

LEADING THE WAY

to Sustainable
Growth



KNOWLEDGE
INNOVATION
TEAMWORK



TEAM Consulting Engineering and
Management Public Company Limited



TEAM GROUP

from Past to Present

More than 40 years ago, **TEAM Consulting Engineering and Management PCL. (TEAM GROUP)** was founded by a group of Thai engineers with strong belief in their capacity and competitiveness at the global level. In the first decade of business operation, we expanded multidisciplinary consultancy services and took part in many environmental studies, water resource initiatives, and irrigation projects nationwide.

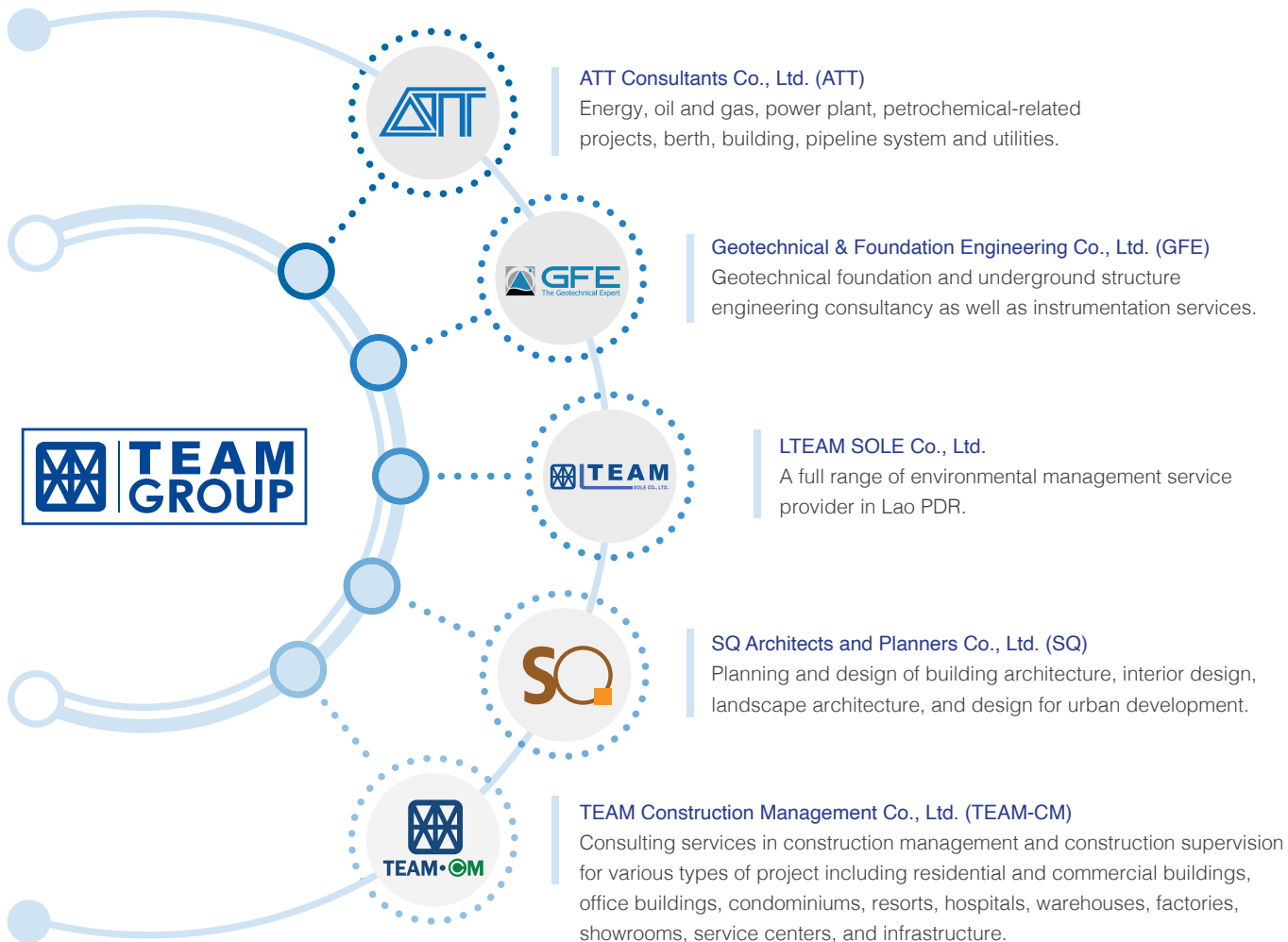
In our second decade, we rapidly grew through diversification of expertise that addressed water and environmental management, urban and regional development, community-based development, infrastructure and transportation improvement as well as power and energy schemes. With interagency one-stop services, we helped clients to overcome challenges and accomplish major development projects in both Thailand and Association of Southeast Asian Nations (ASEAN) countries. We gradually prospered as **one of the most heterogeneous providers of consulting services both domestically and regionally.**

