

## The Advancement of Environmental Impact Assessment for 5th Transmission Natural Gas Pipeline Project in Thailand

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**Abstract :** PTT Public Company Limited or simply PTT has played an important role in strengthening national energy security of the Kingdom of Thailand by transporting natural gas to customers in power, industrial and commercial sectors since 1981. PTT has been constructing and operating natural gas pipeline system of over 4,500-km network length both onshore and offshore laid through different area classifications i.e., marine, forest, agriculture, rural, urban, and city areas. During project development phase, an Environmental Impact Assessment (EIA) is conducted and submitted to the Office of Natural Resources and Environmental Policy and Planning (ONEP) for approval before project construction commencement. Knowledge and experiences gained and revealed from EIA in the past projects definitely are developed to further advance EIA study process for newly 5th Transmission Natural Gas Pipeline Project (5TP) with approximately 415 kilometers length. The preferred pipeline route is selected and justified by SMARTi map, an advance digital one-map platform with consists of multiple layers geographic and environmental information. Sensitive area impact focus (SAIF) is a practicable impact assessment methodology which appropriate for a particular long distance infrastructure project such as 5TP. An environmental modeling simulation is adopted into SAIF methodology for impact quantified in all sensitive areas whereas other area along pipeline right-of-ways is typically assessed as an impact representative. Resulting time and cost deduction is beneficial to project for early start.

**Keywords :** environmental impact assessment, EIA, natural gas pipeline, sensitive area impact focus, SAIF

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