



**WY ENGINEERING & CONSULTING**

(002261606-D)

[www.wyeconsult.com](http://www.wyeconsult.com)



***Company Profile***

## **INTRODUCTION**

WY Engineering & Consulting (WYEC) is a registered company in Malaysia, commencing in December 2013.

WYEC provides consultancy and engineering design services in the power generation, cogeneration, district cooling, petrochemical and oil & gas sectors.

## **CAPABILITIES**

WYEC is able to offer the following services:

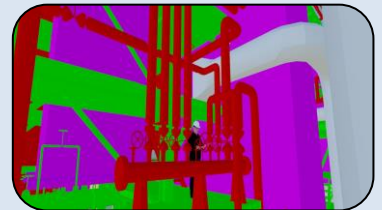
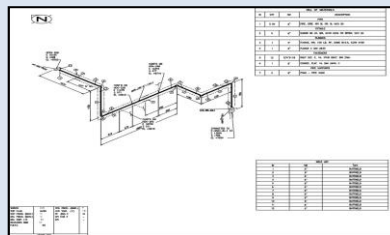
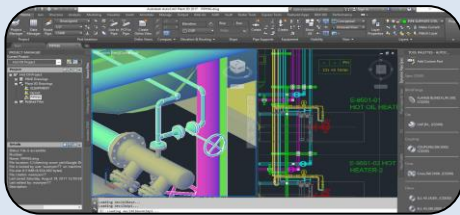
- Front End Engineering Design (FEED) and detail design activities
- Feasibility study including utility consumption analysis and life cycle cost analysis for district cooling and cogeneration system.
- Piping design activities including pipe routing, isometrics preparation
- Piping engineering including piping stress analysis (static and dynamic analysis), steady state hydraulic analysis
- 3D plant design activities.
- Pressure vessel design

# ENGINEERING TOOLS

WYEC's engineering tools include the following:

## Autodesk's Autocad Plant 3D®

- A plant design tools, which includes both 2D and 3D modules. Intelligent P&ID and 3D piping design modules are highly integrated, and automated deliverables of layout drawings and piping isometrics increases our efficiency and productivity. Modules include 3D piping design, 3D equipment design, 3D model review and walkthrough and 2D P&ID modules.

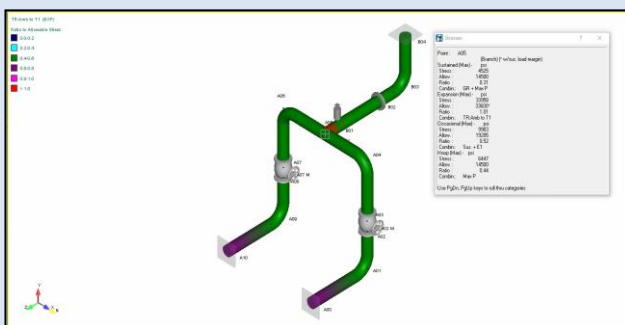


## Bentley's AutoPIPE Advanced®

- An advanced pipe stress analysis software, capable of evaluating pipe stresses for both static and dynamics requirement.

## Bentley's PlantFLOW Plus®

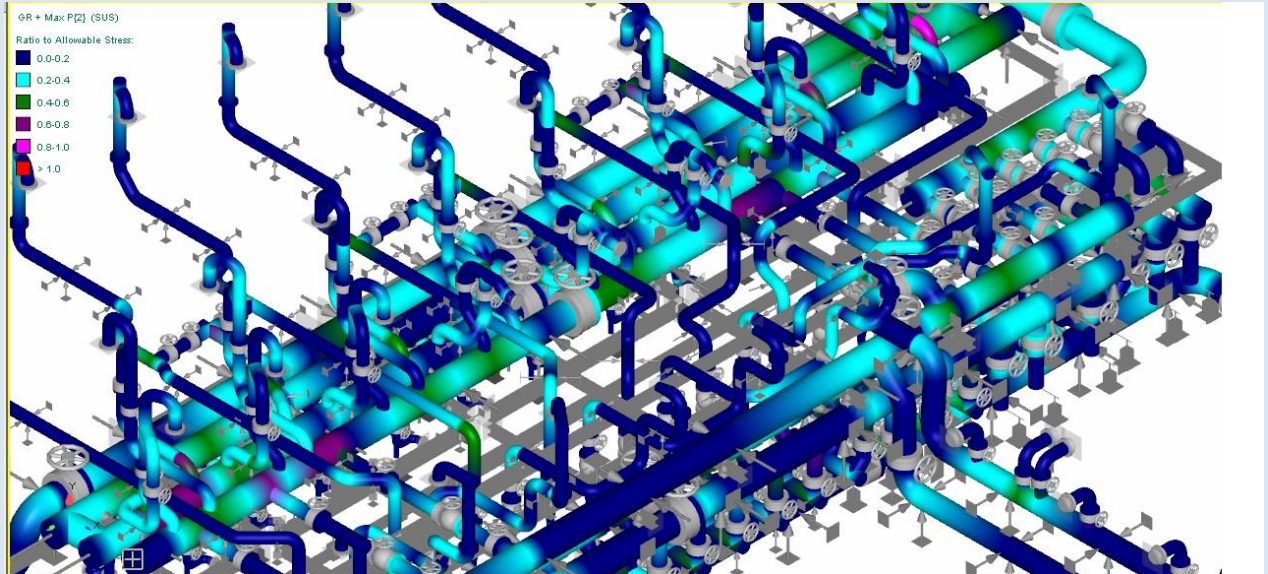
- An advanced steady-state flow analysis software, capable of evaluating flow velocities, hydraulic losses, temperature gain/losses in a piping system, for both compressible and non-compressible fluids.



# MAJOR PROJECTS

## 1. PROJECT:

Relocation & upgrading of KLCC district cooling center.



## SCOPE:

Pipe stress analysis for chilled water piping and condenser water piping.

