



# Utilities

SET ENER index Close: 8/8/2018 26,016.75 +200.41 / +0.78% Bt11,424mn  
 Bloomberg ticker: SET ENER

## Core earnings expected to fall 8% YoY in 2Q18

**Based on earnings results and forecasts (F) of nine utilities companies, total core earnings are projected to fall 8% YoY to Bt11.1bn in 2Q18 from plant turnarounds but to seasonally rise 8% QoQ. The highest and lowest YoY changes are CKP and RATCH respectively. Top picks: 1) BPP- 29% capacity growth by 2020 plus yesterday's announcement of 80 MW in new wind projects in Vietnam and 2) WHAUP- cheap 2019 PE of 9x.**

**BCPG:** core profit (excluding Bt67mn FX loss and Bt101mn insurance claim) was stable YoY and up 6% QoQ to Bt385mn with improving operating profit from expense control and the startup of a new 4 MW project but several adjustments.

**BPP (F):** Core profit is expected to decline 12% YoY and 10% QoQ to Bt1.7bn mainly from Hongsa's temporary transmission line problem and a narrowing in profit margin for conventional power plants in China from rising coal price. Adding in a Bt660mn FX gain gives 2Q18F net profit of Bt2.4bn.

**CKP (F):** Core profit is projected to surge 316% YoY from a low base and 24% QoQ to Bt72mn from the startup of BIC-2 project in mid-2017 while Nam-Ngum 2 looks stable with conservative water management. An estimated Bt60mn FX gain in 2Q18F brings net profit to Bt133mn.

**EGCO (F):** Core profit is expected to decline 14% YoY to Bt2.7bn from planned maintenance of Kanom 4 and KLU plus no repeat of the prior quarter's asset divestment. An estimated Bt2.2bn FX loss gives a 2Q18F net profit of B552mn.

**GLOW:** Core earnings were Bt2.26bn, down 9% YoY on a plant turnaround, declining AP revenue and relatively less earnings contribution from the SPP extension scheme. A Bt466mn FX loss cut net profit to Bt1.8bn.

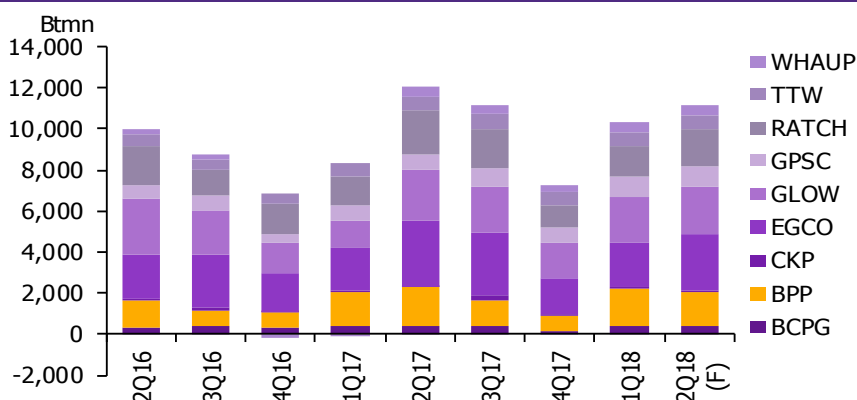
**GPSC:** Core earnings grew 34% YoY to Bt1.0bn from: 1) startup of 3 projects over Jun-Dec 2017 that added 11% to its portfolio, 2) contined efficiency improvement, especially at CUP 1-3 and 3) no repeat of the 2Q17 customer plant shutdown.

**RATCH (F):** Core profit is expected to decline 18% YoY to Bt1.8bn with less earnings contribution from Hongsa (temporary transmission line problem) and an AP decline. 2Q18F net profit is Bt2.6bn after a Bt767mn FX gain.

**TTW (F):** Core profit is projected to grow 9% YoY and 7% QoQ to Bt715mn on growing tap water off-take from growing demand from household users, the opening of CentralPlaza Mahachai, rising industrial demand and a tariff hike.

**WHAUP (F):** Core profit is expected to drop 7% YoY but rise 1% QoQ Bt449mn with a one-time fee for debt refinancing; net profit is Bt118mn after factoring in a Bt331mn FX loss.

