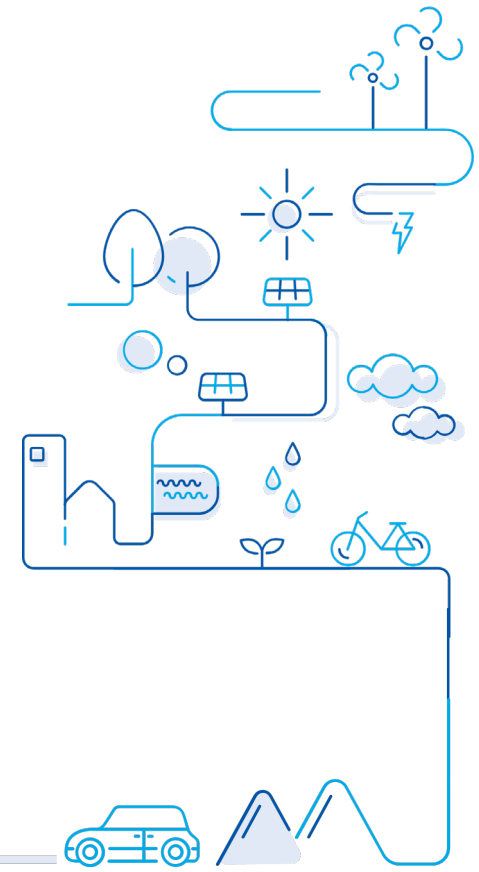
Smart Energy Connect
powered by CLP

Towards the Next Step – Autonomous Energy Efficiency

CLP Innovation

Ir. Charles Chau



CLP's mission is to provide sustainable energy solutions

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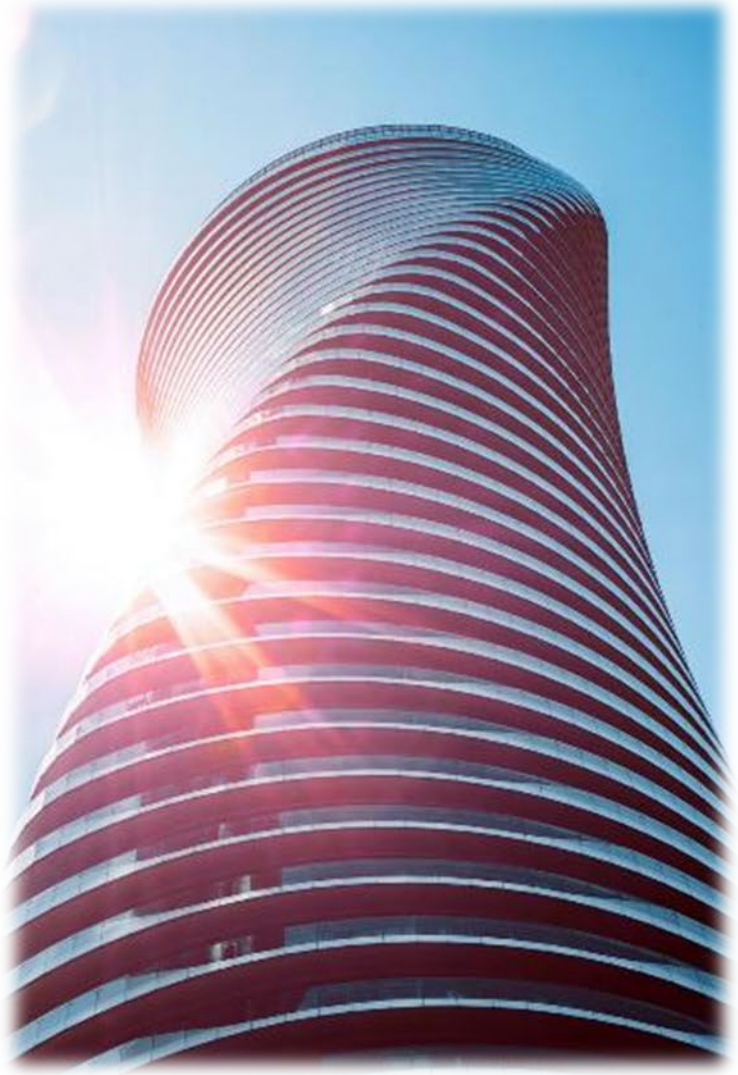
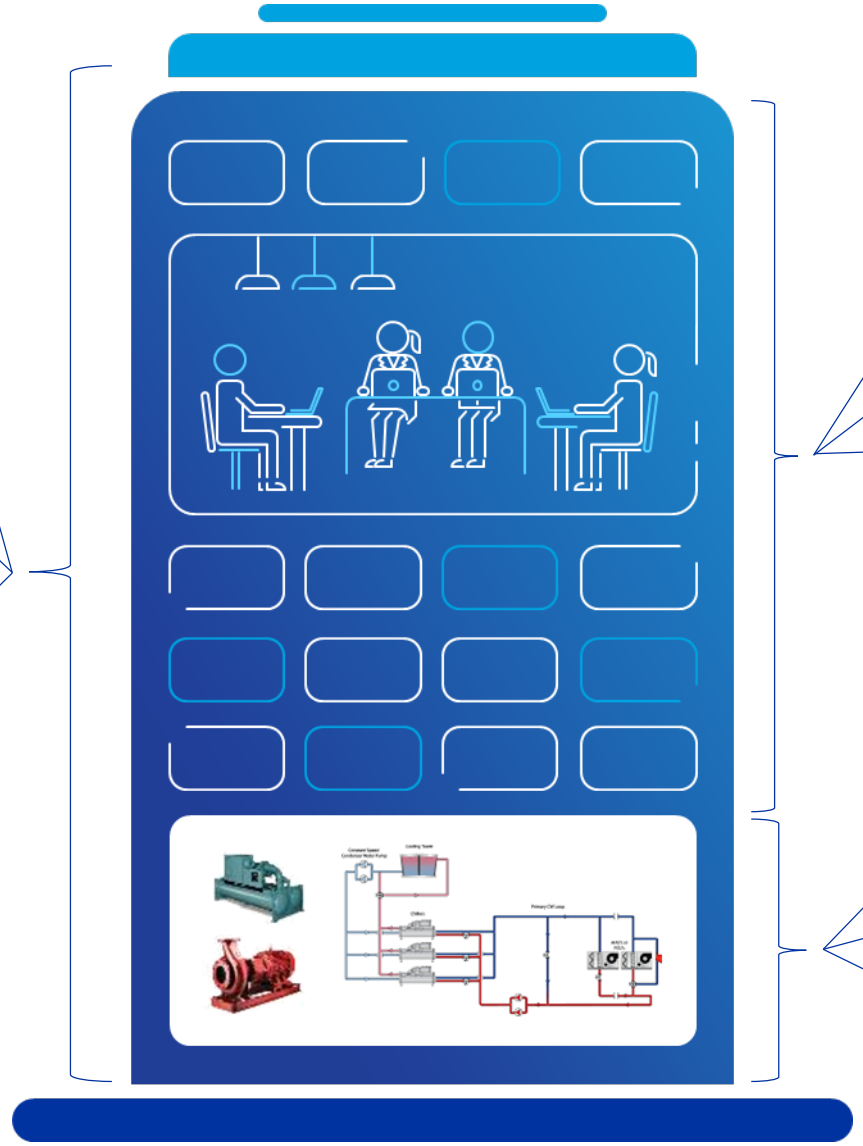


SEC: EC Building Suite

1. Visibility

- Building Health monitoring
- Decentralised automated BMS
- Centralized BMS



2. Comfort

- Hotdesk, space optimisation, AIQ
- Airside optimisation
- Energy Sensor

3. Cooling

- Motor predictive maintenance
- Chiller monitoring
- HVAC Optimisation

SEC: EC Building Suite

1. Visibility

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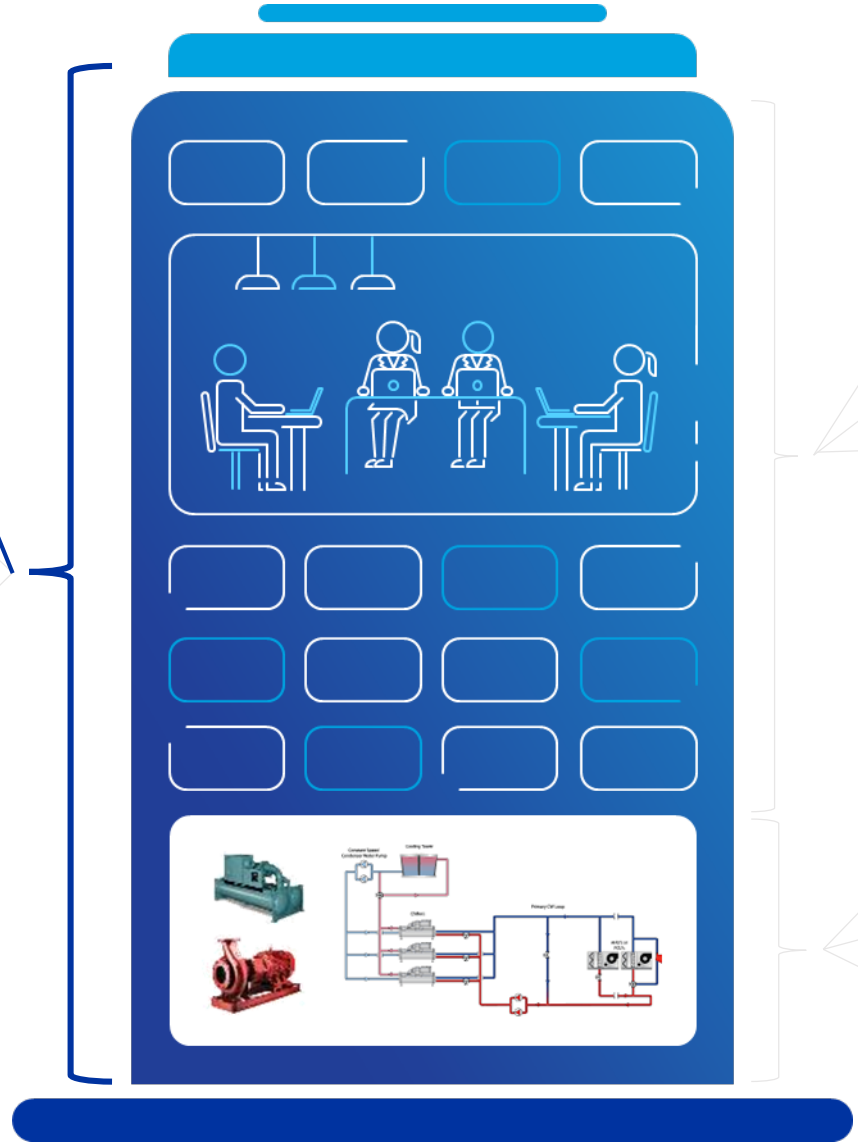

