

112 年度工程產業全球化產業鏈結及輔導計畫
工程產業全球化人才實務培訓班課程
場次六 參與泰國政府採購案之實戰策略

主辦單位：行政院公共工程委員會

執行單位：淡江大學（工程法律發展研究中心）

協辦單位：中國工程師學會中華台北亞太/國際工程師監督委員會

台灣大學 BIM 中心

淡江大學工學院 BIM 中心

電話：02-2621-5656 轉 3219

中心網址：<https://www.constructionlaw.tku.edu.tw/>

E m a i l：constructionlaw@tku.edu.tw



工程產業全球化 人才實務培訓班課程

Globalization of Engineering Industry
Practitioner Training Courses

主辦單位：行政院公共工程委員會

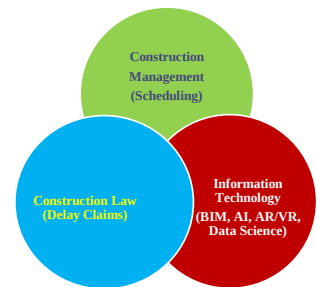
執行單位：淡江大學(工程法律研究發展中心)

協辦單位：中國工程師學會中華台北亞太/國際工程師監督委員會、台灣大學BIM中心、淡江大學工學院BIM中心



Fan, Su-Ling (Laura) Ph.D.

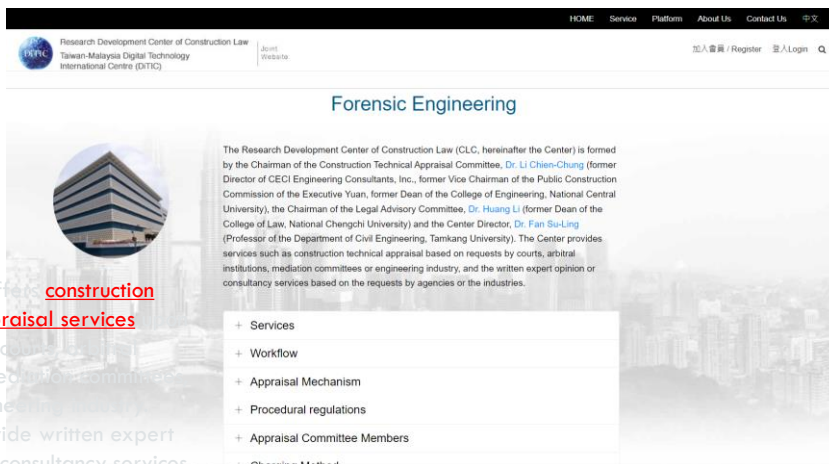
Professor, Department of Civil Engineering, Tamang University
Director, Research Development Center of Construction Law(CLC), Tamang University
Director, BIM Center, College of Engineering, Tamang University



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RESEARCH DEVELOPMENT CENTER OF CONSTRUCTION LAW



The Research Development Center of Construction Law (CLC, hereinafter the Center) is formed by the Chairman of the Construction Technical Appraisal Committee, **Dr. Li Chien-Chung** (former Director of CECI Engineering Consultants, Inc., former Vice Chairman of the Public Construction Commission of the Executive Yuan, former Dean of the College of Engineering, National Central University), the Chairman of the Legal Advisory Committee, **Dr. Huang Li** (former Dean of the College of Law, National Chengchi University) and the Center Director, **Dr. Fan Su-Ling** (Professor of the Department of Civil Engineering, Tamkang University). The Center provides services such as construction technical appraisal based on requests by courts, arbitral institutions, mediation committees or engineering industry, and the written expert opinion or consultancy services based on the requests by agencies or the industries.

- + Services
- + Workflow
- + Appraisal Mechanism
- + Procedural regulations
- + Appraisal Committee Members
- + Charging Method



- The Center offers **construction technical appraisal services**

request from courts, arbitral institutions, mediation committees and the engineering industry.

- We also provide written expert opinions and consultancy services.



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CONSTRUCTION LAW

Specialized in dispute resolutions and delay claims

- Consultant for a Railroad Project (2016-Present)
- Consultant for a Vietnam Railroad Project (2019-2022)
- Consultant for a Korean Contractor on Power Plants Project (2010-2011)
- Consultant for an Electric & Machinery Co., Ltd. (2005-2009)
- Consultant for a BOT project (2014-2015)
- Consultant for a Memorial Hall Renovation Project (201-2012)
- Consultant for a Contractor on various construction projects (2008-2009)
- Consultant for a Contractor on a Hospital Construction Project Consultant (2009-2010)
- Consultant for a High-Speed Railway Project (2007-2008)
- Consultant for an Exhibition Center Project (2005-2009)



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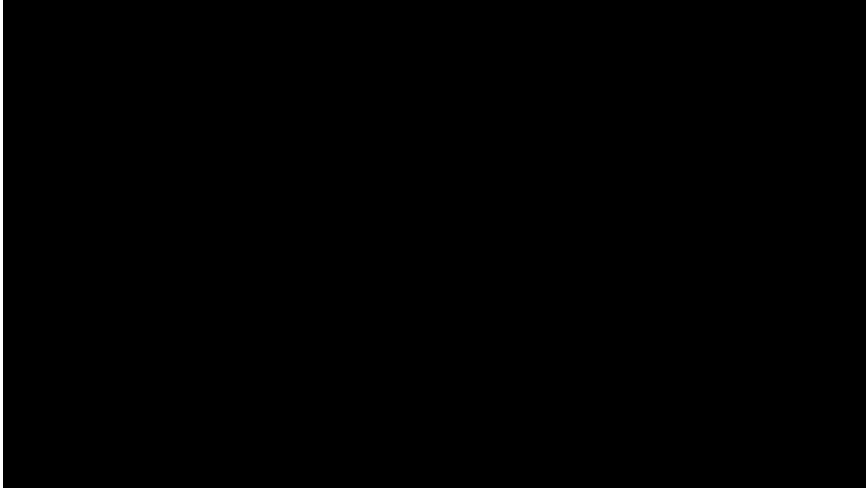


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Tamkang University



行政院公共工程委員會
Public Construction Commission, Executive Yuan

BIM CENTER, COLLEGE OF ENGINEERING, TAMANG UNIVERSITY



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CIVIL TECH ALLIANCE



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主講人 - 吳毅鈞經理

【現職】

中鼎工程股份有限公司經理

中鼎工程股份有限公司經理煉油石化業務二部主管

【經歷】

中鼎工程股份有限公司調部門 - 煉油石化業務二部 主管經理、中鼎工程股份有限公司調部門 - 煉油石化業務三部 經理、中鼎工程股份有限公司調海外 - (卡達)派駐卡達分公司 總經理、中鼎工程股份有限公司調海外 - (阿拉伯聯合大公國)派駐阿布達比分公司 總經理、中鼎工程股份有限公司調海外 - (中國大陸) 派駐中鼎北京公司 業務經理、中鼎工程股份有限公司調海外 - (中國大陸)派駐中鼎上海辦公室 業務經理、中鼎工程股份有限公司環境工程專案工程師



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主講人 - 蔡君平副理

【現職】

中鼎工程股份有限公司煉油石化五部主任

【經歷】

中鼎工程股份有限公司海外業務代表-北京、中鼎工程股份有限公司煉油石化業務代表、中鼎工程股份有限公司海外業務代表-沙烏地阿拉伯、中鼎工程股份有限公司總經理特別助理、中鼎工程股份有限公司煉油石化業務代表、大誠工程顧問有限公司內業工程師



課程簡介

1. 市場特性、概況與未來趨勢
2. 工程環境及相關法規
3. 個案經驗分享及潛在商機
4. 相關採購案招標、投標、決標流程說明
5. 不同招決標方式之市場分析、審標要項與備標重點及注意事項
6. 工程與勞務標案之合作廠商、分包商、仲介機構、夥伴、工程師、勞工之尋求管道與建議
7. 法律、財稅、銀行相關支援建議



其他課程

場次	時間	講師	主題
場次三	9月25日(一)下午	蘇宥人執行董事 吳毅鈞經理	參與越南政府採購案之 實戰策略



報名網站



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線上學員命名方式:非常重要!