### Core earnings by quarter



Source: Company reports and SCBS Investment Research

### Valuation summary

	Rating	Price (Bt)	TP (Bt)	ETR (%)	P/E (x) 18F	P/E (x) 19F	P/BV (x) 18F	P/BV (x) 19F	
BCPG	Neutral	18.7	19.0	5.0	21.2	17.0	2.4	2.3	
BPP	Buy	25.8	30.0	18.8	13.0	12.0	1.9	1.7	
CKP	Neutral	4.1	4.0	(2.7)	50.3	37.1	1.7	1.6	
EGCO	Buy	233.0	273.0	20.3	11.9	11.4	1.1	1.1	
GLOW	Neutral	94.0	93.0	5.1	16.0	15.7	2.8	2.8	
GPSC	Neutral	71.5	72.0	2.8	26.0	22.9	2.6	2.5	
RATCH	Buy	52.3	64.0	27.1	10.8	10.1	1.1	1.1	
TTW	Buy	12.6	13.5	12.6	16.6	16.2	4.1	4.1	
WHAUP	Buy	6.0	8.75	49.7	10.3	9.3	1.6	1.5	
<b>Average</b>					<b>15.4</b>	<b>19.6</b>	<b>16.9</b>	<b>2.2</b>	<b>2.1</b>

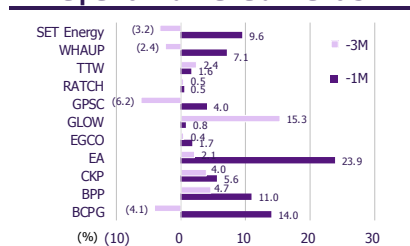
Source: SCBS Investment Research

### Price performance

(%)	Absolute			Relative to SET		
	1M	3M	12M	1M	3M	12M
BCPG	14.0	(4.1)	25.5	7.5	(2.1)	14.6
BPP	11.0	4.7	(1.0)	4.6	6.8	(9.6)
CKP	5.6	4.0	25.5	(0.4)	6.2	14.5
EGCO	1.7	0.4	4.5	(4.1)	2.5	(4.6)
GLOW	0.8	15.3	12.2	(5.0)	17.7	2.5
GPSC	4.0	(6.2)	81.0	(2.0)	(4.3)	65.2
RATCH	0.5	0.5	(1.4)	(5.3)	2.5	(10.0)
TTW	1.6	2.4	17.8	(4.2)	4.5	7.5
WHAUP	7.1	(2.4)	(3.2)	1.0	(0.4)	(11.7)

Source: SET, SCBS Investment Research

### Price performance relative to SET



Source: SET, SCBS Investment Research

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Figure 1: 2Q18 earnings preview (F) and review