2. Comfort

Hotdesk, space optimisation, AIQ

Airside optimisation

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Motor predictive maintenance

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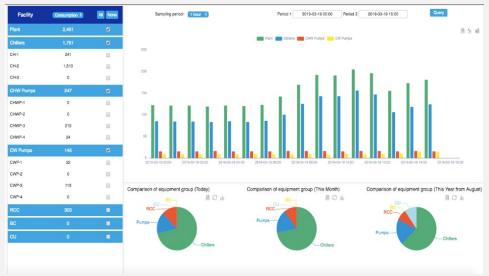
HVAC Optimisation

SEC: EC Building Suite – Building Scope module

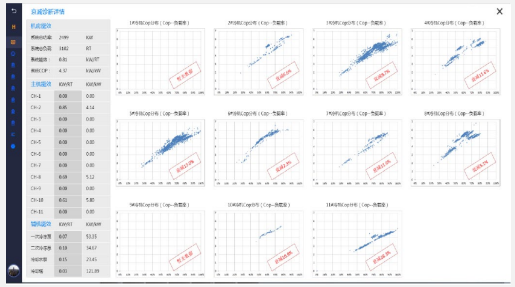
CLP SEC Building Scope is an example of technology that can facilitate the transformation:

Energy & KPI Management

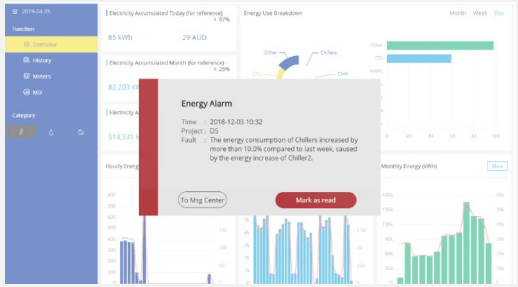


FDD
(Fault Detection and Diagnosis)

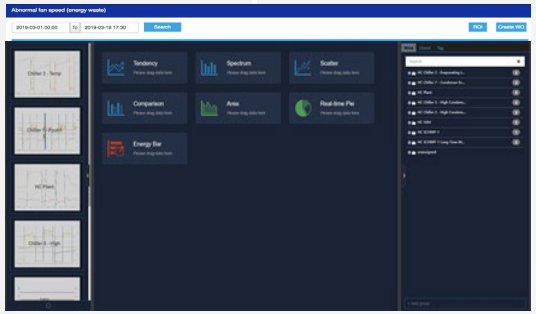
Performance Analysis

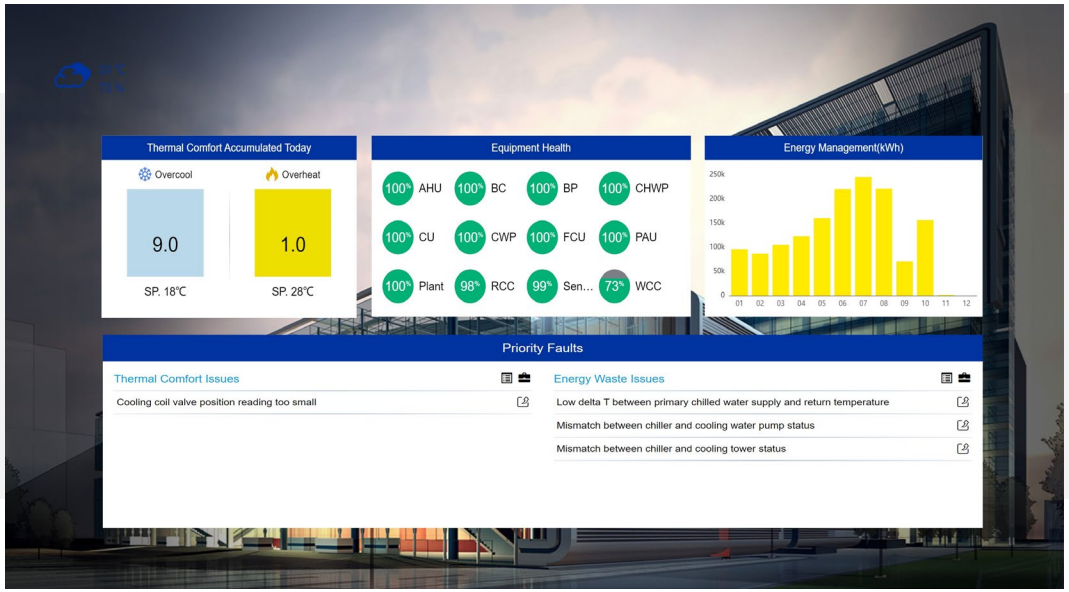


Alarm for Predictive Maintenance



Customized Dashboards & Reports





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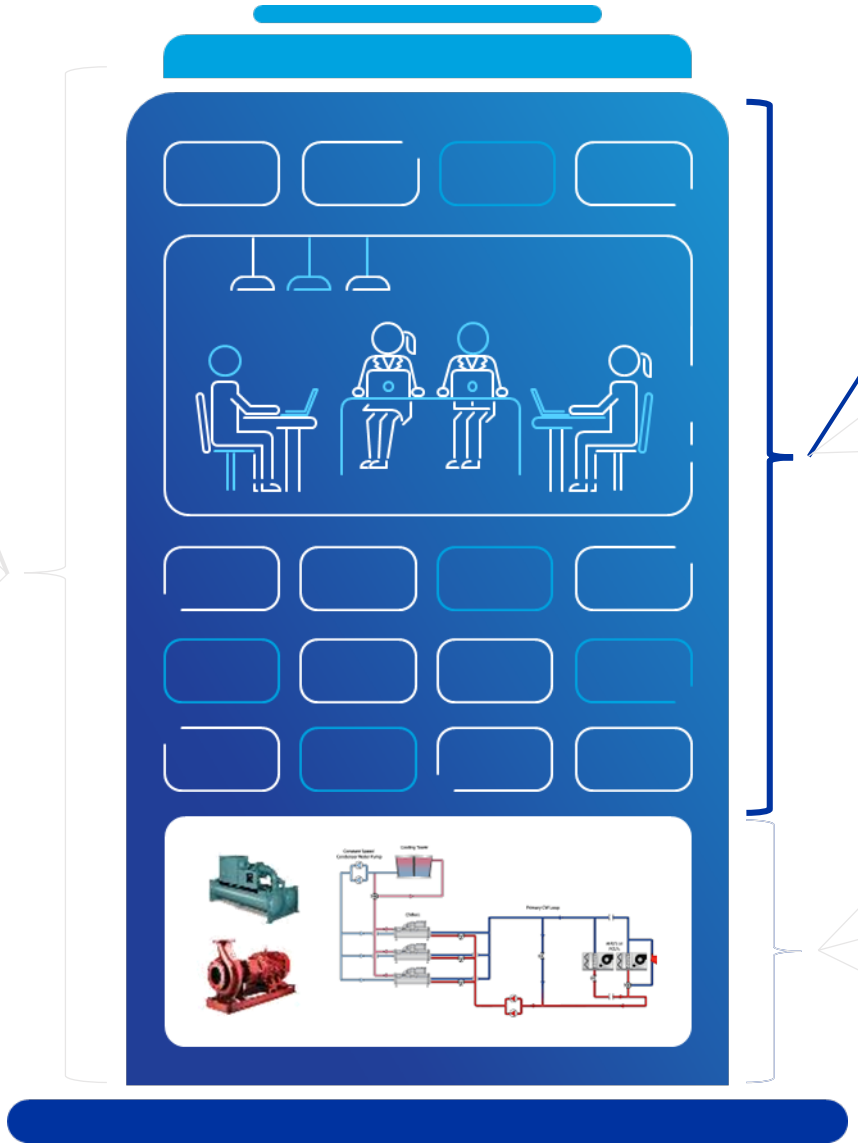

2. Comfort

Hotdesk, space optimisation, AIQ

Airside optimisation

Energy Sensor

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Motor predictive maintenance