YEAR: 2014



## 2. PROJECT:

Boiler Plant for R1 Project, Tanjung Langsat.



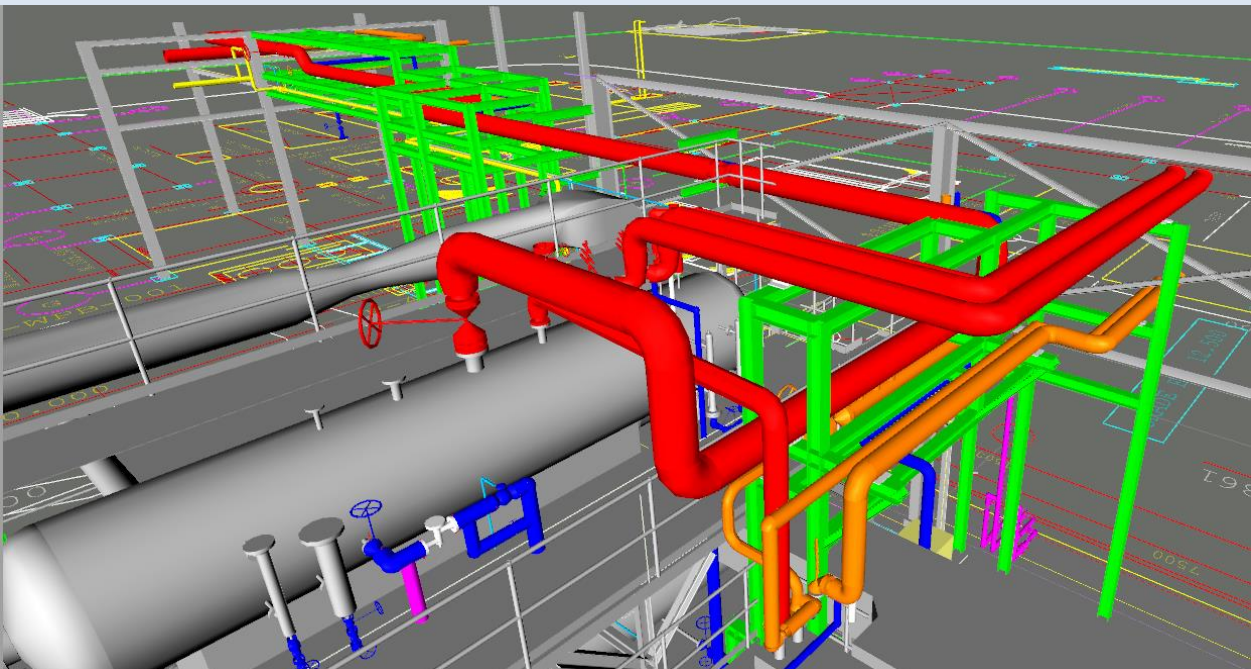
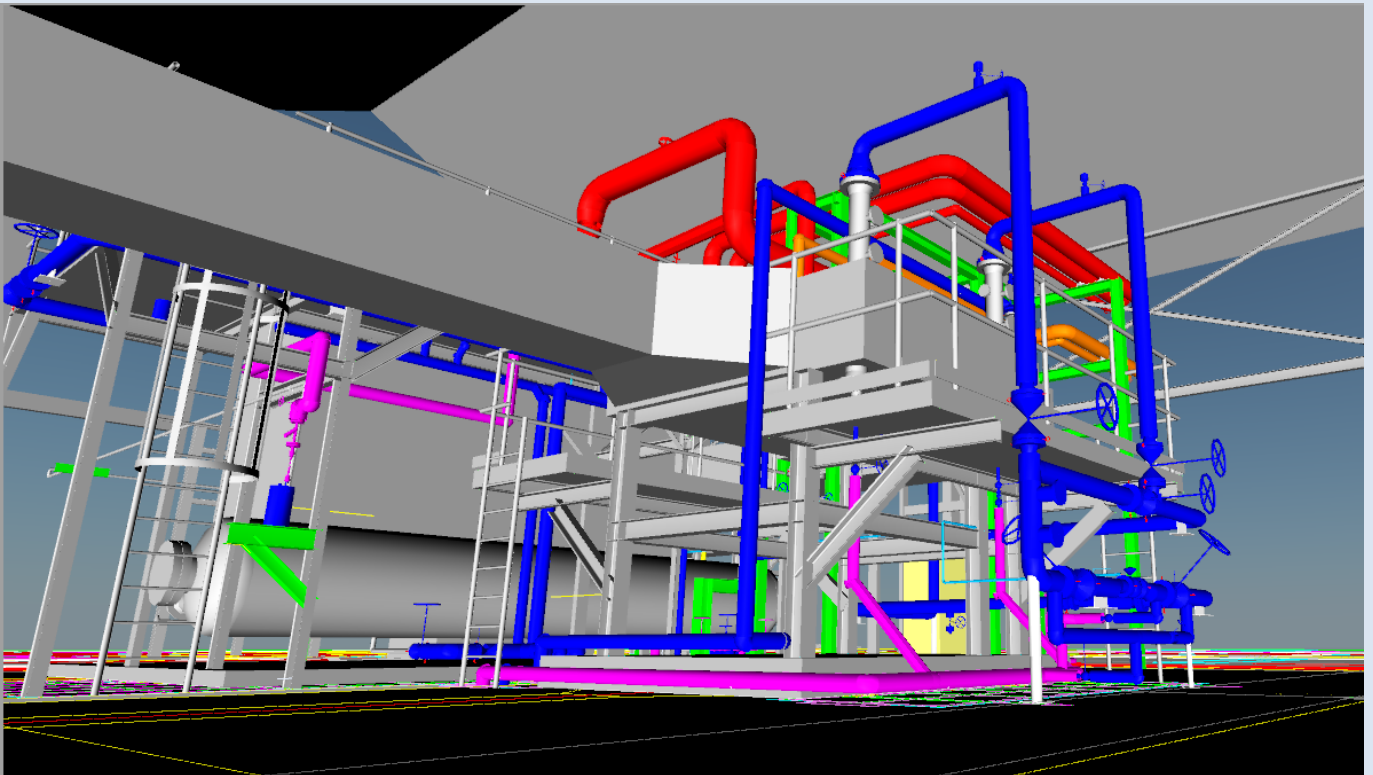
### SCOPE:

