

WHA UTILITIES & POWER

THAILAND / UTILITIES - CONVENTIONAL

WHAUP TB

HOLD

UNCHANGED

Poor 4Q21 net profit on water loss

- 4Q21 NP was THB154m, down 25% q-q; 4Q21 core NP was THB133m, down 24% y-y and 52% q-q.
- Key culprits were: 1) a THB94.7m share of loss from SDWTP; and 2) a lower THB141m share of profits from 8 small SPPs.
- Maintain HOLD and our SoTP-based TP of THB4.5.

TARGET PRICE	THB4.50
CLOSE	THB4.06
UP/DOWNSIDE	+10.8%
TP vs CONSENSUS	-9.1%

KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	2,181	2,306	2,368	2,438
Net profit	736	1,285	1,362	1,424
EPS (THB)	0.19	0.34	0.36	0.37
vs Consensus (%)	-	3.0	-	-
EBITDA	905	807	828	853
Core net profit	864	1,285	1,362	1,424
Core EPS (THB)	0.23	0.34	0.36	0.37
Chg. In EPS est. (%)	nm	(2.7)	(4.0)	nm
EPS growth (%)	10.9	48.8	6.0	4.6
Core P/E (x)	18.0	12.1	11.4	10.9
Dividend yield (%)	6.2	8.6	8.6	8.6
EV/EBITDA (x)	29.5	32.6	31.6	30.5
Price/book (x)	1.3	1.2	1.2	1.2
Net debt/Equity (%)	90.4	84.3	83.2	81.2
ROE (%)	7.0	10.2	10.7	11.1

Water company in Vietnam was a key drag in 4Q21

4Q21 net profit (NP) was THB154m, down 25% q-q, missing our forecast by 15% and the Bloomberg consensus by 26%. Excluding non-recurring items, including THB42.5m from an FX loss, 4Q21 core NP was THB133m, down 24% y-y and 52% q-q. The key culprit was a THB94.7m share of loss from the Duong River Surface Water Plant Joint Stocks Company (SDWTP), and a lower THB141m share of profits from 8 small power producers (SPPs) (-THB52.7m y-y), due to the higher gas cost. The share of profit from the Gheco-One power plant rose by THB62m y-y due to higher availability payments (AP). 4Q21 revenue was THB518m, up 16% y-y and 0.4% q-q, driven by the 12% y-y higher revenue from water due to a demand recovery, including higher revenue from industrial water to THB302m (+2.7% y-y), higher revenue from value-added water to THB40.5m (+23% y-y), wastewater treatment up to THB40.8m (+14% y-y), and revenue from raw water increased to THB90m (+50% y-y).

Weaker power and water earnings from associates

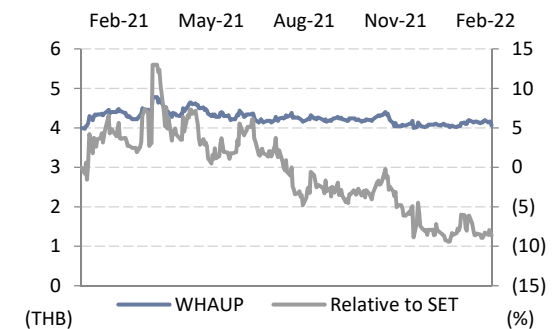
The share of profits from investments was THB220m in 4Q21, down 50% y-y on a THB97m share of loss from utilities and a 34% y-y lower share of profits from power. The normalised share of profits was THB158m in 4Q21, comprising: 1) a THB318m NP from power, down 34% y-y due to the weaker margins of SPPs; and 2) a THB97m net loss from water utilities, down from a net loss of THB36m in 4Q20.

Weak demand should continue

While we project the NPs from its water and power units to recover in 2022 from the economic reopening, we think the impact of lower electricity and steam demand from industrial users will result in weak NP growth later in 2022 due to fewer growth projects. We think it unlikely that WHAUP can acquire new growth projects via M&A in 2022.

Stuck in the doldrums

We maintain HOLD and our SoTP-based TP of THB4.5. We think WHAUP needs time to resume its growth trajectory once the downside risks from both drought and Covid-19 have subsided. We project its NP contributions from power to remain weak, particularly from Gheco-One, due to the decline in APs.



