

# The hidden cost of gas: Toxic emissions from Thailand's power sector

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# CREA

CREA is an independent research organization focused on revealing the trends, causes, and health impacts, as well as the solutions to air pollution.

# The hidden cost of gas: Toxic emissions from Thailand's power sector

## Key messages

- Thailand's operating and planned gas power plants release large volumes of toxic air pollutants — 33.4 kilotonnes (kt) of nitrogen oxides (NO<sub>x</sub>), 1.7 kt of sulphur dioxide (SO<sub>2</sub>), and 0.4 kt of fine particulate matter (PM<sub>2.5</sub>) every year, once the planned plants are in operation.
- The majority of these gas plants are clustered around Bangkok, a densely populated city that suffers from major air quality issues, and the Eastern Economic Corridor, exposing millions of people to harmful air pollution.
- The NO<sub>x</sub> emissions from Thailand's gas power plants exceed the combined emissions from buses, motorcycles, and taxis in Bangkok Metropolitan Region (25.9 kt).
- With domestic gas reserves in decline, growing dependence on imports, rising costs compared with renewables, and growing methane emissions, gas now threatens Thailand's energy security, economy, climate, and public health.

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## The false promise of gas

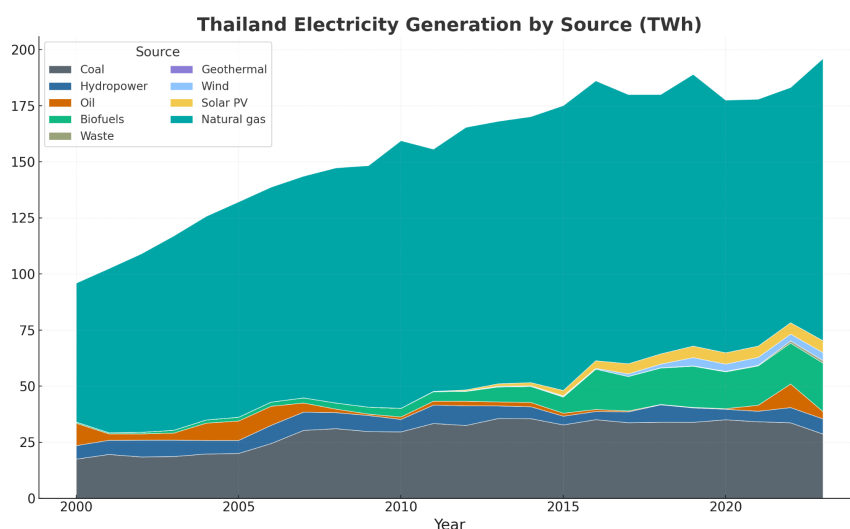
Natural gas has long been promoted by power suppliers as Thailand's reliable, affordable, and cleaner alternative to coal (Stanley Center, 2020; Nation Thailand, 2025). Over the past two decades, it has become the backbone of the national power system, supplying nearly two-thirds of the country's electricity (Figure 1). Yet this dominance has come at a growing cost.

Today, the assumptions that power companies once used to justify expanding gas power no longer hold true. Domestic gas reserves are declining, import dependence is rising, and gas-fired electricity is becoming more expensive than renewable alternatives. Moreover, the supposed climate benefits of gas are eroded by methane emissions.

Beyond these economic and climate drawbacks, gas power plants are a source of toxic air pollution, an impact that has received far less attention but poses a direct threat to public health. This briefing presents new evidence on the scale and distribution of pollutant emissions from Thailand's gas power stations, revealing how the country's reliance on gas undermines both clean air and energy security.

## Gas in Thailand's power mix

Over the past two decades, Thailand's electricity generation has become increasingly dominated by natural gas. As shown in Figure 1, gas-fired power generation grew from about 75 TWh in 2000 to 126 TWh in 2023 (IEA, 2025), and supplied 68 % of total electricity output in 2024 (EMBER, 2025a). This makes Thailand one of the most gas-dependent power systems in Asia.



**Figure 1 – Electricity generation across different sources across Thailand, taken and adapted from IEA (2025).**

Gas became central to the country’s energy strategy because it was viewed as cheap, stable, and cleaner than coal. Domestic reserves discovered in the 1980s and 1990s offered a sense of self-sufficiency, while the fuel’s lower visible pollution reinforced its image as a “modern” option. Yet, despite rapid advances in renewable energy technology and sharp declines in solar and wind costs, Thailand has continued to expand its gas capacity. Consequently, the country has locked in new infrastructure and long-term supply contracts that will shape the energy mix for decades.

This heavy reliance on gas has far-reaching implications. It exposes Thailand’s economy to volatile global fuel markets, inflates electricity costs as LNG imports rise, and crowds out investment in renewable generation. Most importantly, it sustains a major source of toxic and climate-warming emissions that now threaten Thailand’s clean-air goals and its 2050 net-zero target (Thai Publica, 2025).

