# Energy Reduction at Coca Cola Bottling

Energy savings

## How ICIS enabled Coca Cola to reduce Energy Usage

### The Facility

Southeastern Container (SEC) is a privately owned Company under the ownership of a group of Coca-Cola Bottling companies. SEC produces plastic "PET" bottles to meet the packaging needs of it customers in the Coca-Cola bottling community. With 10 facilities producing millions of bottles a day for over 50 Coca Cola bottling plants in the U.S. and Canada, SEC are one of the largest blow moulding plastic bottle manufacturers in the world.

### The Challenge

SEC required a sustainability solution that would enable them to identify, monitor and target the energy consumers across their multiple facilities and engage in energy reduction projects to reduce their overall consumption and carbon emissions.

As SEC has a large number of facilities and processes with vast amounts of data being collected to review it was deemed unfeasible to invest in a new metering system or upgrade their existing traditional one already in place. As such they turned to ICIS for support with our patented virtual metering sustainability software platform that could leverage all of their existing infrastructure and provide the additional information that they required.

SEC had a corporate requirement to achieve the following:

- Identify significant Energy Users and Energy Flow at each facility

- Target low cost, short term energy projects to maximise savings

- Continuously monitor, review and track energy usage

- Leverage existing infrastructure and data where possible

## The Solution

In order to achieve their goals, SEC engaged with ICIS in order to utilise our sustainability solution to provide the necessary information and analytical tools that would enable them to quickly and efficiently implement their energy management program. The ICIS platform was used to integrate into their new tiered Wonderware historian architecture that was logging process data and metering information from each of the production facilities back to the corporate headquarters.

 With the unique ICIS technology, SEC could:

- Build complete energy maps for their energy usage from each facility at the building level right down to the moulding equipment

- Backfill energy data, removing the need to wait for a number of months for a new meter to collect it

- Grow the system modularly, adding new facilities and process areas allowing for the targeted analysis and review of specific energy users and moulding processes

- Leverage existing infrastructure and data sources such as their Rockwell Metering, Wonderware SCADA and Historians plus PLC information

- Link Key Performance Indicators (KPI) to production units in order to track energy usage and cost per batch of product produced

By utilising our approach in leveraging new and existing meters with the ICIS virtual metering for equipment and energy flow, the ICIS solution was deployed over a number of weeks to the organisation. SEC now have complete transparency of energy used in each of their facilities with the aid of dashboards, energy maps and analysis tools.

## The Projects

Using the information provided by the ICIS platform, SEC could confidently engage in a number of energy reduction projects ranging from large scale capital expenditure ones to free system and work practice changes.

A small example of some of the projects implemented are:

- Max Demand Scheduling:        Saving over 30% on Billing/Year

- Benchmark Facilities:        Saving the 30% at each facility

## The Results

The results achieved by SEC show clearly the benefits of using the ICIS platform as opposed to a traditional metering solution.

- A reduction of over 60% in capital expenditure by using ICIS and the SEC Automation infrastructure in comparison to alternative systems
- Zero plant downtime for the installation and configuration of the ICIS platform
- Identification of energy users and projects within weeks of the ICIS deployment
- A reduction of over 30% on their yearly energy spend post reduction projects
- ICIS identified inefficient processes, operational activities and equipment that was using excessive energy and causing the facilities to enter max demand charges

The ICIS platform now provides SEC with a targeted  analysis toolset that is easily expanded upon. Weekly energy usage reports and baseline information is generated that enables management to keep an active view on the facility which they now incorporate into their standard facility business meetings.

## The Future

SEC continue to utilise and expand the ICIS platform and are now on target to achieve their energy reduction targets through the implementation of projects such as load shedding and live max demand alerting that will reduce energy usage from the grid. The ICIS platform has provided a greater understanding of energy usage and the costs associated with it for the each of the facilities. SEC continues to strive in its continuous improvement programs through the use of various standards and will now be targeting itself with achieving **ISO 50001** certification for energy management, with the ICIS platform acting as its driving force behind the monitoring and analysis required to achieve this goal.

## About Us

ICIS have been providing sustainability software solutions since 2007 and are the market leaders in virtual metering technology. For further details visit www.icissofware.com

# icis Sustainability Solutions

## Disclaimer

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