27 SEPTEMBER 2021 THAILAND / UTILITIES - CONVENTIONAL **GULF ENERGY DEVELOPMENT**



AISCB: First fruit from GULF-INTUCH KEY STOCK DATA

Winner on convergence of technology, data, and infrastructure

We believe the strategic and financial growth potential under the business alliance of GULF-INTUCH-ADVANC-THCOM from GULF's acquisition of INTUCH's stake (GIAT) will manifest in two major ways: asset enhancement and more benign industry competition. The first fruit from GIAT is the announcement of the JV between SCB and ADVANC to set up a new company called 'AISCB', owned 50-50 by ADVANC and SCB. This could lead to a series of positive developments for new ventures, leveraging the strengths of ADVANC and GULF to monetise the convergence of Thailand's data and information technology systems, energy and electricity liberalisation, and infrastructure growth.

Next golden eggs: data centre, smart metering, and smart grid

Strategically, we think GULF could employ ADVANC's 'big data' from its 43.2m mobile subscribers (45.9% market share in Thailand) and 1.5m (16.4% market share) broadband subscribers as a key potential customer base for a smart grid and smart utilities network, along with the retail, nano-financing, and personal loan venture via AISCB. We think GIAT's next major strategic growth ventures could be a data centre, smart metering, and a smart grid for the power industry, leveraging ADVANC's IT platform and GULF's large infrastructure portfolio.

AISCB is the first golden egg laid by the GULF-ADVANC hen

We think AISCB is the first strategic step for GULF and its alliance with ADVANC to position itself for the digitalization of the industrial market landscape. AISCB could provide digital lending via online platforms. With GULF's fully integrated network of multiple power plants (IPPs, SPPs, renewables), infrastructure assets (port, LNG terminal, motorway, and train systems), and its energy business (LNG imports, electricity and water distribution), we believe that GIAT should be able to leverage and expand upon the upcoming 'smart' ventures.

More growth for GULF

We maintain BUY and our SoTP-based TP of THB47. We think AISCB is just the first fruit from the GULF-ADVANC marriage to strengthen both companies' short-term earnings growth outlooks and enhance their longterm growth platforms, leveraging the confluence of 5G technology, big data, and information platforms that should allow them to stay ahead of the industry and capitalise on future growth opportunities.



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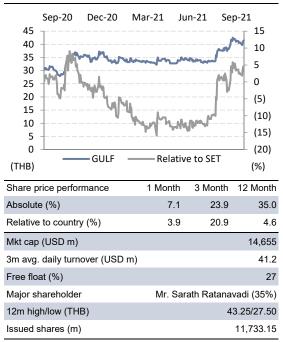
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GULF TB

TARGET PRICE	THB47.00
CLOSE	THB41.50
UP/DOWNSIDE	+13.3%
PRIOR TP	THB47.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+12.7%

YE Dec (THB m)	2020	2021E	2022E	2023E
Revenue	32,827	31,847	74,626	74,808
Net profit	4,282	6,590	12,632	13,407
EPS (THB)	0.36	0.56	1.08	1.14
vs Consensus (%)	-	(18.5)	10.2	(10.2)
EBITDA	10,672	12,178	22,932	24,118
Core net profit	4,478	6,590	12,632	13,407
Core EPS (THB)	0.38	0.56	1.08	1.14
Chg. In EPS est. (%)	-	-	-	-
EPS growth (%)	16.0	47.2	91.7	6.1
Core P/E (x)	108.7	73.9	38.5	36.3
Dividend yield (%)	0.6	1.0	1.7	1.7
EV/EBITDA (x)	54.0	50.3	26.5	25.0
Price/book (x)	7.6	7.2	6.4	6.0
Net debt/Equity (%)	113.1	147.3	116.9	96.4
ROE (%)	8.7	10.0	17.6	17.1



Sources: Bloomberg consensus; FSSIA estimates

PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

Investment thesis

Founded in 2010, GULF is one of Thailand's pioneer power companies with operations in both small power producers (SPP) and large independent power producers (IPP). A big power company with strong and sustainable earnings growth, GULF is Thailand's largest power producer with the highest visible earnings growth outlook among the Thai power companies we cover. The key growth drivers include equity capacity growth that we estimate at 18% CAGR to reach 6.3GW by 2024, driven by two growth phases from SPP and IPP projects.

We project that net profits from its 19 SPPs will make up the bulk of GULF's core net profit in 2021-22 before its new large-scale IPPs come on stream in 2022-25. We believe that GULF will ride Thailand's SPP growth, based on 1) higher electricity tariffs on Thailand's structurally higher tariff rates, driven by the higher commodity prices of coal, gas, and oil; and 2) the solid demand for power and steam from industrial users.

Company profile

GULF is Thailand's largest power producer with expected capacity of over 7.6GW by 2027. It has the largest SPP and IPP portfolio and the strongest earnings growth outlook among the Thai power companies we cover.

www.gulf.co.th

Catalysts

Higher utilisation rates of power plants and rising demand for electricity in Thailand and Vietnam are key potential growth drivers.

Risks to our call

The downside risks to our SoTP-based TP on GULF include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) delays in project commercial operation dates.

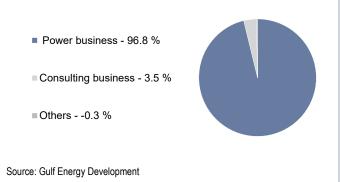
Event calendar

Date Nov 2021

3Q21 results announcement

Event

Principal activities (revenue, 2020)



Major shareholders

- Mr. Sarath Ratanavadi 35.4 %
- GULF Capital Holdings Limited -24.8 %
- Others 39.7 %



Source: Gulf Energy Development

Key assumptions

	2021E	2022E	2023E
Dispatched power (GWh)	17,537	32,848	34,646
Average utilisation rate (%)	81	82	83
Gas cost (THB/mmbtu)	235	223	212
No. of shares at year-end (m shares)	11,733	11,733	11,733
No. of shares - weighted avg. (m shares)	11,733	11,733	11,733

Source: FSSIA estimates

Earnings sensitivity

- For every 1% increase in gas price, we estimate that 2021 earnings would decline 1.1%, and vice versa, all else being equal.
- For every 1% increase in interest rate, we estimate that 2021 earnings would decline 2.1%, and vice versa, all else being equal.