Chiller monitoring

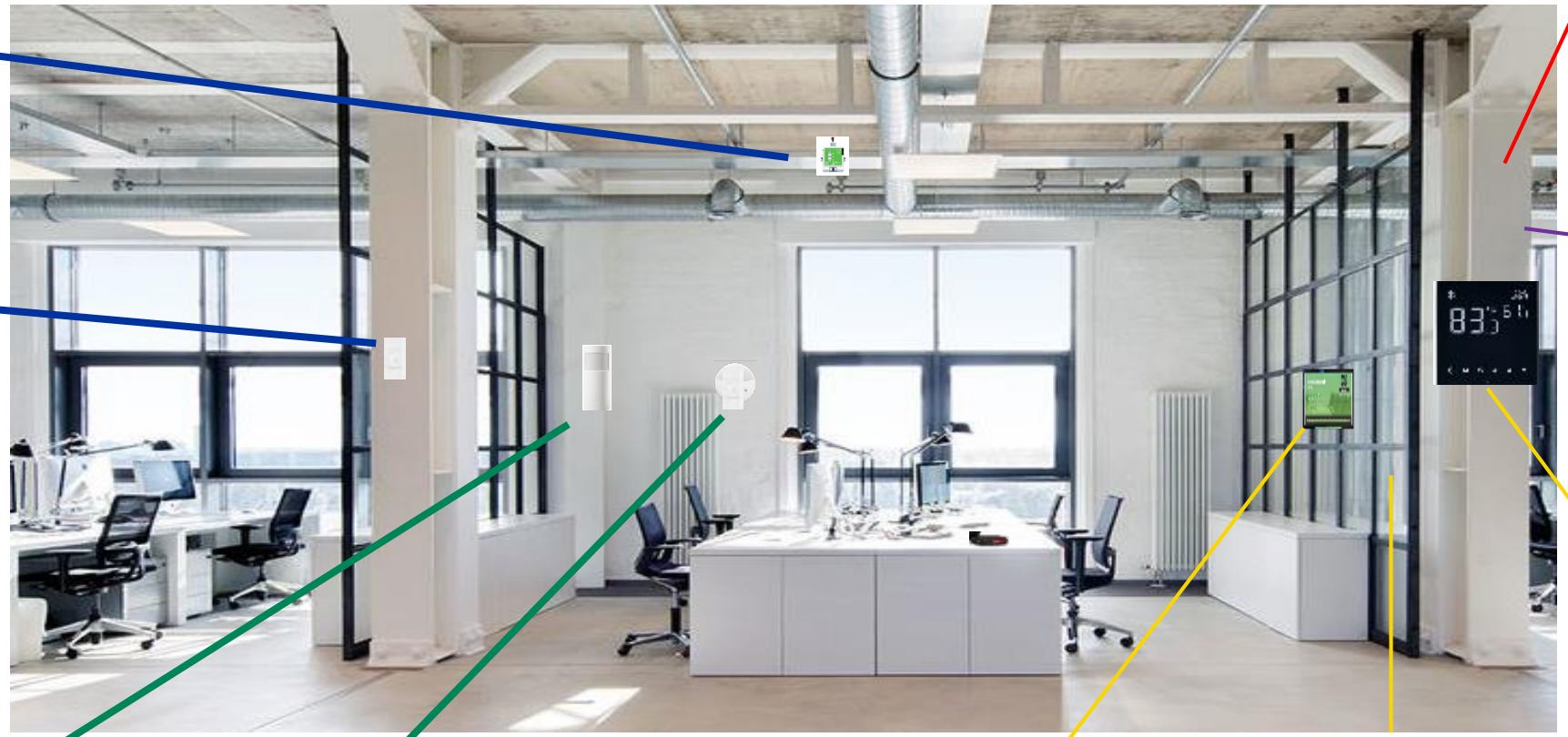
HVAC Optimisation

SEC: EC Building Suite – Smart Sensing Automation module

Smart Energy Connect

Wireless Load Control

Wireless Remote



Wireless metering

Air quality and Purification

Wireless Occupancy sensor

Wireless Daylight sensor

Smart meeting rooms

Wireless Temp and RH% Sensor

Smart Thermostat

SEC: EC Building Suite

1. Visibility

Building Health monitoring

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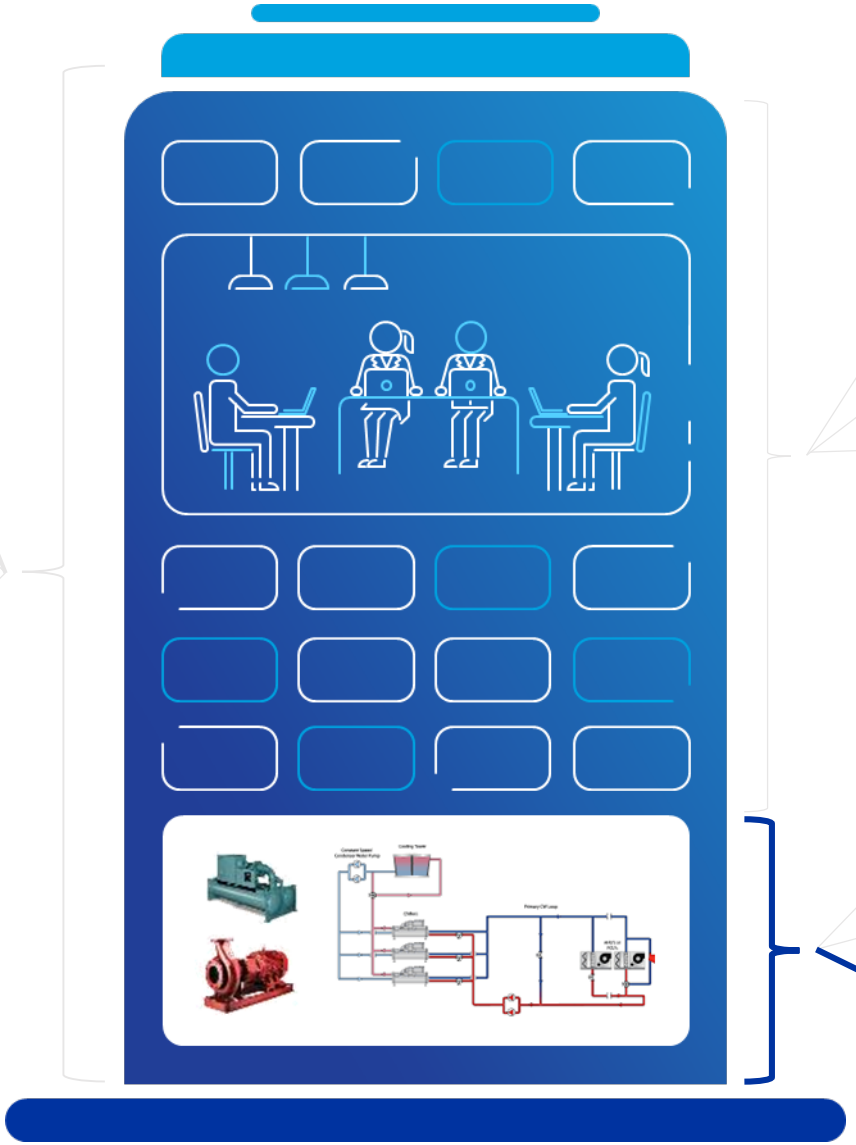

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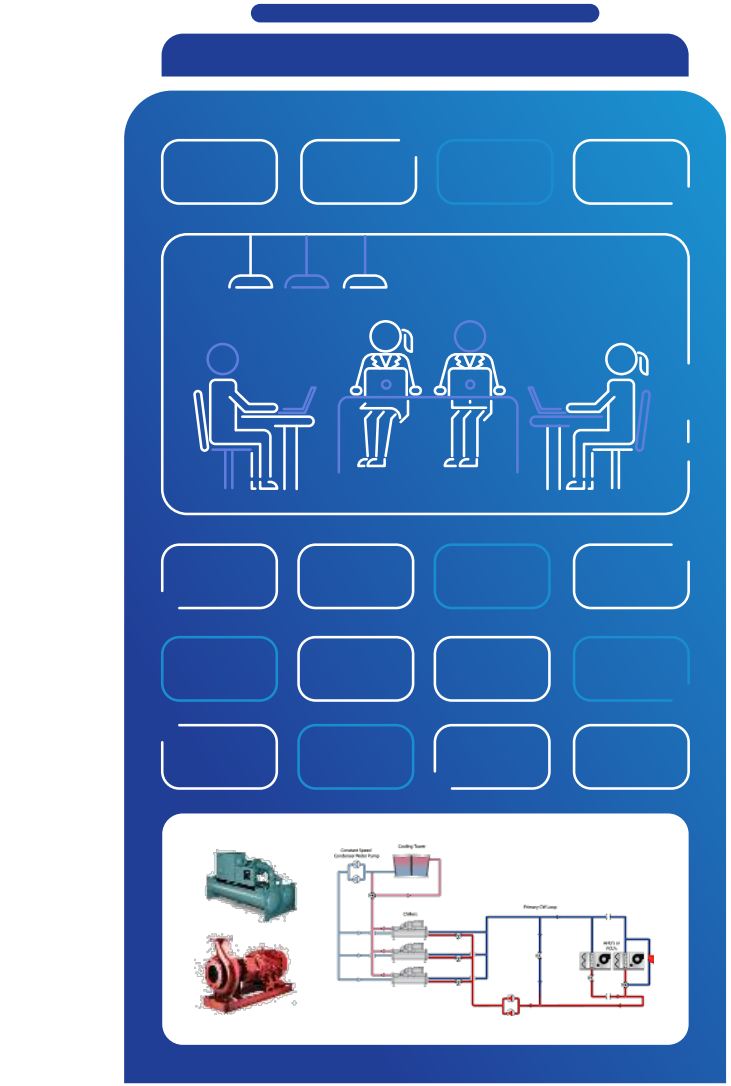
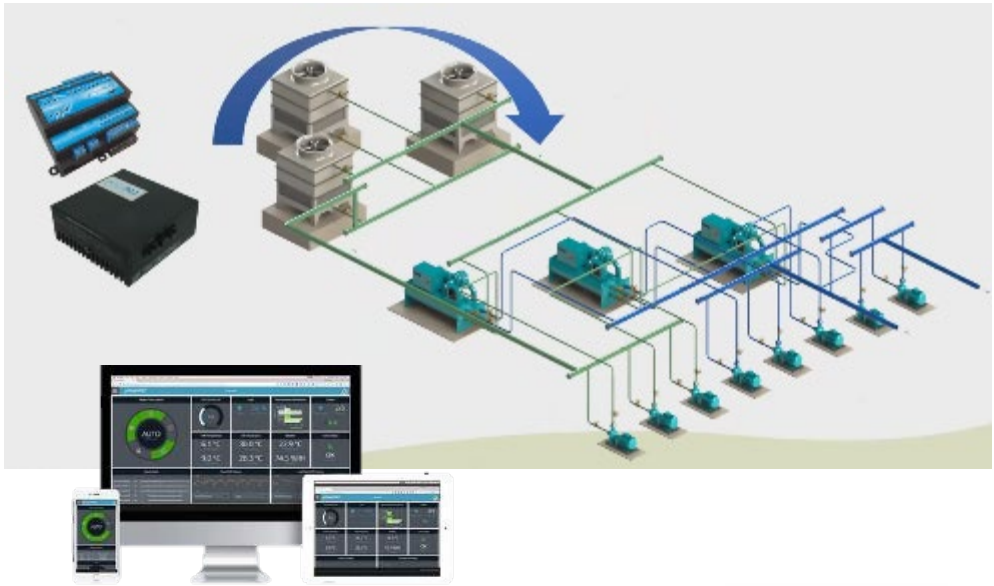
SEC: EC Building Suite – Chiller optimization module