范0玲



歡迎加入工程產業全球化人才實務培訓班課程社群，

以下務請留意：

1. 請加入社群前務必先到本課程網站完成報名。

2. 每位加入者將您的暱稱改為

方式一：場次?-公司 姓(名) 職稱

方式二：場次?-姓0名。

3. 未符合命名規則或未在報名名單之先進，十分抱歉將會被退

程講義



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簽到、簽退注意事項

- 實體：到「報到處」簽到、簽退
- 線上簽到簽退
- 簽退前請截圖填答「問卷回饋」完畢畫面



回饋問卷



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線上簽到



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工程產業全球化人才實務培訓班 | 課程講義

本場次時程表

時間	講習內容	主講者
08：40~09：00	報到	
09：00~09：10	課程與講座介紹	主持 范素玲主任
09：10~10：00	參與泰國政府採購案之實戰策略	中鼎工程股份有限公司 吳毅鈞經理 中鼎工程股份有限公司 蔡君平副理
10：10~11：00		
11：10~11：30		
11：30~	Q&A	



參與泰國政府採購案 之實戰策略 – PART

簡報者：中鼎工程 吳毅鈞

Sep 2023

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大綱

- 1) 中鼎泰國簡介與發展歷程
- 2) 泰國市場特性
- 3) 泰國業主介紹
- 4) 泰國外商投資相關法令與公司設立
- 5) 相關財會、稅務案例分享
- 6) 個案介紹及經驗分享及潛在商機

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中鼎泰國簡介與發展歷程

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INTRODUCTION OF CTCI THAILAND

AUG 2023

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INTRODUCTION

- CTCI (Thailand) Co., Ltd. (CTCI Thailand), founded in 1987, over 30 years operation in Thailand which has one Bangkok office and one Fabrication Shop in Rayong with around 300 employees.
- CTCI Thailand is one of major **Engineering, Procurement and Construction (EPC)** firms that provides integrated services at the fields in Thailand.
 - Refinery,
 - Petrochemical,
 - Chemical,
 - Power
 - General industries
 - Fabrication service

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QUALITY & HSE CERTIFICATION



CTCIT Certification
ISO 9001 : 2015 Quality Management System
ISO 14001 : 2015 Environmental Management System
ISO 45001 : 2018 Occupational Health and Safety Management System



CTCI Thailand had been certified ISO9001 and ISO14001 since June 2010



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MANPOWER RESOURCES

As of Feb 2023

Department	Manpower
Management	4
Project Management & Control Dept.	13
Cost Management Dept.	8
QSHE Dept.	3
EPC Division	1
Procurement Dept.	20
Engineering Dept.	115
Construction Dept.	112
Supporting team (Admin., HR, IT, F&A, M&S)	33
Total	309



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BUSINESS OPERATIONS

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BUSINESS LINES



Petroleum Refining



- Alkylation
- Amine treatment
- Catalytic reforming
- Crude distillation
- Fluid catalytic cracking
- Hydrocracking
- Hydrodesulphurization
- Hydrogen
- Hydrotreating
- Lubes and fuels
- Lubricating base oils
- Petroleum coke
- Isomerization
- Sulfur recovery
- Sweetening
- Vacuum distillation

Petrochemical Processing



- Olefins
- Aromatics
- Polyolefin: PE, PP
- OCU
- PDH
- Butadiene
- Elastomers
- Synthetic fibers
- Organics
- Plastics
- PTA

Chemical Manufacturing



- Fertilizers
- Phosphates
- Ion Exchange Resins
- Waxes
- Pharmaceuticals
- Polysilicon

Liquefied Natural Gas (LNG)



- Processing plants
- Terminals and storage



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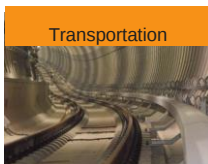
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BUSINESS LINES



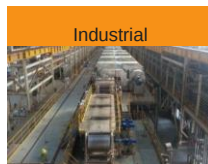
Power

- Fossil power plants
- Simple cycle power plants and combined cycle power plants
- Cogeneration power plants
- Green field power plants and conversion power plants
- Low-level radioactive waste on-site storage facilities for nuclear plants
- Renewable power plants



Transportation

- Mass Rapid Transit systems
- Light Rail Transit systems
- High speed rail
- Airports



Industrial

- Metals & non-ferrous metal mills
- Hi-tech facilities
- Life science facilities
- Manufacturing facilities



Environmental

- Drinking water treatment plant
- Raw water treatment plant
- Demineralized/pure water treatment plant
- Municipal wastewater treatment/reclamation plant
- Industrial wastewater treatment/reclamation plant
- Energy from municipal solid waste plant
- Industrial solid waste incineration plant
- Industrial waste liquid/off gas incineration plant
- Sludge incineration plant
- Air pollution control

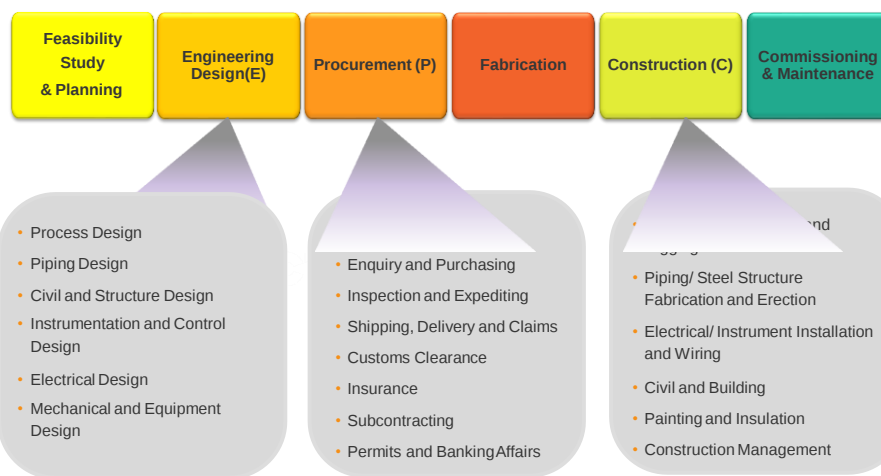


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SERVICES



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FABRICATION SHOP - EPOC

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FABRICATION SHOP - EPOC

CTCI Thailand performs fabrication work at CTCI Thailand EPOC shop, which is located at 137/1 Moo 5, Nongtapan, Mapkha Road, Amphur Nikhompattana, Rayong 21180. Our fabrication service offers completed fabrication facilities.

We have both indoor & outdoor fabrication shops, piping automatic welding machine shop, grit/sand blasting shops and large warehouses situated on over 112,000 sq.m. Our service on fabrication is shown below

- ◆ Steel piping fabrication
- ◆ Tank/ Vessel fabrication
- ◆ Furnace/ Heater fabrication
- ◆ Structure fabrication
- ◆ Sandblast/ Painting



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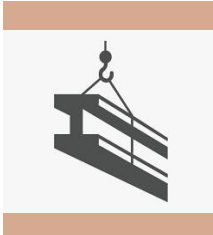
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CTCI THAILAND SHOP FACILITY INFORMATION

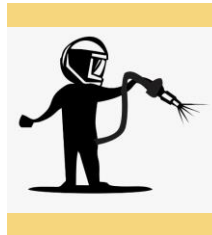
Production Capability



Piping Fabrication
60,000 DB / Month
4 Lines



Steel Structure
Fabrication
500 Tons / Month



Blasting & Painting
10,000 m² / Month



Furnace / Vessel /
Shop Tank Fabrication
300 Tons / Month



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CTCI THAILAND SHOP (EPOC)



Fabrication Area	Laydown Area	Total
59,200 m ²	74,200 m ²	133,400 m ²



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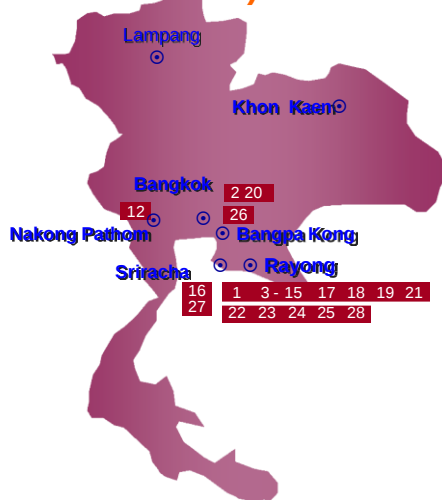
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MAJOR PROJECTS AWARDED

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SIGNIFICANT TRACK RECORDS IN THAILAND (1/2)



- 26 MHI - HVAC
- 27 Thai Oil – 2SPPs 127MW+110MW
- 28 UBE-CXN Improvement

- 1 Amata – CCPP
- 2 Bangchak – Gas Oil HDS
- 3 Diapolyacrylic – PMMA
- 4 Bayer – BPA & PC II Expansion
- 5 TOC – C2 and C3 Recovery Expansion
- 6 Rohm & Haas – PAA
- 7 TPC OXY – PVC Paste Resin
- 8 HMC – PP I Upgrading / PP II & Upgrading
- 9 TIG – ASU
- 10 Tuntex – PTA
- 11 Maxxis – Rubber Tire
- 12 PPG Coatings – Coating Plant Modification
- 13 Bayer – ABS/SAN
- 14 Vinythai – VCM
- 15 Thai MMA – TBA II
- 16 Thai Oil – New Gas Turbine
- 17 HMC – PDH
- 18 PPCL – Phenol
- 19 PTTUT – Central Utility Project No. 1 Phase 1 ~ 6
- 20 Bangchak – Hydrocracker
- 21 PTTAC – AN/MMA
- 22 PTTGC-SCR
- 23 IRPC-Excalibur
- 24 IRPC- Phoenix 9.1
- 25 TIG - MTPASU 3 Civil Work Phase I & II and Erection work of cryogenic tanks