Source: FSSIA estimates

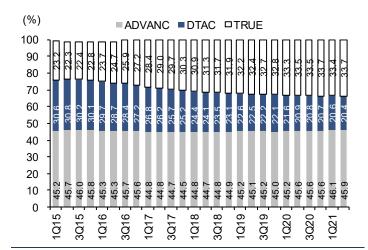


First step in a long strategic roadmap in INTUCH investment

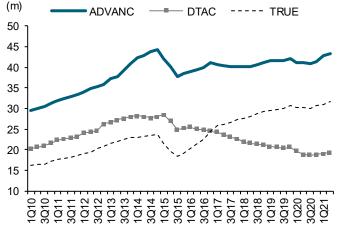
After the completion of the tender offer for Intouch Holdings (INTUCH TB, HOLD, TP THB65) on 4 Jul-21 to acquire an additional 747.9m shares and bring GULF's total stake in INTUCH up to 42.35%, GULF is now seeing the first fruit from its control in ADVANC via INTUCH by way of the announcement of the JV between Siam Commercial Bank (SCB TB, BUY, TP THB158) and Advanced Info Service (ADVANC TB, BUY, TP THB200). They will set up a new company called 'AISCB', owned 50-50 by ADVANC and SCB.

We believe the strategic and financial growth potential under the business alliance of GULF-INTUCH-ADVANC-Thaicom (THCOM TB, REDUCE, TP THB7.1) from GULF's acquisition of INTUCH's stake (GIAT) will manifest in two major ways: asset enhancement and more benign industry competition.

Exhibit 1: Market share of mobile subscribers by operators







Source: Companies

Source: Companies

Upside #1 for GULF-ADVANC: Asset enhancement

We believe GULF's ownership in INTUCH, which owns a 40.45% stake in ADVANC – Thailand's leading mobile and fixed broadband operator – and a 41.14% stake in THCOM – Thailand's leading operator of satellites – is a good strategic move that should enable GULF to harness the upcoming 5G technology, which could be a key platform for GULF's expanding utilities presence and infrastructure in Thailand.

Exhibit 3: Total fixed broadband subscribers by operator

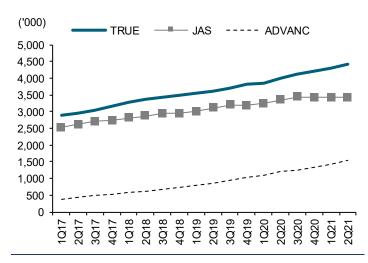
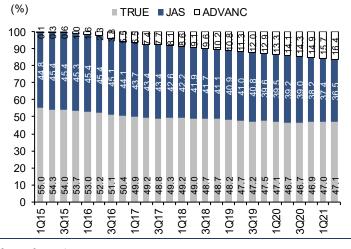


Exhibit 4: Market share of fixed broadband subscribers by operator



Source: Companies

Source: Companies

Strategically, we think GULF could employ ADVANC's big data from its 43.2m mobile subscribers (45.9% market share in Thailand) and 1.5m (16.4% market share) broadband subscribers as a key potential customer base for a smart grid and smart utilities network, along with the retail, nano-financing, and personal loan venture via AISCB. This would allow GULF to capitalise on its future integrated power and infrastructure asset portfolio and ADVANC's information technology (IT) platform and large retail customer base, in our view.

Exhibit 5: SCB's inorganic growth and strategic partnerships



Source: SCB

AISCB is the first golden egg laid by the GULF-ADVANC hen. We think AISCB is the first strategic step for GULF and its alliance with ADVANC to position itself for the digitalization of the industrial market landscape. AISCB could provide digital lending via online platforms. Its first target group will be AIS' clients and the ticket size per person is planned to be small, c10k-20k. It will operate next year under personal loan and nano-finance licenses.

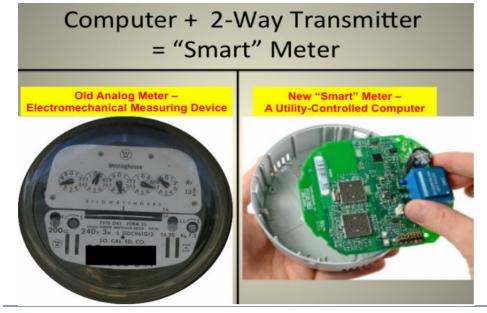
Internet of Things (IOT) is the core of a smart grid and smart metering network. WiFi networks work by connecting antenna-controlled devices within a network and allowing such devices to communicate with each other. A smart grid network takes the WiFi and cellular network concept and expands it exponentially using millions of smart meter endpoints, pole-mounted routers, relays, and range extenders to create a largescale WiFi network over a broad area like a city.

Data centre, smart metering, and a smart grid could be the next golden eggs. We think GIAT's next major strategic growth ventures could be a data centre, smart metering, and a smart grid for the power industry, leveraging ADVANC's IT platform and GULF's large infrastructure portfolio.

What is a smart metering system? Smart meters are basically a smart upgrade of the old gas and electricity meters. A smart meter can read the exact energy usage in real-time and send it automatically to the energy supplier, effectively putting an end to the estimated energy bills.

In addition, smart meters are coming together with a portable device called 'In Home Display', which shows the electricity and gas consumption in the local currency, i.e. THB in Thailand. The device comes with the option of providing the consumer with different ways on how they can decrease their energy usage while reducing their bills.