## The cost of gas reliance

Natural gas was once seen by power companies as a cornerstone of Thailand’s secure and sustainable development (Stanley Center, 2020; Nation Thailand, 2025). It was expected to

deliver affordable power, shield the country from fuel price volatility, and offer a cleaner path to growth. Yet today, each of these claims is rapidly unraveling.

## Energy insecurity

Domestic gas reserves in the Gulf of Thailand are in decline, and production has fallen sharply over the past decade. To fill the gap, data from the Office of Energy Policy and Planning (EPPO) reports that Thailand has become increasingly reliant on imports, including both pipeline gas from Myanmar, making up 9% of consumption, and liquefied natural gas (LNG) shipments, supplying 27% (EPPO, 2025). However, in 2023, pipeline gas imports from Myanmar dropped 21% compared to the previous year (S&P, 2024), while the share of LNG shipments is projected to reach 60% of consumption by 2025 (EMBER, 2025b).

This shift means that Thailand's power generation sector is increasingly exposed to global LNG price fluctuations and to upstream and geopolitical instability, undermining energy security and driving up power generation costs. During recent energy crises, LNG prices spiked to record highs - with LNG prices reaching 80 USD per million BTU in 2022 (Bangkok Post, 2025; Investing.com, 2025), forcing utilities to raise tariffs and straining household and industrial budgets. Far from providing stability, gas has become a source of economic vulnerability.

## Economic burden

Gas-fired power is no longer the cheapest option. According to Bloomberg NEF (2025), in Thailand the levelized cost of electricity (LCOE)<sup>1</sup> for solar with battery storage is USD 79 per MWh in 2025, already below the USD 82 per MWh cost of gas. By 2030, combined solar and storage costs are projected to fall to USD 56 per MWh, while gas remains stuck at USD 79 per MWh. In other words, every new gas plant built today risks locking Thailand into higher electricity costs for years to come, while cheaper renewable alternatives go untapped. The lock-in is especially severe as much of Thailand's gas-fired power generation operates under long-term power purchase agreements (PPAs) lasting 20–25 years (Agora, 2025).

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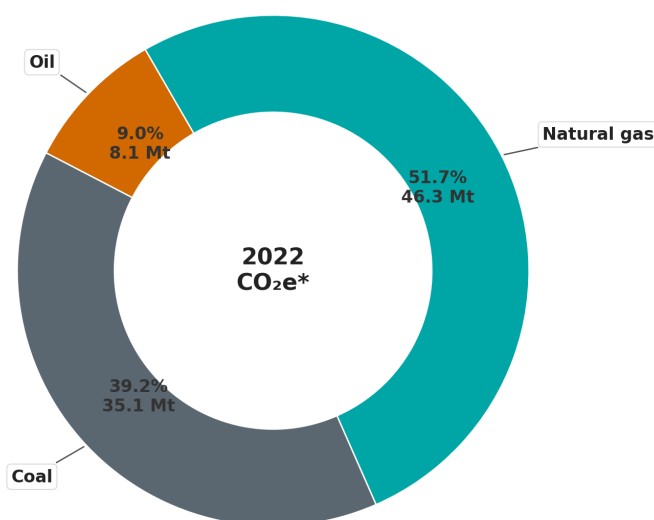
<sup>1</sup> Levelized Cost of Electricity (LCOE) is the average cost of producing one unit of electricity over the entire lifetime of a power plant. It adds up all the costs, such as building, fuel, maintenance, and operation, and divides them by all the electricity the plant will produce. This gives a single number that allows you to compare different energy sources (like solar, wind, coal, or gas), showing how much each actually costs to make electricity in the long run.

## Climate contradiction

Gas has long been described as a “bridge fuel” to a low-carbon future. However, gas is a source of methane, which is a potent greenhouse gas. Methane is around 25 times more potent than CO<sub>2</sub> over a 100 year time horizon, meaning even small leakage rates erase the perceived advantage. Furthermore, its climate impact is more front-loaded than that of CO<sub>2</sub>, so over a 20-year time period it’s 80 times more potent. Figure 2 shows the equivalent CO<sub>2</sub> emissions across the electricity sector in Thailand, broken down by each fuel type (IEA, 2025). Gas power plants are now the largest single source of CO<sub>2</sub> emissions in Thailand’s power sector, responsible for about 46 million tonnes annually, compared with 35 million tonnes from coal (IEA, 2025). Expanding gas therefore risks deepening, rather than reducing, Thailand’s near-term climate impact.

### Thailand Power Sector Emissions by Fuel

Most recent year; combustion-only CO<sub>2</sub>e (≈ stack CO<sub>2</sub>)



\*CO<sub>2</sub>e here includes only combustion emissions (IEA). Upstream methane leakage not included.