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SIGNIFICANT TRACK RECORDS IN THAILAND (2/2)



* on-going project

- 29 Thai Oil – E&I works for TOP Crude Oil Tank
- 30 GPSC – Rayong Waste to Energy (RDF Plant)
- 31 GPSC – CUP4 Phase I
- 32 GPSC – CUP3 STG Installation Project
- 33 PTTLNG – Nong Fab LNG Receiving Terminal Project*
(Supporting to Saipem/ CTCI)
- 34 Thai Oil – EPC Main Work for CFP Crude Oil Tank*
- 35 Chevron – FEED Silk New Lubricants Plant *
- 36 Thai Oil – NG Metering Project*
- 37 UFA – PCD-III Project*
- 38 UBE – RN-1 Modification Project*
- 39 PT Chiyoda – 82 Shop Fabrication Tanks-MS Project*



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泰國市場特
性

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泰國 - 國家簡介



項目	內容
國名	泰王國 (Kingdom of Thailand)
首都	曼谷，人口1000萬，泰國第一大城
人口	7,000萬人(2022年)
宗教	佛教
語言	泰文
面積	514,000平方公里
時差	較臺灣慢1小時
幣制	泰銖(THB)
投資主管機關	泰國投資促進委員會 (Office of the Board of Investment)
主要媒體	一、英文報：曼谷郵報(Bangkok Post)、民族報(The Nation)。二、泰文報：泰叻報、每日新聞報、民意報及新新聞報。三、中文報：世界日報、中華日報、亞洲日報、星暹日報、京華中原聯合日報及新中原報。四、無線電視台：主要有第3台、第5台、第7台、第9台、第11台及ThaiPBS。五、有線電視：UBC系統。六、廣播：主要為泰國國家廣播電台及MCOT電台，其中MCOT在全國有60個頻道。



地理位置：

位於東南亞中心地帶，東南接連柬埔寨，南接馬來西亞，西鄰緬甸，東北與北部與寮國接壤，南臨暹羅灣，西南面印度洋，地處戰略要衝。



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東部經濟走廊(EASTERN ECONOMIC CORRIDOR, EEC)



泰國政府為促進區域共榮及成為區域貿易、物流中心，強化與鄰國柬埔寨、寮國、緬甸及越南等國 (CLMV) 夥伴關係與區域連結，即泰國所稱「CLMV Plus One」，運用已成型30年之Eastern Seaboard Project (東海岸) 之產業聚落基礎，以發展EEC及創新東部經濟走廊 (EECi)。EECi由位於羅勇府Wangchan Valley的物理中心 (ARIPOLIS)、生技中心 (BIOPOLIS) 及春武里府的航太中心 (Space Krenovapolis) 等所構成，在此3個創新園區中，聚焦發展6大產業 - 新興農業及生技、電動車及智慧運輸、航空航太、醫療器材、智慧系統及生質能源及燃料等。

泰國東部經濟走廊 相關投資優惠措施摘要如下： 1、貿易優惠：機器設備進口及用於輸出產品製造之原物料，享有免關稅之優惠。 2、投資優惠：除現有豁免企業所得稅最高13年，EEC區域內得享有最多 及其他優惠相關措施 (如外人持有土地、工作證便利與個人所得稅 17%減免、100%持股)。 3、投資以投資清單區分A1至A3和第八類的目標產業



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東部經濟走廊(EASTERN ECONOMIC CORRIDOR, EEC)



加速推動基礎建設工程：泰國交通部所提「2015-2022交通基礎建設發展計畫」內容包含擴建鐵路運輸線、延伸大曼谷地區捷運、曼谷國際機場第2期擴建計畫、高速公路網擴充及Laem Chabang深水碼頭與貨櫃站之增建。

此外，已批准在泰國東部經濟走廊（EEC）發展之4項計畫包括U-tapao機場（2,000億泰銖）、U-tapao機場維修中心（MRO）（110億泰銖）；Map Ta Phut海港的第3階段氣體和液體運輸工程（111億泰銖）。Laem Chabang海港第3期計畫將於2025年開始營運，而Map Ta Phut海港第3期計畫於2026年開始營運。另為升級運輸系統基礎建設，泰國交通部要求2022年預算編列3,250億，其中3,240億銖將用於支應50個基礎設施項目，剩餘的10億泰銖用於升級運輸系統。

在50個基建項目中，6個項目將由公路局開發，金額達2,400億銖；2個項目由農村公路局負責，預算為280億銖；高速公路局將獲配9.55億銖；泰國投資環境簡介68國家鐵路局將開發16個項目，耗資180億銖；大眾捷運局將開發13個項目，金額為200億銖；陸路運輸部將負責4個項目，預算為8.18億銖；機場局則開發2個項目，金額達110億銖。



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泰國業主介紹



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泰國 - 主要客戶簡介-石化



淡江大學
Tamkang University



項目	內容
公司	PTT Public company Limited
成立時間	29 December 1978
資本額	28,572 MTHB
產業	Electricity generation, petrochemical products, oil and gas exploration and production, and gasoline retailing businesses
主要產品	Electricity generation, petrochemical products, oil and gas exploration and production, and gasoline retailing businesses
主要股東	Ministry of Finance 51.11 %, Thai NVDR 7.86 %, Others 41.03 %
營收	2,336,155 M THB (2018)
經營團隊	Mr. Auttapol Rerkpiboon, CEO
發展計畫	Focus on development the renewable energy and infrastructure business
Website	www.pttplc.com



Introduction:
PTT is a Thai state-owned oil and gas company and involved in electricity generation, petrochemical production, and gasoline retailing business.



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泰國 - 主要客戶簡介-石化



淡江大學
Tamkang University



項目	內容
公司	GC (Global Chemical Public Company Limited)
成立時間	19 October 2011
資本額	45,088 M THB
產業	Refining and Petrochemical
主要產品	Refinery/ Aromatics/ Olefins/ Polymers/ EO-Based Performance/ Green Chemicals/ High Volume Specialties/ Phenol
主要股東	PTT PLC 48.79%, Thai NVDR 14.29%, Other 36.92%
營收	515,449 MTHB (2018)
經營團隊	Mr.Kongkrapan Intarajang CEO Mr. Patiparn Sukorndhaman, President
發展計畫	Focus on development the valuable downstream unit
Website	www.pttgcgroup.com

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泰國 – 主要客戶簡介-石化



項目	內容
公司	TOP Plc (Thai Oil Public Company Limited)
成立時間	3 August 1961
資本額	20,400 MTHB
產業	Refining and Petrochemical
主要產品	Oil Refinery/ Petrochemical & Lube Base/ Power Generation/ Transportation
主要股東	PTT PLC 49.10 %, State Street Europe Limited 3.79 %, Others 47.11 %
營收	389,344 MTHB (2018)
經營團隊	Mr. Bandhit Thamprajamchit, CEO and President
發展計畫	To be the largest refineries in Thailand and most competitive refineries in the world
Website	www.thaioilgroup.com

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泰國 – 主要客戶簡介-石化



項目	內容
公司	IRPC Plc
成立時間	1978
資本額	20,475 MTHB
產業	Refining and Petrochemical
主要產品	Polyolefins/ Styrenics and Aromatics/ Olefins/ Lube Base Oil
主要股東	PTT Plc 48.05%, Thai NVDR 9.45%, State Street Europe Limited 2.13%, Social Security Office 1.73%, South East Asia UK (TYPE C) Nominees Limited 1.53%, The Bank of New York (Nominees) Limited 1.03%, NCB 0.54%
營收	258,919 MTHB (2018)
經營團隊	Mr. Kris Imsang, Director / President and CEO
發展計畫	Focus on development the valuable downstream unit
Website	www.irpc.co.th

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泰國 – 主要客戶簡介-石化



項目	內容
公司	HMC Polymers
成立時間	8 December 1983
資本額	36,000 MTHB
產業	Polypropylene
主要產品	Polypropylene
主要股東	PTTGC 41%, LyondellBasell 29%, Others 30%
營收	31,000 M THB (2018)
經營團隊	Mr. Corso Uzielli, President
發展計畫	HMC Polymers is a leader in the manufacture and marketing of polypropylene for Asia and worldwide.
Bidding Experience	Propane Dehydrogenation Project, completed in 2011
Website	https://www.hmcpolymers.com/hmc-polymers

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泰國 – 主要客戶簡介-石化



項目	內容
公司	PTTAC (PTT Asahi Chemical Company Limited)
成立時間	1 August 2006
資本額	1,992 MTHB
產業	Petrochemical
主要產品	Acrylonitrile and Methyl Methacrylate
主要股東	PTTGC 50%, Asahi Kasei Corporation 50%
營收	6 million USD (2019)
經營團隊	Mr. Takuma Miura, PRESIDENT
發展計畫	PTTAC produces Acrylonitrile (AN) and Methyl Methacrylate (MMA).
Bidding Experience	PTTAC AN/MMA Project, completed in 2012
Website	http://www.pttac.com/

