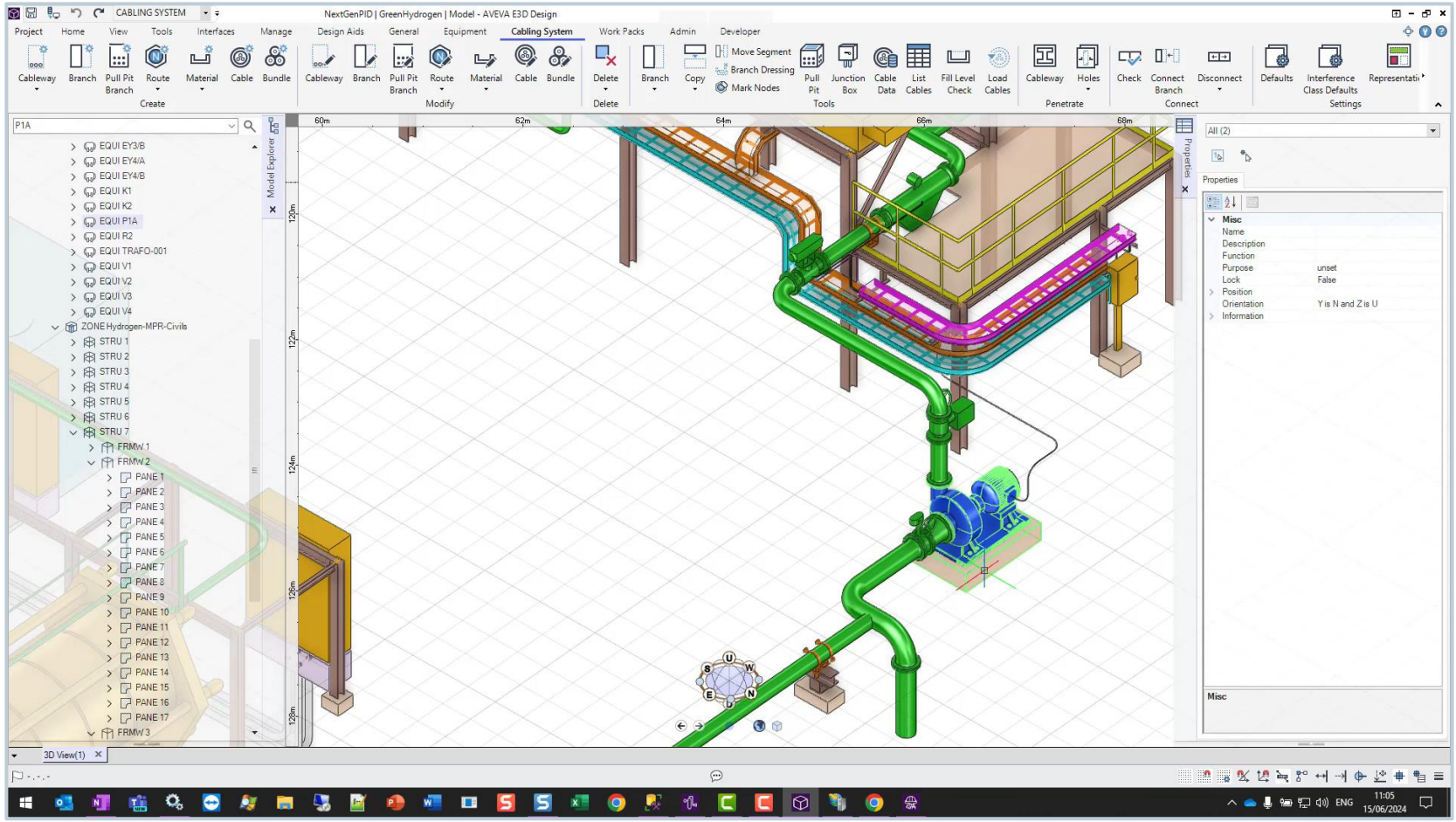
AVEVA™ E3D Design

Copy existing feedwater pump and modify connected piping



