

# Ecava IGX Takes Control of Sungai Udang Sewage Treatment Plant

## How It Started

Sewage treatment, or wastewater treatment, is the process of removing contaminants from wastewater. The term 'sewage' here is referring to treatment for wastewater which primarily came from household sewage. It is indeed one of the approaches to cease the water pollution environment issues. The "produce" of wastewater is considered directly proportional to the modernization process. Thus, the rapider the global development and faster growth of population, the more wastewater to be disposed.

Malaysia government had established Sewerage Service Department (SSD) in 1994 to regulate the services for all the sewerage systems throughout the country. The organization is responsible to provide suitable sewerage systems to meet the sewerage effluent quality standards. By the establishment of SSD, Malaysia government aims to ensure public health protection as well as preserve of national water resources.

Sungai Udang Sewage Treatment Plant (Sungai Udang STP) is one of the major projects implemented in The Ninth Malaysia Plan (RMKe-9) announced by the Malaysia government, which carries the slogan 'Raising the Standard and Quality of Life'. More than RM3 bil (around 0.75 bil USD) was spent to implement all the projects in RMKe-9 during the period of 2006 through 2010.

SCADA has been widely used in sewage treatment industry, serving to monitor and control the treatment processes in the remote and automated way. SSD, who is in charged with all the sewerage systems in Malaysia, has approached Ecava to

provide the SCADA solution (Ecava IGX) for Sungai Udang Sewage Treatment Plant in year 2008.

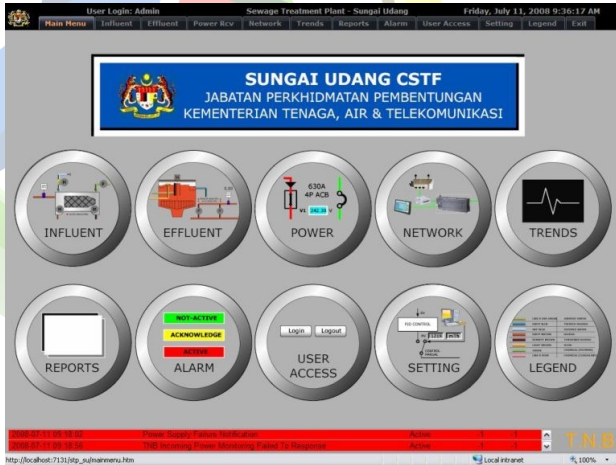


*Sungai Udang Sewage Treatment Plant, Melaka, Malaysia*

## Browse the Whole Treatment Plant Using Ecava IGX

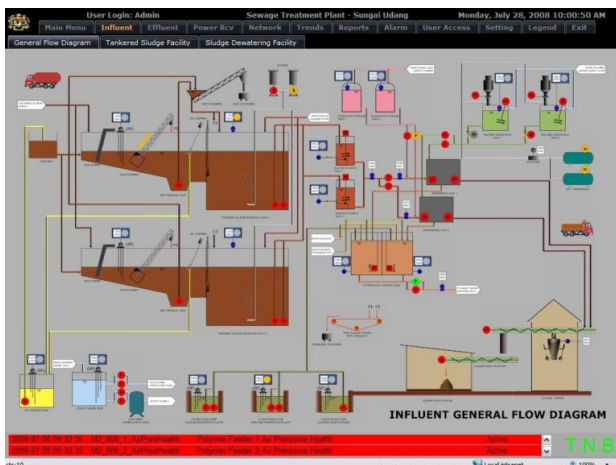
Basically, the main target in this project is to provide the solution for personnels to browse the entire Sungai Udang STP in the control room. To grant this request, Ecava has designed a SCADA system which meets all the requirements by SSD.

