

## SPECIAL ICE

*Industry leader chooses clean energy for clean beverages*



*Special Ice Company Ltd. is a natural mineral water production company registered in Ghana. It started its operations in 2011 with a primary goal to provide real natural mineral water to all Ghanaians at affordable prices, wherever they are. Special Ice then introduced carbonated soft drinks in October 2014 and has expanded since with increasing demand.*

*Conscious of the critical need for quality water as a requirement for good health, Special Ice does not compromise on the quality of beverages produced. All its water is being sourced from the water table, 60 meters deep beneath the Aburi Mountains and is provided without any additives, resulting in purified, real natural spring taste. Special Ice has strict quality control measures that ensure every Ghanaian can enjoy quality natural mineral water and soft drinks.*

### CHALLENGE

#### Reducing costs to compete on the market

The Special Ice soft drink factory in the Oyarifa district of Accra has a peak load of 1240 kVA. Chemical mixing units, bottling machines, conveyor belts, and lighting make up the major load components. To produce and bottle its soft drinks, Special Ice utilizes chemical processes which require constant power to yield its quality products. To supply this load, Special Ice uses a main electricity grid connection and additionally keeps a back-up of 4 diesel generators of 500 kVA each.

Even without the additional diesel fuel costs, the electricity costs created a cost challenge for Special Ice. Since utilities constituted a large portion of Special Ice's production costs, the instability of the grid price inherent to the region added to Special Ice's budgeting pressure. To be able to compete on the market, Special Ice sought to reduce the operational costs of its electricity supply.

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### SOLUTION

#### The missing ingredient: solar power

Special Ice wanted to replace a significant portion of its grid power consumption with solar, but it lacked room in the budget for a large up-front payment. REDAVIA's economic lease-to-own solution made it possible to implement this energy solution, while keeping Special Ice's up-front capital outlay to a minimum.

In February of 2019, REDAVIA's on-site engineers completed the deployment of a 434 kWp solar farm at the Special Ice factory. REDAVIA's modular products ensure a simple and standard installation, commissioning and decommissioning process, preserving the performance of the solar farm at all times and keeping costs low.



More than  
**599 MWh**  
per year

### BENEFIT

#### Refreshing savings for the future

From deployment through August 2019, the REDAVIA solar farm at Special Ice has generated 299 MWh and a CO<sub>2</sub> reduction of 128 tonnes. Additionally Special Ice saw significant monthly savings through this introduction of REDAVIA's clean, reliable energy. Over the 15-year lease term of the plant, it is projected to generate 8984 MWh while reducing CO<sub>2</sub> emissions by an estimated 3863 tonnes. REDAVIA's full-service offering also provides 24/7 monitoring and regular maintenance, allowing Special Ice to use its utility savings for growth of its core business, without having to worry about operating the solar farm.

After such a successful first step into renewable energy, Special Ice is already considering expanding the size of its REDAVIA solar farm in order to cut utility costs even further. "We want to replace power from the national grid with self-produced solar power as much as possible, because we make a lot of savings from using solar power," explains Kwadwo Danso-Dodoo, Managing Director of Special Ice. "I am already trying to recommend REDAVIA to other companies that I know. They really have shown that they're professional, and I find them very good at what they do."

With solar savings coming steadily, the partnership between REDAVIA and Special Ice will continue to flourish for many years to come.



minimal  
upfront  
investment