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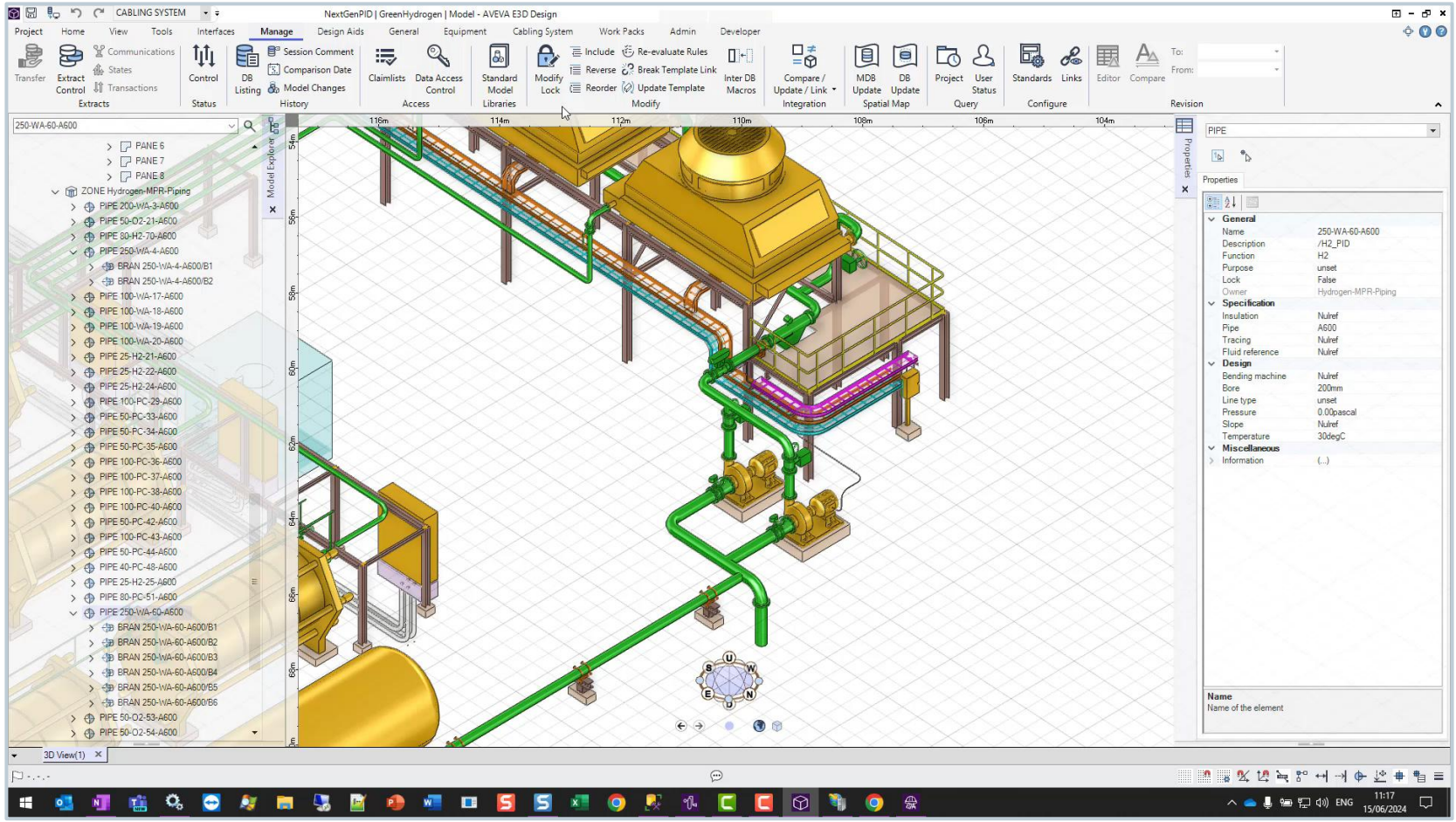
AVEVA™ E3D Design