Btmn	2Q17	1Q18	2Q18(F)	YoY%	QoQ%	Note
<b>BCPG</b>						
Revenue	890	801	874	(1.8)	9.0	- Operating profit up 8% YoY and 18% QoQ to Bt492mn on: 1) expense control with SG&A/sales down 540 bps YoY and 280 bps QoQ to 15.4% and 2) the startup of Gotemba (4 MW contracted capacity).
Gross profit	642	562	626	(2.4)	11.5	
Operating profit	457	416	492	7.5	18.3	- Equity income had several adjustment items: 1) a lower amortization expense for the PPA in Indonesia and a Bt31mn expense reversal as the final value estimate cuts amortization expense estimate from Bt550mn/year to Bt380mn/year and 2) Bt122mn expense from debt refinancing
EBITDA	655	595	672	2.5	12.9	
Equity income	-10	69	19	n/a	n/a	
<b>Core profit</b>	<b>384</b>	<b>364</b>	<b>385</b>	<b>0.3</b>	<b>5.7</b>	
Net profit	463	351	419	(9.4)	19.3	
Gross margin (%)	72	70	72	(0.5)	1.6	
Operating margin (%)	51	52	56	4.9	4.4	
Core profit margin (%)	43.1	45.4	44.0	0.9	(1.4)	
<b>BPP (F)</b>						
Revenue	1,402	2,142	1,431	2.1	(33.2)	- Core profit is expected to decline 12% YoY and 10% QoQ to Bt1.7bn, mainly from Hongsa's temporary transmission line problem and narrowed profit margin of conventional power plants in China from rising coal price while performance of BLCP is expected to be stable.
Gross profit	364	624	318	(12.8)	(49.1)	
Operating profit	112	364	36	(67.8)	(90.1)	- With the estimated Bt660mn FX gain, net profit becomes Bt2.4bn, up 29% YoY and 403% QoQ.
EBITDA	261	503	186	(28.6)	(63.0)	
Equity income	1,874	1,678	1,743	(7.0)	3.9	
<b>Core profit</b>	<b>1,930</b>	<b>1,889</b>	<b>1,702</b>	<b>(11.8)</b>	<b>(9.9)</b>	
Net profit	1,837	470	2,362	28.6	402.7	
Gross margin (%)	26	29	22	(3.8)	(6.9)	
Operating margin (%)	8	17	3	(5.5)	(14.5)	
Core profit margin (%)	137.6	88.2	119.0	(18.7)	30.8	
<b>CKP (F)</b>						
Revenue	1,359	1,821	1,927	41.8	5.8	- Core profit is projected to improve 316% YoY (off a low base of Bt17mn) and 24% QoQ to Bt72mn from the startup of BIC-2 project in mid-2017 while Nam-Ngum 2 project looks stable with continued conservative water management from lower water inflow.
Gross profit	349	417	445	27.3	6.7	
Operating profit	274	308	333	21.7	8.2	- With the estimated Bt60mn FX gain, 2Q18F net profit becomes Bt133mn.
EBITDA	626	697	633	1.1	(9.2)	
Equity income	3	1	3	0.0	167.9	
<b>Core profit</b>	<b>17</b>	<b>58</b>	<b>72</b>	<b>316.0</b>	<b>24.0</b>	
Net profit	11	13	133	1,141.3	958.8	
Gross margin (%)	26	23	23	(2.6)	0.2	
Operating margin (%)	20	17	17	(2.9)	0.4	
Core profit margin (%)	1.3	3.2	3.7	2.5	0.5	
<b>EGCO (F)</b>						
Revenue	7,151	8,405	8,202	14.7	(2.4)	- Core profit is expected to decline 14% YoY to Bt2.7bn from the planned maintenance of Kanom 4 and KLU and without the prior quarter's asset divestments.
Gross profit	2,204	2,008	2,297	4.2	14.4	
Operating profit	1,609	1,154	1,457	(9.5)	26.3	- This earnings estimate is 25% above the previous quarter from seasonal factors and no repeat of the cost at Quezon to replace transmission line and switchyard.
EBITDA	2,870	2,390	2,599	(9.4)	8.7	
Equity income	2,201	1,881	2,007	(8.8)	6.7	- The estimated Bt2.2bn FX loss (mainly unrealized loss from US\$ debt) leads to a 2Q18F net profit forecast of B552mn.
<b>Core profit</b>	<b>3,172</b>	<b>2,177</b>	<b>2,730</b>	<b>(13.9)</b>	<b>25.4</b>	
Net profit	3,530	20,171	552	(84.4)	(97.3)	
Gross margin (%)	30.8	23.9	28.0	(2.8)	4.1	
Operating margin (%)	22.5	13.7	17.8	(4.7)	4.0	
Core profit margin (%)	44.4	25.9	33.3	(11.1)	7.4	
<b>GLOW</b>						
Revenue	13,553	12,475	13,513	(0.3)	8.3	- GLOW had core earnings of Bt2.26bn, down 9% YoY on a 25-day maintenance shutdown of CFB 3, a step down in GIPP's AP rate and PPA expiration for SPP phase 2, currently under the SPP extension scheme with less dispatch and no capacity payment from EGAT; earnings rose 2% QoQ. Availability for Gheco-1 rose to 100% in 2Q18 from 92.2% in 1Q18 and 97.1% in 2Q17 with very smooth operations.
Gross profit	4,054	3,382	3,364	(17.0)	(0.5)	
Operating profit	3,879	3,231	3,208	(17.3)	(0.7)	- The depreciation of the baht led to a Bt466mn FX loss on its US\$ debt, trimming net profit to Bt1.80bn, down 37% YoY and 31% QoQ.
EBITDA	5,069	4,399	4,351	(14.2)	(1.1)	
Equity income	0	(1)	(1)	21.1	(55.0)	
<b>Core profit</b>	<b>2,483</b>	<b>2,226</b>	<b>2,262</b>	<b>(8.9)</b>	<b>1.6</b>	
Net profit	2,830	2,614	1,796	(36.5)	(31.3)	
Gross margin (%)	29.9	27.1	24.9	(5.0)	(2.2)	
Operating margin (%)	28.6	25.9	23.7	(4.9)	(2.2)	
Core profit margin (%)	18.3	17.8	16.7	(1.6)	(1.1)	