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泰國 - 主要客戶簡介-石化



項目	內容
公司	PTTLNG Company Limited
成立時間	30 August 2004
資本額	17,103 MTHB
產業	Construction Jetty and LNG Terminal Project
主要產品	Construction Jetty and LNG Terminal Project
主要股東	PTT PLC 100%
營收	6,476 MTHB (2017)
經營團隊	Mr. Rattikul Piyawongvanich, Acting President
發展計畫	Service Provider in LNG Terminal Value Chain
Bidding Experience	PTTLNG Nong Fab Project, awarded in 2018
Website	http://www.pttlng.com/index.aspx

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泰國 - 主要客戶簡介-石化



項目	內容
公司	BCP (Bangchak Corporation Public Company Limited)
成立時間	1984
資本額	1,377 MTHB
產業	Refining and Petrochemical
主要產品	Petroleum refining
主要股東	Social Security Office 13.49%, Ministry of Finance 9.98%, Thai NVDR Co., Ltd. 9.83%, Others 66.7%
營收	192,025 M THB (2018)
經營團隊	Mr. Chaiwat Kovavisarach, President and CEO
發展計畫	Development bio-business and enhance refining product quality
Bidding Experience	BCP PQI Project, COD in 2009
Website	http://www.bangchak.co.th/

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泰國 - 主要客戶簡介-交通



項目	內容
公司	Mass Rapid Transit Authority of Thailand (MRTA)
成立時間	28 Jul 1992
資本額	No capital for government agency
負責項目	MRTA is responsible the operation of rapid transit systems in the Bangkok Metropolitan Region and including other provinces as defined by the royal decree.
上級單位	Ministry of Transport
營收	No revenue for government agency
經營團隊	Mr. Pakapong Sirikantaramas (Governor)
發展計畫	- Proceed in expanding the metro connecting systems. - Continually develop related business (non-core) in response to the needs of the citizen as well as the government's policy. - Proceed to become an organization with high efficiency under good governance.
競標歷史	Bangkok MRT Blue Line Trackworks



公司簡介:
The Mass Rapid Transit Authority of Thailand (MRTA) is a government agency under the Ministry of Transport of Thailand



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泰國 - 主要客戶簡介-電力



項目	內容
公司	EGAT (Electricity Generating Authority of Thailand)
成立時間	May 1, 1969
資本額	N/A
產業	Electricity Generation, Purchase & Transmission
主要產品	Electricity
主要股東	Ministry of Finance, Thailand (100%)
營收	494,119M THB (FY2017)
經營團隊	Mr. Boonyanit Wongrukmit (Chairman)
發展計畫	Pursue and support Energy 4.0 policy and Thailand 4.0 by strengthening the energy system and applying modern innovation in the development of electricity business of Thailand.



公司簡介:
The Electricity Generating Authority of Thailand (EGAT) is a state enterprise, managed by the Ministry of Energy, responsible for electric power generation and transmission as well as bulk electric energy sales in Thailand. EGAT is the largest power producer in Thailand, owning and operating power plants at 45 sites across the country with a total installed capacity of 15,548 MW.



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泰國 - 主要客戶簡介-電力



項目	內容
公司	GPSC (Global Power Synergy Company Limited, former PTTUT)
成立時間	January 10, 2013
資本額	11,237M THB
產業	Electricity Generation
主要產品	Electricity
主要股東	PTTGC (22.73%) PTT (22.58%) Thai Oil Power Co. (20.79%) Thai Oil Public Co. (8.91%)
營收	19,917M THB (FY2017)
經營團隊	Mr. Sirimet Leepagorn (CEO)
發展計畫	Other than domestic projects, GPSC is also looking into overseas investment opportunities in Laos, Myanmar, Malaysia, etc.
競標歷史	CTCI won: CUP1 (phase 1-6) and CUP3, CUP4 under execution.



公司簡介:
GPSC was established on January 10, 2013 through the amalgamation of PTT Utility Company Limited (PTTUT) and Independent Power (Thailand) Company Limited (IPT). Founded to be PTT Group's power flagship, GPSC operates in operating, developing, and investing in power business domestically and internationally.



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泰國 - 主要客戶簡介-電力



項目	內容
公司	Gulf
成立時間	September 30, 2017
資本額	11,733 M THB
產業	Electricity Generation
主要產品	Electricity
主要股東	MR. SARATH RATANAVADI (35.67%) UBS AG SINGAPORE BRANCH (12.55%) GULF CAPITAL HOLDINGS LIMITED (9.89%) BANK OF SINGAPORE (5.25%)
營收	
經營團隊	Mr. Sarath Ratanavadi (Director, Vice Chairman of the Board and Chief Executive Officer)
發展計畫	Gas-Fired Power Plant, GAS, Renewable Energy (Biomass, Solar Power, Win Power), LNG Terminal, Port



公司簡介: GULF is one of Thailand's largest private power producers which manages a portfolio of gas-fired and renewable power projects that serve both public (The Electricity Generating Authority of Thailand or EGAT) and private clients in Thailand's main industrial zones.



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泰國外商投資相關法令 與公司設立



泰國公司法規



公司法規（Civil and Commercial Code, Public Limited Company Act）在泰國有三種類型的公司組織：合夥企業（Partnerships）、有限公司（Limited companies）和非法人機構（如：分公司、辦事處）。

在外國投資者中最常見的是私人有限公司。

●有限公司要求最少3個發起者，必須起草一份聯合備忘錄，組織一個法定的會議，向商業部商業發展廳（Department of Business Development）註冊公司，以及向財政部稅收廳（Revenue Department, Ministry of Finance）申請公司稅卡及稅號（Company's Tax ID Card/No.）。

●最低資本額：屬於外商法規規定之許可經營之行業，外資股權若超過 51%，最低資本額為平均3年每年營運費用25%或不低於300萬泰銖；不屬於外商法規範圍之行業，最低資本額至少200萬泰銖；若要僱用外國員工，另有其他最低資本額規定。

●必須遵從有關的民事和商業的會計財務報表規定。

●每年需做一份資金平衡表，送商業部商業發展廳註冊組和稅務局。

●有至少1名員工，必須向社保局（Social Security Office）申請註冊員工帳戶（Employee Account）。



相關財會、稅務案例分 享

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TH - CORPORATE INCOME TAX (CIT)



Type / Taxable Income	Rate (YA 2023)
Standard Rate	20%

- ◎ 會計年度結束，公司結算該年度收入總額扣除年支出總額，依其盈虧金額計算公司所得稅。
- ◎ 預估暫繳：每年8月31日
(以其前半年營運狀況為基礎推算全年預估利潤，申報繳納上半年稅款)
結算申報：次年5月30日
- △ 虧損後抵：五年



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TH – WITHHOLDING TAX, WHT (境內公司)



- 居民公司(Resident company) 有TH-sourced Income時，支付方應於付款時就以下稅率扣繳
- 扣繳稅款可以抵繳其結算申報時之應納稅款，故非最終稅負

Type of Income	W/H Tax Rate
Royalties for use of patents, copyrights or any other rights	3%
Interest paid to all resident corporations	1%
Transportation fee	1%
Advertising	2%
Professional fee	3%
Payment for hire of work, provision of services in Thailand:	
- to a Thai company or foreign company having a PE in Thailand	3%
- to a foreign contractor without a PE in Thailand	5%
Rent of assets	5%
Dividends	10%



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TH – WITHHOLDING TAX, WHT (境外公司)



- 境外居民公司(Non-resident company) 有TH-sourced Income時，支付方應於付款時就以下稅率扣繳

Type of Income	W/H Tax Rate
Dividends	10%
Interest paid to a non-resident company	15%
Interest paid on loans from a bank or financial institution	10%
Performance of work (e.g. Engineering Work)	15%
Rent of assets	15%
Capital gains	15%
Branch profit remittance	10%
Royalties	15%

● The above rates could be reduced under a Double Tax Treaty (DTT)



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TH - PERSONAL INCOME TAX (PIT)



➤ Resident : 0%~35%

一年(calendar year)內於泰國境內居留天數滿180天者視為當地居住者，薪資扣繳率按下列累進級距課稅，居留天數以出入境資料為依據，當地所得亦須依一定薪資水準繳稅。

- ✓ 所得稅申報期限：個人所得稅由雇主於次月7日前代扣申報繳納，年度所得稅結算申報期限為次年3月31日止。



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TH – VALUE ADDED TAX (VAT)



- 稅率：7%。
- 與台灣加值型營業稅申報方式相同，以進項憑證(Tax Invoice)所含之進項稅額(Input VAT)與銷項稅額(Output VAT)互抵之方式。
- 繳納及申報期限：於次月15日前申報並繳納。



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TH - STAMP DUTY



- 課徵標的為各項文件，如：合約、商業文件、法律文件等，按其性質課徵定額為一定百分比之稅率。
- 境內合約：由乙方負擔印花稅(甲乙雙方皆為泰國公司)
- 境外合約：以先將合約帶入泰國境內者支付(簽約一方為外國公司)
- 稅率：

Contract Form	Tax Rate
勞務合約(Hire of work)	0.1%
貸款合約(Loan Agreement)	0.05% (Maximum THB10,000)
授權書(Power of Attorney)	THB10/THB30

- Exemption from payment of duty :
 - ✓ Offshore procurement.
 - ✓ Contract executed outside Thailand, and compliance of its terms is not done in Thailand.