**Figure 2 – Equivalent CO<sub>2</sub> emissions from combustion plants, taken and adapted from IEA (2025).**

## Potential contribution to toxic air

While the debate around gas power has focused largely on its climate and economic impacts, its toxic air pollution footprint has received far less attention. In reality, gas power plants emit a substantial volume of harmful pollutants that damage health and burden the economy.

Air pollution remains one of Thailand's leading public health challenges. According to the State of Global Air (SOGA, 2024), exposure to outdoor air pollution is linked to around 9 % of all deaths nationwide. In Bangkok, the impacts are especially severe. Annual deaths attributable to fine particulate matter ( $PM_{2.5}$ ) have more than doubled, from about 3,600 in 2000 to over 8,000 in 2019 (SOGA, 2024). Recurrent pollution episodes regularly blanket the capital, prompting emergency responses such as temporary school closures and public-health advisories (The Guardian, 2025).

Air quality in Thailand has therefore become not only a public health emergency but also a major economic concern, with pollution-related illnesses reducing workforce productivity and straining healthcare systems. Yet amid this growing crisis, one significant and continuous source of pollution has received comparatively little attention — emissions from gas-fired power plants.

Gas combustion produces lower particulate emissions than coal but still releases significant amounts of nitrogen oxides ( $NO_x$ ), sulphur dioxide ( $SO_2$ ), and fine particulate matter ( $PM_{2.5}$ ). These pollutants contribute to smog formation, respiratory and cardiovascular disease, and premature deaths, especially in densely populated regions.

Previous studies have tried to estimate emissions from Thailand's gas fleet, but most rely on global-average emission factors or outdated data that don't reflect the country's newer power plants or Thai-specific operating conditions. For instance, Krittayakasem et al. (2011) used Thai data but only covered plants operating up to 2006. As a result, the true scale of toxic emissions from Thailand's rapidly expanding gas sector has remained underestimated.

## Results

In this study, we estimate pollutant emissions from Thailand's gas power plants using the most recent measured data reported in Environmental Impact Reports (EIRs), which are generally conducted twice annually for each halves of the year (January-June and July-December). These measurements were converted into annual totals using Thailand's national average capacity factor for gas-fired generation and adjusted to reflect both operational plants and those planned or under construction. Full details of the emission calculation approach, capacity factor assumptions, and projections for future plants are provided in the Methodology section.

We find that Thailand's gas power sector represents a significant source of toxic emissions. Table 1 shows the annual total pollutant emissions from gas power plants considered in this study. Across the country, gas power plants emit an estimated 33.4 kilotonnes (kt) of nitrogen oxides ( $\text{NO}_x$ ), 1.7 kt of sulphur dioxide ( $\text{SO}_2$ ), and 0.42 kt of fine particulate matter ( $\text{PM}_{2.5}$ ) every year.

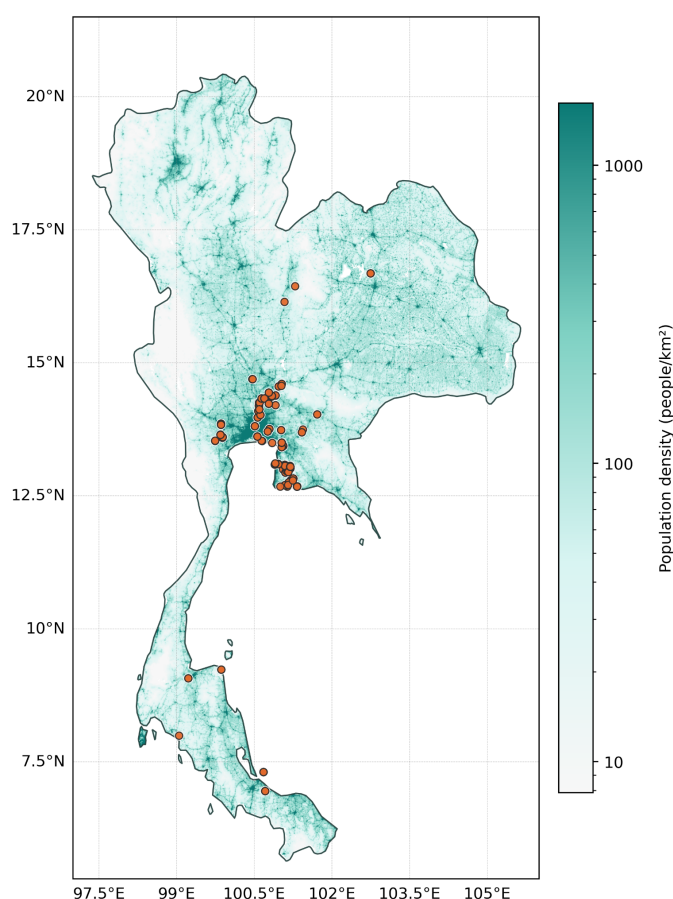
**Table 1 – Our estimated annual total pollutant emissions from Thailand's gas power plants (operating and planned)**

| Pollutant                                | Total (kilotonnes/ year) |
|------------------------------------------|--------------------------|
| Nitrogen oxides ( $\text{NO}_x$ )        | 33.4                     |
| Sulphur dioxide ( $\text{SO}_2$ )        | 1.7                      |
| Particulate matter ( $\text{PM}_{2.5}$ ) | 0.4                      |

