

Data Center Forum Helsinki - Why Efficiency

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ABOUT ME



Senior Project Manager, Bureau Veritas Group

MOLLOY

30+ years in Hi-Tech industry



Sectors

Data centers

Energy Efficiency & Green Energy

Nano Tech

Semi-conductors

Pharmaceuticals

Then & Now

Senior Project Manager

Senior Engineer

Construction Manager

Electrical Technician



WHY IS ENERGY EFFICIENCY THE MOST TALKED ABOUT SUBJECT WITHIN THE DATA CENTER INDUSTRY?

Here are some facts based on the outcome of more than 3 years of independent verification

1. Recently implemented EU Legalisation on Energy Efficiency now requires Data Center Operators within the European Union to comply with,

EU Energy Efficiency Directive EU/ 2

which introduces a series of measures to help accelerate energy efficiency, including embracing the "energy efficiency first" principle in the energy and nonenergy policies.

EU Energy
Efficiency
Directive
amending
Regulation (EU)
2023/2555 cast),

for Data Centers

EU Taxonomy Commission Delegated Regulation EU 2021/2139

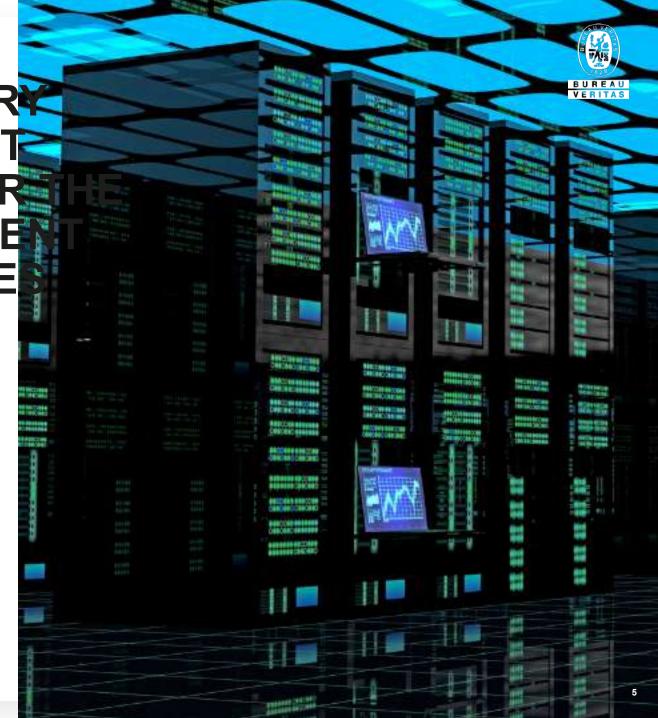


Activity 8.1, Data hosting and processing



2. DATA CENTERS ARE VERENERGY CONSUMING VAST AMOUNTS OF ENERGY FOR OPERATION OF IT EQUIPMENT AND SUPPORTING UTILITIES

- Electrical Power
- Cooling Energy
- In some cases Water consumption





3. DATA CENTERS ARE VERY ENERGY INTENSIVE PRODUCING VAST AMOUNTS OF ENERGY

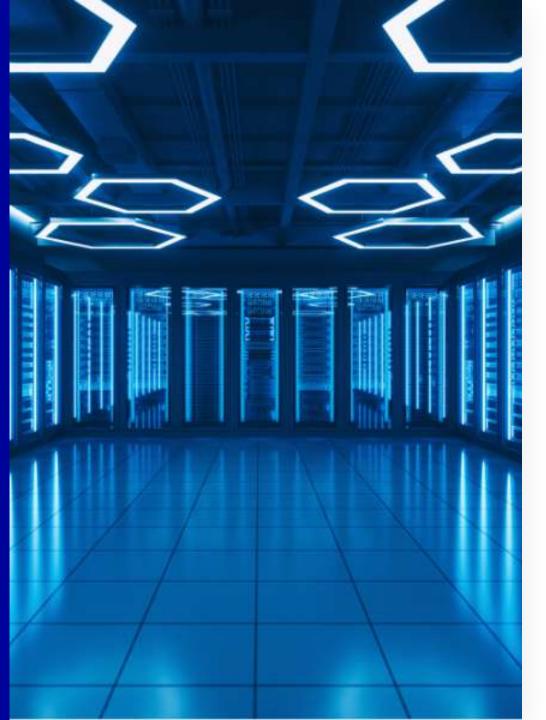


➤ Heat Energy is produced during the IT equipment Cool process can be harnesses and reused externally



Stored Energy in form of Battery back up systems can be utilized periods of time to feed back into National Power Grids systems to grid stabilization which is now an essential requirement due to the renewable energy mix (Wind and Solar)





5. DATA CENTERS BY DESIGN AND USE OF TECHNOLOGY AND BECOMING MORE EFFICIENT



- > Energy Efficient Equipment
- Efficient Environmental Controls systems
- Utilization of "Free Cooling"
- Utilization of Heat Energy
- Efficient lighting system
- Efficient building envelopes
- > Higher Power Density per square meter



6. DATA CENTERS ENERGY REUSE

District heating systems

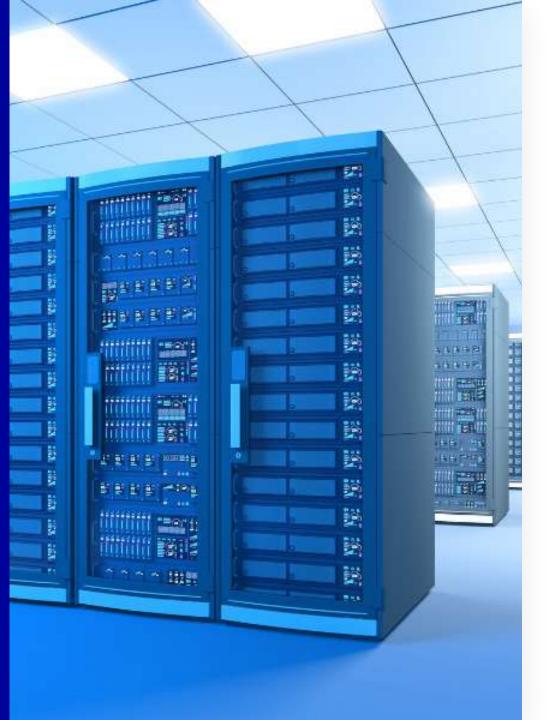


Green Houses



Leasure centers





7. DATA CENTERS OPERATORS PROACTIVE APPROACH TOWARDS SUSTAINABILITY AND



Climate Neutral Data Center Pact (CNDCP)

ENERGY EFFICIENCY

MEASURES



QUESTIONS?



THANK YOU!



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Shaping a World of Trust