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個案介紹及經驗分享及潛在商機



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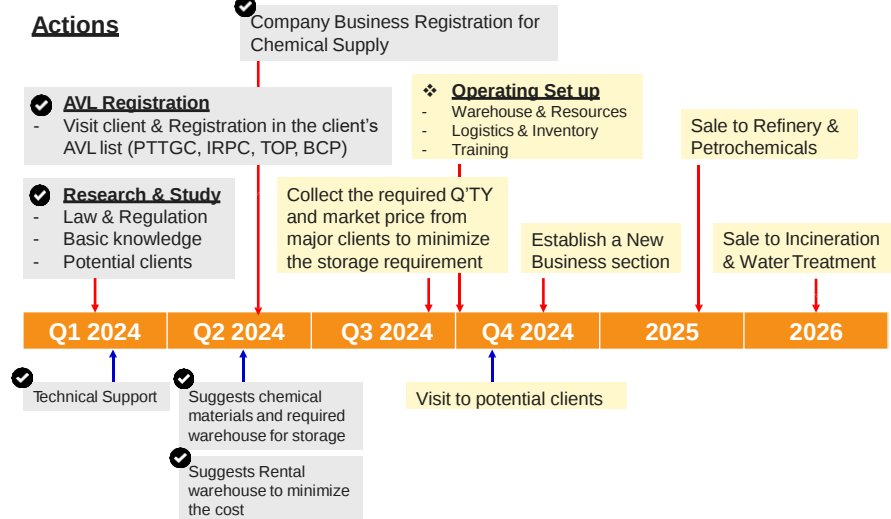
BUSINESS PROMOTION IN THAILAND

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CHEMICAL PRODUCT PROMOTION



Actions



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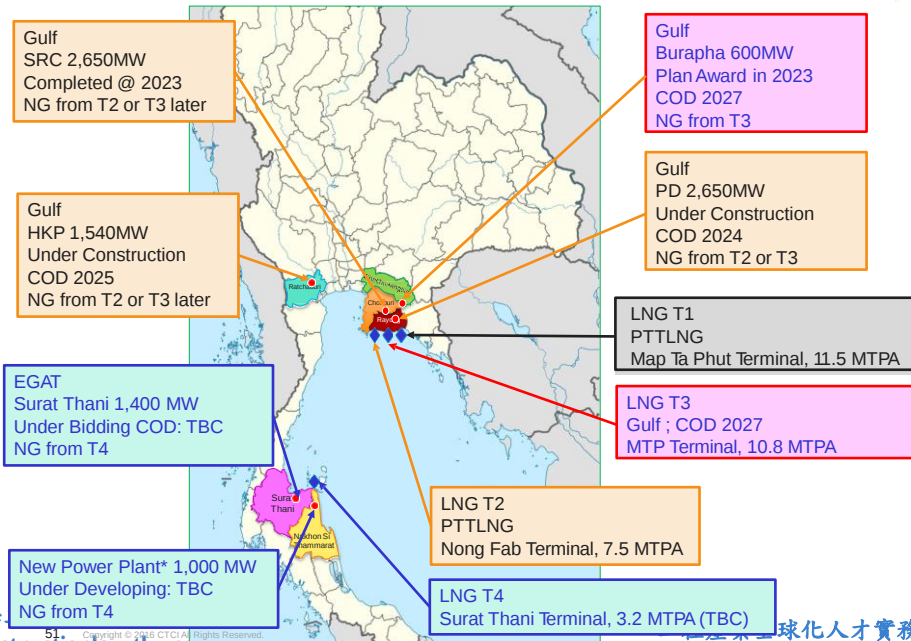
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LNG AND RELATED POWER PLANT

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THAILAND LNG PLANTS AND RELATED POWER PLANTS

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Public Construction Commission, Executive Yuan

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SOLAR/ SOLAR + ENERGY STORAGE SYSTEM

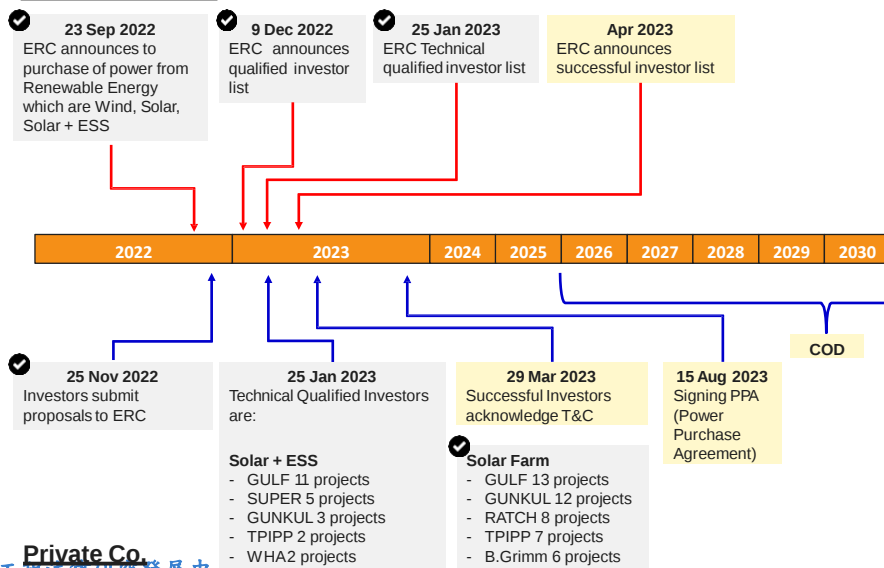
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POTENTIAL INVESTMENT – SOLAR/ SOLAR + ESS

Thai Government

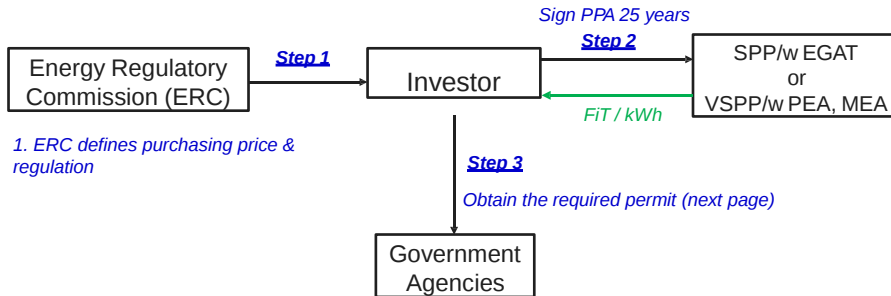


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PROJECT SCHEME FOR CONCESSION MODEL IN THAILAND



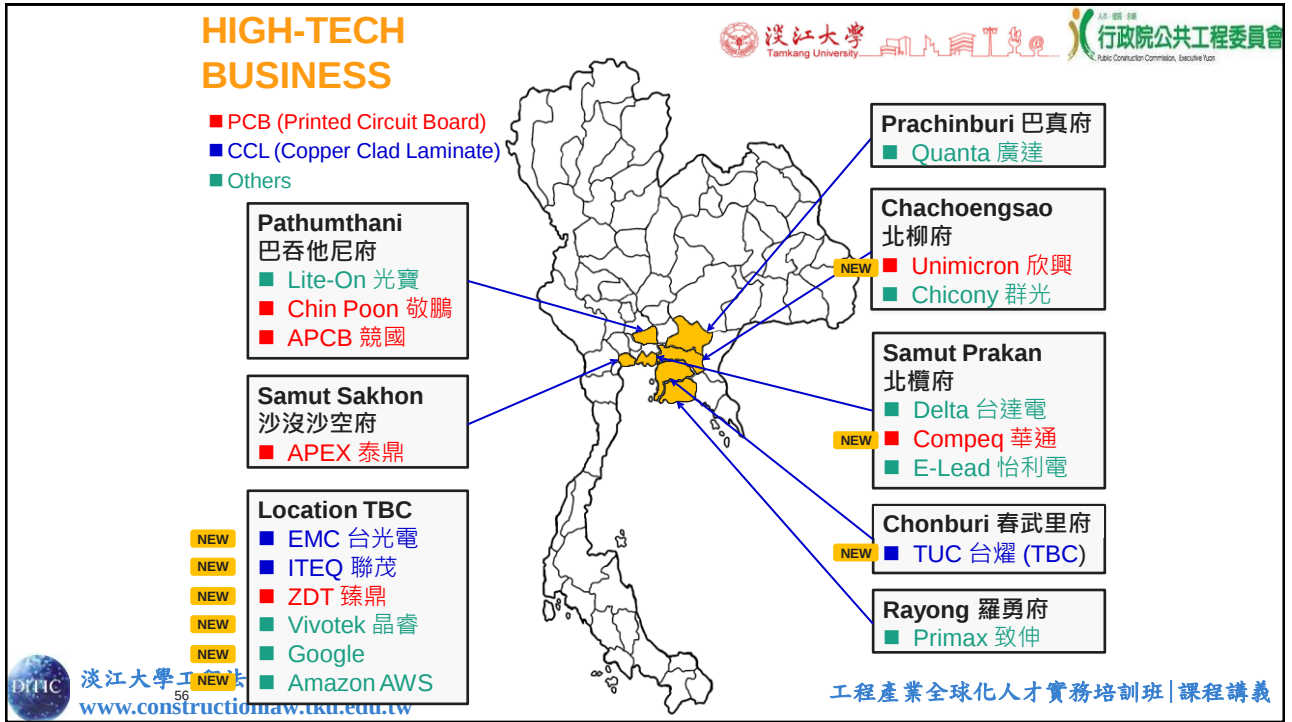
PPA: Power Purchasing Agreement
 PEA: Provincial Electricity Authority
 MEA: Metropolitan Electricity Authority
 EGAT: Electricity Generating Authority of Thailand
 VSPP: Very Small Power Producer (≤ 10 MW)
 SPP: Small Power Producer ($> 10 < 50$ MW)
 FIT: Feed-in Tariff