**Figure 1: 2Q18 earnings preview (F) and review** (Continued)

Btmn	2Q17	1Q18	2Q18(F)	YoY%	QoQ%	Note
<b>GPSC</b>						
Revenue	5,458	5,716	6,563	20.2	14.8	- Core earnings grew 34% YoY to Bt1.0bn: 1) startup of three projects over Jun-Dec 2017 with total attributed capacity of 149MW, adding 11% to portfolio, 2) more efficiency improvements, especially at CUP 1-3 and 3) no repeat of the 2Q17 customer plant shutdown. - QoQ, core earnings rose 8% from better performance at Sriracha Power Plant, CUP 1-3 and better weather conditions in Japan. Revenue grew 20% YoY and 15% QoQ to Bt6.6bn; gross margin rose by 410 bps YoY but slid 40 bps QoQ to 21.3%.
Gross profit	938	1,238	1,396	48.9	12.8	
Operating profit	775	1,064	1,183	52.6	11.2	
EBITDA	1,170	1,547	1,705	45.6	10.2	
Equity income	110	152	155	40.4	1.8	
<b>Core profit</b>	<b>764</b>	<b>944</b>	<b>1,024</b>	<b>34.0</b>	<b>8.5</b>	
Net profit	815	923	1,052	29.1	14.0	
Gross margin (%)	17.2	21.7	21.3	4.1	(0.4)	
Operating margin (%)	14.2	18.6	18.0	3.8	(0.6)	
Core profit margin (%)	14.0	16.5	15.6	1.6	(0.9)	
<b>RATCH (F)</b>						
Revenue	10,951	9,038	10,340	(5.6)	14.4	- Core profit is projected to decline 18% YoY to Bt1.8bn mainly from softening earnings contribution from Hongsa (with temporary transmission line problem) and declining AP revenue. - However, this will grow 18% QoQ from seasonal factors and the expectation of less plant turnarounds. - Including the estimated Bt767mn FX gain from US\$ debt and baht depreciation against US\$, net profit estimate becomes Bt2.6bn.
Gross profit	1,527	1,304	1,361	(10.9)	4.3	
Operating profit	1,137	898	936	(17.7)	4.1	
EBITDA	1,586	1,174	1,399	(11.8)	19.2	
Equity income	1,417	1,209	1,310	(7.5)	8.4	
<b>Core profit</b>	<b>2,186</b>	<b>1,524</b>	<b>1,798</b>	<b>(17.8)</b>	<b>18.0</b>	
Net profit	2,201	817	2,565	16.5	214.1	
Gross margin (%)	13.9	14.4	13.2	(0.8)	(1.3)	
Operating margin (%)	10.4	9.9	9.0	(1.3)	(0.9)	
Core profit margin (%)	20.0	16.9	17.4	(2.6)	0.5	
<b>TTW (F)</b>						
Revenue	1,394	1,441	1,461	4.8	1.4	- Core profit is projected to grow 9% YoY and 7% QoQ to Bt715mn on growing tap water off-take from growing demand from household users in summer, the opening of CentralPlaza Mahachai, rising industrial demand from seafood exports and COD of BIC-2 SPP, plus 3% QoQ to 77.8mn cum in 2Q18 and tariff hike (1.3% at TTW, 0.2% at PTW and flat at Bangpa-In industrial estate). - Equity income from CKP will grow to Bt34mn in 2Q18 from only Bt2mn in 2Q17 and Bt3mn in 1Q18 from the COD of BIC-2 in mid-2017 plus FX gain.
Gross profit	1,001	1,027	1,043	4.2	1.6	
Operating profit	883	903	920	4.2	1.9	
EBITDA	1,160	1,173	1,187	2.3	1.2	
Equity income	2	3	34	n/a	n/a	
<b>Core profit</b>	<b>658</b>	<b>668</b>	<b>715</b>	<b>8.6</b>	<b>7.0</b>	
Net profit	658	668	715	8.6	7.0	
Gross margin (%)	71.8	71.3	71.4	(0.4)	0.1	
Operating margin (%)	63.4	62.7	62.9	(0.5)	0.2	
Core profit margin (%)	47.2	46.4	49	1.8	2.6	
<b>WHAUP (F)</b>						
Revenue	405	422	443	9.3	5.0	- Water operating profit is expected to grow 20% YoY and 5% QoQ on demand from new 5 SPPs. - Interest expense is expected to rise 29% YoY and 51% QoQ to Bt144mn in 2Q18 due to one-time front-end fee for the Bt3bn refinancing bank loan with debenture. This will come down in 3Q18 - Equity income is expected to drop 5% YoY but rise 9% QoQ to Bt445mn. - Core profit expected to drop 7% YoY but rise 1% QoQ to Bt449mn with a Bt118mn net profit after Bt331mn FX loss.
Gross profit	133	149	155	16.3	4.0	
Operating profit	103	118	124	20.8	5.0	
EBITDA	273	205	197	(27.9)	(4.0)	
Equity income	471	409	445	(5.5)	8.9	
<b>Core profit</b>	<b>486</b>	<b>443</b>	<b>449</b>	<b>(7.5)</b>	<b>1.4</b>	
Net profit	701	716	118	(582.4)	(83.5)	
Gross margin (%)	32.9	35.3	35.0	2.1	(0.3)	
Operating margin (%)	25.3	28.0	28.0	2.7	0.0	
Core profit margin (%)	119.8	105.0	101.4	(18.4)	(3.6)	
<b>Core-profit summary</b>						
BCPG	384	364	385	0.3	5.7	
BPP (F)	1,930	1,889	1,702	(11.8)	(9.9)	
CKP (F)	17	58	72	316.0	24.0	Highest YoY earnings growth
EGCO (F)	3,172	2,177	2,730	(13.9)	25.4	
GLOW	2,483	2,226	2,262	(8.9)	1.6	
GPSC	764	944	1,024	34.0	8.5	
RATCH (F)	2,186	1,524	1,798	(17.8)	18.0	The worst YoY earnings decline
TTW (F)	658	668	715	8.6	7.0	
WHAUP (F)	486	443	449	(7.5)	1.4	
<b>Total</b>	<b>12,080</b>	<b>10,293</b>	<b>11,137</b>	<b>(7.8)</b>	<b>8.2</b>	