During the third decade, we extended our outreach to Cambodia, Lao PDR, and Myanmar. With a strong management foundation, we became recognized as the **leading engineering consultant and related business service provider at national and international levels** with track records in many Asian countries such as Cambodia, Lao PDR, Myanmar, Vietnam, Nepal, Sri Lanka, Timor-Leste, and Yemen.

We continue to grow steadily with a portfolio that numbers the successful achievement of more than 2,500 projects. Committed to providing high-quality and innovative engineering services, we have now expanded our expertise in the areas of transportation and logistics, water resources and hydropower, industrial and urban development, environmental management, and energy, in a bid to achieve the vision: **A Regional Solution Provider and Innovative Business Developer.**

Holistic Solutions through Strong Synergy

Our **five affiliates** and more than **1,500 talented professionals** in Thailand and overseas enable TEAM GROUP to deliver one-stop integrated service solutions for optimum efficiency and cost-effectiveness.

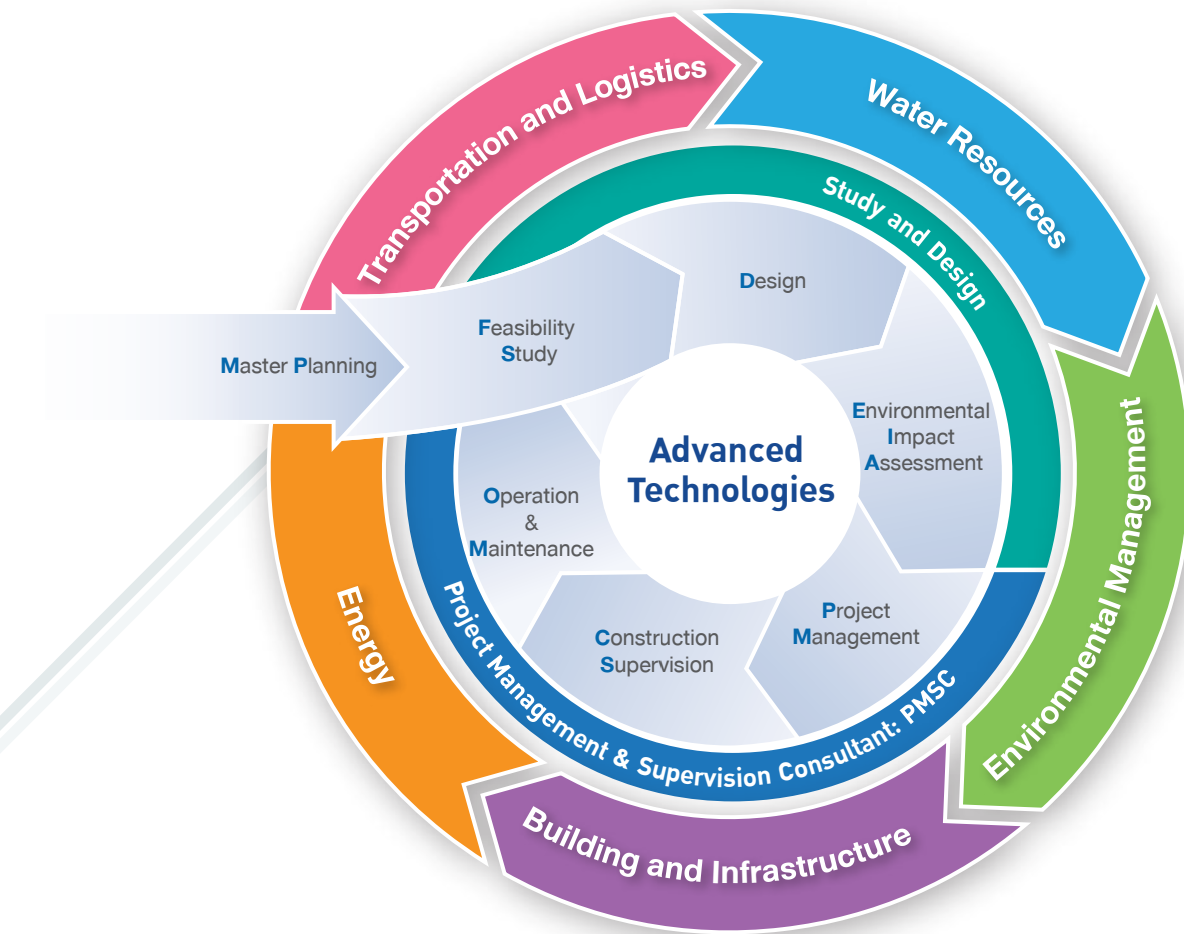


Five Areas of Expertise with Full-cycle Services

Our one-stop facilities enable us to offer integrated solutions for domestic and cross-border projects. With high caliber, experienced, and innovative workforce, we are committed to offering comprehensive services in **five development sectors**: transportation and logistics, water resources, environmental management, building and infrastructure, and energy.



Vision: A Regional Solution Provider
and Innovative Business Developer.



Based on a total solution approach, we can support **all of the project life-cycle activities**: master planning, feasibility study, design, environmental impact assessment, project management and construction supervision as well as operation and maintenance. In addition, we also serve as an independent engineer in many large-scale projects for public and private sectors.

Transportation and Logistics

In line with the government's policy to boost the economy and enhance mobility and logistics systems around Thailand and in the ASEAN region, TEAM GROUP involves in all modes of transport – road, rail, mass rapid transit systems, airports, and seaports – by delivering services from master planning to design, study, and construction supervision and management.

For urban areas, mass rapid transit system and traffic management projects are urgently needed; thus TEAM GROUP also provides services in urban transportation for both public and private sectors.