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HIGH-TECH
BUSINESS



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Discover Reliable

參與泰國政府採購案 之實戰策略 – PART 1

簡報者: 中鼎工程

Sep 2023 蔡君平



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3

大綱

1. 泰國能源政策趨勢分析
2. Major EPC players介紹
3. 泰國統包工程投標流程
4. 業主審標要項與備標重點
5. 競標策略分享

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4

1.泰國能源政策趨勢分析

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泰國能源政策彙整



Thailand National Energy Plan (NEP 2022)

Go green with energy security and competitiveness for sustainable energy future

“以能源安全與競爭力為出發點，實現可持續發展的綠色能源轉型”



總體目標

- 泰國能源部正朝著清潔能源的方向發展，在2050年實現碳中和；
- 提高國家的競爭力以及泰國投資者在全球低碳經濟發展中的地位；
- 支援創新型經濟，以實現長期的溫室氣體目標。

政策方向

2040年，實現50%的可再生能源發電

推動“30@30政策”，推廣電動車輛行業發展

通過技術研發和創新，將能源效率提升30%以上

通過數位化、去中心化、脫碳、去監管和電氣化(4D+1E策略)，實現能源轉型



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泰國能源政策彙整



Thailand 's Energy Policy : 4D + 1E



數位化 Digitalization

- 加強輸電系統，實現“智能電網”
- 發展儲能系統 (ESS)，提高供電穩定性
- 成為東盟的能源商業中心



去中心化 Decentralization

- 完善電網/非電網系統的電力輸送，促進點對點電力交易
- 發展社區電站
- 促進南部和東部地區的電力平衡



脫碳 Decarbonization

- 促進太陽能和生物能源的生產和利用
- 將農產品作為替代燃料使用，並提高其價值



去監管 De-regulation

- 鼓勵能源創新及能源創業
- 使用能源節約促進基金ENCON，促進社區商業發展
- 增加公眾購買電力的機會（產銷合一）



電氣化 Electrification

- 拓展電動車網路
- 推廣使用電動車



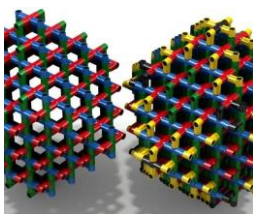
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泰國石化產業展望



高端石化產品



石化業者將改為生產高端石化產品 (如ABS)，以因應對於生產電動汽車零組件、電池與醫療設備的強勁產業需求。

循環經濟



根據泰國政府石化產業發展計畫(2022-2026)的第4階段，石化業者將通過增加可生物降解 (biodegradable) 及可回收 (recycled) 塑料的產量來開拓新的市場機會。

天然氣投資



泰國石油集團(PTT) 調整營運策略，增設液化天然氣 (LNG) 接收站，為脫碳鋪路。



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2. MAJOR EPC PLAYER IN THAILAND

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POTENTIAL PARTNER/ COMPETITOR



- MHI
- KHI
- IHI
- JGC
- Chiyoda
- Toyo
- IIW
- TKK



- Samsung
- Hyundai
- SK
- Daelim
- GS
- POSCO



- Fluor
- KBR
- MDR
- Worley (merged with Jacobs in 2019)
- WOOD
- Bechtel
- SNC-Lavalin



- SEG
- HQCEC
- CNCEC
- Wison



- TechnipFMC
- TR
- Saipem
- Petrofac
- TKIS
- Intecsa
- TCM
- DI (Dragados Industrial)



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EPC COMPANY IN THAILAND – TTCL



■ Company Introduction :

Item	Information
Company Name	TTCL Public Company Limited (TTCL)
HQ Location	Bangkok, Thailand
Strengths	oil, gas, oil & gas development, petrochemicals, chemicals, water treatment, transportation systems, power generation, nuclear power, advanced production systems, pharmaceutical, fine chemical, distribution systems, biotechnology, environment
Est. Year	April 24, 1985
Website	https://www.ttcl.com
Notes	- Toyo Engineering Corporation entered the Thailand market in 1978 through its subsidiary, Toyo-Thai Corporation Public Company Limited (TTCL). - TTCL was a JV company by Toyo Engineering Corporation (TEC) and Italian-Thai Development Public Company Limited (ITD), with the shareholder stake of 49% and 51%. In 2018, Sojitz has become a major shareholder instead of TEC. - TTCL has over 20,000 employees. They have been involved in major projects such as the Map Ta Phut Olefins, Sriracha Refinery Expansion, Clean Fuel Project, and Rayong Refinery Upgrade, contributing to Thailand's petrochemical and refining sectors.



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EPC COMPANY IN ASIA – JGC



■ Company Introduction :

Item	Information
Company Name	JGC Corporation (JGC)
HQ Location	Yokohama, Japan
Strengths	(1)Oil & Gas (Refining, Petrochemicals, LNG, etc.), (2)Infrastructure (ex. Power)
Est. Year	October 25, 1928
Number of Employees	7,900
Website	http://www.jgc.com/
Notes	JGC Corporation has a strong presence in Thailand's EPC market since the 1970s, successfully executing projects in the oil and gas, petrochemical, and power sectors.



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EPC COMPANY IN THAILAND – IHI



IHI Realize your dreams



■ Company Introduction :

Item	Information
Company Name	IHI Corporation (IHI)
HQ Location	Tokyo, Japan
Strengths	(1)Resources, Energy and Environment, (2)Social Infrastructure and Offshore Facilities, (3)Industrial System and General-purpose Machinery
Est. Year	December 5, 1853
Website	https://www.ihico.jp/en/
Notes	- IHI Corporation has a long-standing presence in the Thailand market. - They have been involved in major projects related to power generation, industrial machinery, marine industry, and infrastructure development



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EPC COMPANY IN THAILAND – SAMSUNG ENGINEERING



SAMSUNG



■ Company Introduction :

Item	Information
Company Name	Samsung Engineering
HQ Location	Seoul, Korea
Strengths	(1)Oil & Gas Processing, (2)Refinery, (3)Petrochemicals, (4)Power, (5)Industrial, (6)Environmental
Est. Year	1970
Website	http://www.samsungengineering.com/index
Notes	- Samsung step into Thailand market since 1992, currently Samsung has 150 engineers in Thailand. - In Thailand, Samsung has developed 17 projects including PTT Plc's sixth gas-separation plant, the world's largest, and Map Ta Phut Olefins' cracker with annual production capacity of 800,000 tonnes.



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EPC COMPANY IN THAILAND – TFCM



TechnipFMC



■ Company Introduction :

Item	Information
Company Name	TechnipFMC plc
HQ Location	Houston, United States, Paris, France, (Operational headquarters)
Strengths	subsea, offshore/onshore, and surface projects
Est. Year	2017; Technip (1958), FMC Technologies (2001)
Recent Cooperation with CTCI	Saudi Kayan Furnace 10 Project, EPC, KSA Pertamina Balikpapan Refinery RDMP Project, EPCC, Indonesia (Tender only)
Website	www.technipfmc.com
Notes	- TechnipFMC has been involved in major refinery modernization projects in Thailand. - Technip's operations and engineering center in Bangkok (Thailand) will execute the contract with pipeline engineering support from Technip's operations and engineering center in Kuala Lumpur (Malaysia).



