

Case Study

# VATTENFALL AB

Solna Stockholm, Sweden

Branch

Energy & Utilities

Project

Provision of desktop integration for operators, PC remotisation and a fully integrated system to distribute all channels and sources to any workplace in the new Operation Control Center in Vattenfall headquarters in Solna near Stockholm





## Client

Vattenfall was founded in 1909 as a state-owned enterprise in Sweden. Today Vattenfall is still a Swedish power company headquartered in Solna, Stockholm, but has grown to become the fifth largest power producer in Europe, with generation plants in Sweden, Denmark, Finland, Germany, the Netherlands and the United Kingdom. Vattenfall produces electricity from fossil fuels, nuclear power, waste and renewable energy sources such as hydropower, wind power and biomass.

Vattenfall's vision is to create a sustainable and diversified European energy portfolio with long-term increased profits and significant growth options. At the same time, Vattenfall will be among the leaders in developing environmentally sustainable energy production.

## Challenge

When Vattenfall decided to move their Operation Control Center into a new office building in Solna, they thoroughly reviewed their requirements with an aim to implement improvements both in terms of enhanced working conditions and performance.

Originally, Vattenfall had a large number of computers and clients installed directly in the old control room, and each operator had to manage a multitude of keyboards and dedicated screens. The clients were and still are connected to a production planning system from Siemens, the corporate network, security cameras, and a host of other applications.

## Goals

During the planning phase of the project, one of the main topics was the creation of a more efficient working environment. The goal was to design “cockpit-like” conditions for the operators, enhancing the ergonomics of the desks and the user interfaces. One conclusion was to decrease the number of keyboards for each workplace, thereby allowing for smaller desks.

Vattenfall's aim was to reduce the number of energy consuming movements of the dispatchers and thereby increase their stamina and awareness during their shift.

### Facts & Figures

- Desktop Integration
  - 9 Operator Desks, 1 Console
  - 10 WEY RAY Keyboards
  - and 60 screens
- WEYTEC distributionPLATFORM
  - >70 sources
- Remote Solution
  - IP Remote
  - 73 TX transmission lines
  - 37 RX transmission lines
- Training Area
  - 6 EKlight Keyboards
  - 12 Video Deskswitches



## Choosing WEYTEC

Vattenfall implemented a new control room and an energy trading floor at Vattenfall Trading Services in Hamburg, Germany about a year ahead of the Swedish move. A WEYTEC Solution was deployed there, and the Hamburg control room became a role model for the new facility in Solna. Therefore, it was a natural choice to select WEYTEC as one of the contending suppliers.

## Solution

The Solna Operation Control Center is responsible for a multitude of operational processes: optimizing and planning the Vattenfall-owned Nordic power plants, selling power on the Nordic physical power market and dispatching hydro-, nuclear, thermal and wind power. The control room solution to manage this complexity includes 9 operator desks, each implemented with a single WEY RAY Multifunctional Keyboard. All other devices (except small receivers at the desks, monitors, keyboards and mouse devices) have been installed in a separate centrally cooled server room which houses the new virtual clients and WEYTEC hardware.

IP Remote transmission was selected to communicate keyboard, video, mouse and audio signals (KVMA) from more than 70 remoted sources and workstations to the desktops. The WEYTEC Solution is also connected to 7 large info screens in the control room, as well as 1 screen each in the kitchen and visitor lounge. Additionally, 6 EKlight keyboards and 12 WEYTEC Video Deskswitches were deployed to the education area.

## Project

Making the overall project even more challenging, Vattenfall decided to migrate all physical clients to virtual clients using VMware. For Vattenfall, this was a bigger challenge than adapting to the new desktop environment. According to the Vattenfall team, all in all the full scope of the migration went smoothly and WEYTEC successfully met all budget and time schedule commitments.

The dispatchers are adjusting to the new flexible way of working with switched virtual clients and a single keyboard. The full potential of the new setup will be realised gradually over the coming months and years.



Vattenfalls system room



## Benefits

According to **Mr. Johan Hagsten, Head of Dispatch for Asset Optimisation and Trading Vattenfall AB**, “It was a very successful project in many aspects. The new control room has been installed with new technical furniture, new IT hardware and new user interfaces. This enables the business to develop in new directions. The WEYTEC Solution increases flexibility for the users with the aim of facilitating a more individualised setup at the desk, and the possibility to handle more information in an efficient manner. We believe that this solution will ultimately enhance work satisfaction as well as the profitability of the Vattenfall enterprise.”