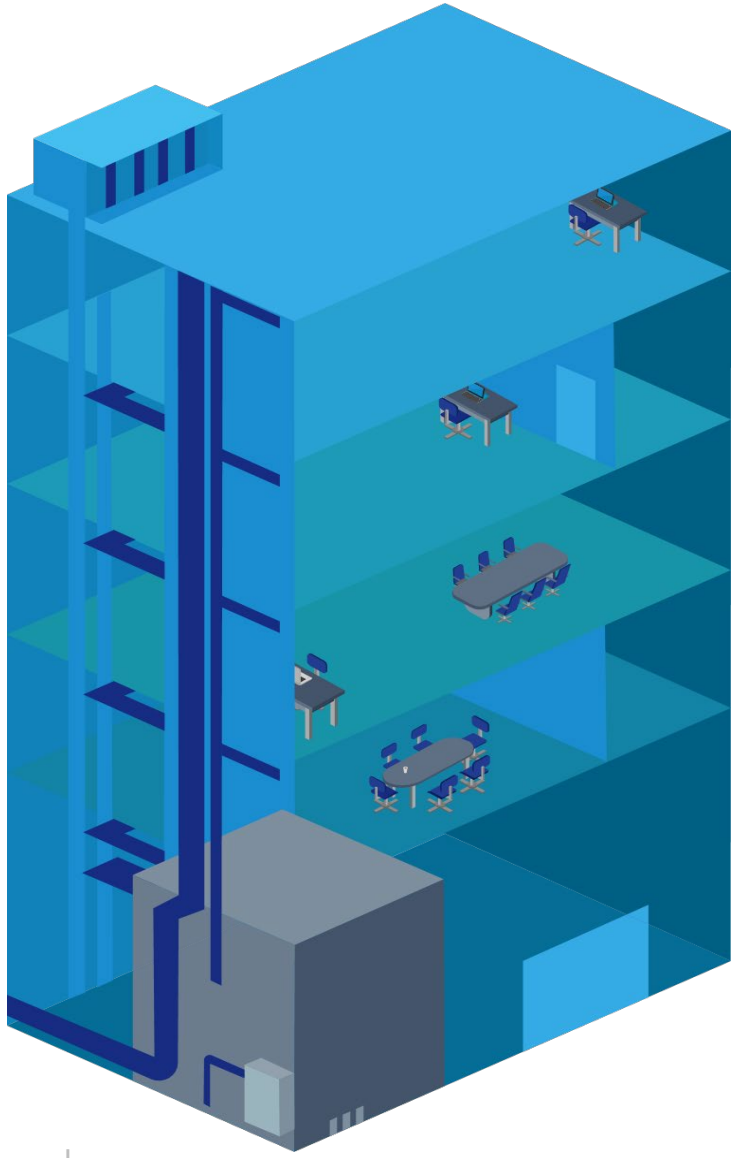




Chiller Optimisation

- Chiller Monitoring
- HVAC Optimisation
- Automated Operation

The Optimization challenge



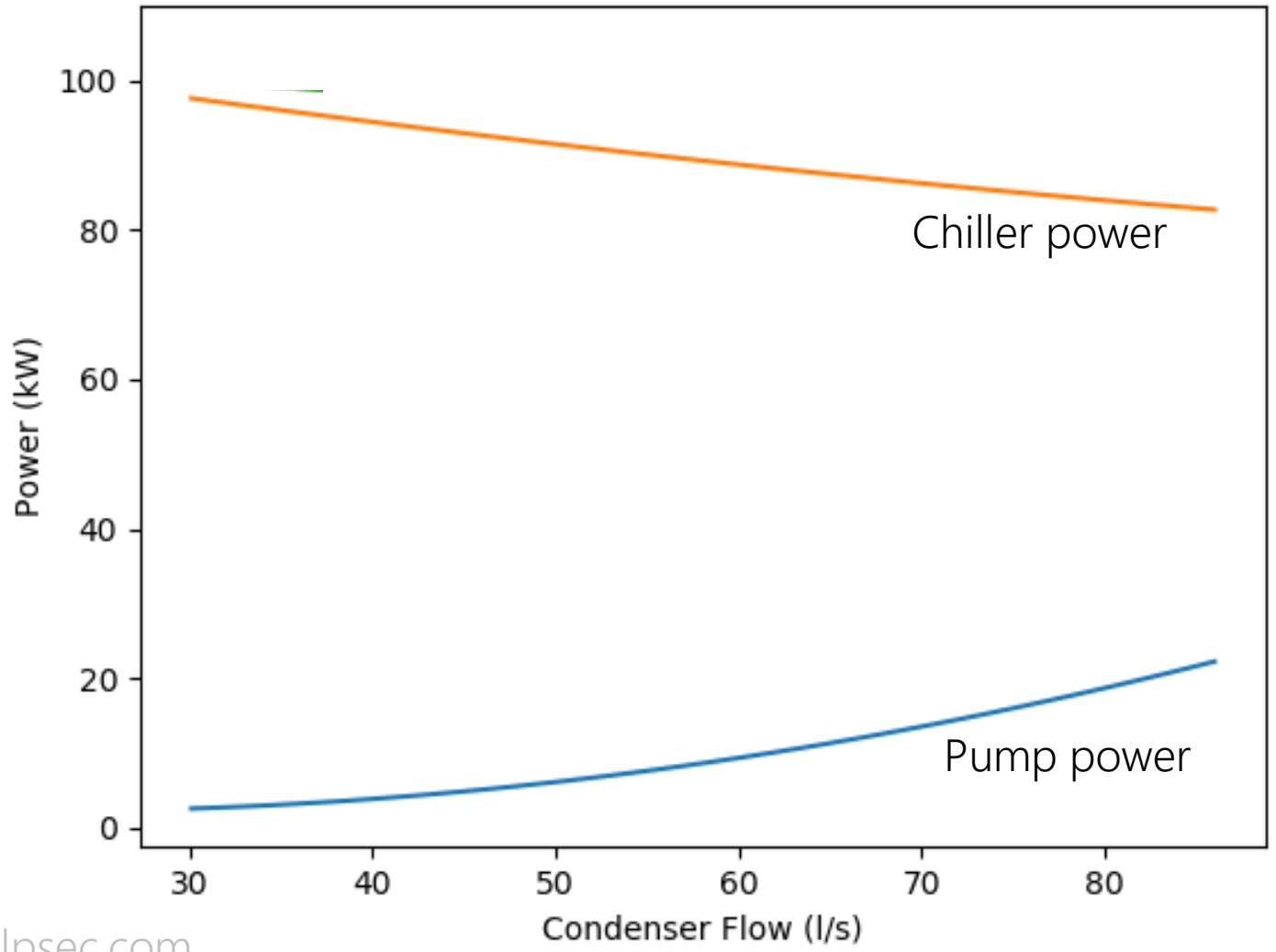
Chiller

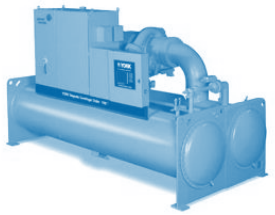
Pump

Goal: 6 ^{O}C ?

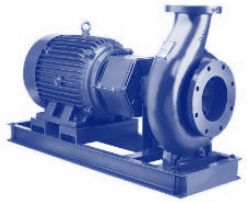
The Optimization challenge

Goal: Chill water temperature at 6 ^{O}C





Chiller 1



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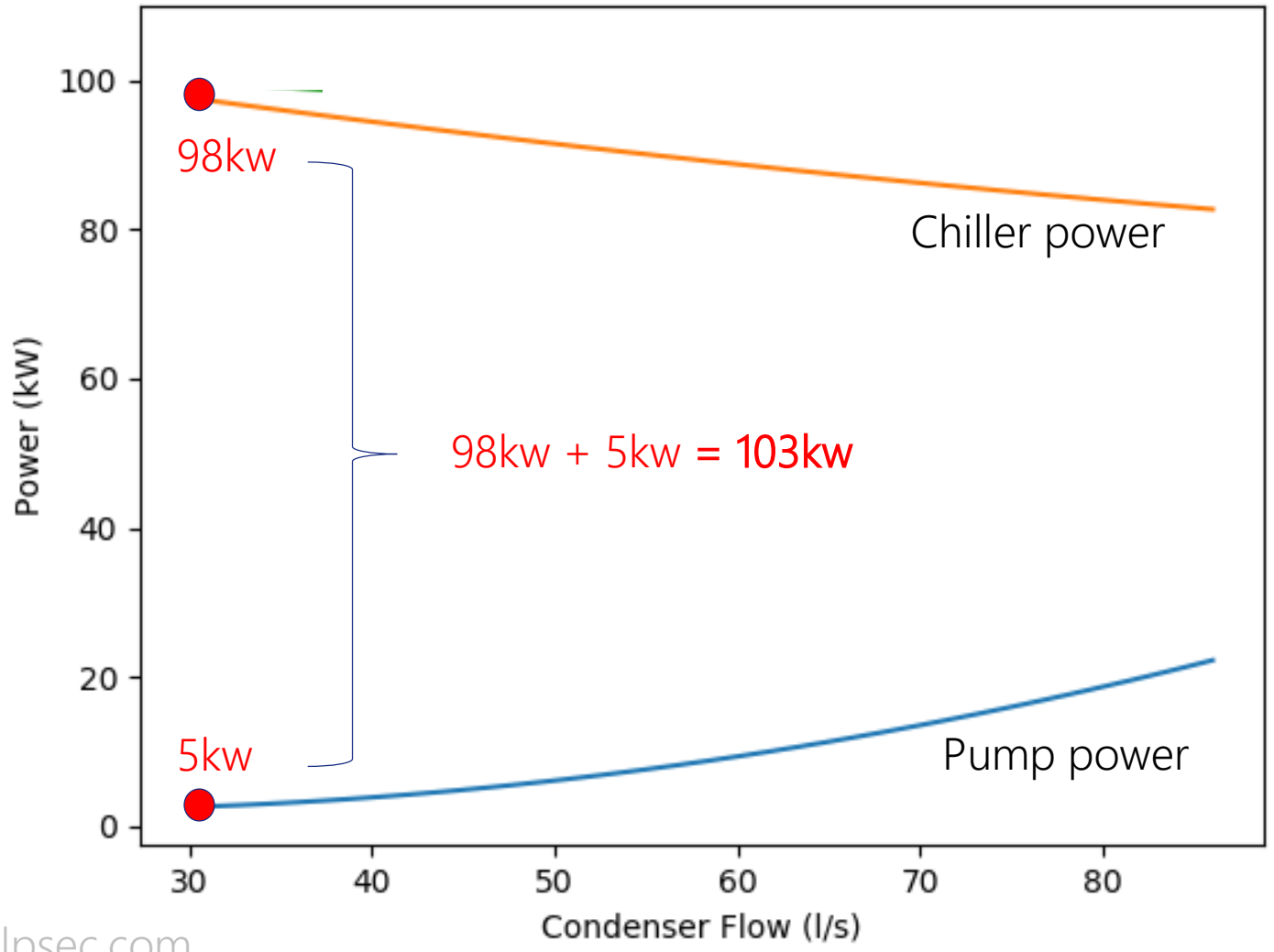
The Optimization challenge