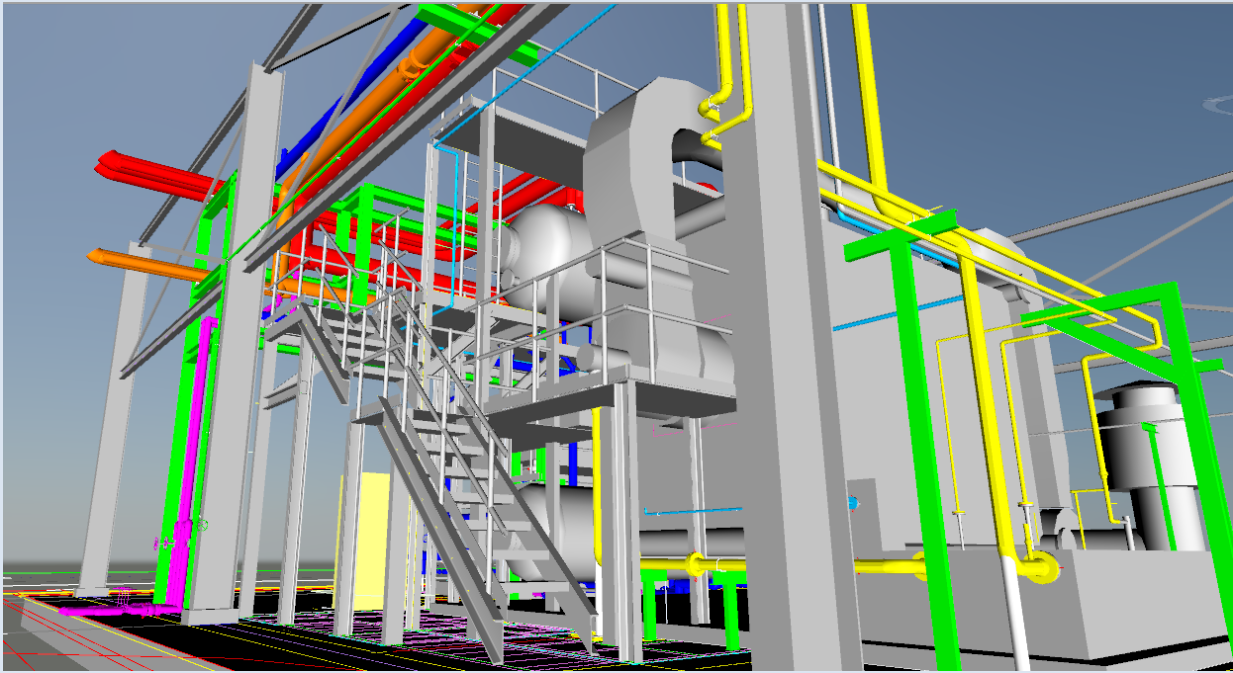
3D plant design and piping engineering for boiler plant piping (Alliance with REEEP GROUP SDN. BHD.)