The majority of these emissions (Table 1) originate from plants already operating, however, plants coming on-line in the future will also have a significant contribution to. For instance, the gas plants that are not in operation yet account for 4.0, 0.5, and 0.4 kilotonnes of  $\text{NO}_x$ ,  $\text{SO}_2$ , and  $\text{PM}_{2.5}$ , respectively. Many of these facilities are being constructed without advanced emission-control systems such as Selective Catalytic Reduction (SCR), which can significantly cut  $\text{NO}_x$  emissions. At the same time, most gas plants are sited near major population and industrial centres including Bangkok, Rayong, and Chonburi, where exposure risks are highest. This pattern reflects regulatory gaps and

the persistent perception of gas as a “clean” fuel, despite its substantial contribution to Thailand’s air pollution and health burden.

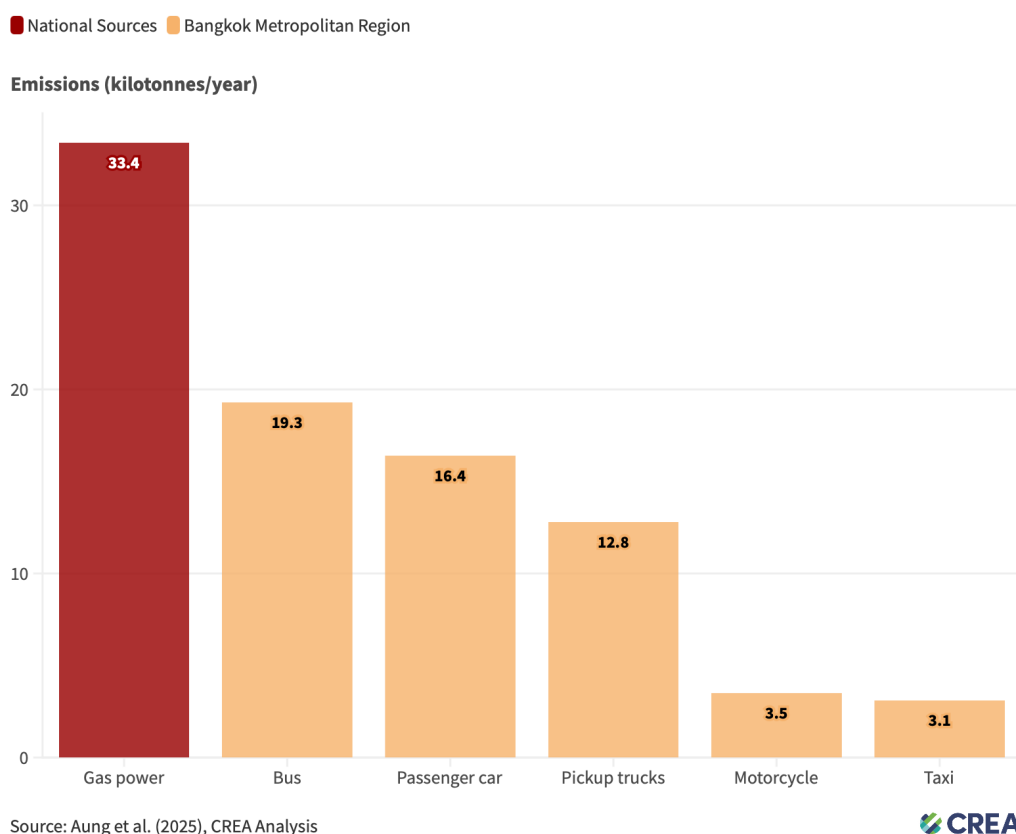
Figure 3 shows the distribution of gas-fired power plants, and highlights that they are heavily concentrated around Bangkok and the Eastern Economic Corridor - regions that also have the highest population density and economic activity. This means emissions from gas powered electricity generation are released precisely where exposure risks are greatest.



**Figure 3 – Map of operational, under construction and proposed gas power plants across Thailand considered in this study and population density taken from World Pop (2018)**

With the majority of the gas power plants being located around Bangkok, we put the emissions from this source into perspective by comparing it to other important urban pollution sources in the Bangkok Metropolitan Region (Figure 4). The results reveal a striking finding: gas power plants, though far fewer in number, emit more nitrogen oxides ( $\text{NO}_x$ ) than any of buses, passenger cars, pick-up trucks, motorcycles, and taxis (Figure 4). This comparison underscores how Thailand’s “clean” gas fleet is, in reality, a major contributor to the region’s toxic emissions.