Goal: Chill water temperature at 6 ^{O}C



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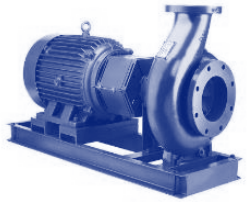

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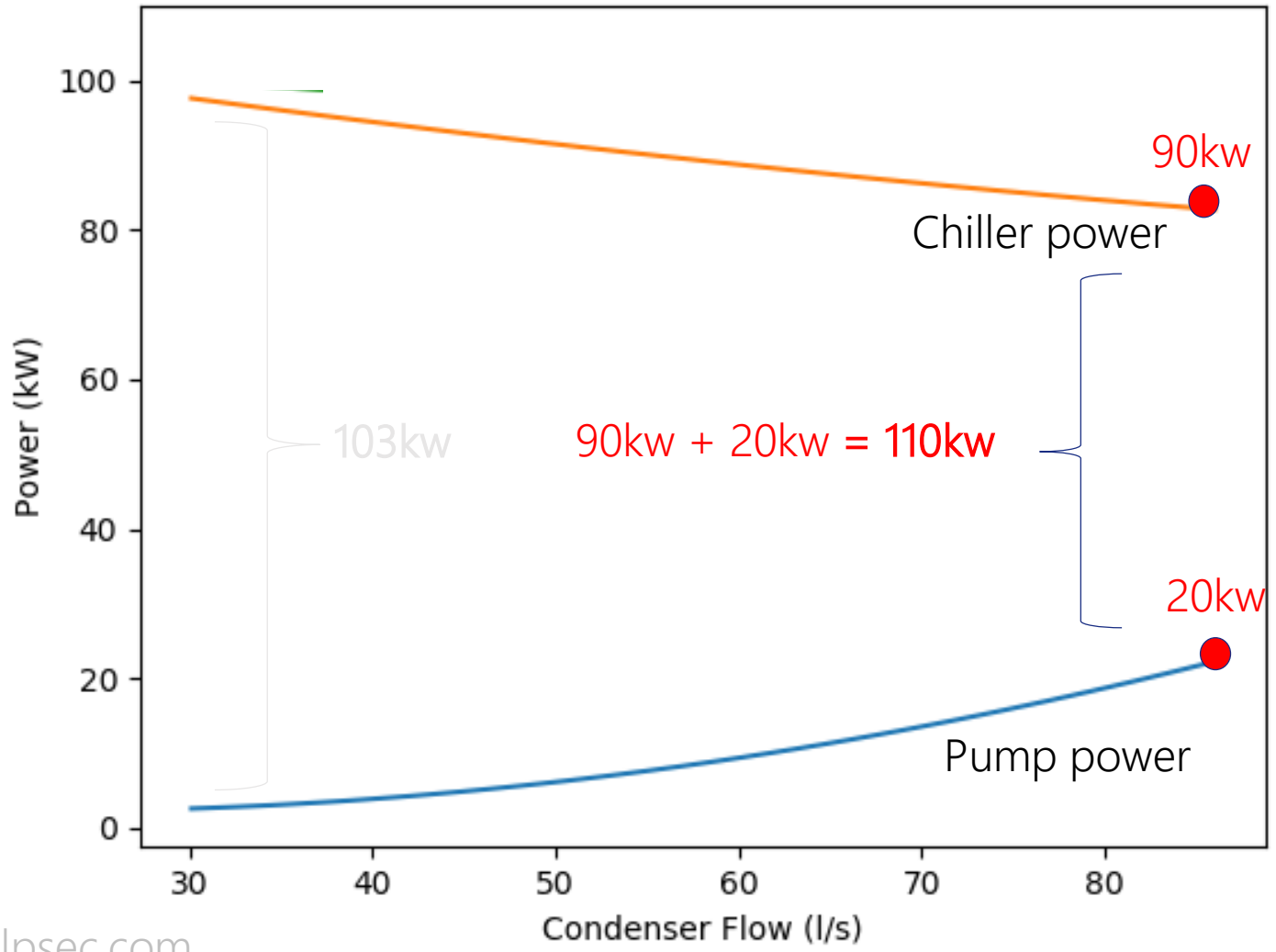

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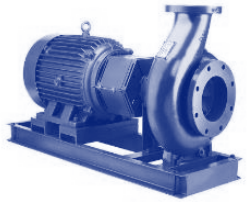

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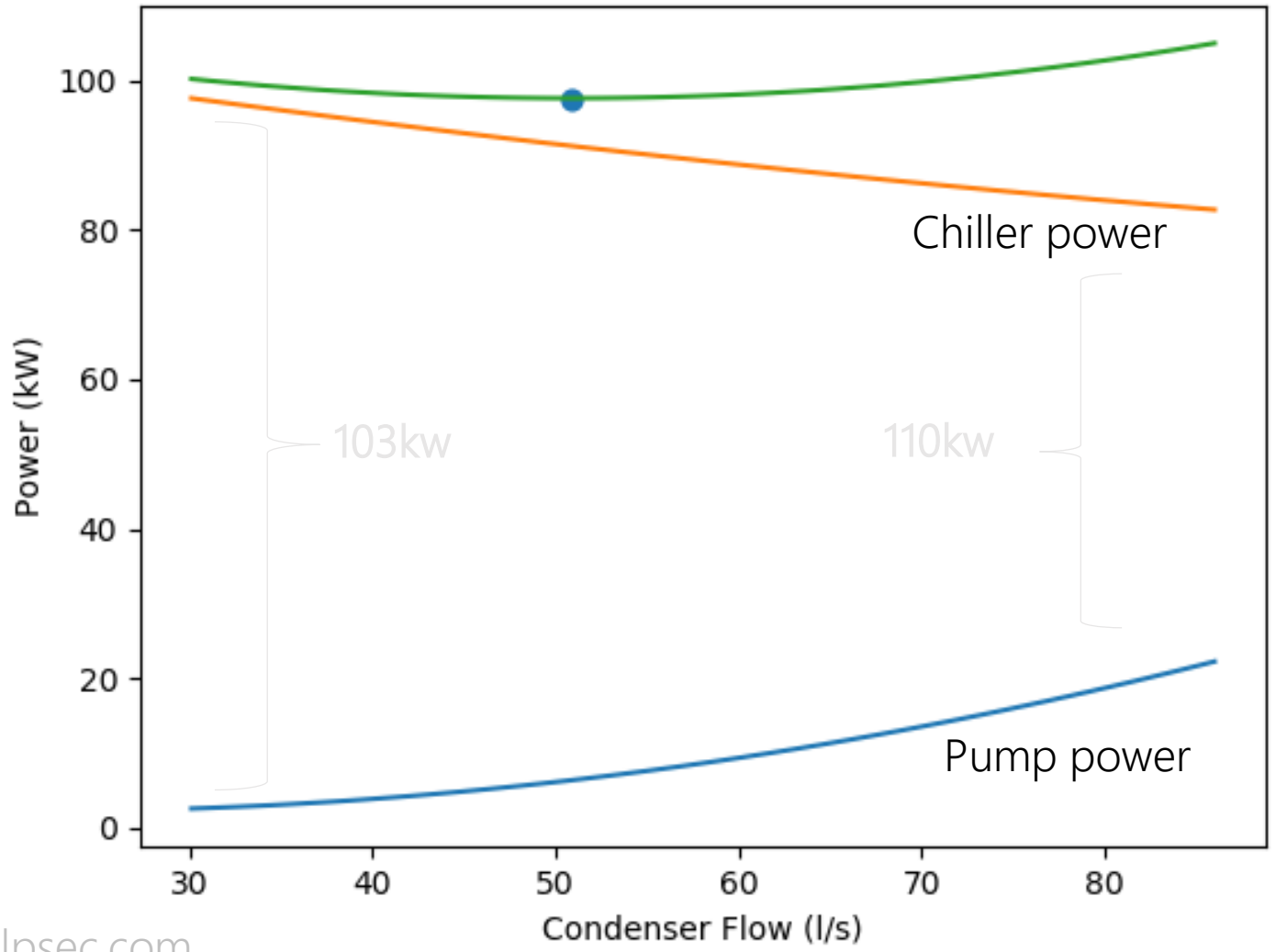

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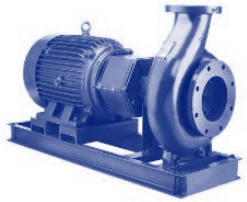