Source: SCBS Investment Research

**Figure 2: Valuation summary** (price as of Aug 8, 2018)

	Rating	Price (Bt/Sh)	Target (Bt/Sh)	ETR (%)	P/E (x)			EPS growth (%)			P/BV (x)			ROE (%)			Div. Yield (%)			EV/EBITDA (x)		
					17A	18F	19F	17A	18F	19F	17A	18F	19F	17A	18F	19F	17A	18F	19F	17A	18F	19F
BCPG	Neutral	18.70	19.0	5.0	26.5	21.2	17.0	0	25	25	2.6	2.4	2.3	10	12	14	3.3	3.4	3.6	21.3	21.9	18.5
BPP	Buy	25.75	30.0	18.8	14.1	13.0	12.0	36	8	8	2.0	1.9	1.7	15	15	15	2.3	2.3	2.5	50.8	46.2	38.8
CKP	Neutral	4.14	4.0	(2.7)	109.7	50.3	37.1	(27)	118	35	1.7	1.7	1.6	2	3	4	0.5	0.7	0.7	17.2	14.1	14.0
EGCO	Buy	233.00	273.0	20.3	12.1	11.9	11.4	16	1	4	1.4	1.1	1.1	12	11	10	3.0	3.1	3.2	18.6	13.2	12.4
GLOW	Neutral	94.00	93.0	5.1	17.6	16.0	15.7	(11)	10	2	2.8	2.8	2.8	16	17	18	6.1	6.1	6.1	10.0	9.6	9.4
GPSC	Neutral	71.50	72.0	2.8	33.8	26.0	22.9	18	30	14	2.8	2.6	2.5	8	10	11	1.7	2.1	2.4	25.0	17.3	17.2
RATCH	Buy	52.25	64.0	27.1	11.6	10.8	10.1	11	8	7	1.2	1.1	1.1	10	11	11	4.6	4.6	4.6	15.4	14.4	14.2
WHAUP	Buy	6.00	8.75	49.7	18.2	10.3	9.3	186	76	12	1.8	1.6	1.5	13	17	17	3.4	3.9	4.3	42.7	30.5	25.9
<b>Average</b>					<b>30.4</b>	<b>20.0</b>	<b>16.9</b>	<b>29</b>	<b>34</b>	<b>13</b>	<b>2.0</b>	<b>1.9</b>	<b>1.8</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>3.1</b>	<b>3.3</b>	<b>3.4</b>	<b>25.1</b>	<b>20.9</b>	<b>18.8</b>

Source: SCBS Investment Research

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### CG Rating 2017 Companies with CG Rating