Exhibit 6: Smart meters



Source: Stop OC Smart Meters

Smart metering communication types. According to <u>Smart Meters UK</u>, there are two main types of smart meters – the older models known as SMETS 1 (Smart Meter Equipment Technical Specifications) and the newer versions that were rolled out in 2018 in the UK, known as SMETS 2.

SMETS 1: Most of these communicate with power suppliers through the 2G/2.5G mobile network. Unfortunately, a number of different unlinked systems are used to manage these meters and so if the power supplier is changed it is likely that the new supplier will not be able to operate on the new smart meter and it will become a 'dumb' meter for operational purposes.

SMETS 2: This specification is more advanced and these meters were first rolled out in 2018 in the UK. A more modern communication network such as 4G and 5G information technology is used with these meters. All power suppliers will use the integrated system, allowing consumers' smart meters the ability to switch power suppliers under the electricity trading platform.

Exhibit 7: Smart metering system

Sources: National Cyber Security Centre

How does the smart metering system work? Smart meters are the result of governmental cooperation with energy supplying companies to create a more efficient power management system. It aims to provide each household with access to the new smart devices and, most importantly, smart metering seeks to cut down the country's carbon footprint. Smart meters are equipped to show the exact and real-time consumption of electricity so that the consumer is aware of their energy usage and can act on reducing it.

The Home Area Network (HAN) Gateway provides a communication channel between the main metering unit and the micro-load controllers. As a result, the microcontrollers and load management can be extended to an off-the-shelf micro-load meter for the use of EV charging systems and other energy consuming loads. The Neighbouring Area Network (NAN) Gateway acts as the intermediary tier connecting multiple HANs collectively in the smart grid for the purpose of accumulating energy consumption information from households (the HANs) in a neighbourhood and relaying the data to the utility company for billing and monitoring.

Smart metering and solar panels. What makes the smart meters smart is that they can communicate with other devices and send energy information directly to the power suppliers. In order for the smart meters to start communicating properly, the Wide Area Network was created.

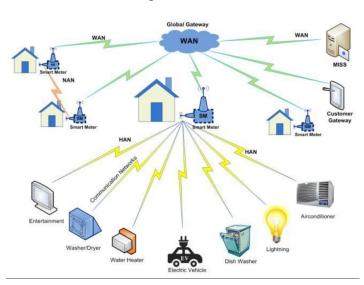
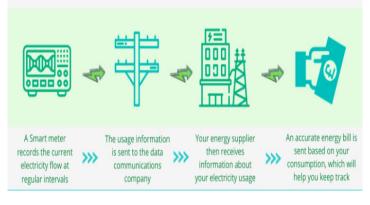


Exhibit 8: Smart metering communication

Exhibit 9: How does a smart meter work?

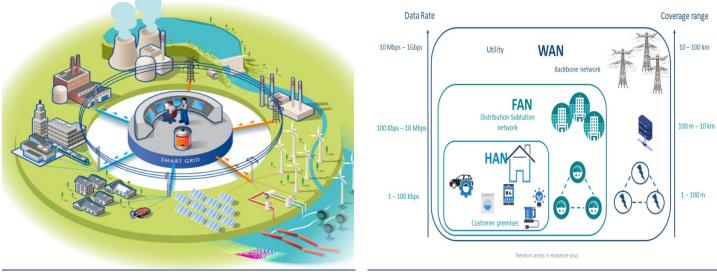


Source: GreenMatch

Source: ResearchGate

5G technology platform for the convergence of utilities, infrastructure, and data communications. According to the study by Huawei and China Telecom Beijing Research Institute in the report, <u>"5G Network Slicing Enabling the Smart Grid"</u>, 5G technology is an essential component in the successful development of a smart grid system. A smart grid can comprehensively improve the information and intelligence of the power grid and fully utilise modern information communication and control technologies.

Exhibit 10: Smart grid



Source: EGAT

Source: ebalanceplus

Exhibit 11: The smart grid hierarchical network

A smart grid is a wireless communication infrastructure which, currently, has two functions: control of services and billing. Because it collects real-time electricity, gas and water usage details, rates can vary during the day (aka 'time of use' or TOU rates). The utility monitors and controls when and where their services are provided.

With GULF's fully integrated network of multiple power plants (independent power producers (IPPs), small power producers (SPPs), renewables), infrastructure assets (port, LNG terminal, motorway, and train systems), and its energy business (LNG imports, electricity and water distribution), we believe the company should be able to greatly benefit from ADVANC's extensive customer base, efficient IT technology platform, and nationwide coverage. This would allow GULF to leverage and expand its upcoming 'smart' ventures, including the smart grid and electricity market in the future.

Smart grid and smart metering with 5G platform. We believe that Thailand is likely to begin implementing a smart grid and a smart metering system for the country's electricity network by 2025, based on:

- 5G wireless technology readiness. The 5G technology platform is expected to replace the current 4G technology for the wireless communication system in Thailand as ADVANC and True Corporation (TRUE TB, HOLD, TP THB3.3) have already started investing in building 5G network coverage piecemeal since 2020.
- 2) Full liberalisation of the gas market. The gas market liberalisation is expected to move from the current phase 2 (beginning of LNG imports by private firms) into phase 3 (full liberalisation of the gas market industry landscape) to allow private companies, including SPPs (B.Grimm Power (BGRIM TB, BUY, TP THB56)) and IPPs (Ratch Group (RATCH TB, BUY, TP THB60), Electricity Generating (EGCO TB, BUY, TP THB245), Global Power Synergy (GPSC TB, BUY, TP THB100), GULF, and the Electricity Generating Authority of Thailand (EGAT)) as well as electricity consumers (Siam Cement (SCC TB, BUY, TP THB520)) to participate in the country's gas market that has long been monopolized by the state-owned enterprise, PTT (PTT TB, BUY, TP THB60).
- 3) **GULF as the largest power producer and gas buyer.** GULF is poised to emerge as Thailand's largest power producer and gas consumer and the only private company to own and operate an LNG terminal (10.8mtpa) at the Maptaphut phase 3 project (MPT3).
- 4) GULF's expanded asset portfolio. GULF will own an integrated and large infrastructure asset portfolio, including ports, Laemchabang phase 3 and MPT3, electricity (IPPs, SPPs and renewables), an LNG terminal, motorways, and electric train lines.
- 5) A new PDP 2025? A new power development plan (PDP) is in the works to promote a smart grid and smart metering, a higher proportion of renewable capacity, and the 'loss of load expectation' (LOLE) measure to replace the 15% capacity reserve margin. In addition, the Thai government under the current PDP and the Alternative Energy Development Plan are mandating a strict decarbonisation goal which could be implemented via LOLE, higher renewable capacity, and a smart grid and smart metering to improve the electricity system's efficiency and lower the energy and electricity intensity.
- 6) An EV boom? It is likely that by 2025 Thailand could see a significant increase in EVs to over 1m on the road, up from only thousands of EVs in 2021, thanks to the government's new target. The rising number of EVs should encourage the Thai government and regulators to accelerate the application of the smart grid and smart metering systems.