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EPC COMPANY IN THAILAND – SAIPEM



■ Company Introduction :

Item	Information
Company Name	Saipem S.p.A.
HQ Location	San Donato Milanese, Italy
Strengths	Offshore, Onshore, Drilling
Est. Year	1957
Recent Cooperation with CTCI	PTTLNG Noon Fab LNG Receiving Terminal Project, EPCC, Thailand IRPC MARS Project, EPC (Bidding only) QP NFE EPC-1 (Bidding stage)
Website	www.saipem.com
Notes	



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3. 泰國祿包工程投標流程

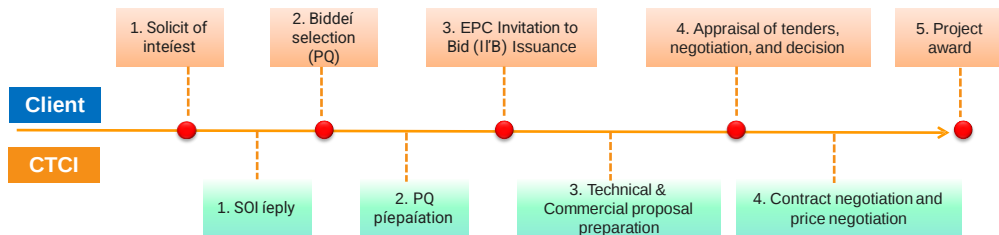
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EPC BIDDING TIMELINE

Procedure:

The bidding timeline can vary depending on the specific project and its complexity. However, here is a general outline of the typical EPC bidding timeline::



Note:

1. SOI and PQ: Interested contractors submit PQ documents to demonstrate their capabilities, experience, and financial stability. The client evaluates these submissions and shortlists qualified bidders.
2. Invitation to Bid (ITB): The shortlisted bidders receive the detailed ITB document, which outlines project requirements, specifications, scope, schedule, and commercial terms.
3. Proposal Preparation: Bidders review the ITB, conduct site visits if necessary, and prepare their technical and commercial proposals. This involves developing engineering plans, procurement strategies, construction methodologies, cost estimates, and project schedules.
4. Evaluation and Clarifications: The client evaluates the received proposals based on technical compliance, cost competitiveness, experience, and other evaluation criteria. They may seek clarifications or request additional information from the bidders during this stage.
5. Negotiation and Contract Award: The client may enter into negotiations with the selected bidder(s) to finalize contract terms, including pricing, scope of work, and project timeline. Once negotiations are concluded, the contract is awarded to the successful bidder.



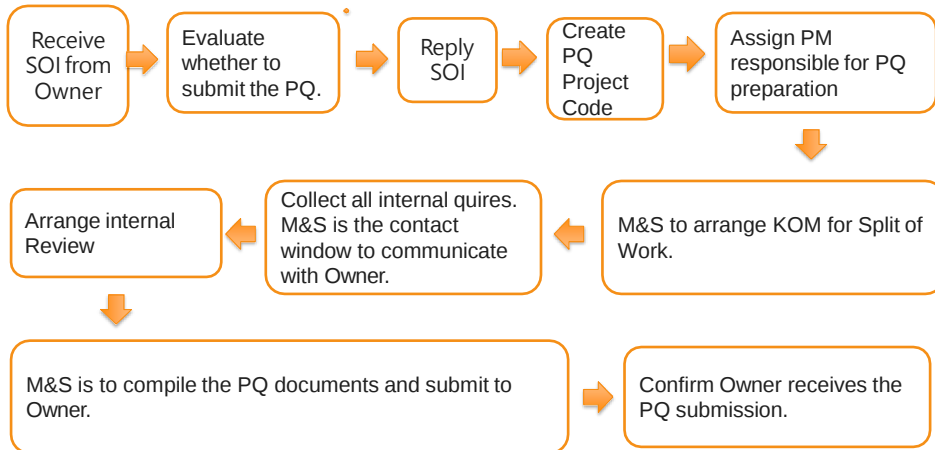
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PREQUALIFICATION FLOW CHART



Procedure:



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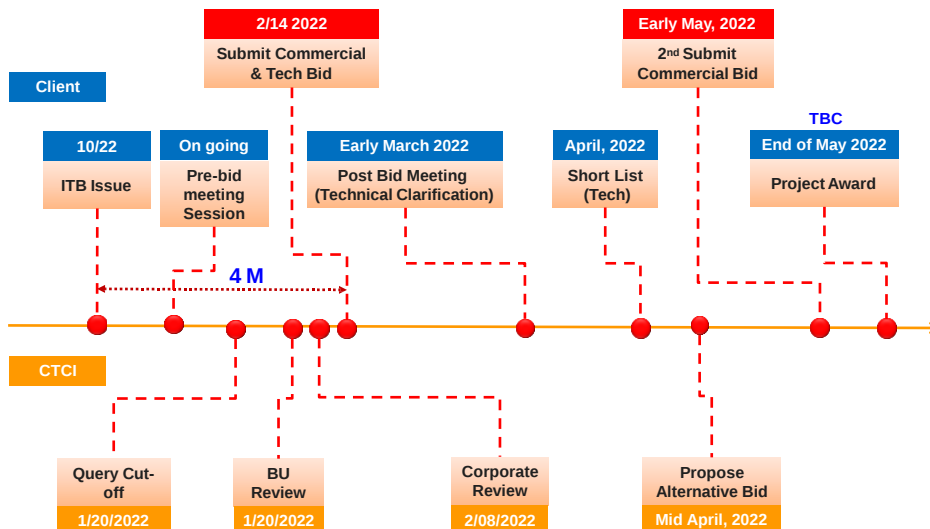
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BID TIMELINE (SAMPLE, INTERNATIONAL TENDER)



✓ Base bid w/ deviations

✓ Lowest price bid



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4. 業主審標要項與備標重點



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THE KEY POINTS FOR EPC BID EVALUATION



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1. Key criteria considered include technical compliance, experience, project schedule, cost competitiveness, and proposed solution quality.
2. The commercial compliance (Ex: T&C) will also be considered.
3. The client or project owner reviews and compares bids to select the most suitable contractor.
 - The L1 of Technical qualified bidders (Lowest bid)
 - Comprehensive evaluation
4. Clarifications or additional information may be requested from bidders during the evaluation process.



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PROPOSAL CHECK LIST (SAMPLE)



Technical Proposal

- ✓ 提出業主製程優化方案(如最新科技應用)
- ✓ 提供高效能或先進技術設備或材料
- ✓ 強調「具製程安全分析及執行經驗」
- ✓ 強調「熟悉現場操作習慣及保修流程」
- ✓ 強調「完善之 QA/QC/HSE/CSR規劃」
- ✓ 提出比ITB更好之條件(如備品項目及數量)
- ✓ 提供備品長期固定單價
- ✓ 建立完整檢試驗計畫
- ✓ 強調主動為業主整合不同包商介面
- ✓ 提供重要工法說明
- ✓ 提出「保證如期或提前完工」之具體作法
- ✓ 以4D模擬說明重大施工項目
- ✓ 提出具體之分項品質計畫及工安計畫



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5.0 Proposal Technical Section

2.2 Instructions to Bidders_RevA



Bidder's proposal shall include technical responses to this RFP, as follows:

- 5.1 Bidder shall identify any technical issues or engineering issues which Bidder considers required further development to install the work.
- 5.2 Bidder shall submit its proposed **organization chart** indicating key individuals to be assigned to the Project. The organization chart should distinguish between office personnel and site personnel.
- 5.3 Bidder shall submit a **resume** or bio for each key personnel which would demonstrate that these key individuals have prior working experience in this type of project and Work.
- 5.4 Bidder shall submit a **manpower plan** which identifies the construction supervision personnel by title (construction manager, field engineer, safety, quality, etc.) which are planned to be on site, full time, each month.
- 5.5 Bidder shall submit a **manpower histogram** by craft discipline (civil, structural, mechanical, piping, etc.,) which indicates the number of craft planned in each discipline and the total (peak) manpower planned each month.
- 5.6 Bidder shall identify its planned work week. Bidder may offer alternate scheduled work week to complete the work areas on earlier dates, including any cost impact of same.

TECHNICAL PROPOSAL REQUIREMENT (SAMPLE)



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5.0 Proposal Technical Section2.2 Instructions to
Bidders_RevA

- 5.7 Bidder shall submit preliminary construction equipment plan by type of equipment, by quantity of each type of equipment each month and whether planned construction equipment is rented or owned.
- 5.8 Bidder shall submit a preliminary execution plan with its proposal. The execution plan must include a narrative sequence of Work consistent with submitted Level 1 Schedule, which demonstrates Bidders understanding of how best to approach/execute this work.
- 5.9 Bidder shall develop and submit a Level 1 Schedule based on the critical dates presented in Exhibit A-9.
- Bidder's schedule shall identify any portion of the Work that bidder plans to subcontract and will include identifiable critical dates. Bidder to identify any office which may provide home office support services for the project and what services will be performed.
- 5.10 Bidder shall provide a description of its proposed temporary facilities planned support the execution of the work, including trailers, laydown area size. The submittal shall include the temporary facilities which will be provided by bidder for use by the Company through the achievement of Final Completion

TECHNICAL
PROPOSAL
REQUIREME
NTS
(SAMPLE)

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5.0 Proposal Technical Section2.2 Instructions to
Bidders_RevA

- 5.15 Bidder will confirm ability to meet or exceed insurance requirements set forth in Exhibit D.
- 5.16 Bidder to identify any proposed changes to the Agreement and Terms and Conditions.
- 5.17 Bidder to provide preliminary details on the location, construction and operation of a construction camp as may be required by Bidder to provide housing, food and accommodation to Bidders construction craft and supervision for the duration of the project.
- 5.18 To the extent that Bidder plans to modularize the construction of certain portions of the Work, Bidder shall submit an overview of the type of modules (process, pipe rack, etc.) and the number of modules that may be constructed offsite.
- 5.19 Bidder to provide an overview of the material management plan/procedures which will be used manage the receiving, inventory, issue and installation of both Company Supplied Equipment and Contractor supplied materials.