### Comparison of $\text{NO}_x$ emissions



**Figure 4 – Comparison of national  $\text{NO}_x$  emissions from gas power plants estimated in this study, and a comparison to other notable urban sources in Bangkok Metropolitan Region (BMR) taken from Aung et al. (2025)**

## Health and policy implications

These findings reveal that gas power is not the “clean” option it is often portrayed to be. While natural gas emits less CO<sub>2</sub> than coal per unit of energy (USEIA, 2023), it remains an important source of nitrogen oxides (NO<sub>x</sub>), which contribute to Thailand’s chronic air pollution problem (Health Effects Institute, 2025). In addition, gas-fired power plants are typically located near population and industrial hubs: such as Bangkok, Rayong, and Chonburi with health impacts that are concentrated where most people live and work (Pollution Control Department, 2024).

Recent assessments show that over 70 percent of Thailand’s population is exposed to PM<sub>2.5</sub> levels above national standards (Energy Policy Institute, 2019) and that combustion from the power and industrial sectors is a key contributor (Pollution Control Department, 2024). The national standard for PM<sub>2.5</sub> is 15 µg/m<sup>3</sup>, which is three times higher than the guideline value set by the World Health Organization guideline (The Nation, 2022). According to the Health Effects Institute (2025) and IHME (2016), air pollution in Thailand was responsible for more than 54,000 premature deaths in 2023, imposing an economic cost equivalent to around 6 percent of GDP through lost productivity and healthcare spending.

Phasing out gas in favor of clean energy sources that don’t emit air pollutants would therefore bring immediate health and economic co-benefits, including reducing hospital visits, improving workforce productivity, and easing pressure on Thailand’s air-quality management systems. Cutting combustion emissions from the power sector would directly reduce NO<sub>x</sub> and secondary PM formation, lowering ambient concentrations and on-the-job exposures for high-risk groups like street vendors, delivery riders, and security staff (Archer et al., 2024; Clean Air Asia, 2023).

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## Rethinking Thailand's energy pathway

Thailand stands at a critical juncture. Continuing to expand gas power will lock the country into higher energy costs, worsening air pollution, and rising greenhouse gas emissions for decades to come. The evidence presented here shows that gas is not a clean transition fuel, but a growing source of health-damaging and climate-warming pollution concentrated in Thailand's most densely populated regions.

By contrast, the technologies needed to replace gas are already available and increasingly cost-effective. Solar and wind power, supported by battery storage, can now deliver electricity cheaper than gas, while avoiding both toxic emissions and import dependence. This transition also advances Thailand's climate and development objectives: supporting its Nationally Determined Contribution (NDC), aligning with the Bio-Circular-Green Economy (BCG) strategy, and complementing prospective Clean Air Act measures; while also reducing fiscal exposure to imported LNG and freeing resources for renewables, grid upgrades, employer-provided mitigation (e.g., PPE, shift scheduling), and targeted health screenings (World Bank, 2023; Ministry of Energy, 2023; Archer et al., 2024).

Phasing out gas power offers immediate and tangible benefits: cleaner air, reduced healthcare costs, and greater energy independence. As global markets move away from fossil fuels, Thailand has an opportunity to lead the region in a clean energy transition—one that prioritizes the health of its people and the stability of its economy.

## Methodology used in this study

This briefing provides the most up-to-date and locally grounded assessment of pollutant emissions from Thailand's gas power sector. For operating plants, we retrieved Environmental Impact Reports (EIRs) for gas power plants recorded by the Pollution Control Department (PCD), covering as many operational plants as possible.

Generally, measurements for EIRs are conducted twice a year, once in the first half of the year (January–June) and once in the second half (July–December). Differences in electricity consumption between these two periods can lead to variations in pollutant emissions. Therefore, to construct a long-term picture of emissions from this source, we average data across both seasons. Most of our data come from 2023, however, for some plants, we also incorporate data from adjacent years (2022 and 2024) to minimize the influence of missing values.

Annual total emissions,  $E$  (tons/year), were estimated using the following formula:

$$E = MF \times SIY \times CF$$

where:

- MF is the measured mass flow rate (g/s);
- SIY is the number of seconds in a year; and
- CF is the national average capacity factor for gas power plants (%).

The capacity factor (CF) was derived from Thailand's total gas-fired generation and installed capacity data reported by EMBER (2023), estimated at 41 %. This approach provides a consistent estimate across all plants, though it does not adjust for variations in utilisation between facilities.

For some existing plants, and for all proposed plants, data on emission rates are missing. To estimate these emissions, we first calculate average emissions per unit of electricity for plants in operation, aggregated into five-year intervals between 1991 and 2025. For existing plants with missing data, we assign the emission factor corresponding to the interval in which they began operating. For plants that will come online in the future, we use the emission factor from the most recent period (2021–2025).