Service Areas

- ▶ Mass rapid transit
- ▶ Railways
- ▶ Motorways/expressways
- ▶ Urban and rural roads
- ▶ Bridges and overpasses
- ▶ Airports
- ▶ Seaports
- ▶ Traffic engineering
- ▶ Logistical management



Project References



01 Revision of the Mass Rapid Transit Master Plan in the Bangkok Metropolitan Region (M-Map): Office of Transport and Traffic Policy and Planning



02 Feasibility Study and Detailed Design of High Speed Train from Bangkok-Phitsanulok-Chiang Mai, Phases 1-2: Office of Transport and Traffic Policy and Planning



03 Feasibility Study, EIA, Detailed Design and Construction Supervision of Red Line Commuter Train Project: State Railway of Thailand



04 Feasibility Study, Detailed Design and EIA for the Mass Transit System for Bangkok Metropolis (Green Line Extension): Office of Transport and Traffic Policy and Planning, and Mass Rapid Transit Authority of Thailand



05 Feasibility Study and Detailed Design of Laem Chabang Port, Phases 2-3: Port Authority of Thailand



06 EIA and Construction Supervision of Suvarnabhumi Airport Development Project: Airports of Thailand PCL.

Water Resources

TEAM GROUP is widely recognized as one of Thailand's experts in water resource development and management. In the early days of our business when water resource development was essential for national development, especially in remote areas, TEAM GROUP provided services related to basin-wide water resource development, dam construction, and irrigation systems, as well as water supply systems.

Thailand currently needs a more holistic water resource development approach so TEAM GROUP backstops this requirement via projects on river basin development, irrigation management, flood prevention, and enhancing water supply and drainage systems.

And as we are the foremost water expert in the ASEAN region, our services also extend to neighboring countries such as Lao PDR, in the development contexts of numerous hydropower projects and multi-purpose dams.

Service Areas

- ▶ Basin-wide water resources management and development
- ▶ Irrigation
- ▶ Flood control and drainage
- ▶ Hydropower
- ▶ Coastal engineering
- ▶ Water supply

OI

Survey, Detailed Design and Construction Supervision of Khun Dan Prakanchon Dam, Nakhon Nayok Province: Royal Irrigation Department



Project References



02 Engineering Detailed Design, EMP, RAP and Construction Supervision of Nam Ngum 2 Hydroelectric Power Project, Lao PDR: CH. Karnchang PCL., SouthEast Asia Energy Ltd., and Nam Ngum 2 Power Co., Ltd.



