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PTT Public Company Limited is fully integrated natural gas company in Thailand which conducts upstream petroleum exploration and production activities, procurement, natural gas transmission, separation and marketing. Exploration and production is undertaken by PTT Exploration and Production Public Company Limited (PTTEP) which plays a vital role in natural gas exploration and production activities in Thailand.

As a core business group of PTT, Gas Business Group is tasked with natural gas procurement, transmission, distribution of natural gas and products from gas separation plants in order to meet demand of both private and state sectors. PTT enhance the efficiency and deliverability of gas transmission system by taking into account the value optimization of natural gas.

**Natural Gas Pipeline System**

After the discovery of Erawan natural gas field, the first commercial field in Thailand, PTT laid the pipeline from the gas field to come ashore at Ban Nong Fab, Mab Ta Phut, Rayong Province. The gas was first developed for utilization in 1981. To satisfy the rising demand of natural gas, the Gas Business Group thus laid pipeline to respond to such expansion.
### PTT’s Transmission gas pipeline

<table>
<thead>
<tr>
<th>Pipeline system</th>
<th>Length (kilometers)</th>
<th>Diameter (inch)</th>
<th>Deliverability (MMscfd)</th>
<th>Year of commencement</th>
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<tbody>
<tr>
<td><strong>Offshore pipeline</strong></td>
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<tr>
<td>Erawan-Rayong Gas Separation Plant</td>
<td>415</td>
<td>34</td>
<td>860</td>
<td>1981</td>
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<td>(the first transmission gas pipeline)</td>
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<td>42</td>
<td>24</td>
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<td>Bongkot Field - Erawan Pipeline</td>
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<td>32</td>
<td>635</td>
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<td>Erawan - Khanom Power plant</td>
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<td>18</td>
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<td>104</td>
<td>28</td>
<td>540</td>
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<td>Bangpakong - South Bangkok Power Plant</td>
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<td>Bangplee - Saraburi</td>
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<td>Bangpakong - Wangnoi Power Plant</td>
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<td>Pipeline from Thai - Myanmar border</td>
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<td>(the third pipeline)</td>
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<td>Wangnoi - Kaeng Khoi</td>
<td>73</td>
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<td>Sai Noi - South Bangkok Power Plant</td>
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<td>7.6</td>
<td>20</td>
<td>290</td>
<td>2007</td>
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</table>
The existing Transmission Gas pipeline and Expansion plan
PTT Gas Pipeline Operation Centers divide into 6 regions

Chonburi Operations Center

This center is the centralized operation center for both offshore and onshore, controls receiving and transmitting natural gas from producers to customers along the pipeline. The mission of the center are to control and plan receiving-delivering of natural gas, engineering support, maintenance, control of safety and environment of the pipeline and control of metering stations. The center also prevents and ceases emergency of the pipeline through Supervisory Control and Data Acquisition System or SCADA by using all kinds of communication tools.

Chonburi Operation Center is located on 146 rai area which consists of:

- **Office compound**  The center has a 2-storey office building and other surrounding buildings e.g. a maintenance building, an inventory building, a gas quality control building (Laboratory), an electrical repair building, gauge and oil.

- **Resident compound**  260 units of employees accommodation, football ground, tennis court, petanque court, playground, health park, in-house stadium and clubs.
PTT has divided the areas to be in charge of operation as follows:

**Offshore Pipeline Operation and Station Division**

The Center is responsible for pipeline operation and maintenance, dewpoint and block valve station to ensure safety of nearby community and environment. The areas under responsibility cover Pattani, Songkla, Nakon Si Thammarat, Suratthani, Coomporn, Prachuab Kririkhan and Rayong.

**Region I Gas Pipeline Operation Division**

59 Moo 8, By pass Road, Tambon Napa, Amphur Mueng, Chonburi
The Division is responsible for gas delivering-receiving and maintenance of onshore pipeline system covering areas of Rayong, Chonburi, Chachoengsao, Samutprakarn, and some parts of Bangkok. The work covers a 275 kilometer-pipeline.

**Region II Gas Pipeline Operation Division**

71 Moo 2, 79.5 Kilometer Post, Phaholyothin, Sanubteub, Amphur Wangnoi, Ayutthaya Province. The Division is responsible for gas delivering-receiving and maintenance of onshore pipeline system covering areas of Nonthaburi, Phatumthani, Ayutthaya, Saraburi and some parts of Bangkok. The work covers a 216 kilometer-pipeline.

**Region III Gas Pipeline Operation Division**

555 Moo 2, Sukhumvit, Tambon Mab Ta Phut, Amphur Mueng, Rayong
The Division is responsible for gas delivering-receiving and maintenance of onshore pipeline system covering areas of Rayong and Chonburi from the Gas Separation Plant from Rayong to Laem Chabang Industrial Estate. The Division is tasked with natural gas delivery to Rayong Power Plant and industries in Mab Ta Phut Industrial Estate. The work covers a 58 kilometer-pipeline.

**Region IV Gas Pipeline Operation Division**

222 Mittaphab Road, National Highway No.209, at the kilometer post 3+500, of Tambon Kood Namsai, Amphur Namphong, Khonkean.
The Division is responsible for gas delivering-receiving and maintenance of onshore pipeline system of the natural gas pipeline from Exxon Mobil Exploration and Production Khorat Inc.’s Namphong Field from Khon Kean to the Nam Phong Power Plant, Electricity Generating Authority of Thailand (EGAT). The work covers a 3.5 kilometer-pipeline.

