Case for Data-AI A/S

Data-AI A/S is a global organization with several data centers around the world. The customer segment spans from small companies sharing server services/capacities to large finance companies that utilize several data halls located on multiple sites.

The services provided by Data-AI A/S consist of housing, hosting, and co-location solutions, among others, to various clients globally.
Multiple clients in Scandinavia have requested that Data-AI A/S provide a local data center in Northern Europe, enabling a closer connection to their data. Furthermore, clients benefit from a shorter distance between the server and the end-user.

Data-AL A/S has already signed 4 contracts with 4 different clients, who each have their requirements for the data center in Northern Europe.
The data center is to be fully completed by the 1st of March 2022.

Pandemico A/S
The newly founded medical company is in the process of patenting multiple different vaccines. They have a production facility located near Lund in Sweden.

Pandemico A/S specifies the following requirements for the data hall:
- 500 kW IT load
- Temperature: 22°C / 35°C
- Humidity: 30 – 60 %
- Separate data hall/Not shared with others
- The outer wall is made of concrete
- Meet level 'Tier III (TCDD), UTI' as minimum
- Contains a housing solution
- Air quality: The level of CO_2 must follow the guidelines relevant to the country where the data center is built

San Marcos Bank & Investment
American company with headquarters in San Marcos in Texas, USA. San Marcos Bank & Investment wants to enter the Scandinavian market; thus, they have started a branch in the city center of Aarhus in Jutland, Denmark.

As San Marcos Bank & Investment has an important collaboration with Data-AI A/S, the company wants a data hall located in the new data center as well.
San Marcos Bank & Investment specifies the following requirements for the data hall:
- 1 MW IT load
- Temperature: 22°C / 35°C
- Humidity: 30 – 60 %
- Separate data hall/Not shared with others
- Meet level 'Tier III (TCDD), UTI' as minimum
- Cannot be located adjacent to:
    - Technical room
    - Data hall belonging to other clients
    - Meeting rooms etc.

- The outer wall is made of concrete
- Contains a housing solution
- Air quality: The level of CO_2 must follow the guidelines relevant to the country where the data center is built
- Proof that the supply voltage (for the IT load) meets the CBEMA curve

Zhape Aps
Small Danish IT company creating IT solutions for mobile units. For a while, the company has shown interest in starting a collaboration with Data-Al A/S. Zhape Aps is growing quickly, and they are communicating with Data-Al A/S about a flexible solution for a data hall. Thus they are willing to compromise.

Zhape Aps specifies the following requirements for the data hall:
- 250 kW IT load
- Temperature and humidity: Are to be decided by Data-Al A/S due to the hosting solution.
    - May be shared with other clients under the conditionthat a wire fence or similar must separate Zhape Aps' servers from servers belonging to other clients
- The outer wall is made of concrete
- Meet level 'Tier II (TCDD), UTI' as minimum
- Holds a hosting solution

Bjerke Forsikring A/S
Norwegian insurance company who is a client of Data-Al A/S. The company is in a small co-location center just outside of Oslo, Norway. Bjerke Forsikring A/S has decided to move all their IT equipment into Data-Al A/S's new data center.

Bjerke Forsikring A/S specifies the following requirements for the data hall:
- 500 kW IT load
- Temperature and humidity: Are to be decided by Data-Al A/S due to the hosting solution.
    - May be shared with other clients under the condition that a wire fence or similar must separate Bjerke Forsikring's servers from servers belonging to other clients
- The outer wall is made of concrete
- Meet level 'Tier II (TCDD), UTI' as minimum
- Holds a hosting solution
- Proof that the supply voltage (for the IT load) meets the CBEMA curve

Data-Al A/S expects that within 2 years of completing the building of their new data center, more and bigger clients will be interested in buying Data-Al's services in the data center. Moreover, they expect that some of the smaller clients are going to be willing to compromise the safety of their data by sharing their data hall with other clients.

Data-Al A/S offers monthly reports to all their clients as part of the services their clients buy.
Standard reports contain:
- PUE
- Temperature and humidity
- Capacity management
- Account statement for the electricity

Exercise:

1. Report for Data-AI that gives them all the information regarding building and maintaining a new data center.
    a. scalable data center for Data-AI which can meet the 4 new customers' demands and are ready for new customers in the future.

2. Incorporate your KPI's to Data-AI's needs