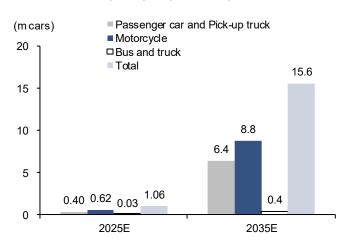
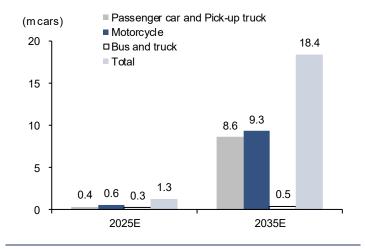


Exhibit 12: EV usage target by vehicle type

Source: National Electric Vehicle Policy Committee (NEVPC)

Exhibit 13: EV production target by vehicle type



Source: NEVPC

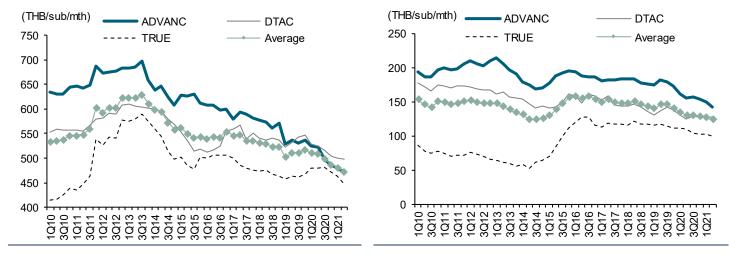
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Upside #2 for GULF-ADVANC: Less intense price competition

We believe that under GULF's ownership, ADVANC's value to shareholders could be further strengthened. As a foreign-owned operator in the highly-protected ICT industry, ADVANC's net profit growth, particularly in terms of average revenue per user (ARPU), has been declining, ranging between THB230-240/user since 1Q17, due to the high competition in Thailand's already saturated ICT market. Total mobile subscriber numbers in Thailand have also been stagnating in the range of 90m-93m, and dropped to below 90m in 2Q20 due to the decline in tourism that resulted in fewer prepaid subscribers.

Exhibit 14: Postpaid ARPU





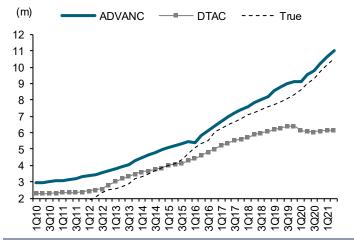
Source: Companies

Source: Companies

Since 1Q16, the blended ARPU (ARPU for postpaid and prepaid subscribers) for all three key mobile operators in Thailand has been relatively stable. As of 2Q21, the blended ARPU was at THB209/subscriber for TRUE, THB225/subscriber for ADVANC, and THB247/subscriber for Total Access Communication (DTAC TB, HOLD, TP THB42).

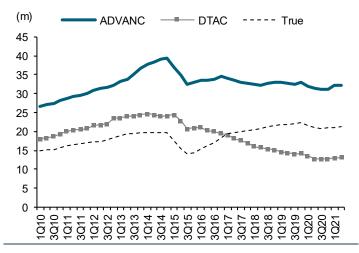
The share prices of all three mobile operators have risen since GULF completed its tender offer for INTUCH on 4 Jul-21, implying that investors have already started to price in the potential upsides for Thailand's mobile operators from the more benign industry competition that could eventually lead to higher profitability for the entire industry. We think that in the next five years, mobile operators should see an improving margin and earnings growth outlook, allowing them to invest in 5G technology and later monetise the upcoming industry shift into the digital era.

Exhibit 16: Postpaid subscriber numbers



Source: Companies

Exhibit 17: Prepaid subscriber numbers



Source: Companies

Valuation

We maintain BUY and our SoTP-based target price of THB47. We maintain our positive view on GULF and believe its acquisition of INTUCH is a rational move to strengthen its short-term earnings growth outlook and balance sheet capability, as well as enhance its long-term growth platform, leveraging the confluence of 5G technology, big data, and information platforms that should allow it to stay ahead of the industry and capitalise on future growth opportunities.

In the next 1-2 years, we expect GULF and ADVANC to announce more JVs and partnership ventures to harness the future megatrends of digitalization and consumeroriented products and services, with ADVANC's 5G platform and big data as a backbone for GULF's growing infrastructure portfolio.