03 Feasibility Study, EMP, RAP, Detailed Design and Instrumentation of Xayaburi Hydroelectric Power Project, Lao PDR: CH. Karnchang PCL. and Xayaburi Power Co., Ltd.



04 Submarine Water Pipeline Installation from Surat Thani Province to Koh Samui: Provincial Waterworks Authority (PWA)



05 Flood Prevention Project in the Areas of Chao Phraya River Basin and Bangkok: Bangkok Metropolitan Administration and Royal Irrigation Department



06 Water Supply System Development Project Including Bangkhen and Mahasawat Water Treatment Plants (Plans 7&8), Water Transmission Tunnel (Plans 6&7), and the Raw Water Canal from the Mae Klong River to Mahasawat Water Treatment Plant: Metropolitan Waterworks Authority (MWA)



07 Environmental and Social Impact Assessment (ESIA), Basic Design, Tender Document and Construction Supervision of Xe Pian-Xe Namnoy Hydroelectric Power Project, Lao PDR: Ratchaburi Electricity Generating Holding PCL.

Environmental Management

For over 40 years, TEAM GROUP has provided expert services related to environmental studies for many projects pertaining to water resource development, transportation systems, building and infrastructure, and clean energy, both in Thailand and for the international market. Our disciplinary diverse and highly experienced staff allow us to deliver integrated services ranging from strategic environmental assessment, initial environmental examination, environmental impact assessment, social and health impact assessment, environmental management planning, resettlement action planning, and social development planning. Furthermore, we engage in wastewater, solid waste and hazardous waste management projects.

Service Areas

- ▶ Strategic Environmental Assessment (SEA)
- ▶ Initial Environmental Examination (IEE)
- ▶ Environmental Impact Assessment (EIA)
- ▶ Social Impact Assessment (SIA)
- ▶ Health Impact Assessment (HIA)
- ▶ Environmental Management Plan (EMP)
- ▶ Resettlement Action Plan (RAP)
- ▶ Social Development Plan (SDP)
- ▶ Wastewater
- ▶ Solid waste
- ▶ Hazardous waste



Project References



01 Environmental Impact Assessment (EIA) of Chana Power Plant Project: Electricity Generating Authority of Thailand (EGAT)



02 Environmental Impact Assessment (EIA) of Dawei Deep-sea Port and Road Linking to the Bordering Village of Ban Phu Nam Ron in Kanchanaburi Province: Italian-Thai Development PCL.



03 Environmental Impact Assessment (EIA) and Feasibility Study of Xekong 4 Hydropower Project, Lao PDR: Ratchaburi Power Co., Ltd.



04 IEE and EIA for the Hongsa Power Plant, Mining Development and Transmission Line, Lao PDR: Banpu PCL.



05 Environmental Impact Assessment (EIA) of Si Racha Power Plant: Gulf Electric PCL.



06 EHIA for Replacement of Units 4-7 at Mae Moh Power Plant, Lampang Province: Electricity Generating Authority of Thailand (EGAT)

Energy

TEAM GROUP brings decades of engineering experience for a full range of energy innovations, either for traditional energy production or for sourcing renewable or alternative energy, especially solar energy, to help clients reduce operational cost and address the energy crisis on a sustainable basis. Our services encompass power system development, the oil & gas industry, fossil-fuel and renewable energy technology, energy conservation, and clean energy.

Service Areas

Conventional energy

- ▶ Coal-based energy
- ▶ Oil & gas based energy

Infrastructure development relating to energy project

- ▶ Power plants
- ▶ Transmission lines
- ▶ Petroleum and pipelines
- ▶ Petroleum loading facilities
- ▶ Jetties
- ▶ Tank farms

Energy conservation

- ▶ Energy auditing
- ▶ Energy efficiency improvement
- ▶ Energy management

Sustainable and renewable energy

- ▶ Hydropower
- ▶ Biomass/biogas
- ▶ Wind/solar/geothermal
- ▶ Fuel switching
- ▶ Energy from waste
- ▶ Alternative transport fuels
- ▶ Combined Cooling, Heating and Power (CCHP)

Independent Engineer (IE) or Lender's Engineer and Technical Due Diligence



Project References



01 Detailed Design and Construction Supervision for Overhead Cable Replacement with Underground Cable System (Nonsi Project): Metropolitan Electricity Authority (MEA)