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	1.0	(6.9)	3.0
Relative to country (%)	(0.4)	(7.6)	(7.6)
Mkt cap (USD m)	475		
3m avg. daily turnover (USD m)	0.7		
Free float (%)	28		
Major shareholder	WHA Industrial Development Plc (69%)		
12m high/low (THB)	4.94/3.94		
Issued shares (m)	3,825.00		

Sources: Bloomberg consensus; FSSIA estimates



Suwat Sinsadok, CFA, FRM, ERP
 suwat.sin@fssia.com
 +66 2611 3558

Siriluck Pinthusoonthorn
 siriluck.pin@fssia.com
 +66 2611 3562

Exhibit 1: Summary of 4Q21/2021 operations

	4Q20	3Q21	----- 4Q21 -----			2020	2021	Chg.
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	(y-y %)
Revenue	446	517	518	0.4	16.2	1,696	2,181	28.6
Operating costs	(317)	(280)	(363)	29.5	14.7	(967)	(1,022)	5.8
EBITDA	130	236	155	(34.3)	19.8	541	905	67.2
<i>EBITDA margin (%)</i>	29.0	45.7	29.9	<i>nm</i>	<i>nm</i>	34.3	35.3	<i>nm</i>
Depn & amort.	(74)	(106)	(86)	(18.3)	16.8	(265)	(326)	22.7
EBIT	56	130	69	(47.3)	23.7	276	580	110.0
Interest expense	(108)	(97)	(95)	(1.4)	(11.6)	(433)	(409)	(5.4)
Interest & invt inc	1	1	(2)	<i>nm</i>	<i>nm</i>	2	-	<i>nm</i>
Other income	(203)	17	197	1,042.1	<i>nm</i>	79	390	395.2
Associates' contrib	442	(6)	220	<i>nm</i>	(50.2)	866	317	(63.4)
Exceptional	73	164	(229)	(239.4)	(412.4)	34	(128)	<i>nm</i>
Pretax profit	261	210	160	(24.0)	(39.0)	824	750	(9.0)
Tax	4	(4)	(5)	26.6	<i>nm</i>	(11)	(14)	26.9
<i>Tax rate (%)</i>	(1.4)	2.0	3.3	<i>nm</i>	<i>nm</i>	1.4	1.9	<i>nm</i>
Minority interests	0	(0)	0	<i>nm</i>	(50.1)	(0)	(0)	(82.4)
Net profit	265	206	154	(25.0)	(41.8)	813	736	(9.5)
Non-recurring	89	(71)	22	<i>nm</i>	(75.8)	34	(128)	<i>nm</i>
Core net profit	176	277	133	(52.0)	(24.4)	779	864	10.9
EPS (THB)	0.07	0.05	0.04	(25.0)	(41.8)	0.21	0.19	(9.5)
Core EPS (THB)	0.05	0.07	0.03	(52.0)	(24.4)	0.20	0.23	10.9

Sources: WHAUP; FSSIA estimates

Exhibit 2: 4Q21/2021 key performance

	4Q20	3Q21	4Q21	----- Change -----		2020	2021	Change
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	(y-y %)
Utilities business								
Revenue from utilities business	426.2	481.3	475.4	(1.2)	11.5	1,639.5	1,926.2	17.5
- Industrial water sales	294.2	299.8	302.1	0.8	2.7	1,140.8	1,228.7	7.7
- Raw water sales	59.9	98.2	89.7	(8.7)	49.7	250.4	372.0	48.6
- Value-added water sales	33.0	40.3	40.5	0.5	22.7	93.0	149.8	61.1
- Wastewater treatment services	35.7	41.4	40.8	(1.4)	14.3	140.5	163.9	16.7
- Other revenue	3.4	1.6	2.3	43.8	(32.4)	14.8	11.8	(20.3)
Share of profits from utilities business	(36.0)	(29.3)	(97.2)	231.7	170.0	(159.7)	(204.1)	27.8
Normalised share of profits from utilities business	(36.0)	(29.3)	(97.2)	231.7	170.0	(159.7)	(204.1)	27.8
Total revenue & share of profits from utilities business	390.2	451.9	378.2	(16.3)	(3.1)	1,479.8	1,722.1	16.4
Power business								
Revenue from power business	20.7	36.0	40.8	13.3	97.1	58.5	254.6	335.2
Share of profits from power business	478.3	23.3	317.5	1,262.7	(33.6)	1,026.0	521.4	(49.2)
Dividend income	0.0	10.0	0.0	<i>nm</i>	<i>nm</i>	36.5	50.0	37.0
Normalised share of profits from power business	247.8	266.3	255.0	(4.2)	2.9	1,024.3	1,006.3	(1.8)
Total revenue from power business and share of profits from investments and dividends	499.0	69.3	358.4	417.2	(28.2)	1,120.9	826.1	(26.3)
Normalised share of profits from investment in associates, joint ventures and dividends	268.5	302.2	295.8	(2.1)	10.2	1,082.8	1,261.0	16.5
- IPP	44.0	54.0	107.5	99.1	144.3	331.1	228.3	(31.0)
- SPP	193.3	203.3	140.7	(30.8)	(27.2)	638.3	744.7	16.7
- Alternative energy	29.9	44.1	46.7	5.9	56.2	114.8	284.6	147.9
- Power plants under construction and development	1.3	0.8	1.0	25.0	(23.1)	(1.3)	3.4	<i>nm</i>

