PP(T)SB GHG Reduction Program Success Stories

Insert subtitle here

Presentation to XXX

DD.MM.YY

The PETRONAS Group adopts zero tolerance against all forms of bribery and corruption. All employees are to abide by the PETRONAS Code of Conduct and Business Ethics (CoBE) & Anti-Bribery and Corruption (ABC) Manual, guided by our Shared Values and Statement of Purpose

Furnace Convection

Objective:
Chemical cleaning of the KR-2 furnace convection improves heat transfer, reduces stack temperature, and enhances combustion efficiency.

Background:
F-2202, F-22305 and F-22801 were identified to have operated above design stack temperature and have efficiency drop of about 3% - 7%. Respective convection section was cleaned during TA 2022, with cleaning coverage ranging from 30% - 53% depending on cleaning accessibility.

Status:
Completed

Top finned tubes

Bottom bare tubes

ACHIEVEMENTS
Dec 2019 –Aug 2022

Savings Realised
RM XX million

GHG Reduction
XX tCO2e

Energy Efficiency Improvement
4%

Temperature Reduction
20 – 30 DegC

Sinaran 1.0

Objective:
Installation of Solar PV systems to harness clean, renewable energy, reduce carbon emissions, lower electricity costs, and contribute to sustainability and environmental conservation initiatives.

Background:
The PV modules were installed on six rooftop buildings in PP(T)SB, namely the warehouse, TA Store, Central Registry, Training Center 1, Training Center 2, and Y2K.

Status:
In operation. Next phase is to proceed with Sinaran 2.0

ACHIEVEMENTS

Dec 2019 –Aug 2022

Savings Realised
RM 106K
electricity savings per year

GHG Reduction
XX tCO2e

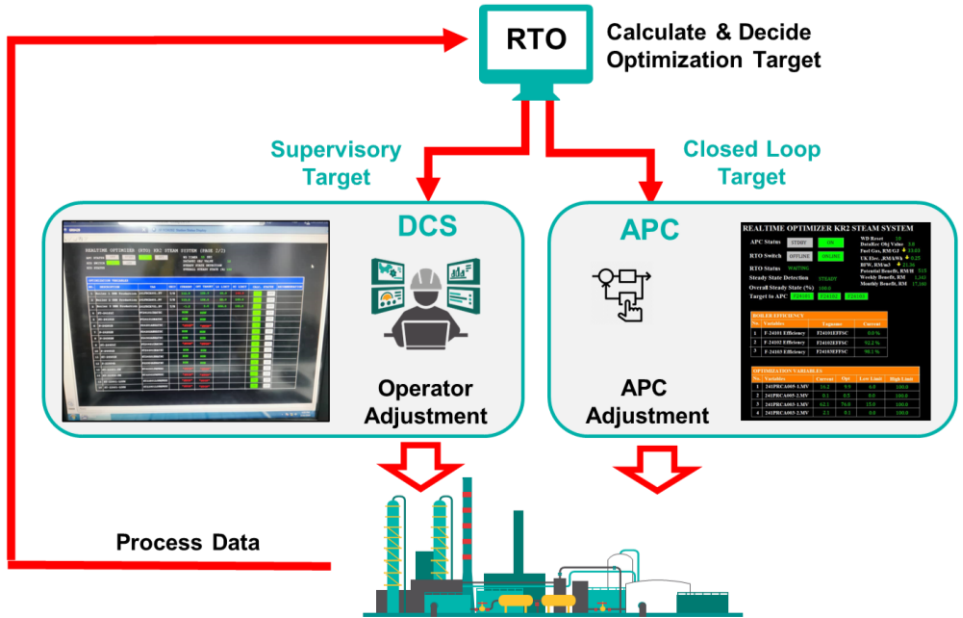
Steam System Closed Loop Realtime Optimizer (RTO)

Objective:

1. To do real-time first principal process estimation and identify optimization point for steam system
2. To regulate boilers steam production in closed loop with APC
3. To provide recommendation for turbine-motor switching in open loop supervisory

Background:
Steam System Real-Time Optimizer (RTO) is driven by 3 main critical issues which are High Energy Index (EI), Rising of Fuel Gas Cost and Disconnected Optimization. RTO expands optimization boundary from steam producer boundary to bigger boundary of steam system

Status:
In operation



Closed Loop Real-time Optimizer (RTO) System Overview

ACHIEVEMENTS

Dec 2019 –Aug 2022

Savings Realised
RM 1.94 million

P(T)SB has recorded reduction of 58,256 GJ from fuel gas consumption in Steam Generation Unit within 9 months

GHG Reduction
XX tCO2e

2% GHG emission reduction in 2020 compared to previous year

Black Condensate & Heat Integration

Objective:

Background:

Status:
In operation

ACHIEVEMENTS
Dec 2019 –Aug 2022

Savings Realised
RM XX

GHG Reduction
XX tCO2e

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