TECHNICAL
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REQUIREME
NTS
(SAMPLE)

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EPC BIDDING CRITERIA (LOWEST BID)



● Technical evaluation criteria

Stage 1	Technical and commercial proposal submit in the same time on 26th Nov			
Stage 2	Technical clarification, apple to apple, and bidders can submit the price of update portion only.			
Stage 3	No.	technical proposal Major Criteria Items	Weight (%)	Remark
	1	Performance Guarantees (Mechanical)	TBC	80 Pass (Total 100)
	2	Key points of Project execution		
	3	Qualification of nominated personnel		
	4	Bidder's workload		
	5	Cost reduction alternatives offered by Bidder as options		
	6	Safety performance and procedures		
	7	Material management procedures		
	8	Quality assurance procedures		
	9	Construction and Commissioning procedures		
	10	Training program		
	11	Schedule		
	12	Compliance with AVL and Subcontractor List		



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EPC BIDDING CRITERIA (COMPREHENSIVE EVALUATION)



● Commercial evaluation criteria

Stage 4	No.	Major Criteria Items	Weight (%)	Remark
	1	Technical Proposal Scoring	65%	the highest score as a successful bidder for each package (owner select maximum 2 contractors for whole project)
	2	Commercial Proposal Scoring	35%	
	In case owner award to one contractor. The weighting of scoring is VCM > PVC > OSBL.			



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PROJECT RISK MANAGEMENT

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專案生命週期

SOI 階段

PQ階段

取得ITB

投標

得標

專案執行

結案



高風險報價案評估

風險事件管控追蹤、
執行案風險稽核

收集專案資訊，
選定目標專案
並評估業主信
用等級。

評估潛在風險。

取得管理層批
准後啟動報價。

- 針對高風險報價案持續追蹤評估。
- 召開會議，確認競標、執行策略。
- 落實審查商務條款，確保條款不超過風險底線。

- 對風險事件成立因應小組，依照風險等級報告處置情形 (定期/不定期)。



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PARTNER ANALYSIS (SAMPLE)

Criteria	S Company	H Company	C Company
Engineering Capacity	Strong	Strong	Strong
Cooperation Scheme	JV	JV	Consortium
Relationship with Client	Client A: Fair Client B: Good	Client A: Good Client B: Good	Client A: Fair Client B: Good
Local Resource	Fair	Strong	Fair
Willingness to cooperate with CTCI	Strong	Fair	Fair
Competitiveness	Strong	Fair	Fair
Experience in Thailand	1. AAA Project 2. BBB Project 3. CCC Project	1. DDD Project	1. EEE Project 2. FFF Project 3. GGG Project 4. HHH Project



COOPERATION SCHEME - JOINT VENTURE VS. CONSORTIUM

台灣/聯合承攬	JV		Consortium
契約風險	共同執行工作，共同承擔風險		各自執行工作 對業主負連帶保證
利潤/損失分配	全案依JV議定比例共享損益		享有各自合約金額執行 所產生之損益
登記與否	<u>JV</u> ： 不登記僅記帳	<u>JV</u> ： 登記JV公司	NA
稅務	<u>JV</u> ： 利潤按JV比例計算 分配予成員，由成員繳稅	<u>JV</u> ： 由公司繳稅，稅後利潤按出資比例分配股東	各自繳稅
考量要點	1. 雙方是否欲共同合作、承擔風險及利潤共享。 2. 技術合作、經驗交流、成本考量及提升競爭力。 3. 業主及ITB規範可接受之承攬模式。 4. 當地法規對JV形態之限制(例如：中國僅接受JV)。		



JOINT VENTURE SCHEME (SAMPLE)



Contract Scheme (Single Contract)

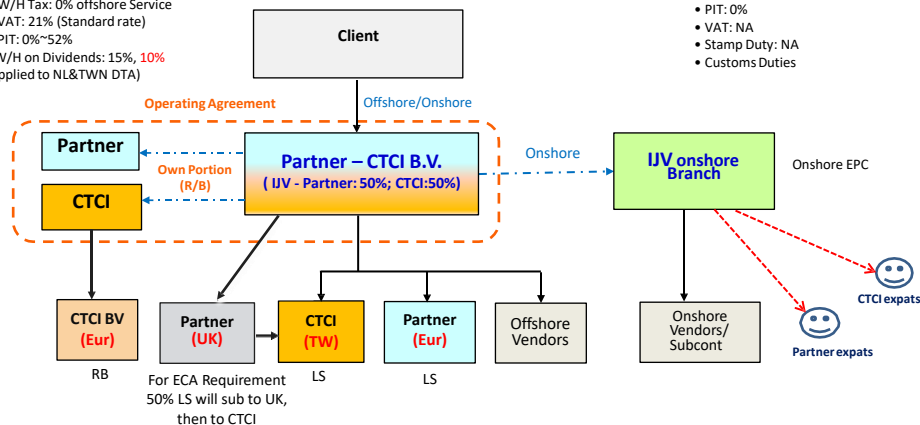
Contract : ———→
Work Flow : - - - ->
Payment Flow : - - - ->

IJV company Taxation:

- CIT: 20% / 25% (for profit>EUR 200,000), 0% for foreign branch
- W/H Tax: 0% offshore Service
- VAT: 21% (Standard rate)
- PIT: 0%~52%
- W/H on Dividends: 15%, 10% (applied to NL&TWN DTA)

Project Country Taxation:

- CIT: 15%
- W/H Tax: 10% for offshore Service
- PIT: 0%
- VAT: NA
- Stamp Duty: NA
- Customs Duties



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KEY POINTS FOR PRICE REVIEW MEETING



公司層級:

合約條文、保護措施、退場機制、權責範圍、罰則規定、公司授權、收支平衡、風險管控、策略運用、合理稅制、利潤配置...等 (偏商業面)



事業部層級:

專案成本/時程、相關規範/數量/選商/執行計劃...等 (偏技術面)



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EXPERIENCE SHARING



1. 策略是什麼? Proposal 的賣點是什麼?
2. 業主審標? 決標? NDA? Partners? 退場機制?
3. 找出那些(人/時/地/物/\$) 掌握/控制在別人手上, 想辦法解套
4. Rely upon information => baseline => 隱性保護條文...
5. Deviation => Opening vendors list...
6. Lower cost => 轉包, 境/廠外預製
7. Qualification => 業主供料/LLI/novated item 交期...
8. 簽約方式/內容, T&Cs, => 節稅
9. Neutral cash flow,
10. 保護措施 => 備案(胎)是什麼?在那裡?
11. 全身而退? => liability/保證/保固怎麼罰? 罰責? 付款條件?



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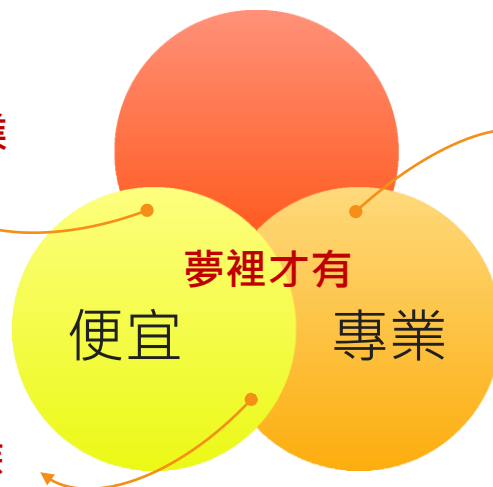
又快又好又便宜...存在嗎?

快速

便宜 + 快速
不會太專業

專業 + 快速
不會太便宜

便宜 + 專業
要耐心等候



來源: https://www.managertoday.com.tw/articles/view/53790?utm_source=copyshare ©經理人



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Price is what you pay. Value is what you get



NT 80	NT 20
<u>成分:</u> • 柳橙 	<u>成分:</u> • 水 • 高果糖糖漿 • 蔗糖 • 柳橙果肉 • 柳橙濃縮果汁 • 香料 • 檸檬酸 • 檸檬酸鈉 • 維生素C • 胡蘿蔔素 



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Discover Reliable



《看得見的信賴》專書



“Discover Reliable” (Book)

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