YEAR: 2014

### 3. PROJECT:

Kemaman Bitumen Plant Boiler Project





**SCOPE:**

3D plant design and piping engineering for boiler plant piping

**YEAR:** 2015



#### 4. PROJECT:

Hot Oil Terminal at Pengerang Deepwater Terminal 2



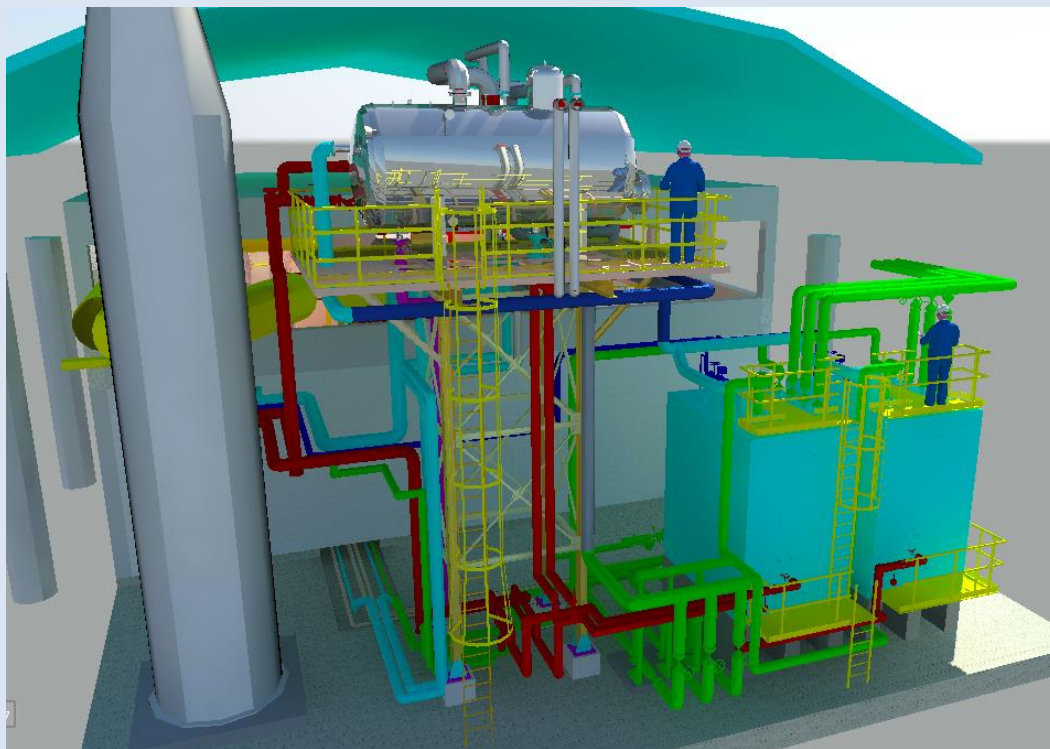
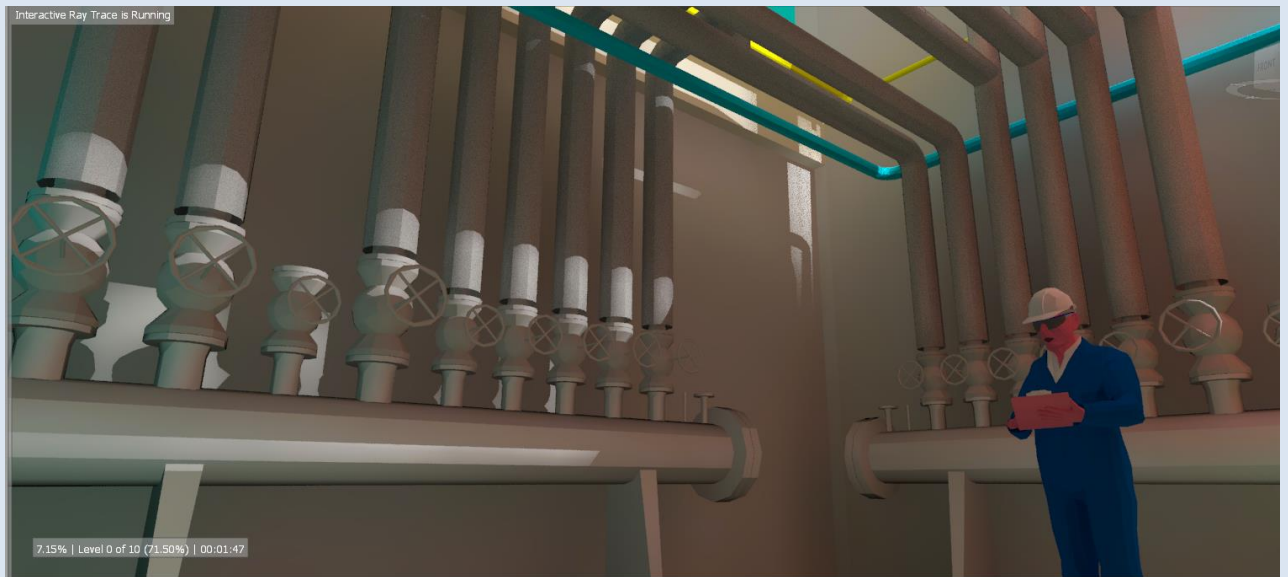
#### SCOPE:

3D plant design and piping engineering for thermal oil heater plant

YEAR: 2016



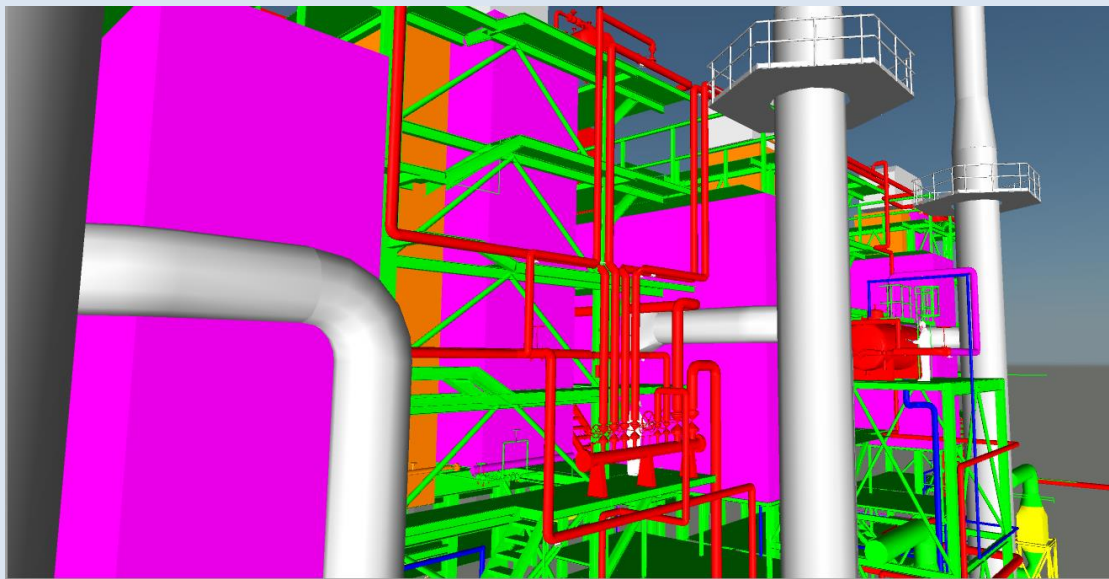
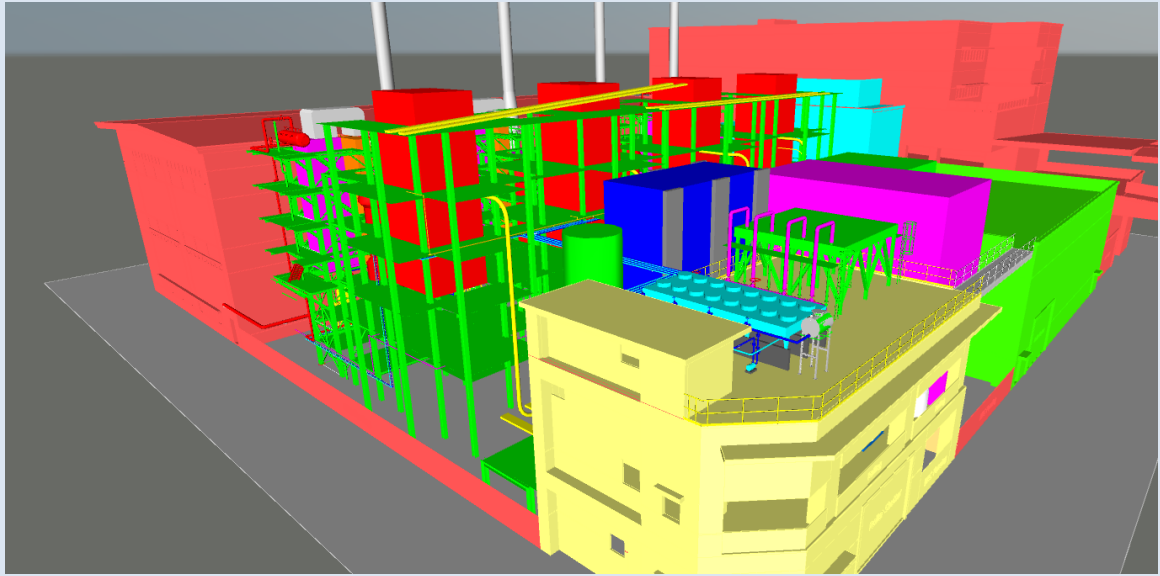
**5. PROJECT:**  
Unigra Factory Boiler Plant Project

