

# SOOTAWAY for cleaner and more efficient power plants

SOOTAWAY Enterprise, a Joint Venture between a Norwegian and Dutch chemical company, is introducing a new combustion catalyst into South Africa that has proven to make coal, biomass and waste combustion more efficient.

**P**ower plant boilers can be set to generate more energy or reduce the emission of harmful pollutants while using the same quantity of solid fuel, a capability that can play a substantial role in advancing climate objectives for solid fuel combustion processes.

The technology originates in Norway, where the invention had been on the shelf for several years. The global energy and climate crisis has accelerated research and demand, however, with the result that a combustion catalyst called SOOTAWAY has been developed that is delivering spectacular test results.

Casper Wolf, Director of SOOTAWAY, remarks: "Every boiler is different. You are dealing with different fuels and settings, different types of boilers; some relatively new, some very old. While one power plant wants to maximise energy output, others want to focus on emission control only.

"Our biggest hurdle when introducing SOOTAWAY was the 'too good, to be true' effect. People found it hard to believe that our technology could deliver such remarkable results. Fortunately, reputable companies have been able to replicate our test results, and we are now engaging in more substantial discussions, such as fine-tuning and optimisation," he says.

"SOOTAWAY plans to run projects on each continent. In Asia and Europe, these projects are already underway, and in Africa, we are still in the process of identifying and engaging with coal-fired power plants. Currently, SOOTAWAY is manufactured in Germany, India and Singapore, but the aim is to establish local production facilities."

## Benefits for power plants

SOOTAWAY enables a more complete fuel combustion process in solid fuel plants by drawing in more of the available oxygen in the boiler, thus increasing the heat release and allowing ignition at lower temperatures. As a result of the improved combustion, fuel efficiency increases and levels of greenhouse gases (GHG) and particulate matters (PM) are reduced.

SOOTAWAY reduces the level of unburned carbon, leading to less sedimentation and requiring fewer shutdowns for



*SOOTAWAY enables more complete fuel combustion in solid fuels by drawing in more of the available oxygen.*



*SOOTAWAY is a non-hazardous liquid combustion catalyst that is applied using a simple and inexpensive spray system.*

its removal. This results in increased heat transfer. Furthermore, it reduces the creation of highly corrosive sulphur dioxide ( $\text{SO}_2$ ) and hydrocyanic acid (HCN) in the boiler/tubing, further contributing to lower maintenance and operational cost.

## Benefits for the environment: reduction of emissions

The environmental impact that can be achieved is considerable. SOOTAWAY's enhanced fuel combustion leads to reduced emissions of, amongst others, carbon monoxide (CO), hydrocyanic acid (HCN), nitrogen oxide ( $\text{NO}_x$ ) and sulphur dioxide ( $\text{SO}_2$ ).

Lower emissions mean the next step toward a greener world and, moreover, fewer people suffering from pollution.

## Application

The catalyst, which is a non-hazardous liquid chemical, is applied by a simple and

inexpensive system. Interested parties can either test SOOTAWAY in their laboratory set ups or directly experience the benefits in a one-to-three month industrial trial. SOOTAWAY's engineers and local teams will be around to advise and support the customer during these trials.

The cost of applying SOOTAWAY is limited. Unlike some available alternatives, SOOTAWAY does not require huge upfront investments. This means there is a financial benefit for power plants from Day 1.

Casper Wolf concludes: "Our goal is to reduce emissions from 25 power plants on three continents by as early as 2025. As energy demand continues to rise, ensuring availability remains a significant challenge. One cannot ignore people's basic needs, moreover their health matters.

"SOOTAWAY can contribute to overcoming some of these challenges," Wolf assures.

<https://sootaway.com>