## Appendices

### Appendix A: Unit level results

Table of natural gas plants included in this study, with combustion technology, capacity, and estimated annual NO<sub>x</sub>, SO<sub>2</sub> and TSP emissions, all assuming an average utilisation rate of 41 %.

**Table A1 – Unit-level data on technology, capacity, and annual emissions of pollutants**

| Plant and Unit Name                   | Plant Technology | Capacity (MW) | NOX emission (tons/year) | SO2 emission (tons/year) | TSP emission (tons/year) |
|---------------------------------------|------------------|---------------|--------------------------|--------------------------|--------------------------|
| Announced                             |                  |               |                          |                          |                          |
| South Bangkok power station Unit CC5  | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| South Bangkok power station Unit CC6  | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| South Bangkok power station Unit CC7  | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| Construction                          |                  |               |                          |                          |                          |
| Hin Kong power plant Unit 2           | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| U-Tapao Hybrid power station Unit 1   | combined cycle   | 80            | 46.7                     | 2.5                      | 2.0                      |
| Pre-Construction                      |                  |               |                          |                          |                          |
| Burapa power station Unit 1           | combined cycle   | 540           | 315.5                    | 17.0                     | 13.4                     |
| Nam Phong power station Unit 3        | combined cycle   | 650           | 379.7                    | 20.4                     | 16.1                     |
| North Bangkok power station Unit 3    | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| North Bangkok power station Unit 4    | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| Surat Thani power station Unit CC1    | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| Surat Thani power station Unit CC2    | combined cycle   | 700           | 409.0                    | 22.0                     | 17.3                     |
| Operational                           |                  |               |                          |                          |                          |
| Amata (Chonburi) power station Unit 1 | combined cycle   | 140           | 120.7                    | 2.9                      | 4.5                      |
| Amata (Chonburi) power station Unit 2 | combined cycle   | 140           | 104.1                    | 9.4                      | 5.0                      |
| Amata (Chonburi) power station Unit 3 | combined cycle   | 133           | 67.0                     | 10.4                     | 2.1                      |
| Amata (Chonburi) power station Unit 4 | combined cycle   | 131           | 63.9                     | 0.4                      | 2.4                      |
| Amata (Chonburi) power station Unit 5 | combined cycle   | 131           | 62.9                     | 0.8                      | 2.8                      |
| Amata (Rayong) power station Unit 1   | combined cycle   | 123           | 34.3                     | 3.6                      | 1.4                      |

|                                               |                |     |        |      |      |
|-----------------------------------------------|----------------|-----|--------|------|------|
| Amata (Rayong) power station Unit 2           | combined cycle | 124 | 37.9   | 3.6  | 1.0  |
| Amata (Rayong) power station Unit 3           | combined cycle | 133 | 38.9   | 3.5  | 1.4  |
| Amata (Rayong) power station Unit 4           | combined cycle | 133 | 35.4   | 3.5  | 1.4  |
| Amata (Rayong) power station Unit 5           | combined cycle | 133 | 44.0   | 5.4  | 1.5  |
| Bang Bo power station                         | combined cycle | 350 | 377.0  | 23.6 | 11.7 |
| Bangkadi Industrial Park power station Unit 1 | combined cycle | 115 | 9.0    | 3.8  | 1.7  |
| Bangkadi Industrial Park power station Unit 2 | combined cycle | 115 | 24.5   | 3.9  | 2.5  |
| Bangpa-in power station Unit 1                | combined cycle | 117 | 133.0  | 1.4  | 5.2  |
| Bangpa-in power station Unit 2                | combined cycle | 117 | 103.9  | 1.6  | 5.0  |
| Bang Pakong power station ST3 (BPK-TP3)       | steam turbine  | 576 | 2087.5 | 38.6 | 80.8 |
| Bang Pakong power station ST4 (BPK-TP4)       | steam turbine  | 576 | 2101.3 | 25.9 | 24.6 |
| Bang Pakong power station Unit CC5            | combined cycle | 710 | 1267.0 | 16.4 | 5.1  |
| Bangpoo cogeneration power station Unit 1-1   | combined cycle | 120 | 64.5   | 2.3  | 2.3  |
| Bangpoo cogeneration power station Unit 2-1   | combined cycle | 120 | 64.5   | 2.3  | 2.3  |
| Banpong power station Unit 1                  | combined cycle | 128 | 27.9   | 6.8  | 6.3  |
| Banpong power station Unit 2                  | combined cycle | 128 | 31.8   | 7.0  | 3.8  |
| Berkprai cogeneration power station           | combined cycle | 99  | 71.8   | 1.4  | 6.4  |
| Chachoengsao NNK cogeneration power station   | combined cycle | 110 | 69.1   | 2.7  | 1.4  |
| Chaiyo power station                          | combined cycle | 123 | 28.9   | 4.4  | 4.5  |
| Chana power station Unit 1                    | combined cycle | 710 | 300.8  | 5.8  | 18.1 |
| Chana power station Unit 2                    | combined cycle | 766 | 176.4  | 6.3  | 14.2 |
| Chonburi Ng Project power station Unit 1      | combined cycle | 625 | 365.1  | 19.6 | 15.5 |
| Chonburi Ng Project power station Unit 2      | combined cycle | 625 | 365.1  | 19.6 | 15.5 |
| Chonburi Ng Project power station Unit 3      | combined cycle | 625 | 365.1  | 19.6 | 15.5 |
| Chonburi Ng Project power station Unit 4      | combined cycle | 625 | 365.1  | 19.6 | 15.5 |
| EGCO cogeneration (Rayong) power station      | combined cycle | 117 | 199.3  | 6.6  | 3.6  |
| Global Power Synergy Central Utility Plant 1  | combined cycle | 226 | 138.5  | 19.0 | 4.6  |
| Global Power Synergy Central Utility Plant 2  | combined cycle | 113 | 91.3   | 2.1  | 6.7  |
| Glow IPP power station Unit 1                 | combined cycle | 357 | 342.0  | 2.1  | 2.7  |
| Glow IPP power station Unit 2                 | combined cycle | 357 | 307.6  | 2.2  | 3.2  |