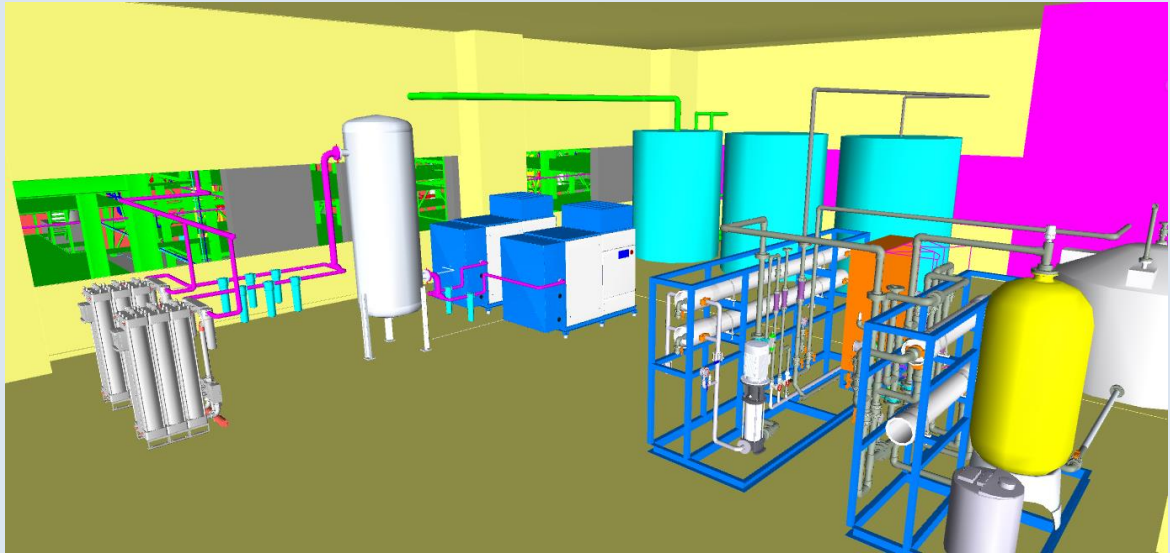


**SCOPE:**  
3D plant design and piping engineering for complete boiler plant

**YEAR:** 2017

**6. PROJECT:**  
Super 800 Waste Heat Recovery Boilers





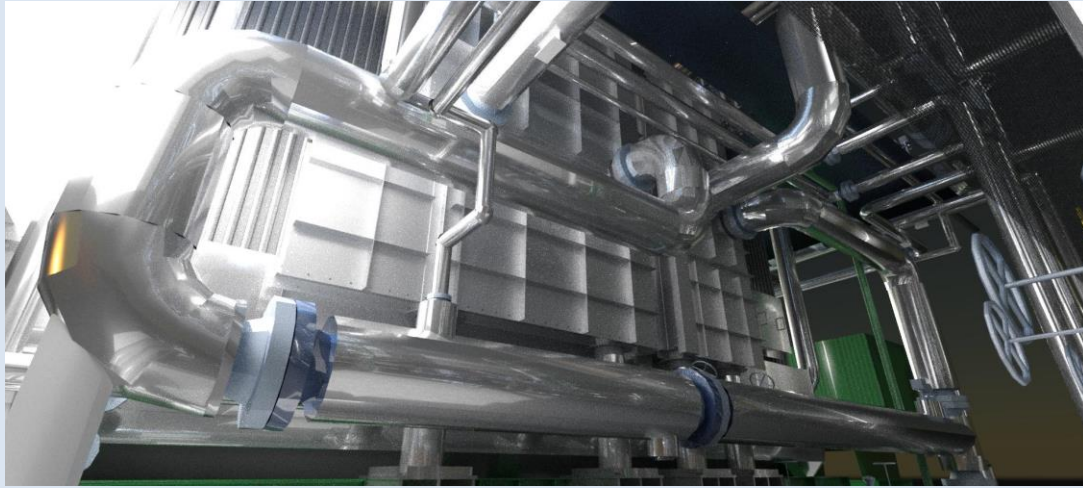
**SCOPE:**

3D plant design and piping engineering for complete boiler plant

**YEAR:** 2017



**7. PROJECT:**  
Abdul Monem Sugar Refinery Boiler Plant





**SCOPE:**  
3D plant design and piping engineering for complete boiler plant

**YEAR:** 2018



**8. PROJECT:**  
Hartalega Heat Recovery Hot Water Generator



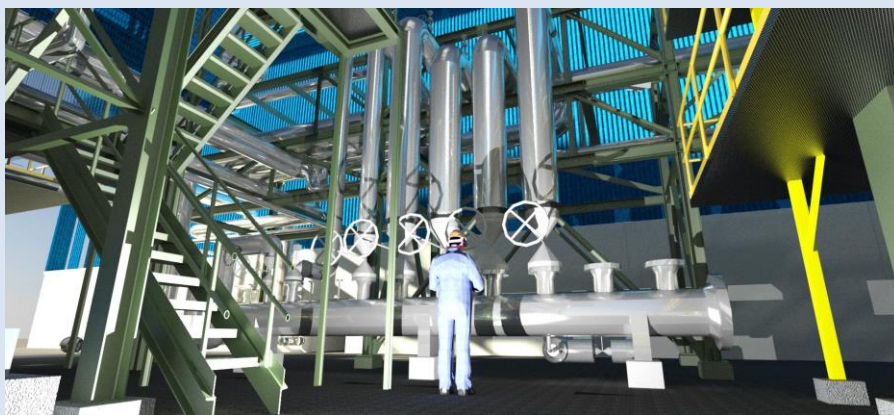
