

The Project for Gas Network System Digitalization and Improvement of Operational Efficiency in Gas Sector in Bangladesh

Project Period: Feb 2020-Dec 2022 (3 yrs)
 JICA Experts : Nippon Koei, Geoplan Namtech
 Osaka Gas, Osaka Gas Engineering, Pasco



OVERALL GOAL: Reliable, effective and efficient gas & power supply for economic development of the country is achieved.

PROJECT PURPOSE: Operation of gas system and power stations is digitalized and operational/ planning efficiency, system reliability, and process safety are enhanced.

PROJECT ACTIVITIES:

1. Digitalizing gas transmission systems & Priority Area distribution



- 1.1 Update Gas Flow Diagram, line and valve station list
- 1.2 Modeling & digitalizing gas transmission pipeline systems
- 1.3 Modeling & digitalizing Distribution Priority Area
- 1.4 Training for operation of digitalized system
- 1.5 Update a list of power plant with associated data in digitalized system

4. Introduction of Process Safety Management



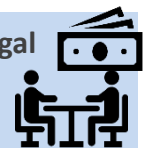
- 4.1 Provide training program,
 - (i) LNG terminal
 - (ii) gas transmission and distribution system, with a scope of OHSAS 18001
- 4.2 Propose the revised safety rules for authorization

2. Capacity development for gas operation & planning



- Training for operation & planning
 - 2.1 Design of SCADA system for monitoring and process control
 - 2.2 Gas flow analysis
 - 2.3 Existing system improvement and future pipeline infrastructure planning
 - 2.4 Propose measures for improving operational efficiency in gas utility companies

5. Introduction to Legal Framework for LNG operations



- 5.1 Identify responsible for LNG legal framework and LNG terminal operators or suppliers to use gas transmission system
- 5.2 Propose legal framework for Capacity Right and Quality Compensation system
- 5.3 Provide Capacity Building exercise in contract affairs

3. Design standard, material spec & standard drawings



- 3.1 Review of existing design standard, material specifications, and standard construction drawings
- 3.2 Prepare guideline for design standard and material specification for new project
- 3.3 Prepare revised material identification coding system

6. Operation entity framework for gas digitalized system



- 6.1 Study and analysis for optimal system operation entity
- 6.2 Prepare recommendation about framework of appropriate system operation entity



Drawings for Digitalization



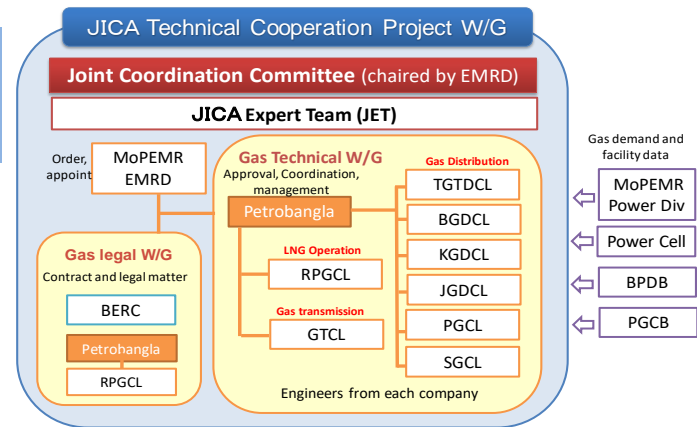
Capacity Building for SCADA



Valve Station



Safety Management



Implementation Structure