Exhibit 18: SoTP valuation

Cost of equity assumption	(%)			Cost of debt assu	mptions	(%)	
Risk-free rate		2.3			Pretax cost of debt		4.0
Market risk premium		8.5			Marginal tax rate		20.0
Stock beta	0.50						
Cost of equity, Ke		6.6			Net cost of debt, Ke	d	2.9
Weight applied		25.0			Weight applied		75.0
WACC (%)		3.8					
DCF valuation estimate		(MW)	(%)	(THB m)	Equity Capacity (MW)	(THB/share)	Comments
IPP	GNS	1,653	40	27,097	661	2.3	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	GUT	1,752	40	37,570	701	3.2	WACC 3.8%, Risk free rate 2.3%,
	GSRC	2,650	70	59,804	1,855	5.1	Risk premium 8.5%, zero terminal growth WACC 3.8%, Risk free rate 2.3%,
	GPD	2,920	70	88,268	2,044	7.5	Risk premium 8.5%, zero terminal growth WACC 3.8%, Risk free rate 2.3%,
	Duqm (Oman)	236	45	4,409	106	0.4	Risk premium 8.5%, zero terminal growth WACC 3.8%, Risk free rate 2.3%, Biok promium 8.5%, zero terminal growth
	Hin Kong (2024E-2025E)	1,400	49	36,484	686	3.1	Risk premium 8.5%, zero terminal growth WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	Burapa Power (2027E)	540	35	11,164	189	1.0	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
SPP	GJP's 7 SPPs	831	40	30,280	332	2.6	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	GMP's 9 SPPs	1,179	53	57,783	619	4.9	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	GMP's 3 SPPs (GNC, GNRV1&2)	383	70	18,132	268	1.5	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	CGC (biomass)	25	100	197	25	0.0	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
Renewable	Solar - Thailand	598	75	15,114	449	1.3	WACC 3.8%, Risk free rate 2.3%, Risk premium 8.5%, zero terminal growth
	Solar - Vietnam	149	95	1,348	141	0.1	WACC 5%, Risk free rate 6%, Risk premium 6.5%, zero terminal growth
	Wind - Vietnam	410	95	14,838	390	1.3	WACC 5%, Risk free rate 6%, Risk premium 6.5%, zero terminal growth
	Wind - Germany	450	50	17,211	225	1.5	WACC 4%, Risk free rate 2%, Risk premium 8.5%, zero terminal growth
Infrastructure	Laemchabang phase 3 (2023E)		40	10,055		0.9	EIRR 10.5%
	Maptaphut phase 3 (2023E)		70	140,673		12.0	EIRR 13.6%
	Motorway O&M projects (2023E)		40	7,418		0.6	EIRR 10%
	One Bangkok (2024E)	240	16	1,237		0.1	EIRR 12%
Investment	SPCG		10	2,300	29	0.2	At 1.5x FY21E P/BV
	INTUCH		42	88,062		7.5	At THB65 SoTP TP
	Net debt			(117,871)		(10.0)	At end-2021E
	Residual ordinary equity			551,571	8,720	47.0	

Sources: GULF; FSSIA estimates

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Financial Statements

Gulf Energy Development

Profit and Loss (THB m) Year Ending Dec	2019	2020	2021E	2022E	2023E
Revenue	30,040	32,827	31,847	74,626	74,808
Cost of goods sold	(21,734)	(20,075)	(18,076)	(47,962)	(46,949)
Gross profit	8,306	12,752	13,771	26,664	27,859
Other operating income	-	-	-	-	-
Operating costs	(1,713)	(2,080)	(1,592)	(3,731)	(3,740)
Operating EBITDA	6,593	10,672	12,178	22,932	24,118
Depreciation	(2,434)	(3,431)	(3,049)	(5,180)	(5,503)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	4,159	7,241	9,129	17,752	18,616
Net financing costs	(1,703)	(3,715)	(3,501)	(4,656)	(4,518)
Associates	3,205	2,462	3,210	4,189	4,631
Recurring non-operating income	3,320	2,922	3,230	4,209	4,651
Non-recurring items Profit before tax	1,377 7 152	(196)	0	0 17,306	0 19 749
Tax	7,152 14	6,252	8,859		18,748
Profit after tax	7,166	(107) 6,144	(13) 8,846	(492) 16,814	(963) 17,785
Minority interests	(2,280)	(1,862)	(2,256)	(4,182)	(4,378)
Preferred dividends	(2,200)	(1,002)	(2,230)	(4,102)	(4,370)
Other items	-	-	-	-	-
Reported net profit	4,887	4,282	6,590	12,632	13,407
Non-recurring items & goodwill (net)	(1,377)	196	0	0	0
Recurring net profit	3,510	4,478	6,590	12,632	13,407
Per share (THB)					
Recurring EPS *	0.33	0.38	0.56	1.08	1.14
Reported EPS	0.46	0.36	0.56	1.08	1.14
DPS	0.26	0.25	0.40	0.70	0.70
Diluted shares (used to calculate per share data)	10,667	11,733	11,733	11,733	11,733
Growth					
Revenue (%)	74.8	9.3	(3.0)	134.3	0.2
Operating EBITDA (%)	49.7	61.9	14.1	88.3	5.2
Operating EBIT (%)	38.1	74.1	26.1	94.5	4.9
Recurring EPS (%)	15.9	16.0	47.2	91.7	6.1
Reported EPS (%)	61.4	(20.3)	53.9	91.7	6.1
Operating performance					
Gross margin inc. depreciation (%)	19.5	28.4	33.7	28.8	29.9
Gross margin of key business (%)	24.1	27.8	33.7	28.8	29.9
Operating EBITDA margin (%)	21.9	32.5	38.2	30.7	32.2
Operating EBIT margin (%)	13.8	22.1	28.7	23.8	24.9
Net margin (%)	11.7	13.6	20.7	16.9	17.9
Effective tax rate (%)	-0.3	2.8	0.2	3.7	6.8
Dividend payout on recurring profit (%)	79.0	65.5	71.2	65.0	61.3
Interest cover (X)	4.4	2.7	3.5	4.7	5.1
Inventory days	-	-	-	-	-
Debtor days	52.9	60.4	67.4	33.5	40.7
Creditor days	24.1	27.7	25.8	16.8	24.6
Operating ROIC (%)	4.6	5.5	(1.2)	(2.1)	(2.2)
ROIC (%)	5.8	5.0	(1.1)	(1.7)	(1.8)
ROE (%) ROA (%)	9.4 5.5	8.7 4.9	10.0 3.1	17.6 5.5	17.1 5.5
* Pre-exceptional, pre-goodwill and fully diluted	0.0	4.9	5.1	0.0	0.5
Revenue by Division (THB m)	2019	2020	2021E	2022E	2023E
Power business	30,313	31,772	26,704	69,375	69,557
Consulting business	955	1,154	5,772	5,772	5,772
Others	(1,228)	(99)	(629)	(521)	(521)

