



## Case study

# 120 million liters of clean water a day from surface water

Andijk, the Netherlands, is home to the world's first integrated membrane and UV peroxide advanced oxidation plant. The drinking water facility produces 120 million liters a day. The state-of-the-art UV installation is powered by Nedap's sustainable UV lamp driver technology.

### Water treatment plan, Andijk

The water treatment plant uses surface water to create drinking water. This means that micro-pollutants need to be removed. The UV advanced oxidation process treats the water, destroying pesticides, hormones, and pharmaceuticals. At the same time, it also functions as an extra disinfection barrier for viruses and bacteria.

### Solution

The facility in Andijk is equipped with 12 multi-lamp reactors, each containing 16 medium-pressure UV lamps. The reactors are powered by a total of 192 medium-pressure 12 kW drivers from Nedap.

### Results

- Reliable (almost 20 years in operation)
- Lower operating costs

# Energy savings



▲ During operation the lamps are dimmed to save energy and extend the lamp lifespan.

The high electrical efficiency of Nedap drivers (>95%), combined with the low THD (Total Harmonic Distortion) and high Power Factor, results in reduced load and losses in the power grid. Nedap's UL/cUL approved lamp drivers also support stepless dimming. This has three major advantages:

1. Energy saving
2. Longer/extended lamp lifespan
3. Preventing UV-overdoses

## Communication via Modbus

Nedap's lamp drivers support Modbus to provide real-time operational data of the system, via a PLC network. This gives operators insights into the performance of the drivers and connected lamps.



▲ Scan the code to watch the video about the UV Advanced Oxidation plan in Andijk, The Netherlands

## Full control with Nedap software

Dedicated Nedap software can be used by engineers to test the electronic platform and to fine-tune the UV lamp settings in relation to the required UV levels, preventing overdoses. The embedded software has a diagnose functionality to report about lamp status, lamp failure, lamp driver temperature and other system operations.

We  
power  
UV



**Nr. 1 technology** • Most efficient driver technology, requires less installation space. >900.000 electronic UV lamp drivers installed and in use worldwide.



**Reliable** • Nedap UV drivers are designed to last. The average lifetime production is more than 10 years.



**Flexibility** • Digital lamp selection and optimization and UV lamp dimming down to 30% and beyond.



**Insights** • Relevant data for cleaner operation. Embedded software for system data reporting.



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