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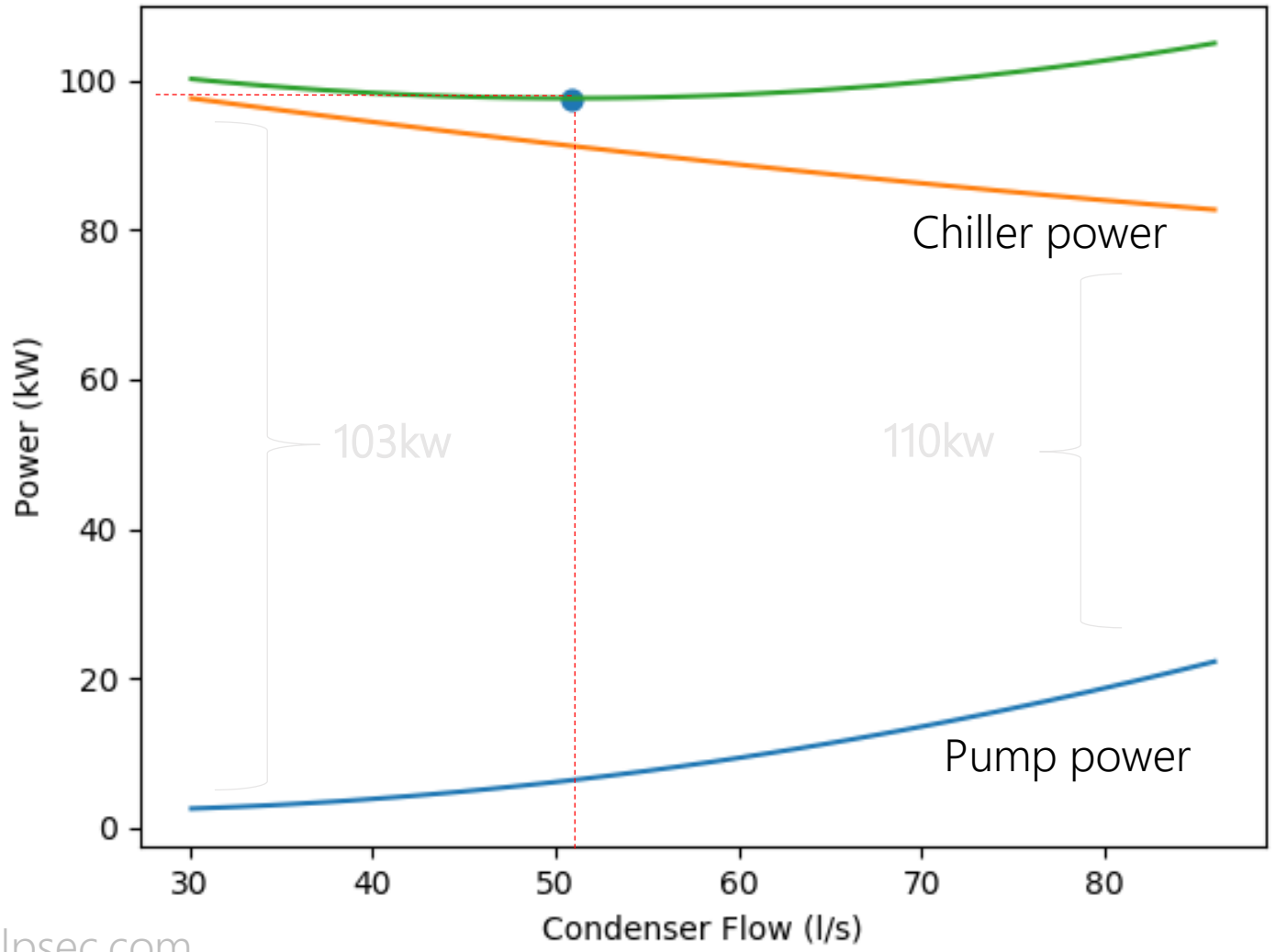

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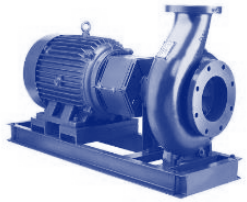

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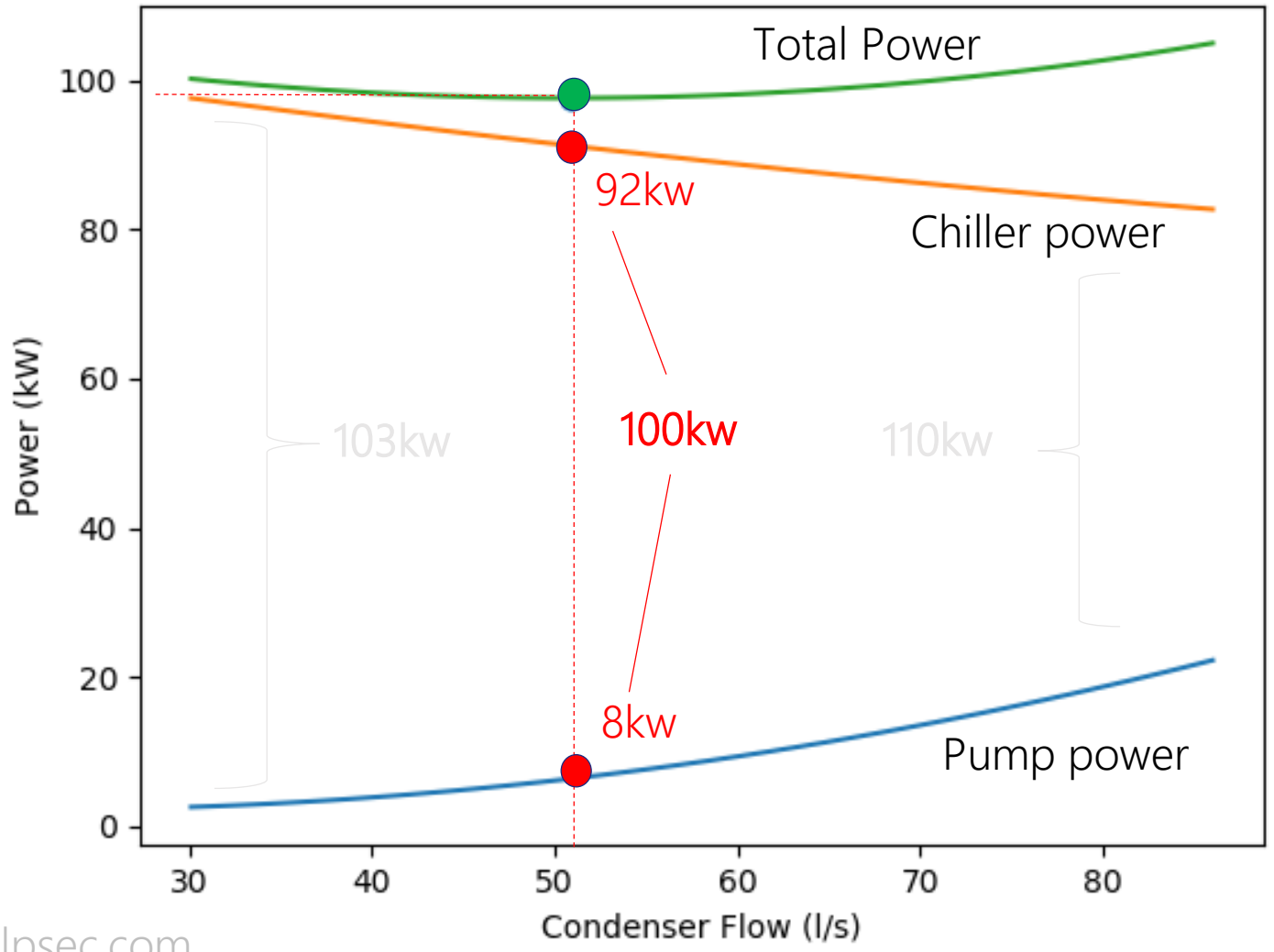

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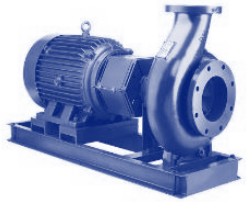

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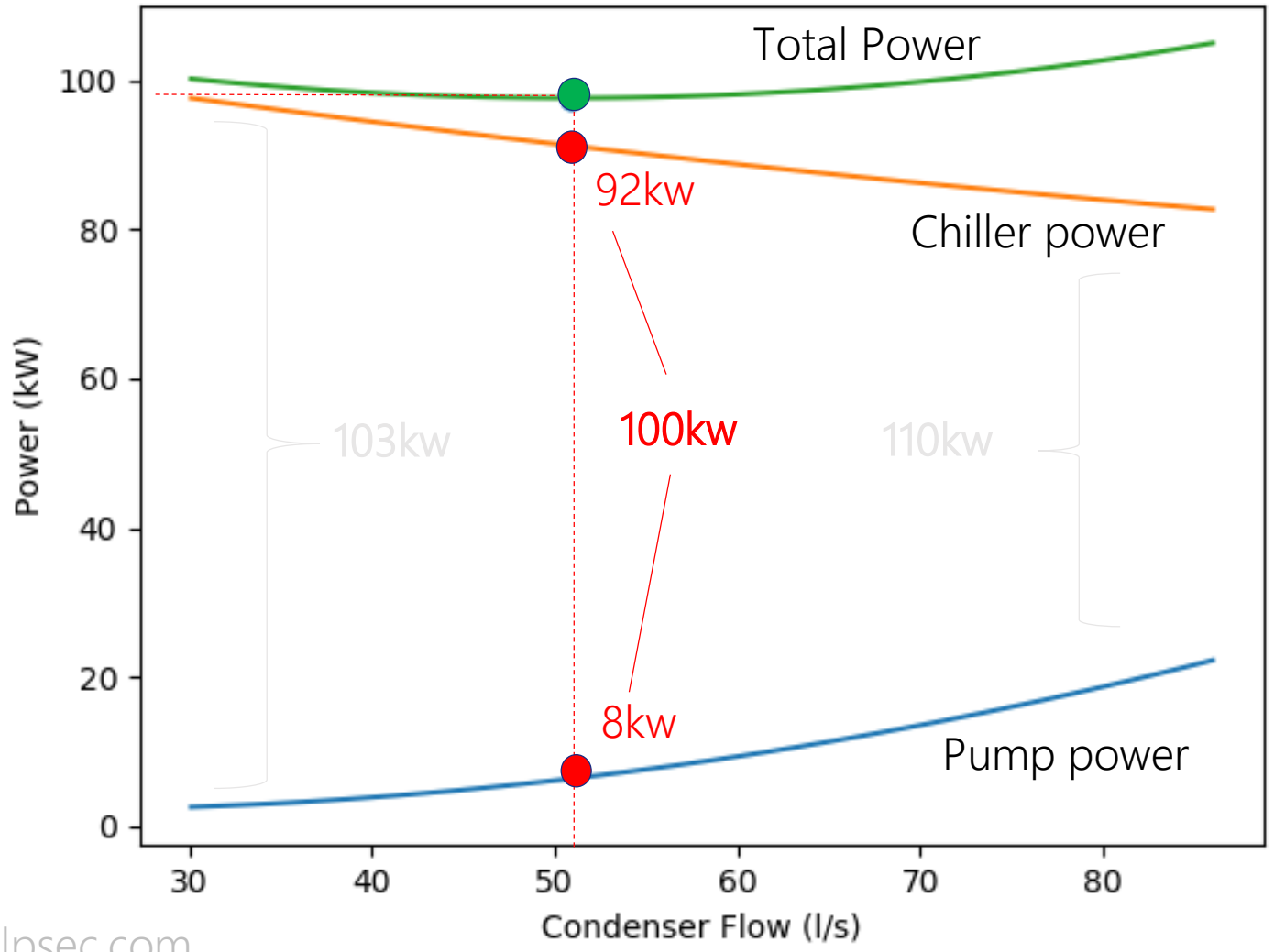

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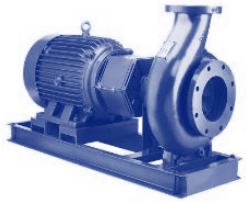