Import cable by compare and update and route cable



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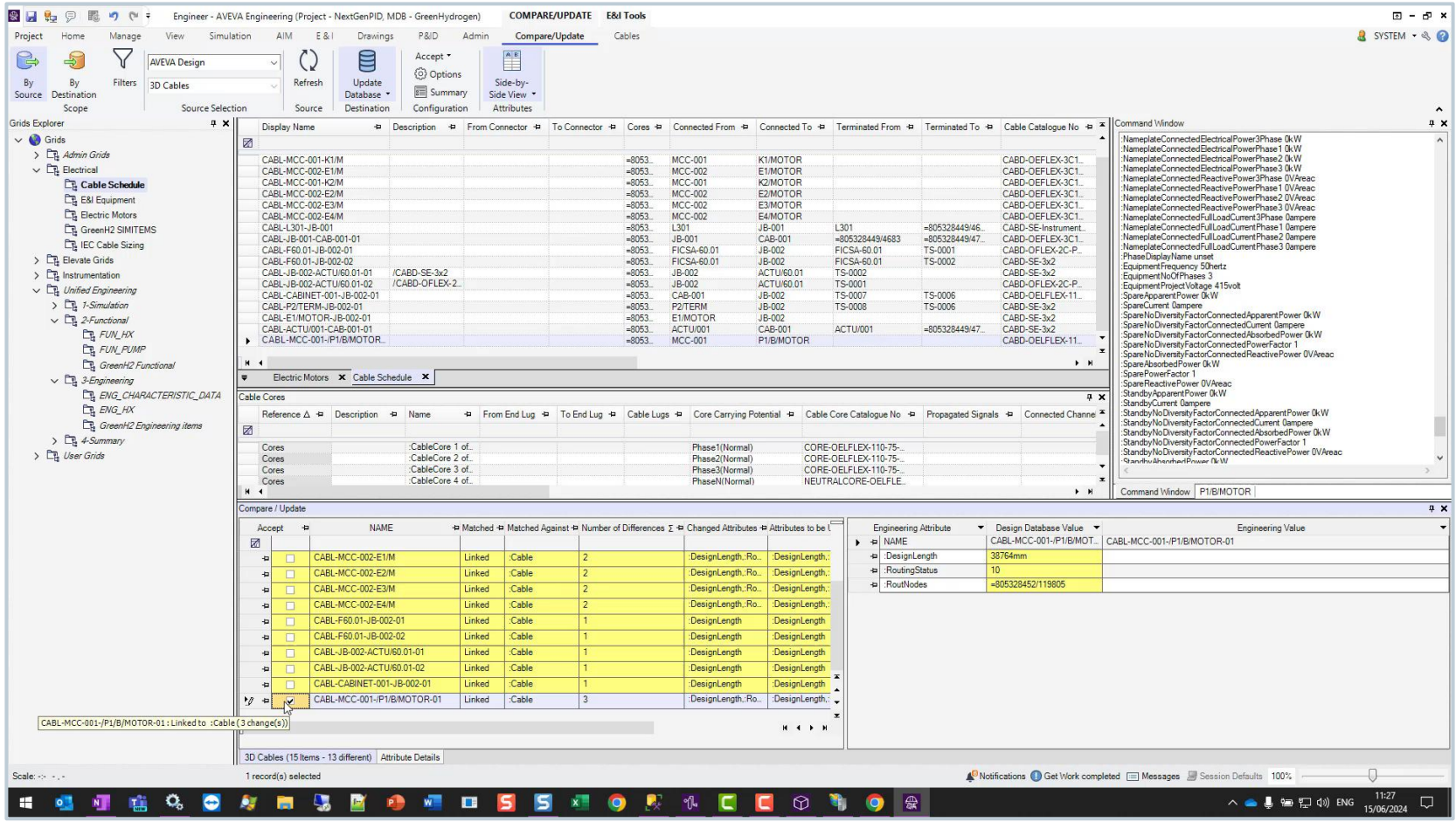
AVEVA™ Engineering