|                                         |                |     |       |       |      |
|-----------------------------------------|----------------|-----|-------|-------|------|
| Glow SPP 11 power station Unit 1-1      | combined cycle | 162 | 270.1 | 1.5   | 7.7  |
| Glow SPP 11 power station Unit 2-1      | combined cycle | 110 | 83.0  | 2.7   | 1.6  |
| Glow SPP 1 power station Unit 1         | combined cycle | 140 | 110.8 | 3.2   | 1.2  |
| Glow SPP 1 power station Unit 2         | combined cycle | 140 | 104.7 | 3.0   | 1.2  |
| Gulf BL power station                   | combined cycle | 127 | 539.5 | 2.4   | 1.0  |
| Gulf BP power station                   | combined cycle | 127 | 80.0  | 0.6   | 1.0  |
| Gulf CRN power station                  | combined cycle | 126 | 90.5  | 1.4   | 6.2  |
| Gulf KP1 power station                  | combined cycle | 110 | 70.8  | 1.5   | 1.3  |
| Gulf KP 2 power station                 | combined cycle | 110 | 83.9  | 1.7   | 1.4  |
| Gulf NC power station                   | combined cycle | 127 | 87.9  | 3.0   | 7.3  |
| Gulf NK2 power station                  | combined cycle | 133 | 102.6 | 0.7   | 1.4  |
| Gulf NLL power station Unit 1           | combined cycle | 123 | 59.6  | 1.1   | 1.4  |
| Gulf NLL power station Unit 2           | combined cycle | 127 | 49.8  | 0.5   | 1.0  |
| Gulf NPM power station CC1              | combined cycle | 135 | 72.6  | 1.8   | 1.3  |
| Gulf NRV power station Unit 1           | combined cycle | 128 | 80.7  | 1.9   | 1.3  |
| Gulf NRV power station Unit 2           | combined cycle | 128 | 93.8  | 1.5   | 1.4  |
| Gulf Tasit 1 power station              | combined cycle | 138 | 56.3  | 1.0   | 1.0  |
| Gulf Tasit 2 power station              | combined cycle | 138 | 71.4  | 2.0   | 1.1  |
| Gulf Tasit 3 power station              | combined cycle | 130 | 63.6  | 2.3   | 1.1  |
| Gulf Tasit 4 power station              | combined cycle | 130 | 60.3  | 1.7   | 1.0  |
| Gulf TLC power station                  | combined cycle | 114 | 70.7  | 0.9   | 1.4  |
| Gulf VTP power station                  | combined cycle | 137 | 38.9  | 0.9   | 0.5  |
| Gulf VTP power station                  | combined cycle | 137 | 31.3  | 0.6   | 0.5  |
| Hemaraj Industrial Estate power station | combined cycle | 130 | 31.3  | 3.0   | 1.2  |
| Hin Kong power plant Unit 1             | combined cycle | 700 | 527.8 | 4.7   | 24.4 |
| Kaeng Khoi 2 power station Unit 1       | combined cycle | 734 | 693.7 | 2.9   | 8.8  |
| Kaeng Khoi 2 power station Unit 2       | combined cycle | 734 | 423.5 | 7.2   | 5.3  |
| Khanom power station CC4                | combined cycle | 970 | 642.5 | 42.8  | 7.6  |
| Klong Luang power station               | combined cycle | 122 | 13.1  | 3.2   | 4.7  |
| Koh Khanun power station Unit 1         | unknown        | 114 | 61.3  | 2.2   | 2.2  |
| Krabi power station                     | steam turbine  | 315 | 394.6 | 122.9 | 32.3 |
| Laem Chabang power station Unit 1       | combined cycle | 140 | 94.9  | 10.6  | 1.4  |