Sources: Gulf Energy Development; FSSIA estimates

Financial Statements

Gulf	Energy	Development	
Ouii	LICITY	Development	

Cash Flow (THB m) Year Ending Dec	2019	2020	2021E	2022E	20238
ecurring net profit	3,510	4,478	6,590	12,632	13,40
epreciation	2,434	3,431	3,049	5,180	5,503
ssociates & minorities	3,205	2,462	3,210	4,189	4,63
ther non-cash items	-	-	-	-	
hange in working capital	(6,473)	2,798	(762)	7,807	(1,533
ash flow from operations	2,676	13,169	12,088	29,809	22,00
apex - maintenance	(2,410)	(3,152)	(3,226)	(4,256)	(3,805
apex - new investment	(13,320)	(49,037)	(38,313)	(11,321)	(462
et acquisitions & disposals	(1,209)	(832)	0	0	(
ther investments (net)	11,701	433	3,209	4,187	4,629 362
ash flow from investing	(5,239) (2,133)	(52,588) (2,773)	(38,329) (2,933)	(11,390) (4,693)	(8,213
ividends paid quity finance	(2,133)	(2,773)	(2,955)	(4,093)	(0,213
lebt finance	5,584	27,702	23,017	(2,000)	(
other financing cash flows	(3,196)	16,003	(4,164)	(4,194)	(4,882
ash flow from financing	(0,100) 254	40,932	15,920	(10,887)	(13,095
lon-recurring cash flows	-			(10,001)	(10,000
ther adjustments	0	0	0	0	(
let other adjustments	ů	0 0	ů 0	ů 0	
lovement in cash	(2,309)	1,513	(10,321)	7,532	9,27
ree cash flow to firm (FCFF)	332.82	(35,753.90)	(22,263.26)	23,297.88	27,412.8
ree cash flow to equity (FCFE)	(175.27)	4,285.96	(7,388.02)	12,225.06	17,487.8
er share (THB)	0.02	(2.05)	(1.00)	1.00	0.0
CFF per share CFE per share	0.03	(3.05) 0.37	(1.90)	1.99 1.04	2.34 1.49
CFE per snare Recurring cash flow per share	(0.01) 0.86	0.37	(0.63) 1.10	1.04	1.49
					2.0
alance Sheet (THB m) Year Ending Dec	2019	2020	2021E	2022E	20238
angible fixed assets (gross)	85,190	139,958	181,673	196,326	198,896
ess: Accumulated depreciation	(4,229)	(10,240)	(13,466)	(17,722)	(21,527
angible fixed assets (net)	80,961	129,718	168,208	178,605	177,369
ntangible fixed assets (net)	1,113	17,354	17,354	17,354	17,354
ong-term financial assets	-	-	-	-	
vest. in associates & subsidiaries	21,247	22,079	22,079	22,079	22,079
ash & equivalents	14,390	15,902	5,581	13,112	22,38
/C receivable	5,199	5,660	6,108	7,601	9,09
ventories	0	0	0	0	(
Other current assets	2,828	8,792	8,529	19,986	20,03
urrent assets	22,417	30,354	20,219	40,699	51,51
Other assets	8,540	46,075	46,075	46,075	46,07
otal assets	134,278	245,580	273,934	304,812	314,39
Common equity	38,427	64,027	67,684	75,623	80,816
linorities etc.	10,613	8,053	10,309	14,491	18,869
otal shareholders' equity	49,040	72,080	77,993	90,114	99,68
ong term debt	66,453	83,544	116,453	116,453	116,453
ther long-term liabilities	8,976	60,314	60,314	60,314	60,314
ong-term liabilities	75,429	143,858	176,767	176,767	176,76
/C payable	1,689	1,353	1,207	3,202	3,13
hort term debt	3,281	13,892	4,000	2,000	2,000
ther current liabilities	4,838	14,397	13,967	32,729	32,808
urrent liabilities	9,809	29,643	19,174	37,931	37,943
otal liabilities and shareholders' equity	134,278	245,581	273,934	304,812	314,39
et working capital	1,500	(1,298)	(537)	(8,344)	(6,811
vested capital Includes convertibles and preferred stock which is beir	113,360	213,928	253,179	255,768	256,06
	שיש ווכמוכט מש עפטו				
er share (THB)					
ook value per share	3.60	5.46	5.77	6.45	6.89
angible book value per share	3.50	3.98	4.29	4.97	5.4
inancial strength					
et debt/equity (%)	112.9	113.1	147.3	116.9	96.4
et debt/total assets (%)	41.2	33.2	41.9	34.6	30.
urrent ratio (x)	2.3	1.0	1.1	1.1	1.4
F interest cover (x)	8.7	15.4	9.8	6.1	5.
aluation	2019	2020	2021E	2022E	2023
ecurring P/E (x) *	126.1	108.7	73.9	38.5	36.
ecurring P/E @ target price (x) *	142.8	123.1	83.7	43.7	41.
eported P/E (x)	90.6	113.7	73.9	38.5	36.3
ividend yield (%)	0.6	0.6	1.0	1.7	30. 1.
rice/book (x)	11.5	7.6	7.2	6.4	6.0
rice/book (x)	11.9	10.4	9.7	8.4	7.7
V/EBITDA (x) **	77.1	54.0	9.7 50.3	26.5	25.0
V/EBITDA @ target price (x) **	86.0	60.1	55.6	20.5	23.0
V/invested capital (x)	4.5	2.7	2.4	23.3	21.0
	4.0	2.1	2.4	2.4	Z.4