Source: WHAUP

Financial Statements

WHA Utilities & Power

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	1,696	2,181	2,306	2,368	2,438
Cost of goods sold	(967)	(1,022)	(1,315)	(1,350)	(1,390)
Gross profit	730	1,159	991	1,018	1,048
Other operating income	-	-	-	-	-
Operating costs	(188)	(253)	(185)	(189)	(195)
Operating EBITDA	541	905	807	828	853
Depreciation	(265)	(326)	(226)	(229)	(233)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	276	580	581	599	620
Net financing costs	(431)	(409)	(380)	(372)	(371)
Associates	866	317	807	862	921
Recurring non-operating income	945	708	1,198	1,253	1,312
Non-recurring items	34	(128)	0	0	0
Profit before tax	824	750	1,399	1,480	1,561
Tax	(11)	(14)	(104)	(108)	(127)
Profit after tax	813	736	1,295	1,371	1,434
Minority interests	0	0	(9)	(9)	(10)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	813	736	1,285	1,362	1,424
Non-recurring items & goodwill (net)	(34)	128	0	0	0
Recurring net profit	779	864	1,285	1,362	1,424
Per share (THB)					
Recurring EPS *	0.20	0.23	0.34	0.36	0.37
Reported EPS	0.21	0.19	0.34	0.36	0.37
DPS	0.25	0.25	0.35	0.35	0.35
Diluted shares (used to calculate per share data)	3,825	3,825	3,825	3,825	3,825
Growth					
Revenue (%)	(8.7)	28.6	5.8	2.7	3.0
Operating EBITDA (%)	(24.2)	67.2	(10.9)	2.7	2.9
Operating EBIT (%)	(44.3)	110.0	0.2	3.1	3.5
Recurring EPS (%)	(63.6)	10.9	48.8	6.0	4.6
Reported EPS (%)	(62.0)	(9.5)	74.7	6.0	4.6
Operating performance					
Gross margin inc. depreciation (%)	27.4	38.2	33.2	33.3	33.4
Gross margin of key business (%)	29.4	32.3	33.2	33.3	33.4
Operating EBITDA margin (%)	31.9	41.5	35.0	35.0	35.0
Operating EBIT margin (%)	16.3	26.6	25.2	25.3	25.4
Net margin (%)	45.9	39.6	55.7	57.5	58.4
Effective tax rate (%)	-26.6	3.3	17.6	17.5	19.8
Dividend payout on recurring profit (%)	124.0	110.7	104.2	98.3	94.0
Interest cover (X)	2.8	3.1	4.7	5.0	5.2
Inventory days	-	-	-	-	-
Debtor days	113.3	44.9	51.3	58.8	66.0
Creditor days	119.8	143.0	136.5	143.7	143.5
Operating ROIC (%)	7.1	10.7	9.0	9.5	9.7
ROIC (%)	6.3	5.1	6.0	6.3	6.4
ROE (%)	6.1	7.0	10.2	10.7	11.1
ROA (%)	5.0	4.8	6.2	6.5	6.7
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
water business	1,486	1,971	2,096	2,158	2,228
power business	210	210	210	210	210
service income					