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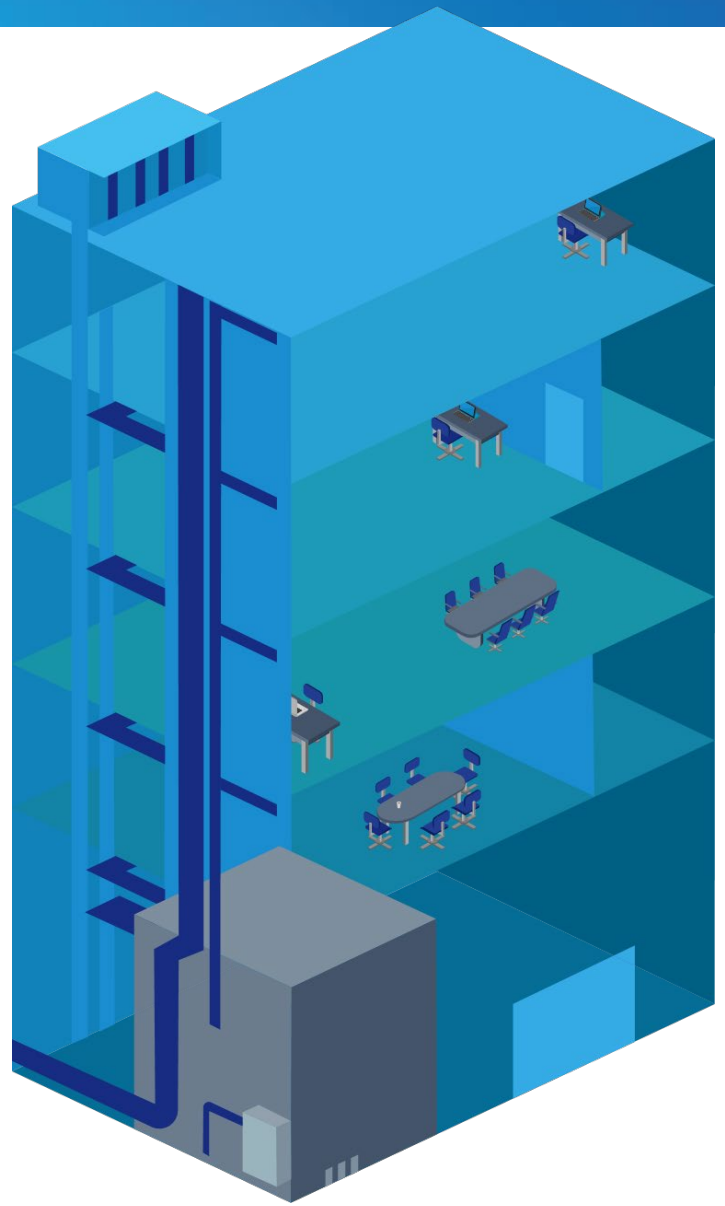

Chiller

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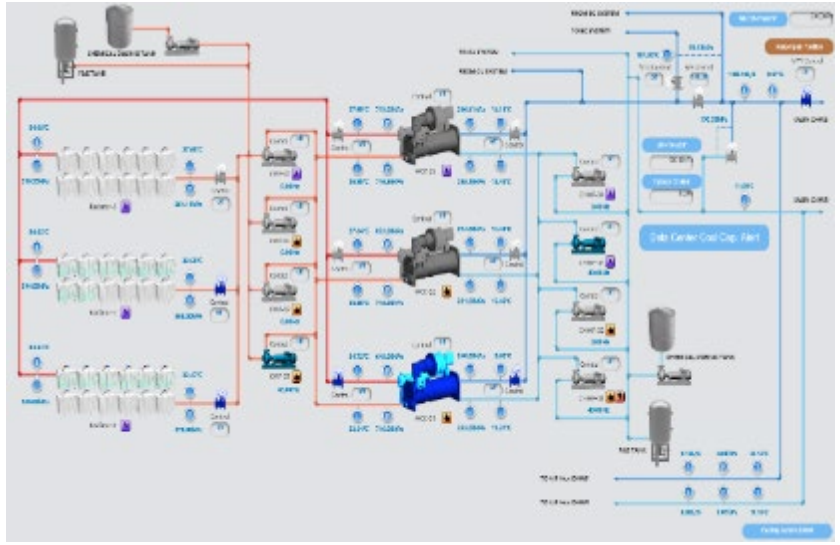
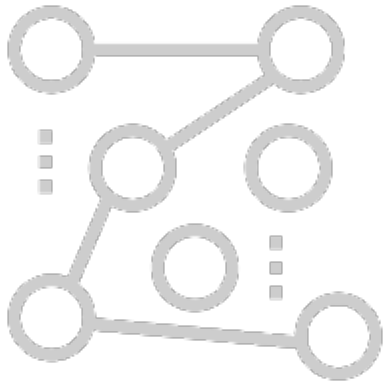
Goal: 6 ^{O}C ✓

The optimization challenge





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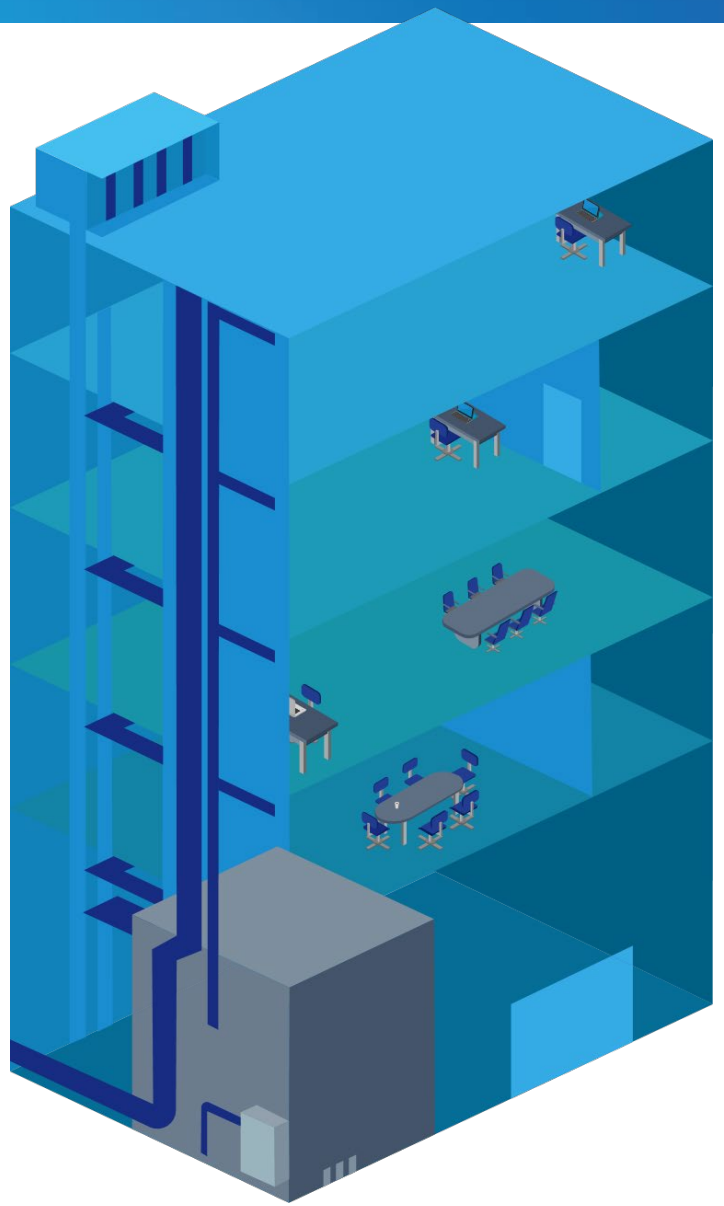