02 Detailed Design of 55 MW AC Solar Energy Project in Lop Buri Province: Natural Energy Development Co., Ltd.



03 Project Management and Construction Supervision of NNE CCGT SPP Power Plant: Navanakorn Electric Co., Ltd.



04 Detailed Design, Project Management and Construction Supervision of 230 kV Underground Power Cable Project between Bangkok and Chidlom Terminal Stations: Metropolitan Electricity Authority (MEA)



05 Owner Engineer and Lender Engineer for the 400,000 LPD Ethanol Plant Project, Ubon Ratchathani Province: Ubon Bio Ethanol PCL.

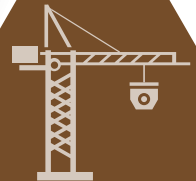


06 Technical Due Diligence for Bangchak Refinery and Phetchaburi Tank Farm: The Bangchak Petroleum PCL.

Building and Infrastructure

In line with both urban and industrial development, TEAM GROUP delivers a one-stop service for building and infrastructure projects, ranging from research, planning, designing, project management and construction supervision, to operation and maintenance. Through state-of-the-art technologies and innovations such as the Building Information Model (BIM), clients can be assured of quality results that are cost effective with high precision, from the initial stage of design to construction supervision and management, and latterly during the operation and maintenance period.

TEAM GROUP also endorses the 'green building concept', where both the structure and the building processes are environmentally safe and resource-efficient throughout the building's life-cycle, especially in large-scale projects.



OI

Project Management and Construction
Supervision of Ideo Mobi Rangnam:
Ananda Development PCL.

Service Areas

Urban and regional planning

- ▶ National development plan
- ▶ Regional development plan
- ▶ Sub-regional development plan
- ▶ Strategic master plan
- ▶ Comprehensive plan
- ▶ Specific plan/sub-area plan

Building and infrastructure

- ▶ Architectural design
- ▶ Infrastructural design
- ▶ Engineering design
- ▶ Interior design
- ▶ Landscape design
- ▶ Rehabilitation/renovation
- ▶ Site selection
- ▶ Peer-review
- ▶ Independent engineer
- ▶ Tendering process
- ▶ Green building

Geotechnical engineering

- ▶ Soil and rock mechanics
- ▶ Sub-surface conditions and materials
- ▶ Physical/mechanical and chemical properties of materials
- ▶ Design of earthwork and structural foundations
- ▶ Site conditions, earthwork and foundation construction

Facility and land development planning

- ▶ Facility planning
- ▶ Real estate development planning
- ▶ Community/neighborhood development planning
- ▶ Industrial estate development planning

Project References



02 Project Management and Construction Supervision of Life Asoke - Rama 9
Project: AP ME3 Co., Ltd.



03 Project Management and Construction Supervision of The Privacy Thaphra Interchange: Prukha Real Estate PCL.

Project References



- 04** Project Management Consulting Services of the Government Complex Commemorating His Majesty the King's 80th Birthday Anniversary, 5th December B.E. 2550 (2007): Dhanarak Asset Development Co., Ltd., Ministry of Finance



- 05** BIM Application for Project Management and Construction Supervision of the Headquarters of the Stock Exchange of Thailand: The Stock Exchange of Thailand (SET)



- 06** Master Planning, Feasibility Study, EIA and PPP Study for the Development of the Commercial Area at Bang Sue Grand Station to Serve as Thailand's Major Railway Hub: State Railway of Thailand



- 07** Detailed Design of Amata City Long Thanh High Tech Industrial Park, Vietnam: Amata VN PCL.



- 08** Project Management of the New Tobacco Factory at Rojana Industrial Park, Phra Nakhon Si Ayutthaya Province: Thailand Tobacco Monopoly, Ministry of Finance



- 09** Feasibility Study, Detailed Design and Construction Supervision of Pharmaceutical Plant Construction Project: Thaipharm 1942 Co., Ltd.

From Consulting Services to Related Businesses

With a prospectus that targets economic stability and environmental sustainability for Thailand and elsewhere, TEAM GROUP anticipates expanding into related businesses, based on its expertise and experience, such as instrumentation services and so forth.



Service Excellence through Corporate Values, Professionalism, and Innovations

With our focus on creating solutions that best address clients' needs and standards, TEAM GROUP embraces **standard Service (S)**, **Quality (Q)**, and **Teamwork (T)** or **SQT**.