|                                                          |                |     |        |       |       |
|----------------------------------------------------------|----------------|-----|--------|-------|-------|
| Laem Chabang power station Unit 2                        | combined cycle | 56  | 5.4    | 4.7   | 3.3   |
| Lat Krabang power station                                | combined cycle | 120 | 55.6   | 0.8   | 2.8   |
| Map Ta Phut BKK power station Unit 1                     | combined cycle | 112 | 41.2   | 0.5   | 4.6   |
| Nam Phong power station Unit 1                           | combined cycle | 355 | 1290.8 | 19.9  | 32.5  |
| Nam Phong power station Unit 2                           | combined cycle | 355 | 1290.8 | 19.9  | 32.5  |
| Nava Nakorn power station Unit 1                         | combined cycle | 139 | 87.1   | 1.6   | 6.8   |
| Nong Khae power station Unit 1                           | combined cycle | 113 | 197.1  | 2.4   | 3.6   |
| Nong Saeng power station Unit 1                          | combined cycle | 800 | 559.3  | 11.2  | 25.5  |
| Nong Saeng power station Unit 2                          | combined cycle | 800 | 666.6  | 9.4   | 8.4   |
| North Bangkok power station Unit 1                       | combined cycle | 670 | 623.7  | 9.7   | 8.4   |
| North Bangkok power station Unit 2                       | combined cycle | 828 | 102.2  | 4.5   | 11.0  |
| Ratchaburi (B.Grimm) power station Unit 1                | combined cycle | 140 | 28.9   | 4.4   | 4.5   |
| Ratchaburi (B.Grimm) power station Unit 2                | combined cycle | 140 | 87.8   | 7.3   | 2.2   |
| Ratchaburi Power (RPCL) power station Unit 1             | combined cycle | 700 | 508.1  | 58.8  | 41.2  |
| Ratchaburi Power (RPCL) power station Unit 2             | combined cycle | 700 | 508.1  | 58.8  | 41.2  |
| Ratchaburi (RATCHGEN) power station Unit 1               | combined cycle | 725 | 365.5  | 4.0   | 24.9  |
| Ratchaburi (RATCHGEN) power station Unit 2               | combined cycle | 725 | 415.3  | 3.9   | 21.0  |
| Ratchaburi (RATCHGEN) power station Unit 3               | combined cycle | 725 | 173.4  | 2.0   | 12.3  |
| Ratchaburi (RATCHGEN) power station Unit 4               | gas turbine    | 735 | 143.9  | 1.7   | 14.7  |
| Ratchaburi (RATCHGEN) power station Unit 5               | gas turbine    | 735 | 377.2  | 510.8 | 291.3 |
| Ratchaburi World cogeneration power station              | combined cycle | 234 | 98.5   | 2.3   | 8.3   |
| Rayong Gulf PD power station Unit 1                      | combined cycle | 625 | 497.8  | 7.4   | 16.3  |
| Rayong Gulf PD power station Unit 2                      | combined cycle | 625 | 283.4  | 14.5  | 24.1  |
| Rayong Gulf PD power station Unit 3                      | combined cycle | 625 | 359.2  | 11.8  | 10.1  |
| Rayong Gulf PD power station Unit 4                      | combined cycle | 625 | 365.1  | 19.6  | 15.5  |
| Rayong Sipco power station                               | combined cycle | 160 | 54.5   | 4.7   | 2.2   |
| Rojana power station                                     | combined cycle | 275 | 406.0  | 0.2   | 4.4   |
| Saha Patana power station                                | combined cycle | 203 | 294.1  | 3.4   | 6.7   |
| South Bangkok International Airport (SBIA) power station | combined cycle | 55  | 41.0   | 5.8   | 6.8   |

|                                                         |                |      |        |      |      |
|---------------------------------------------------------|----------------|------|--------|------|------|
| South Bangkok power station Unit CC3                    | combined cycle | 710  | 1037.7 | 10.4 | 6.5  |
| South Bangkok power station Unit CC4                    | combined cycle | 1220 | 586.1  | 7.8  | 11.0 |
| Sriracha power station                                  | combined cycle | 700  | 779.7  | 35.9 | 19.8 |
| Sriracha Thai Oil Company power station Unit 1          | combined cycle | 120  | 10.1   | 2.3  | 2.3  |
| Sriracha Thai Oil Company power station Unit 2          | combined cycle | 120  | 6.9    | 2.3  | 2.3  |
| Thai Oil Company Sriracha Refinery power station Unit 1 | combined cycle | 118  | 134.8  | 2.5  | 3.7  |
| U-Thai power station Unit 1                             | combined cycle | 800  | 584.2  | 9.5  | 10.2 |
| U-Thai power station Unit 2                             | combined cycle | 800  | 446.6  | 8.4  | 6.4  |
| Wang Noi power station Unit 4                           | combined cycle | 750  | 540.2  | 53.8 | 55.0 |

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