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ADVANC, AKP, ANAN, AOT, AP, BAFS, BANPU, BAY, BCP, BIGC, BTS, BWG, CFRESH, CHO, CK, CNT, CPF, CPN, CSL, DELTA, DEMCO, DRT, DTAC, DTC, EASTW, EGCO, GC, GCAP, GFPT, GOLD, GPSC, GRAMMY, GUNKUL, HANA, HMPRO, ICC, ICHI, INTUCH, IRPC, IVL, JSP, KBANK, KCE, KKP, KTB, KTC, LHFC, LPN, MBK, MCOT, MINT, MONO, NCH, NKI, NYT, OTO, PHOL, PLANB, PPS, PDJ, PRG, PSH, PSL, PTG, PTT\*, PTTEP\*, PTTGC, PYLON, Q-CON, QH, QTC, RATCH, ROBINS, SAMART, SAMTEL, SAT, SC, SCB, SCC, SCCC, SE-ED, SIM, SIS, SITHAI, SNC, SPALI, SPRC, SSSC, STEC, SVI, SYNTEC, TCAP, THANA, THCOM, THREL, TISCO, TKT, TMB, TNDT, TOP, TRC, TRUE, TSC, TTCL, TU, TVD, UV, VGI, WACOAL, WAVE

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2S, AAV, ACAP, AGE, AH, AHC, AIRA, AIT, ALT, AMANAH, AMATA, AMATAV, APCO, ARIP, ASIA, ASIMAR, ASK, ASP, AUCTION, AYUD, BBL, BCPG, BDMS, BEC, BEM, BFIT, BJC, BJCHI, BLA, BOL, BROOK, BRR, BTW, CEN, CENTEL, CGH, CHARAN, CHEWA, CHG, CHOW, CI, CIG, CIMBT, CKP, CM, CNS, COL, COM7, CPI, CSC, CSP, CSS, DCC, EA, EASON, ECF, ECL, EE, EPG, ERW, FN, FNS, FORTH, FPI, FSMART, FVC, GBX, GEL, GLOBAL, GLOW, HARN, JCKH, HYDRO, ILINK, INET, IRC, IT, ITD, JWD, K, KGI, KKC, KOOL, KSL, KTIS, L&E, LALIN, LANNA, LH, LHK, LIT, LOXLEY, LRH, LST, M, MACO, MAJOR, MAKRO, MALEE, MBKET, MC, MEGA, MFC, MFEC, MOONG, MSC, MTI, MTC, NOBLE, NOK, NSI, NTV, NWR, OCC, OGC, OISHI, ORI, PAP, PATO, PB, PCSGH, PDI, PE, PG, PJW, PLANET, PLAT, PM, PPP, PR, PREB, PRINC, PT, RICHY, RML, RS, RWI, S, S & J, SABINA, SALEE, SAMCO, SAWAD, SCG, SCI, SCN, SEAFSCO, SEAOL, SENA, SFP, SIAM, SINGER, SIRI, SMK, SMPC, SMT, SNP, SORKON, SPC, SPI, SPPT, SR, SSF, SST, STA, STPI, SUC, SUSCO, SUTHA, SWC, SYMC, SYNEX, TAE, TAKUNI, TASCO, TBSP, TCC, TEAM, TF, TFG, TGCI, THAI\*, THANI, THIP, THRE, TICON, TIPCO, TIW, TK, TKN, TKS, TMC, TMI, TMILL, TMT, TNITY, TNL, TOG, TPAC, TPCORP, TRT, TRU, TSE, TSR, TSTE, TSTH, TTA, TTW, TVI, TVO, TWP, TWPC, U, UAC, UMI, UP, UPF, UPOIC, UWC, VIH, VNT, WICE, WINNER, XO, YUASA, ZMICO

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AEC, AEONTS, AF, AJ, AKR, ALLA, ALUCON, AMA, AMARIN, AMC, APURE, AQUA, ARROW, AS, ASEFA, ASIAN, ASN, ATP30, AU, BA, BCH, BEAUTY, BH, BIG, BIZ, BLAND, BPP, BR, BROCK, B, BTNC, CBG, CCET, CCP, CGD, CITY, CMR, COLOR, COMAN, CPL, CSR, CTW, CWT, DCON, DIGI, DNA, EFORL, EKH, EPCO, ESSO, ETE, FE, 7UP, FOCUS, FSS, GENCO, GIFT, GJS, GLAND, GSTEL, GTB, GYT, HPT, HTC, HTECH, IFS, IHL, INSURE, IRCP, J, JMART, JMT, JUBILE, KASET, KBS, KCAR, KIAT, KYE, LDC, LEE, LPH, MATCH, MATI, M-CHAI, MDX, METCO, MGT, MILL, MJD, MK, MODERN, MPG, NC, NCL, NDR, NEP, NETBAY, NPK, NPP, NUSA, OCEAN, PDG, PF, PICO, PIMO, PK, PL, PLE, PMTA, PRECHA, PRIN, PSTC, QLT, RCI, RCL, RJH, ROJNA, RPC, S11, SANKO, SAPPE, SCP, SE, SGP, SKR, SKY, SLP, SMIT, SOLAR, SPA, SPCG, SPG, SPVI, SQ, SRICHA, SSC, STANLY, SUPER, SVOA, T, TACC, TCCC, TCMC, JCK, TIC, TLUXE, TM, TMD, TNP, TNR, TOPP, TPA, TPBI, TPCH, TPIPL, TPOLY, TPP, TRITN, TTI, TVT, TYCN, UOBKH, UPA, UREKA, UT, VIBHA, VPO, META, WIIK, WIN