Sources: WHA Utilities & Power; FSSIA estimates

Financial Statements

WHA Utilities & Power

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	779	864	1,285	1,362	1,424
Depreciation	265	326	226	229	233
Associates & minorities	866	317	807	862	921
Other non-cash items	-	-	-	-	-
Change in working capital	661	156	5	(47)	(47)
Cash flow from operations	2,572	1,663	2,323	2,407	2,532
Capex - maintenance	(1,378)	(728)	(101)	(101)	(101)
Capex - new investment	(24)	(13)	0	0	0
Net acquisitions & disposals	(2,090)	199	0	0	0
Other investments (net)	-	-	-	-	-
Cash flow from investing	(3,493)	(542)	(101)	(101)	(101)
Dividends paid	(3,254)	(3,253)	(956)	(1,339)	(1,339)
Equity finance	0	0	0	0	0
Debt finance	1,109	(765)	(500)	0	0
Other financing cash flows	4,094	2,017	(798)	(852)	(911)
Cash flow from financing	1,950	(2,001)	(2,254)	(2,191)	(2,250)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	1,029	(880)	(32)	115	181
Free cash flow to firm (FCFF)	(487.81)	1,530.34	2,610.78	2,686.47	2,811.27
Free cash flow to equity (FCFE)	4,282.88	2,372.79	924.57	1,453.86	1,519.49

Per share (THB)	2020	2021	2022E	2023E	2024E
FCFF per share	(0.13)	0.40	0.68	0.70	0.73
FCFE per share	1.12	0.62	0.24	0.38	0.40
Recurring cash flow per share	0.50	0.39	0.61	0.64	0.67

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	6,050	6,733	6,834	6,935	7,036
Less: Accumulated depreciation	(1,011)	(1,278)	(1,504)	(1,734)	(1,966)
Tangible fixed assets (net)	5,039	5,455	5,329	5,201	5,069
Intangible fixed assets (net)	4,761	4,719	4,719	4,719	4,719
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	13,489	13,688	13,688	13,688	13,688
Cash & equivalents	1,784	905	873	987	1,168
A/C receivable	242	295	352	411	471
Inventories	0	0	0	0	0
Other current assets	218	164	173	178	183
Current assets	2,244	1,364	1,398	1,576	1,822
Other assets	639	614	614	614	614
Total assets	26,171	25,839	25,748	25,798	25,912
Common equity	12,157	12,384	12,713	12,736	12,822
Minorities etc.	0	0	9	19	29
Total shareholders' equity	12,157	12,384	12,722	12,755	12,850
Long term debt	10,227	7,602	7,102	7,102	7,102
Other long-term liabilities	753	803	803	803	803
Long-term liabilities	10,980	8,406	7,906	7,906	7,906
A/C payable	342	459	525	539	555
Short term debt	2,639	4,499	4,499	4,499	4,499
Other current liabilities	53	92	97	100	103
Current liabilities	3,034	5,049	5,120	5,137	5,156
Total liabilities and shareholders' equity	26,172	25,839	25,748	25,798	25,912
Net working capital	65	(92)	(96)	(50)	(3)
Invested capital	23,992	24,383	24,254	24,172	24,087

* Includes convertibles and preferred stock which is being treated as debt

Per share (THB)	2020	2021	2022E	2023E	2024E
Book value per share	3.18	3.24	3.32	3.33	3.35
Tangible book value per share	1.93	2.00	2.09	2.10	2.12

Financial strength	2020	2021	2022E	2023E	2024E
Net debt/equity (%)	91.2	90.4	84.3	83.2	81.2
Net debt/total assets (%)	42.3	43.3	41.7	41.1	40.3
Current ratio (x)	0.7	0.3	0.3	0.3	0.4
CF interest cover (x)	11.0	6.8	3.4	4.9	5.1

Valuation	2020	2021	2022E	2023E	2024E
Recurring P/E (x) *	19.9	18.0	12.1	11.4	10.9
Recurring P/E @ target price (x) *	22.1	19.9	13.4	12.6	12.1
Reported P/E (x)	19.1	21.1	12.1	11.4	10.9
Dividend yield (%)	6.2	6.2	8.6	8.6	8.6
Price/book (x)	1.3	1.3	1.2	1.2	1.2
Price/tangible book (x)	2.1	2.0	1.9	1.9	1.9
EV/EBITDA (x) **	49.2	29.5	32.6	31.6	30.5
EV/EBITDA @ target price (x) **	52.3	31.4	34.6	33.6	32.5
EV/invested capital (x)	1.1	1.1	1.1	1.1	1.1

* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income

Sources: WHA Utilities & Power; FSSIA estimates

Corporate Governance report of Thai listed companies 2020

EXCELLENT 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	CHO	CIMBT	CK	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	ICI	III	ILINK	INTUCH	IRPC	IVL	JKN	JSP
JWD	K	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	PAP	PCSGH	PDJ	PG	PHOL	PLANB
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	SCC	SCG	SCN	SDC
SEAFCO	SEOIL	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	TRC	TSC	TSR	TSTE	TSTH
TTCL	TTW	TU	TVD	TVI	TVO	TWPC	U	UAC	UBIS	UV
VGI	VIH	WACOAL	WAVE	WHA	WHAUP	WICE	WINNER	TRUE		

VERY GOOD LEVEL										
2S	ABM	ACE	ACG	ADB	AEC	AEONTS	AGE	AH	AHC	AIT
ALLA	AMANAHA	AMARIN	APCO	APCS	APURE	AQUA	ASAP	ASEFA	ASIA	ASIAN
ASIMAR	ASK	ASN	ATP30	AUCT	AWC	AYUD	B	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	MITISB	MK	MODERN	MTI	MVP
NETBAY	NEX	NINE	NTV	NWR	OCC	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
SKR	SKY	SMIT	SMT	SNP	SPA	SPC	SPCG	SR	SRICHA	SSC
SSF	STANLY	STI	STPI	SUC	SUN	SYNEX	T	TAE	TAKUNI	TBSP
TCC	TCMC	TEAM	TEAMG	TFG	TIGER	TITLE	TKN	TKS	TM	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	WIJK	WP	XO
YUASA	ZEN	ZIGA	ZMICO							

GOOD LEVEL										
7UP	A	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	TIPIP	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.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey results may be changed after that date. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.

* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, 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	AMANAHA	AP	AQUA	ARROW
ASK	ASP	AYUD	B	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	CM	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	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	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	TKT	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	WIJK	XO
ZEN	TRUE									

DECLARED										
7UP	ABICO	AF	ALT	AMARIN	AMATA	AMATAV	ANAN	APURE	B52	BKD
BM	BROCK	BUI	CHO	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 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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

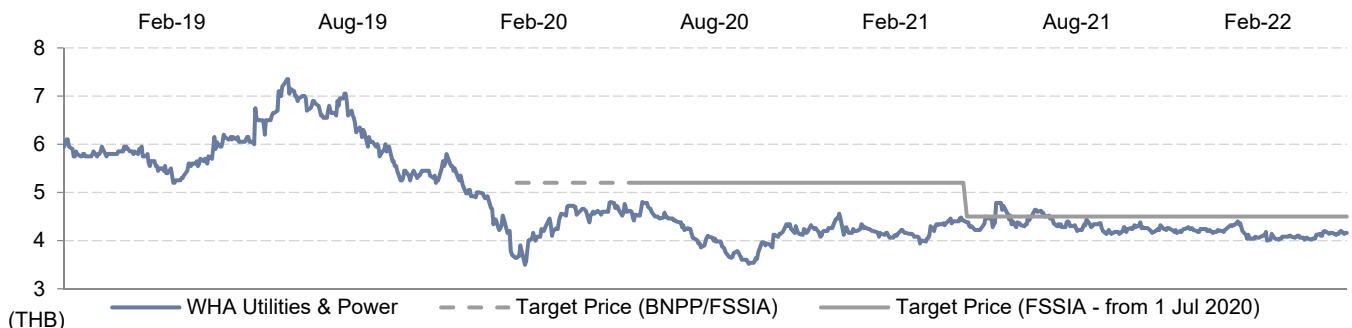
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed herein.

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

This report may not be reproduced, distributed or published by any person in any manner for any purpose without permission of FSSIA. Investment in securities has risks. Investors are advised to consider carefully before making investment decisions.

History of change in investment rating and/or target price

WHA Utilities & Power (WHAUP TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
17-Mar-2020	BUY	5.20	02-Apr-2021	HOLD	4.50	-	-	-

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 15-May-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
WHA Utilities & Power	WHAUP TB	THB 4.06	HOLD	Downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand; and 2) lower crude prices. Upside risks are the higher than expected sales volumes of water and electricity for industrial users.

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

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 24-Feb-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as $(\text{target price}^* - \text{current price}) / \text{current price}$.

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.