TEAM GROUP considers human resource development to be essential. By establishing the **Institute of Management and Technology (IMT)**, it has increased the professional and management knowledge of its employees. TEAM GROUP also serves as a central body for the Council of Engineers in conducting **Continuing Professional Development (CPD)** training. We also collaborate with leading organizations, both public and private, and educational institutes such as the Asian Institute of Technology (AIT) and King Mongkut's Institute of Technology Ladkrabang (KMITL), in cooperative education and apprenticeship projects.



TEAM GROUP is among the leading consulting firms in Thailand and the ASEAN region which employs innovations and cutting-edge technologies for the betterment of services. Some examples are the **Building Information Model (BIM)** – a 3D model-based process which integrates all the information about every construction activity from planning, design, and construction to operation and maintenance for building and infrastructure projects. The **Unmanned Aerial Vehicle (UAV)** or drone enables aerial photographic technology to deliver better surveys and research for the planning and improvement of various types of projects in both 2D and 3D. Integrated with the BIM, both the cost and time of the study and survey are significantly reduced when compared to the output.



Creating Shared Values for Sustainability

Through corporate awareness of society and the environment, TEAM GROUP promotes sustainability through Creating Shared Values (CSV). We conduct a plethora of activities, ranging from provision of scholarships to schools in provinces, giving lunch funds to needy schools, to sponsoring library and sports facilities for communities, and environmental enhancement activities such as planting mangrove seedlings and artificial coral reef establishment. In coordination with philanthropic organizations such as the [Thai Red Cross Society](#) and the [TEAM GROUP Foundation](#), TEAM GROUP provides social support such as blood donations and delivery of necessities to underprivileged people on a regular basis.



TEAM GROUP also provides society with knowledge compiled through our years of experience. Our public seminar is one of the intellectual events that we arrange for disseminating our knowledge for public benefit.






The younger generation is our future, so in this context TEAM GROUP provides high-school students with educational visits to construction sites for hands-on experience at the ground level.



Our Credentials

TEAM GROUP is trusted by customers from both public and private sectors, domestically and internationally. Today we have a client base of more than 100 satisfied organizations and a portfolio of more than 2,500 successfully completed projects.

International Organizations & Private Enterprises

	Asian Development Bank		Central Pattana PCL.		Land and Houses PCL.
	Japan Bank for International Cooperation		CH. Karnchang PCL.		L.P.N. Development PCL.
	Mekong River Commission		Chevron Thailand Exploration and Production, Ltd.		LOXLEY PCL.
	Overseas Cambodian Investment Corporation		CIMB-Principal Asset Management Co., Ltd.		Mason Acoustics Co., Ltd.
	Petroleum Trading Lao Public Company		Community Pharmacy PCL.		Minor Food Group PCL.
	Souvanny Home Center Public Company		Charoen Pokphand Foods PCL.		MWH Global, Inc.
	Timor GAP, E.P. (TG)		CP All PCL.		National Power Supply PCL.
	Tokyo Electric Power Company		CTI Engineering International Co., Ltd.		Nava Nakorn PCL.
	Torishima (Hong Kong) Ltd.		Dhammakaya Foundation		Nawarat Patanakarn PCL.
	Advance Agro PCL.		District Cooling System and Power Plant Co., Ltd.		N.C.C. Management & Development Co., Ltd.
	Amata Corp. PCL.		Druk Green Power Corporation Ltd. (DGPC)		Nestlé (Thai) Ltd.
	Ananda Development PCL.		Eastern Water Resources Development and Management PCL.		Pruksa Real Estate PCL.
	AP (Thailand) PCL.		EDF Group		PTT PCL.
	Atlantic Pharmaceutical Co., Ltd.		EGCO Group		PTT Exploration and Production PCL.
	Bangkok Glass PCL.		Ek-Chai Distribution System Co., Ltd.		PTT Global Chemical PCL.
	Bangkok Life Assurance PCL.		Esso (Thailand) PCL.		Punj Lloyd Group JV.
	Bangkok Mass Transit System PCL.		Gulf Energy Development PCL.		Ratchaphruek Hospital
	Bangkok Metal Works Co., Ltd.		Gulf Electric PCL.		Radicon Transmission (Thailand) Ltd.
	Bangkok Expressway and Metro PCL.		Gulf JP Co., Ltd.		Rangsit Plaza Co., Ltd.
	Bangpa-In Land Development Co., Ltd.		Halcrow Group		Ratchaburi Electricity Generating Holding PCL.
	Better Pharma Co., Ltd.		Home Product Center PCL.		RATCH-Lao Services Co., Ltd.
	Boon Rawd Brewery Co., Ltd.		IRPC PCL.		River Kwai Village
	Boonthavorn Ceramic Co., Ltd.		Italian-Thai Development PCL.		S. Charoen Bhaesaj Trading Co., Ltd.
	C&G Environmental Protection Holdings Ltd.		King Power International Co., Ltd.		Saraff Energies Ltd.
	Cargill Meats (Thailand) Ltd.				TCC Capital Land Ltd.
					TCC Land Co., Ltd.