Sources: Gulf Energy Development; FSSIA estimates



Corporate Governance report of Thai listed companies 2020

EXCELLE	NT LEVEL									
AAV	ADVANC	AF	AIRA	AKP	AKR	ALT	AMA	AMATA	AMATAV	ANAN
AOT	AP	ARIP	ARROW	ASP	BAFS	BANPU	BAY	BCP	BCPG	BDMS
BEC	BEM	BGRIM	BIZ	BKI	BLA	BOL	BPP	BRR	BTS	BWG
CENTEL	CFRESH	CHEWA	СНО	CIMBT	СК	CKP	CM	CNT	COL	COMAN
COTTO	CPALL	CPF	CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC
DV8	EA	EASTW	ECF	ECL	EGCO	EPG	ETE	FNS	FPI	FPT
FSMART	GBX	GC	GCAP	GEL	GFPT	GGC	GPSC	GRAMMY	GUNKUL	HANA
HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN	JSP
JWD	К	KBANK	KCE	KKP	KSL	KTB	KTC	LANNA	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	METCO	MFEC	MINT
MONO	MOONG	MSC	MTC	NCH	NCL	NEP	NKI	NOBLE	NSI	NVD
NYT	OISHI	ORI	OTO	PAP	PCSGH	PDJ	PG	PHOL	PLANB	PLANET
PLAT	PORT	PPS	PR9	PREB	PRG	PRM	PSH	PSL	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QTC	RATCH	RS	S	S & J	SAAM
SABINA	SAMART	SAMTEL	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SDC
SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIRI	SIS	SITHAI	SMK	SMPC	SNC
SONIC	SORKON	SPALI	SPI	SPRC	SPVI	SSSC	SST	STA	SUSCO	SUTHA
SVI	SYMC	SYNTEC	TACC	TASCO	TCAP	TFMAMA	THANA	THANI	THCOM	THG
THIP	THRE	THREL	TIP	TIPCO	TISCO	TK	TKT	TTB	TMILL	TNDT
TNL	TOA	TOP	TPBI	TQM	TRC	TSC	TSR	TSTE	TSTH	TTA
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		
	OD LEVEL									
2S	ABM	ACE	ACG	ADB	AEC	AEONTS	AGE	AH	AHC	AIT
ALLA	AMANAH	AMARIN	APCO	APCS	APURE	AQUA	ASAP	ASEFA	ASIA	ASIAN
ASIMAR	ASK	ASN	ATP30	AUCT	AWC	AYUD	В	BA	BAM	BBL
BFIT	BGC	BJC	BJCHI	BROOK	BTW	CBG	CEN	CGH	CHARAN	CHAYO
CHG	CHOTI	CHOW	CI	CIG	CMC	COLOR	COM7	CPL	CRC	CRD
CSC	CSP	CWT	DCC	DCON	DDD	DOD	DOHOME	EASON	EE	ERW
ESTAR	FE	FLOYD	FN	FORTH	FSS	FTE	FVC	GENCO	GJS	GL
GLAND	GLOBAL	GLOCON	GPI	GULF	GYT	HPT	HTC	ICN	IFS	ILM
IMH	INET	INSURE	IRC	IRCP	IT	ITD	ITEL	J	JAS	JCK
JCKH	JMART	JMT	KBS	KCAR	KGI	KIAT	KOOL	KTIS	KWC	KWM
L&E	LALIN	LDC	LHK	LOXLEY	LPH	LRH	LST	M	MACO	MAJOR
MBAX	MEGA	META	MFC	MGT	MILL	MITSIB	MK	MODERN	MTI	MVP
NETBAY	NEX	NINE	NTV	NWR	000	OGC	OSP	PATO	PB	PDG
PDI	PICO	PIMO	PJW	PL	PM	PPP	PRIN	PRINC	PSTC	PT
QLT	RCL	RICHY	RML	RPC	RWI	S11	SALEE	SAMCO	SANKO	SAPPE
SAWAD	SCI	SCP	SE	SEG	SFP	SGF	SHR	SIAM	SINGER	SKE

PDI	PICO	PIMO	PJW	PL	PM	PPP	PRIN	PRINC	PSTC	PT	
QLT	RCL	RICHY	RML	RPC	RWI	S11	SALEE	SAMCO	SANKO	SAPPE	
SAWAD	SCI	SCP	SE	SEG	SFP	SGF	SHR	SIAM	SINGER	SKE	
SKR	SKY	SMIT	SMT	SNP	SPA	SPC	SPCG	SR	SRICHA	SSC	
SSF	STANLY	STI	STPI	SUC	SUN	SYNEX	Т	TAE	TAKUNI	TBSP	
TCC	TCMC	TEAM	TEAMG	TFG	TIGER	TITLE	TKN	TKS	ТМ	TMC	
TMD	TMI	TMT	TNITY	TNP	TNR	TOG	TPA	TPAC	TPCORP	TPOLY	
TPS	TRITN	TRT	TRU	TSE	TVT	TWP	UEC	UMI	UOBKH	UP	
UPF	UPOIC	UT	UTP	UWC	VL	VNT	VPO	WIIK	WP	XO	
YUASA	ZEN	ZIGA	ZMICO								