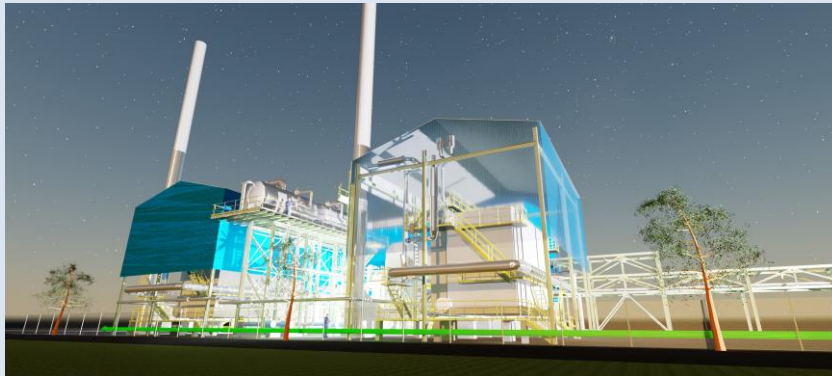
**SCOPE:**

Design and engineering of overall hot water piping system for a heat recovery hot water generator, including piping layout, isometrics preparation.

**YEAR:** 2018



**9. PROJECT:**  
MSM Sugar Refinery (Johor)

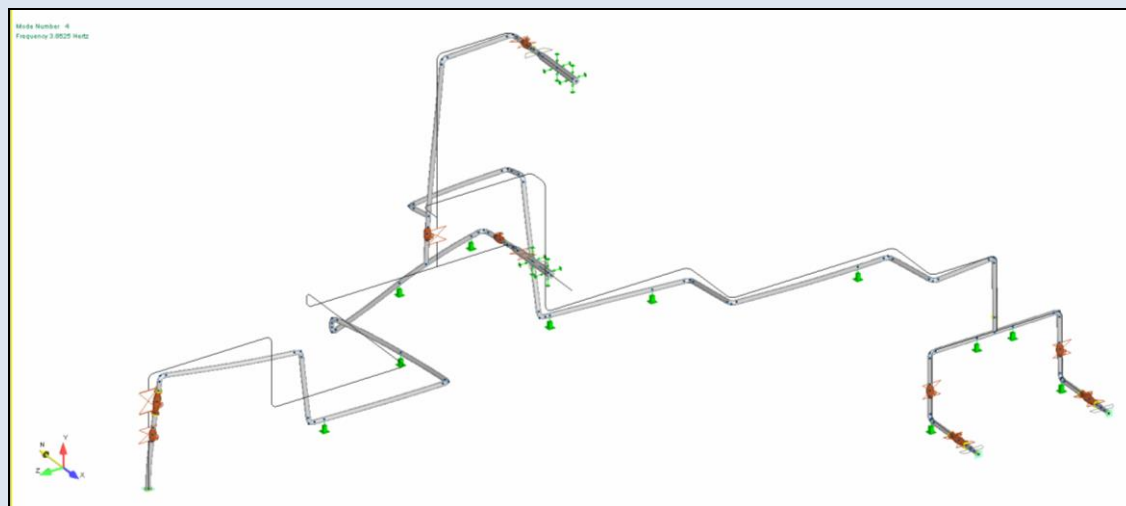
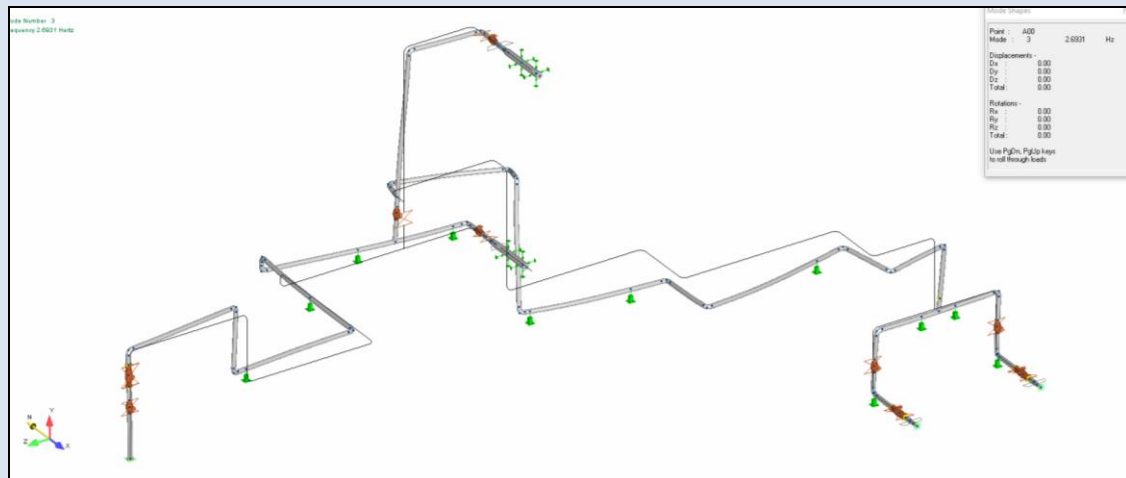


**SCOPE:**  
3D plant design and piping engineering for complete boiler plant

**YEAR:** 2016

## 10. PROJECT:

KLK Palm Oleo (Rawang)



## SCOPE:

Piping vibration analysis for existing boiler feed water piping due to resonance from pump operation.