### Corporate Governance Report

The disclosure of the survey result 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.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. SCB Securities Company Limited does not conform nor certify the accuracy of such survey result.

BIGC was voluntarily delisted from the Stock Exchange of Thailand effectively on September 28, 2017

\* บริษัทหรือกรรมการหรือผู้บริหารของบริษัทที่มีข่าวด้านการกำกับดูแลกิจการ เช่น การกระทำผิดเกี่ยวกับหลักทรัพย์ การทุจริต คอร์รัปชัน เป็นต้น ซึ่งการใช้ข้อมูล CGR ควรระมัดระวังข่าวดังกล่าวประกอบด้วย

### Anti-corruption Progress Indicator

#### Certified (ได้รับการรับรอง)

ADVANC, AKP, AMANAH, AP, ASK, ASP, AYUD, BAFS, BANPU, BAY, BBL, BCH, BCP, BCPG, BKI, BLA, BROOK, BRR, BTS, BWG, CENTEL, CFRESH, CIG, CIMBT, CM, CNS, CPALL, CPF, CPI, CPN, CSC, DCC, DEMCO, DIMET, DRT, DTAC, DTC, EASTW, ECL, EGCO, EPCO, FE, FNS, FSS, GBX, GC, GCAP, GEL, GFPT, GGC, GLOW, GOLD, GPSC, GUNKUL, HANA, HMPRO, HTC, ICC, IFEC, IFS, INET, INTUCH, IRPC, IVL, K, KASET, KBANK, KBS, KCE, KGI, KKP, KSL, KTB, KTC, L&E, LANNA, LHFC, LHK, LPN, M, MAKRO, MALEE, MBK, MBKET, MC, MCOT, MFC, MINT, MONO, MOONG, MSC, MTI, NBC, NINE, NKI, NMG, NSI, OCC, OCEAN, OGC, PATO, PB, PCSGH, PDG, PDI, PDJ, PE, PG, PHOL, PLANET, PLAT, PM, PPP, PPS, PREB, PRG, PRINC, PSH, PSL, PSTC, PT, PTG, PTT, PTTEP, PTTGC, Q-CON, QH, QLT, RATCH, RML, ROBINS, S & J, SABINA, SAT, SC, SCB, SCC, SCCC, SCG, SCN, SE-ED, SENA, SGP, SINGER, SIRI, SIS, SITHAI, SMIT, SMK, SMPC, SNC, SNP, SORKON, SPACK, SPC, SPI, SPRC, SRICHA, SSF, SSI, SSSC, SUSCO, SVI, SYNTEC, TAE, TASCO, TCAP, TCMC, TFG, TFI, TFMAMA, THANI, THCOM, THRE, THREL, TICON, TIP, TIPCO, TISCO, TKT, TLUXE, TMB, TMD, TMILL, TMT, TNITY, TNL, TOG, TOP, TPA, TPCORP, TRU, TRUE, TSC, TSTH, TTCL, TU, TVD, TVI, U, UBIS, UOBKH, VGI, VNT, WACOAL, WHA, WICE

#### Declared (ประกาศเจตนารมณ์)

A, ABICO, AIE, AJ, AMATA, AMATAV, ANAN, AOT, APCO, APCs, ARROW, ASIAN, B, BGRIM, BJC, BJCHI, BLAND, BLISS, BM, BPP, BR, BSBM, BUI, CEN, CGH, CHEWA, CHG, CHO, CI, COL, COM7, CPR, DDD, EFORL, EKH, ESTAR, FLOYD, FN, FPI, FTE, GJS, GPI, GSTEL, GYT, HARN, ICHI, ILINK, ITEL, JAS, JTS, KWC, KWG, LDC, LEE, LIT, LRH, MATCH, MATI, MBAX, MFEC, MILL, MTC, NCL, NEP, NNCL, NWR, PAP, PK, PL, PLANB, POST, PRM, PRO, PYLON, QTC, ROJNA, RWI, SAPPE, SCI, SELIC, SHANG, SST, STA, STANLY, SUPER, SWC, SYMC, SYNEX, THE, THIP, TKN, TMC, TNP, TNR, TOPP, TRITN, TTI, TVO, TWPC, UEC, UKEM, UPA, UWC, VIH, XO, YUASA