 **SCG** The Siam Cement Group PCL.

 **SCG** Map Ta Phut Tank Terminal Co., Ltd.

 **SCG** Siam Kraft Industry Co., Ltd.


 **SCG LOGISTICS** SCG Logistics Management Co., Ltd.


 **SEAFCO** PCL.


 **MEGA** SF Development Co., Ltd.


 **SIAM PIWAT** Siam Piwat Co., Ltd.


 **Singha** Corporation Co., Ltd.


 **Surapon** Foods PCL.


 **Thai Public Port** Co., Ltd.


 **Thai Oil** PCL.

 **Thai Petroleum Pipeline** Co., Ltd.

 **Thai Polo Club** Pattaya

 **The Bangchak Petroleum** PCL.

 **The Church of Christ** in Thailand

 **The Linde** Group

 **TTW** PCL.

 **Ubon Bio Ethanol** Co., Ltd.

 **Union Property** Co., Ltd.


 **Unique Engineering and Construction** PCL.


 **Vandapac** Co., Ltd.


 **verasu** Verasu Group Co., Ltd.


 **VOLVO** Volvo Group (Thailand) Co., Ltd.


Government & State Enterprises


 **AOT** Airports of Thailand PCL.


 **Bangkok Metropolitan Administration**


 **CAT** CAT Telecom PCL.


 **Department of Highways**


 **Department of Industrial Promotion**


 **Department of Industrial Works**


 **Department of Mineral Resources**


 **Department of Public Works and Town & Country Planning**


 **Department of Rural Roads**


 **Department of Water Resources**


 **Designated Areas for Sustainable Tourism Administration (Public Organization)**


 **Dhanarak Asset Development** Co., Ltd.


 **Electricity Generating Authority of Thailand**


 **Expressway Authority of Thailand**


 **GISTDA** Geo-Informatics and Space Technology Development Agency (Public Organization)


 **Hua Hin Municipality**


 **Hydro and Agro Informatics Institute**


 **Industrial Estate Authority of Thailand**


 **Laem Chabang Port**


 **Liquor Distillery Organization**


 **Marine Department**


 **Mass Rapid Transit Authority of Thailand**


 **MCOT PCL.**


 **Metropolitan Electricity Authority**


 **Metropolitan Waterworks Authority**


 **Ministry of Commerce**


 **Ministry of Energy**


 **Ministry of Finance**


 **Ministry of Industry**


 **Ministry of Information and Communication Technology**


 **Ministry of Interior**


 **Ministry of Public Works and Transport, Kingdom of Cambodia**

 **Ministry of Transport**

 **National Institute of Metrology (Thailand)**

 **National Telecommunications Commission**

 **NCA** Neighbouring Countries Economic Development Cooperation Agency (Public Organization)

 **Office of Small and Medium Enterprises Promotion**


 **Office of Transport and Traffic Policy and Planning**

 **Pollution Control Department**

 **Port Authority of Thailand**

 **Provincial Electricity Authority**

 **Provincial Waterworks Authority**

 **Royal Irrigation Department**


 **State Railway of Thailand**

 **Thai Airways International PCL.**

 **Thailand Institute of Nuclear Technology**

 **Thailand Institute of Scientific and Technological Research (TISTR)**

 **Thailand Tobacco Monopoly**

 **The Excise Department**

 **The Government Lottery Office**

 **The Secretariat of the House of Representatives**

 **The Treasury Department**

 **Tourism Authority of Thailand**

 **Wastewater Management Authority**

and many more...



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