YEAR: 2020

**11. PROJECT:**  
KLIA Cogeneration Plant HRSG Replacement



*Actual at site*



*Final design  
model, with  
3D laser  
scan*

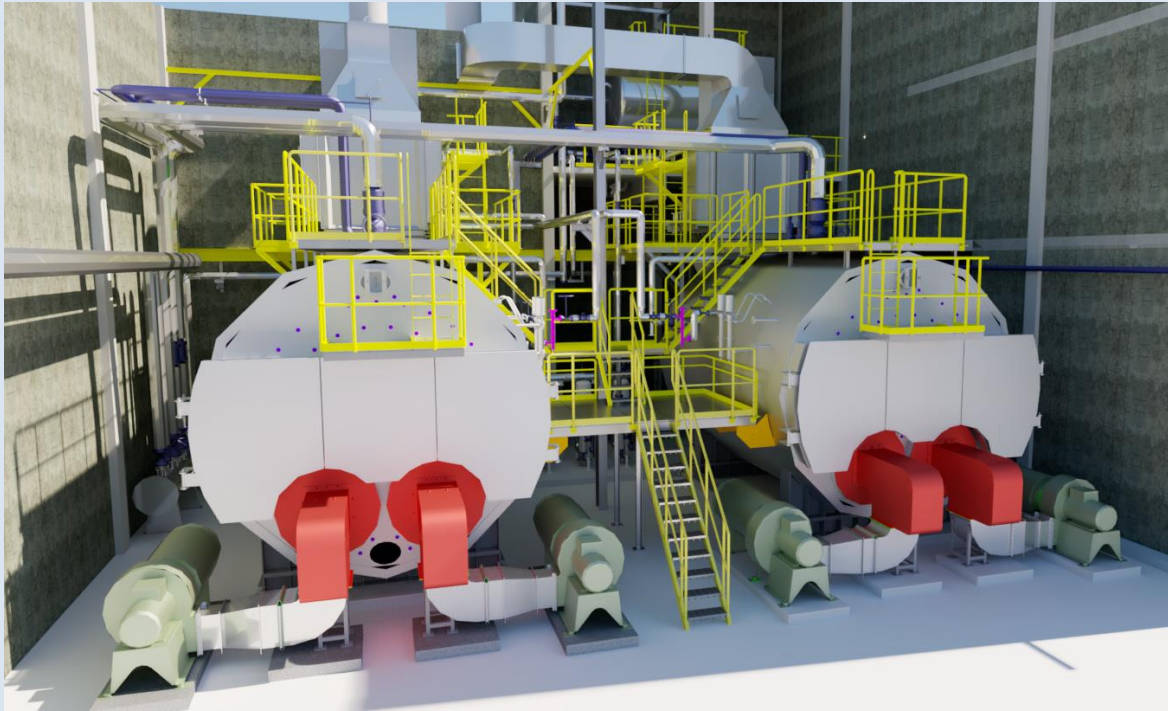
**SCOPE:**  
3D plant design for overall cogen plant HRSG replacement.

**YEAR:** 2020



## 12. PROJECT

### Wilmar Palm Product Boiler Plant



#### SCOPE:

3D plant design for overall boiler plant

YEAR: 2020

## COMPLETED ENGINEERING PROJECTS

	Project	Description	Client	Year
1	Relocation & upgrading of KLCC District Cooling centre	Pipe stress analysis & water hammer analysis for chilled water piping and condenser water piping	IAQ Solutions Sdn. Bhd.	2014
2	Boiler Plant for R1 Project, Tanjung Langsat.	3D plant design and piping engineering for boiler plant piping	Mackenzie Industries Sdn. Bhd.	2014
3	Relocation & upgrading of KLCC district cooling center – external piping	Pipe stress analysis for external chilled water pipe buried section	JW Global Sdn. Bhd.	2014
4	UTP District Cooling Plant	Pipe stress analysis for UTP District Cooling Plant External Piping (New Section)	Pathfinder M&E Sdn. Bhd.	2014
5	Emery Oleochemicals (M) Sdn. Bhd. Boiler piping	Pipe stress analysis and isometrics preparation for steam and condensate piping	Mackenzie Industries Sdn. Bhd.	2014
6	Independent Deepwater Petroleum Terminal at Pengerang – hot oil piping	Pipe stress analysis for hot oil piping	Oiltek Sdn. Bhd.	2014
7	Singapore Mediapolis District Cooling Chilled Water Network Piping	Pipe stress analysis for external chilled water pipe buried section	HSC Pipeline Engineering Sdn. Bhd.	2014
8	Kemaman Bitumen Company (KBC) New Boiler Plant	Design and engineering of complete boiler plant piping, including pipe stress analysis, drawings preparation, isometrics preparation	Mackenzie Industries Sdn. Bhd.	2015
9	Petronas Lubricants International Sdn. Bhd. – EPCC of 22 Storage Tanks at MLBP	Hydraulic analysis of lube oil piping	Handal Engineering Sdn. Bhd.	2015
10	Pagoh District Cooling Plant	Pipe stress analysis and support structure design for chilled water and condenser water piping.	IAQ Solutions Sdn. Bhd.	2015