#### N/A

2S, 7UP, AAV, ABM, ACAP, ACC, ADAM, ADB, AEC, AEONTS, AF, AFC, AGE, AH, AHC, AI, AIRA, AIT, AJA, AKR, ALLA, ALT, ALUCON, AMA, AMARIN, AMC, APEX, APURE, AQ, AQUA, ARIP, AS, ASAP, ASEFA, ASIA, ASIMAR, ASN, ATP30, AU, AUCTION, BA, BAT-3K, BCT, BDMS, BEAUTY, BEC, BEM, BFIT, BGT, BH, BIG, BIZ, BKD, BOL, BROCK, BSM, BTNC, BTW, CBG, CCET, CCP, CGD, CHARAN, CHAYO, CHOTI, CHOW, CHUO, CITY, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, COTTO, CPH, CPL, CPT, CRANE, CRD, CSP, CSR, CSS, CTW, CWT, D, DCON, DCORP, DELTA, DIGI, DNA, DOD, DTIC, EA, EARTH, EASON, ECF, EE, EIC, EMC, EPG, ERW, ESSO, ETE, EVER, F&D, FANCY, FC, FMT, FOCUS, FORTH, FSMART, FVC, GENCO, GIFT, GL, GLAND, GLOBAL, GRAMMY, GRAND, GREEN, GTB, GULF, HFT, HPT, HTECH, HUMAN, HYDRO, ICN, IEC, IHL, III, INGRS, INOX, INSURE, IRC, IRCP, IT, ITD, J, JCK, JCKH, JCT, JKN, JMART, JMT, JSP, JUBILE, JUTHA, JWD, KAMART, KC, KCAR, KCM, KDH, KIAT, KKC, KOOL, KTECH, KTIS, KYE, LALIN, LH, LOXLEY, LPH, LST, LTX, LVT, MACO, MAJOR, MANRIN, MAX, M-CHAI, MCS, MDX, MEGA, META, METCO, MGT, MIDA, MJD, MK, ML, MM, MODERN, MPG, MPIC, NC, NCH, NDR, NETBAY, NEW, NEWS, NFC, NOBLE, NOK, NPK, NPPG, NTV, NUSA, NVD, NYT, OHTL, OISHI, ORI, OTO, PACE, PAE, PAF, PERM, PF, PICO, PIMO, PJW, PLE, PMTA, POLAR, POMPU, PORT, PPM, PRAKIT, PRECHA, PRIN, PTL, RAM, RCI, RCL, RICH, RICHY, RJH, ROCK, ROH, RP, RPC, RPH, RS, RSP, S, S11, SAFARI, SALEE, SAM, SAMART, SAMCO, SAMTEL, SANKO, SAUCE, SAWAD, SAWANG, SCP, SDC, SE, SEAFSCO, SEAOL, SF, SFP, SGF, SIAM, SIMAT, SKE, SKN, SKR, SKY, SLP, SMART, SMM, SMT, SOLAR, SPA, SPALI, SPCG, SPG, SPORT, SPPT, SPVI, SQ, SR, SSC, SSP, STAR, STEC, STHAI, STPI, SUC, SUN, SUTHA, SVH, SVOA, T, TACC, TAKUNI, TAPAC, TBSP, TC, TCC, TCCC, TCJ, TCOAT, TEAM, TEAMG, TGPRO, TH, THAI, THANA, THG, THL, THMUI, TIC, TITLE, TIW, TK, TKS, TM, TMI, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPIPL, TPIPP, TPOLY, TPP, TR, TRC, TRT, TRUBB, TSE, TSF, TSI, TSR, TSTE, TTA, TTL, TTTM, TTW, TVT, TWP, TWZ, TYCN, UAC, UMI, UMS, UNIQ, UP, UPF, UPOIC, UREKA, UT, UTP, UV, UVAN, VARO, VCOM, VI, VIBHA, VNG, VPO, WAVE, WG, WHAUP, WIIK, WIN, WINNER, WORK, WORLD, WP, WPH, WR, YCI, YNP, ZIGA, ZMICO

### Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of May 21, 2018) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.