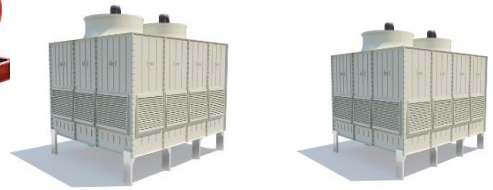

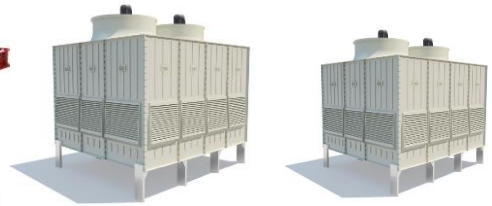

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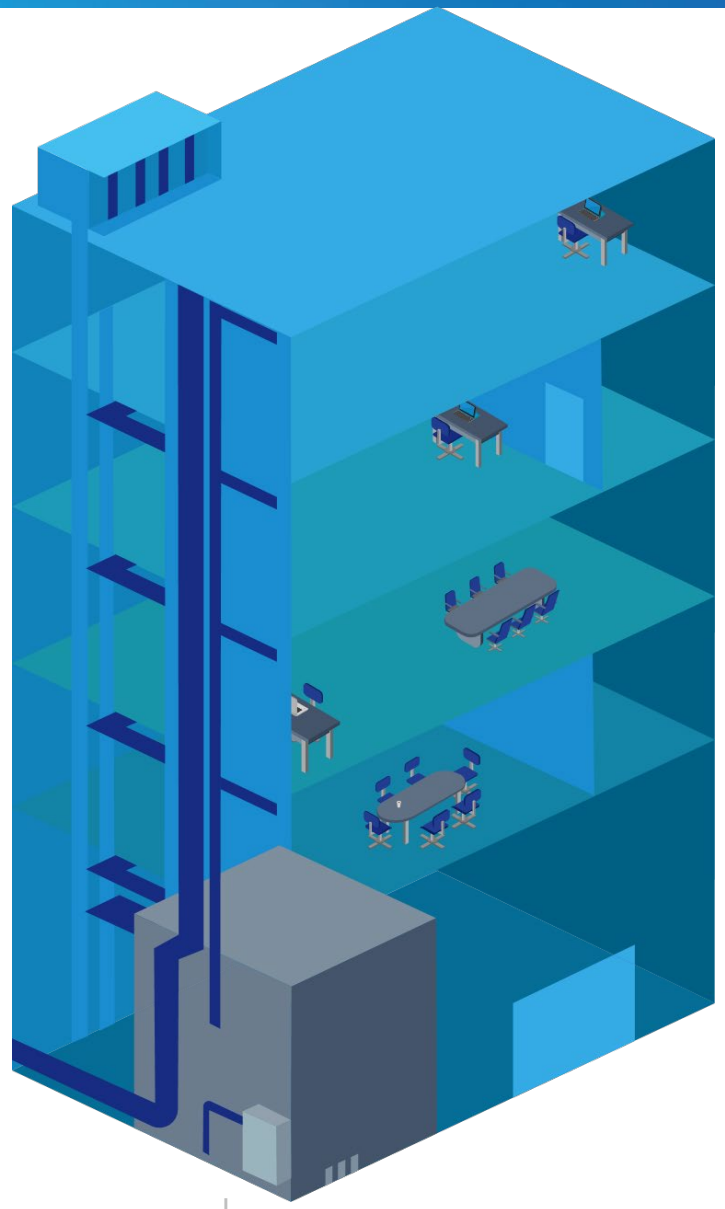
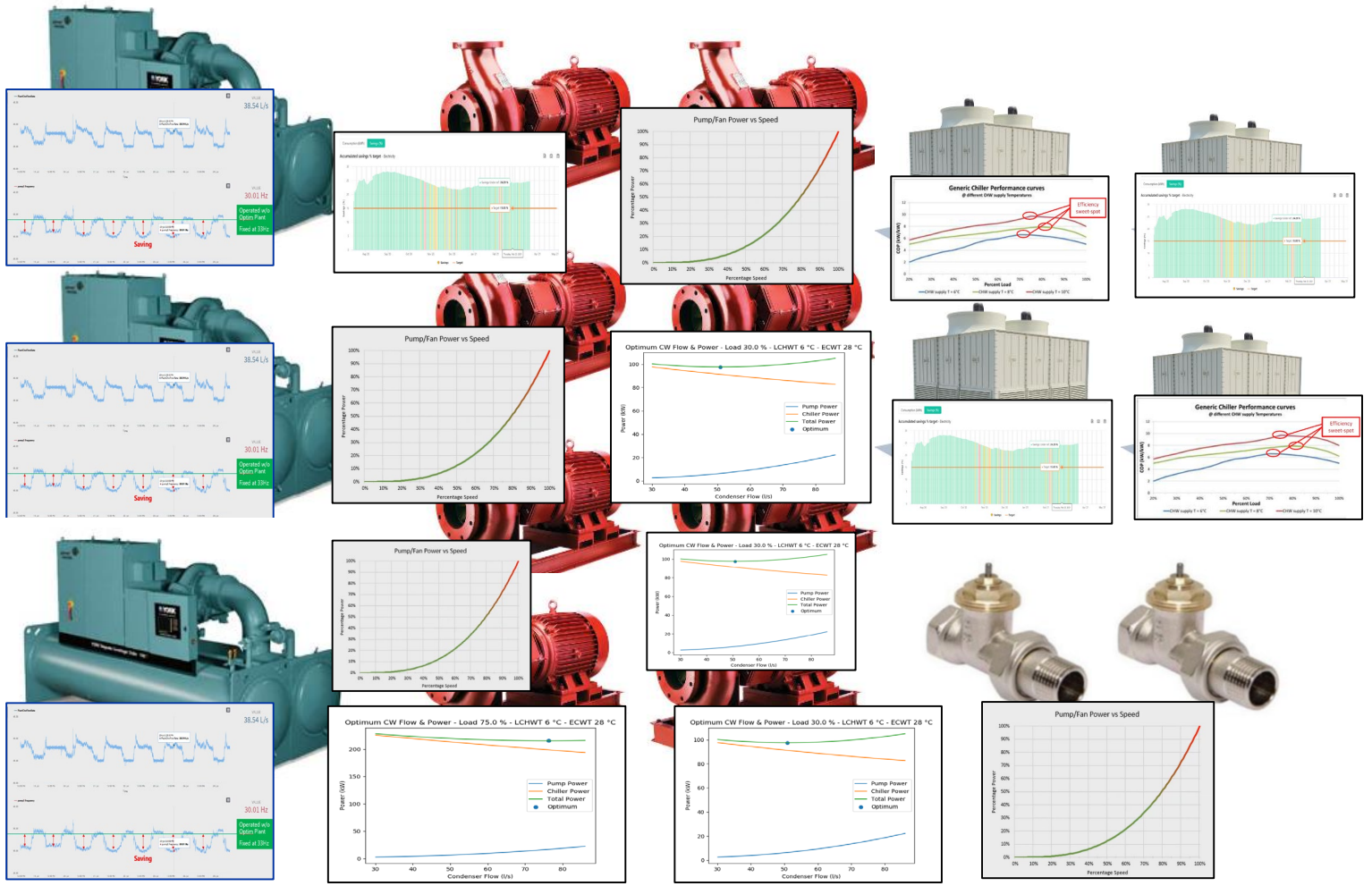
The compounding complexity





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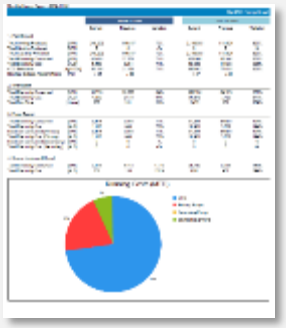
SEC: EC Building Suite – Chiller optimization module

CLP SEC PlantPRO software is an example of technology that can make a difference:

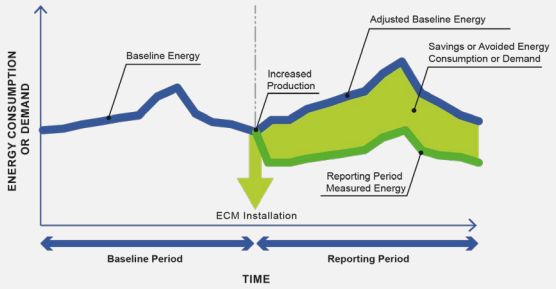
Hardware

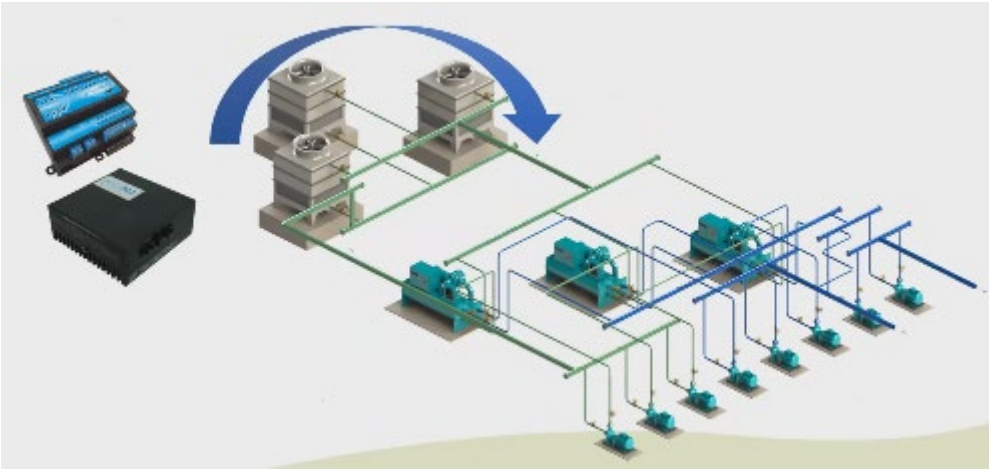
Local AI Engine

Monthly Reports



Continuous Measurement





SEC: EC Building Suite – example deployments

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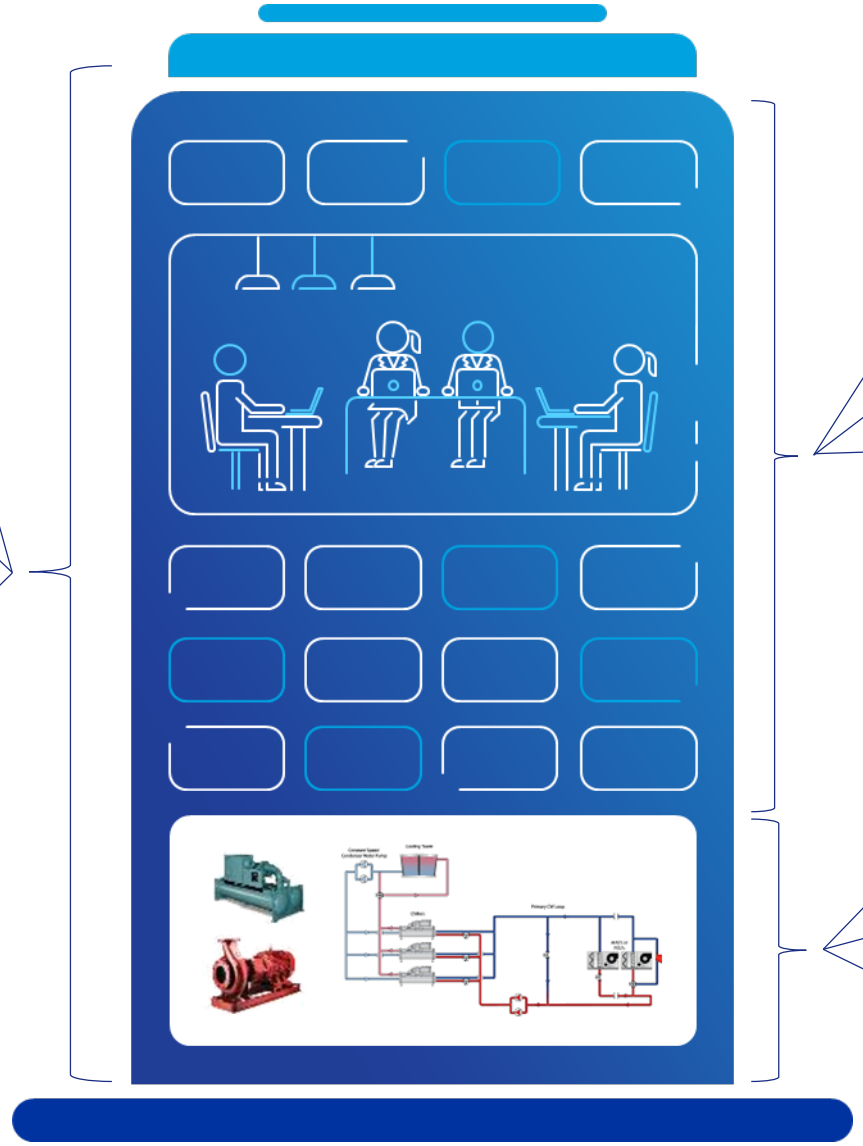

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Sustainable Innovations for Smart Buildings are very achievable

Contact Us:
Ir. Charles Chau

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