Import length by compare and update from AVEVA E3D Design



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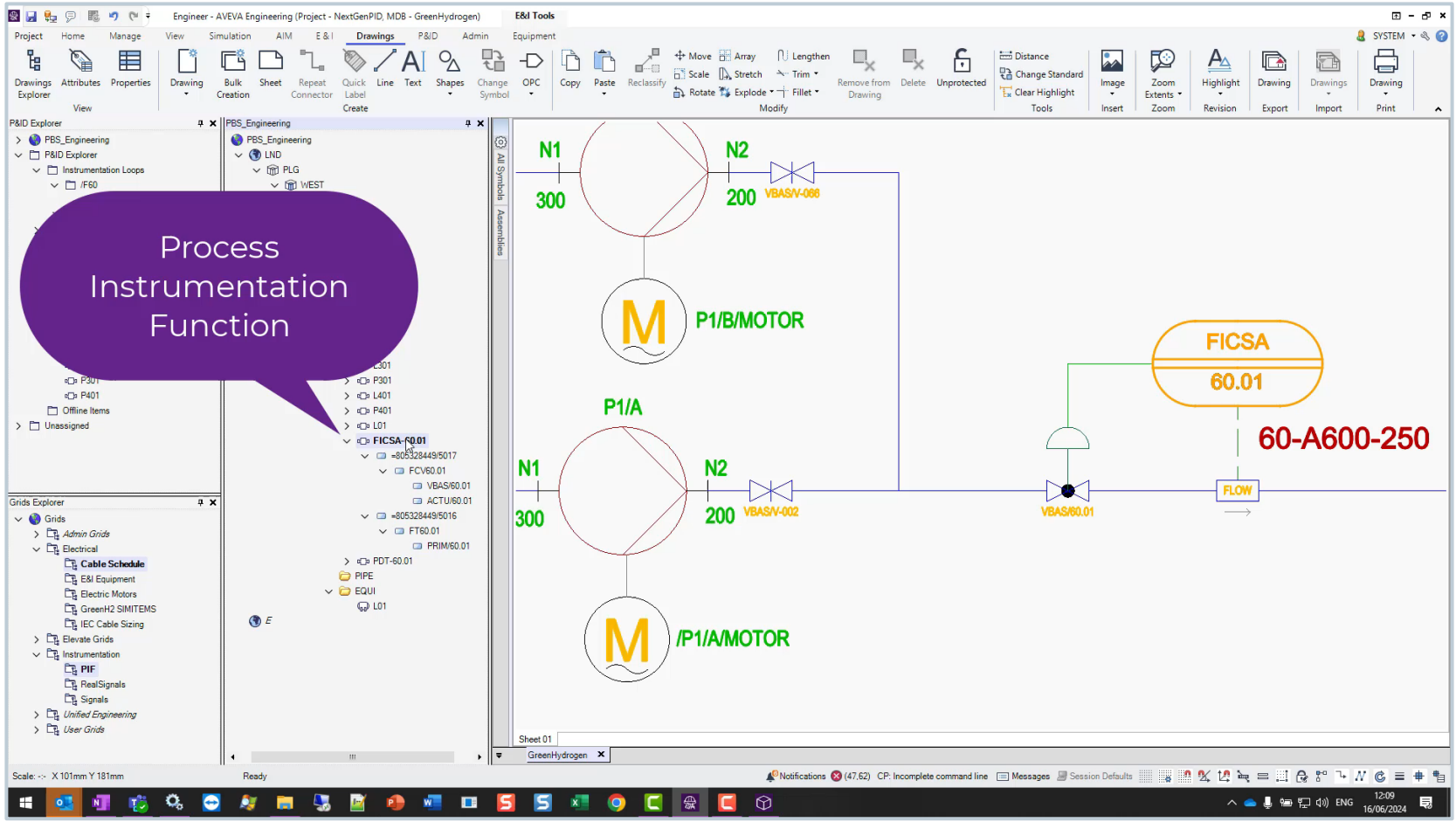
Review the flow control loop



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The opportunity

Reduce time to value

Out-of-the box content and reference projects to simplify the initial project configuration, make teams immediately effective and reduce the time to value

Streamline collaboration

Enable better collaboration between the project stakeholders minimizing errors and accelerating project execution to deliver projects on time and on budget

Workforce optimization

Integrated environment reduce the need for manual and low value activities freeing up resources for more valuable tasks and optimize the need for project resources

Maximize margins

Reduce cost throughout capital projects leafing to:

50% faster FEED stage

40% increase in engineering efficiency

15% reduction in TIC

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Recommended sessions

Babcock and Wilcox : Unlocking ROI: How B&W Achieved Efficiency with AVEVA Unified Engineering
Tuesday, 8th April 25 @ 1:45 pm
Room 2000

AP Consultoria : Digital Transformation in Engineering - AVEVA UE and AI for Multidisciplinary Projects
Tuesday, 8th April 25 @ 2:30 pm
Room 2009/2011

MAIRE Group : Supporting Advanced IE&C and Sustainability Projects execution
Tuesday, 8th April 25 @ 3.15 pm
Room 2001/03

Seamlessly migrating your legacy E&I and P&ID data to AVEVA Unified Engineering
Wednesday, 9th April 25 @ 11:15 am
Room 2005/2007

Saipem : From EPC DIGITAL PLATFORM to AI for Engineering
Wednesday, 9th April 25 @ 2:15 pm
Room 2005/2007

Engineering and Capital Projects Improvements – Community session
Thursday, 10th April 25 @ 10:00 am
Room 2009/2011

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Questions?

Please wait for the microphone.

State your name and company.

Please remember to…

Navigate to this session in the mobile app to complete the survey.

Visit us in the:

- AVEVA Unified Engineering 3.0 Demo, after the lunch
- Design & Build booths at Innovation Zone
- Day 3 Engineering & Capital Projects Community Group

Thank you!

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Visit us!

Stop by these booths in the innovation zone for demos and additional information:

Extend value through AVEVA Unified Engineering - Booth 56

Get a deep dive on AVEVA Unified Engineering and AVEVA Deliverables Management

Engineer the plant of the future – Booth 47

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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

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