**Region V Gas Pipeline Operation Division**

111 Moo 7, Phetkasem Road, Tambon Samroen, Amphur Meung, Ratchaburi
The Division is responsible for gas delivering-receiving and maintenance of onshore pipeline system covering areas of the western grid i.e. Kanchanaburi, Ratchaburi and Nakorn Pathom. The work covers a 358 kilometer-pipeline.

**Region VI Gas Pipeline Operation Division**

The Division is responsible for gas delivering - receiving and maintenance of onshore pipeline system covering an area of Metropolitan. The work covers a 66.5 kilometer-pipeline.
Every Pipeline Operation Division is tasked with the following responsibilities:

- Control and formulate operational plan
- Support pipeline engineering work
- Maintain pipeline system
- Monitor and control pipeline safety and environment
- Supervise M&R station
- Prevent and respond to emergency of the pipeline through Supervisory Control Data Acquisition System or SCADA using microwave, optic fiber cable and satellite telecommunication

Block Valve station

Each block valve station has a gas transmission control system which is commanded through SCADA from Chonburi Operation Center and other pipeline operation divisions, Chonburi Operation Center is the main operation center working around the clock.
Communication system

To accomplish this task of monitoring and ensuring the natural gas that is traveling through the pipeline, sophisticated technology is required. PTT puts in place the following systems:

- Microwave is the main communication medium for Chonburi Center and the Region Gas Pipeline Operations Division II and III.
- Optic fiber cable is buried above pipeline as a major communication medium for the pipeline in the west. The expansion of the cable to cover all areas is underway.
- Satellite telecommunication is a back up system used to communicate when the main communications medium cannot be used.
- UHF (Ultra High Frequency) and VHF (Very High Frequency) are communication medium for PTT staff covering all along the pipeline.
- PTT’s in house telephone system and TAT’s telephone system.

Our proud awards

Every Gas Pipeline Operation Division receive best operators’ awards under QSHE categories and are certified with many standards e.g. ISO 9001, ISO 9002, ISO 18001 and ISO IEC 17025 or TIS 17025-2543. These awards reflect the inherent social and community mission of PTT in upholding the practices in safety, quality and environment.
Apart from energy mission, the Gas Business Unit has regarded the development of community and well-being of public as the key mission. Therefore, number of activities to promote and support the benefit of communities have been created as follows:

Broadening outlook and knowledge
- 5S to School and communities
- Library, books and educational material sponsorship
- School Building construction
- “Open Up the natural gas world” Mobile Bus and mobile exhibition at the schools along the pipeline
- Educational Scholarships and educational materials, and sport equipments sponsorship
- Petroleum, natural gas, pipeline safety education program for community, media and foundations

Environment and community development
- Forest rehabilitation along along Thai-Myanmar Pipeline from 1998-2002
  ...Forest and cover crop in the forest of around 50 kilometers, 625 rai
  ...10,000 rai forestation in the nearby area
  ...30,000 rai forest conservation
- Mobile medical care
- Lunch project for the school student at the schools along the pipeline

Promotion of community participation according to the constitution
- Community / press tour to PTT
Contact information of PTT Operation Divisions

**Chonburi Operations Center**
59 Moo 8 By - pass Road Napa Muang District, Chonburi 20000
Tel 0 2537 2000 ext 5000; 0 3827 4390-5
Fax 0 2537 2000 ext 5014; 0 3827 4398, 0 3827 6390

**Offshore Pipeline Operations Department**
59 Moo 8 By - pass Road Napa Muang District, Chonburi 20000
Tel 0 2537 2000 ext 5270 ; 0 3827 4390 - 5 ext 5270
Fax 0 2537 2000 ext 5274 ; fax 0 3827 4390 - 5 ext 5274

**Region I Gas Pipeline Operations Division, Chonburi Operations Center**
59 Moo 8 By - pass Road Napa Muang District, Chonburi 20000
Tel 0 2537 2000 ext 5050 - 58 ; 0 3827 4390 - 5 ext 5050-5058
Fax 0 2537 2000 ext 5058 ; 0 3827 4390 - 5 ext 5058

**Region II Pipeline Operations Division**
71 Moo 2, Phaholyothin Road Sanubtub Wangnoi District, Ayutthaya 13170
Tel 0 3572 2000 ext 5802 ; 0 2537 3273 ; 0 3572 3022-32
Fax 0 3572 3039 ext 5809 ; 0 3572 3039

**Region III Pipeline Operations Division**
271 Moo2, Sukhumvit, Tambon Mab Ta Phut, Amphur Mueng, Rayong 21150
Tel 0 2537 2000 ext 6040 ; 0 3868 5021
Fax 0 3868 5016

**Region IV Pipeline Operations Division**
222 Ubohrattanadam Road, Kudnamsie Namphong District, Khon Kaen 40310
Tel 0 2537 2000 ext 5121 ; 0 4343 1522
Fax 0 2537 2000 ext 5121-2 ; 0 43434 1522

**Region V Pipeline Operations Division**
111 Moo 7 Petchkasem Road Samruan Muang District, Ratchaburi 70000
Tel 0 2537 2000 ext 5901 ; 0 3231 7371
Fax 0 2537 2000 ext 5930 ; 0 3231 7385

**Region VI Pipeline Operations Division**
555 Kallapraphruk Road Bangwah Phasricharoen District, Bangkok 10160
Tel 0 2537 1606
Fax 0 2537 1605
Region VII Pipeline Operations Division
1/6 Moo 2, Talingchun, Chana District, Songkhla 90130
Tel 0 7449 6089 ; 0 7449 6091
Fax 0 7449 6090

Region VIII Pipeline Operations Division
Moo 6, Ban Sai Thong, Loom Soom, Saiyok, Kanchanaburi 71150
Tel 0 2537 2000 ext 5990
Fax 0 2537 2000 ext 4683