## SUCCESS STORIES

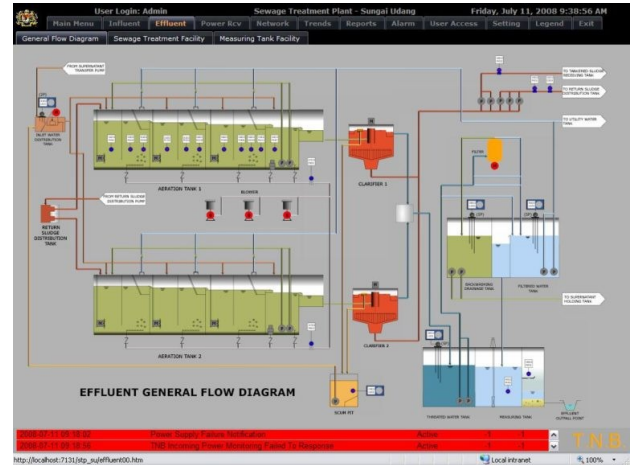


*Ecava IGX is the solution to get the whole sewage treatment operation into PC monitor screens*

As an imitation of the Sungai Udang STP operation, there are flow diagram mimics designed for influent, which consists monitoring details of tankered sludge and sludge dewatering facilities. Similarly, mimics for effluent will consist of sewage treatment facility and measuring tank facility. These process details are presented in mimic animations for better understandings and the ease of operators.

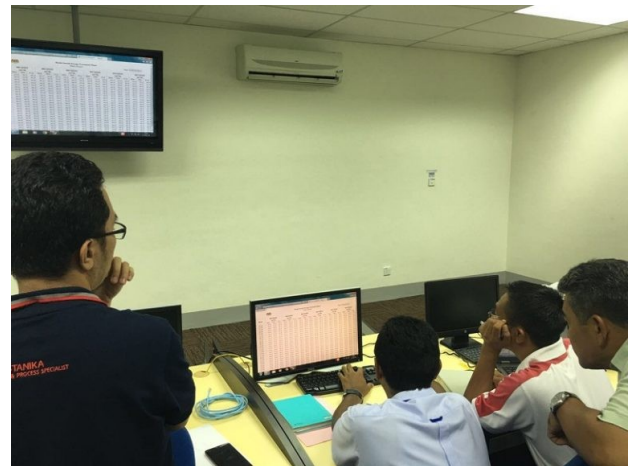


*Influent flow diagram*



*Effluent flow diagram*

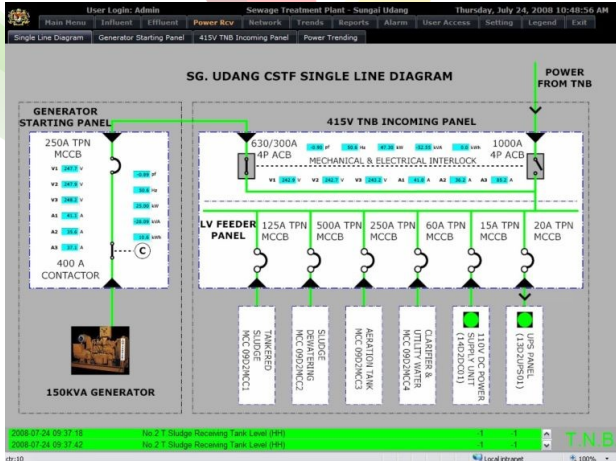
Other than animation diagrams, some essential data such as tank water level, are plotted as graphical trends. These plotted data will be automatically logged into database records for future assessment or presented as reports.



*Operators and Engineers checking Sungai Udang STP reports in control room*

Power supply to a sewage treatment plant is so important that it should trigger a critical alarm if the supply is interrupted. Therefore, Sungai Udang STP system by Ecava IGX is designed to include a power status indicator in every screens. There is also a dedicated page to indicate power availability details. There are two (2) sources can supply to

Sungai Udang STP, which is from either Tenaga Nasional Berhad (TNB) Malaysia, or the power from generator purposely installed for the plant. Whenever the power supply is interrupted, alarm will be triggered for attention.



Power receiving station mimic to ensure the availability of power supply to Sungai Udang STP

## The Hardware / Software:

Server Machine: Dell Precession T3400 Workstation  
OS: Windows XP Professional

Database Server Machine: Sun Ultra 25 Workstation  
OS: Sun Solaris 10

PLC (Programmable Logic Controllers): Siemens S7-200  
Protocol: Modbus TCP/IP

SCADA: Ecava IGX  
IO tags: 3000 tags  
Database: PostgreSQL Database

[Download Ecava IGX](#)

Permalink:

[www.integraxor.com/success-stories/sungai-udang-sewage-treatment-plant/](http://www.integraxor.com/success-stories/sungai-udang-sewage-treatment-plant/)