	Project	Description	Client	Year
11	PJ Sentral DCS Plant	Design and engineering of complete piping system for PJ Sentral District Cooling Plant, including pipe stress analysis, hydraulic analysis, layout preparation, piping isometrics preparation	Megatara Sdn. Bhd.	2016
12	Flexsys Chemicals Boiler Plant	Pipe stress analysis for natural gas train	Mackenzie Industries Sdn. Bhd.	2016
13	Ta Chang Biomass Power Plant	Design and engineering of complete piping system for biomass power plant, including pipe stress analysis, hydraulic analysis, layout preparation, piping isometrics preparation	Boilermech Sdn. Bhd.	2016
14	Steam Piping For New Biodiesel Plant	Steam piping stress analysis for new biodiesel plant	Boilermech Sdn. Bhd.	2016
15	MSM Sugar refinery (Johor)	Design and engineering of complete piping system for boiler plant, including pipe stress analysis, hydraulic analysis, layout preparation, piping isometrics preparation	Boilermech Sdn. Bhd.	2016
16	Hot Oil Plant at Pengerang Deepwater Terminal 2	Design and engineering of complete hot oil plant of 2 units of thermal oil heater, including equipment layout planning, general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Profmech Engineering Sdn. Bhd.	2016
17	GDC Plant 1 Boiler Plant	Design and engineering of complete piping system for boiler plant, including pipe stress analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2017



	Project	Description	Client	Year
18	Etika Dairies Sdn. Bhd. New boiler	Design and engineering of complete boiler plant of 1 unit of Mechmar MB3000/250, including process flow design, equipment layout planning, general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Profmech Engineering Sdn. Bhd.	2017
19	Etika Beverages Sdn. Bhd. New boiler	Design and engineering of complete boiler plant of 1 unit of Mechmar MB3000/150, including process flow design, equipment layout planning, general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Profmech Engineering Sdn. Bhd.	2017
20	Unigra factory at Tanjung Langsat	Design and engineering of complete boiler plant of 2 units of Mechmar MB3500/250, including process flow design, equipment layout planning, general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Profmech Engineering Sdn. Bhd.	2017
21	waste heat recovery boiler project at Singapore	Design and engineering of complete boiler plant of 4 units of waste heat recovery boiler including equipment layout planning, general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	800 Super Waste Management Pte Ltd.	2017

	Project	Description	Client	Year
22	Sao Vang and Dai Nguyet Development Project, Vietnam	Pipe Stress Analysis for 2 units of Gas Metering Skids	Krohne (M) Sdn. Bhd.	2018
23	Boiler Plant at Abdul Mohnem Sugar Refinery, Bangladesh	Design and engineering of complete boiler plant of 1 unit of dual fuel boiler (50ton/hr at 32barG superheated) including general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2018
24	Hartalega Heat Recovery Hot Water Generator	Design and engineering of overall hot water piping system for a heat recovery hot water generator, including piping layout, isometrics preparation.	Mackenzie Industries Sdn. Bhd.	2018
25	Biomass Boiler Plant at Sabah	Design and engineering of a complete piping system for a biomass boiler plant, including pipe stress analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2018
26	Mewaholeo Industries Sdn. Bhd. Cogeneration Plant	Design and engineering for the main steam pipe (NPS10 16bar saturated) from COGEN Plant to steam header, approximately 400m in length.	MYS Engineering Sdn. Bhd.	2019
27	8MW Biomass Power Plant at Mindoro, Philippines	Design and engineering of complete piping system for biomass power plant, including pipe stress analysis, hydraulic analysis, layout preparation, piping isometrics preparation	ENGCON Energy	2020

	Project	Description	Client	Year
28	GSPP Steam Piping	Design and engineering for the main steam pipe from COGEN Plant, approximately 1300m in length.	EKOSWASTA Sdn. Bhd.	2020
29	TSH Biomass Boiler	Design and engineering of complete piping system for biomass boiler, including pipe stress analysis, hydraulic analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2020
30	Hartalega Heat Recovery Hot Water Generator Plant 2	Design and engineering of overall mechanical system including hot water piping system, fuel gas system, instrument air system.	UMW Industrial Power Services Sdn. Bhd.	2020
31	Oxley Tower chilled water piping stress analysis due to building sway	Pipe stress analysis of chilled water main riser pipe due to building sway	Megatara Sdn. Bhd.	2020
32	Boiler feed water piping vibration analysis at KLK Rawang	Boiler feed water piping vibration and mitigation study	Mackenzie Industries Sdn. Bhd.	2020
33	KLIA Cogeneration Plant HRSG Replacement	3D terrestrial scanning of existing cogen plant, integration of new equipment into 3D scanning, equipment layout and pipe routing; drawing preparation including general arrangement, piping layout and piping isometrics; pipe stress analysis for all high temperature services.	Boilermech Sdn. Bhd.	2020



	Project	Description	Client	Year
34	Wilmar Palm Product Boiler Plant	3D plant design and engineering of complete boiler plant of 2 units of fire tube boilers (32tph) including general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2020
35	MSM PRDS Project	Technical advisor for KONPRO for a design and engineering of a PRDS station with a capacity of 60tph at 42barG, 485°C step down to 2barG at 202°C.	Konsultant Proses Sdn. Bhd.	2021
36	Top Glove Steam Boiler Plant	3D plant design and engineering of complete boiler plant of 2 units of fire tube boilers (16tph) including general arrangement preparation, overall piping system design, including pipe stress analysis, layout preparation, piping isometrics preparation	Mackenzie Industries Sdn. Bhd.	2021
37	PT Agro Murni Steam Piping	Design and engineering for the 3 main steam pipes (16bar saturated) from boiler Plant to multiple process location	Mewah Group	2021

## **CONTACT US**

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