GOOD LE	VEL										
7UP	А	ABICO	AJ	ALL	ALUCON	AMC	APP	ARIN	AS	AU	
B52	BC	BCH	BEAUTY	BGT	BH	BIG	BKD	BLAND	BM	BR	
BROCK	BSBM	BSM	BTNC	CAZ	CCP	CGD	CITY	CMAN	CMO	CMR	
CPT	CPW	CRANE	CSR	D	EKH	EP	ESSO	FMT	GIFT	GREEN	
GSC	GTB	HTECH	HUMAN	IHL	INOX	INSET	IP	JTS	JUBILE	KASET	
KCM	KKC	KUMWEL	KUN	KWG	KYE	LEE	MATCH	MATI	M-CHAI	MCS	
MDX	MJD	MM	MORE	NC	NDR	NER	NFC	NNCL	NPK	NUSA	
OCEAN	PAF	PF	PK	PLE	PMTA	POST	PPM	PRAKIT	PRECHA	PRIME	
PROUD	PTL	RBF	RCI	RJH	ROJNA	RP	RPH	RSP	SF	SFLEX	
SGP	SISB	SKN	SLP	SMART	SOLAR	SPG	SQ	SSP	STARK	STC	
SUPER	SVOA	TC	TCCC	THMUI	TIW	TNH	TOPP	TPCH	TPIPP	TPLAS	
TTI	TYCN	UKEM	UMS	VCOM	VRANDA	WIN	WORK	WPH			
		Description						Score	Range		
		Excellent						90-	100		
		Very Good			80-89						
		Good				70-79					

Disclaimer:

The disclosure of the survey results of the Thai Institute of Directors Association ('IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

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and corruption SEC imposed a civil sanction against insider trading of director and executive; ** delisted

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation

Anti-corruption Progress Indicator 2020

CERTIFIED										
2S	ADVANC	AI	AIE	AIRA	AKP	AMA	AMANAH	AP	AQUA	ARROW
ASK	ASP	AYUD	В	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	СМ	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	К	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
КТВ	ктс	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	М	MAKRO
MALEE	MBAX	MBK	MBKET	MC	МСОТ	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	000	OCEAN	OGC	ORI	PAP	ΡΑΤΟ	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	ткт	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	WIIK	XO
ZEN	TRUE									
DECLARED)									
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	СНО	CI	COTTO	DDD	EA	EFORL	EP	ERW
ESTAR	ETE	EVER	FSMART	GPI	ILINK	IRC	J	JKN	JMART	JMT
JSP	JTS	KWG	LDC	MAJOR	META	NCL	NOBLE	NOK	PK	PLE
ROJNA	SAAM	SAPPE	SCI	SE	SHANG	SINGER	SKR	SPALI	SSP	STANLY
SUPER	SYNEX	THAI	TKS	TOPP	TRITN	TTA	UPF	UV	WIN	ZIGA
Level										
Certified	This level in	dicates practica	I participation w	ith thoroughly e	xamination in rela	ation to the reco	mmended proce	dures from the	audit committee	or the SEC's

runed I his level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.

Declared This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

Disclaimer:

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, FSS International Investment Advisory Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment results.

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Source: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

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ANALYST(S) CERTIFICATION

Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

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Company	Ticker	Price	Rating	Valuation & Risks
Gulf Energy Development	GULF TB	THB 41.50	BUY	The downside risks to our SoTP-based TP on GULF include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) delays in project commercial operation dates.
Intouch Holdings	INTUCH TB	THB 82.75	HOLD	The key downside risks to our NAV-discounted TP are if the sluggish performance from the satellite business continues and if there is a slower-than-expected 5G adoption rate. The key upside risk is if INTUCH synergizes with GULF faster than expected.
Advanced Info Service	ADVANC TB	THB 196.50	BUY	The key downside risks to our DCF-based TP are stronger-than-expected competition in the mobile market and the slower-than-expected adoption of 5G use cases.
Thaicom	THCOM TB	THB 10.30	REDUCE	The key upside risks to our P/BV-based TP are 1) if the company is able to secure a new right of use concession for the satellite orbital slots and can generate significant revenue from it; 2) if it can form a partnership with NT or LEO satellite operators; and 3) if its operating costs after the expiration of Thaicom 4 and 6 are lower than expected.
Siam Commercial Bank	SCB TB	THB 130.00	BUY	Downside risks to our SOTP-based TP are 1) prolonged economic sluggishness and further waves of the Covid-19 pandemic affecting loan growth and asset quality; and 2) the impact of further interest rate cuts on its NIM.
Total Access Communication	DTAC TB	THB 42.50	HOLD	The key downside and upside risks to our DCF-based TP are if the 5G subscription losses are worse than our expectation, the cost of the 3500MHz band is higher than our expectation, if there is stronger or weaker-than-expected competition in the mobile market, and if there is a faster or slower-than-expected adoption of 5G use cases.
True Corporation	TRUE TB	THB 3.94	HOLD	The key upside and downside risks to our DCF-based TP are if the 5G subscription gains and ARPU are better or worse than our expectation, if the company can reduce its costs better or worse than we expect, and if there is a faster or slower-than-expected adoption of 5G use cases.
B.Grimm Power	BGRIM TB	THB 42.25	BUY	The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand, 2) a lower crude price, and 3) unplanned shutdowns of its SPPs.
Ratch Group	RATCH TB	THB 45.50	BUY	The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand; 2) lower crude price; and 3) delays in starting new projects.
Electricity Generating	EGCO TB	THB 176.50	BUY	Downside risks to our SoTP-based TP include 1) lower-than expected demand for electricity in Thailand; 2) delays in project commencement or commercial operation dates (COD); and 3) government intervention in electricity tariff subsidies.
Global Power Synergy	GPSC TB	THB 78.00	BUY	The downside risks to our SoTP-based TP on GPSC include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) lower-than-expected demand from industrial users.
Siam Cement	SCC TB	THB 412.00	BUY	Downside risks to our SOTP-based TP include 1) a lower-than-expected demand for chemicals, CBM, and packaging; 2) rising coal costs for its cement and packaging units; and 3) weaker demand from the automobile industry that could erode the demand for SCC's chemical unit and its dividend contributions.
PTT PCL	PTT TB	THB 40.00	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downside from government intervention.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

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All share prices are as at market close on 23-Sep-2021 unless otherwise stated.



RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months. **Neutral.** The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months. **Underweight.** The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

