

Financial Statements

Electricity Generating Authority of Thailand Statement of financial position

| Assets | Note | Consolidated financial statements | | Separate financial statements | |
|---|-------|--------------------------------------|----------------|----------------------------------|----------------|
| | | 31 December | | 31 December | |
| | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| Current assets | | | | | |
| Cash and cash equivalents | 6 | 68,861 | 69,353 | 60,455 | 63,885 |
| Trade accounts receivable | 5, 7 | 56,167 | 53,739 | 55,820 | 53,790 |
| Other receivables | 5 | 12,582 | 8,548 | 10,911 | 8,241 |
| Accrued revenue from electric energy sales | | | | | |
| according to automatic tariff adjustment (Ft) | 15 | 38,943 | - | 38,943 | - |
| Current portion of lease receivable | | 238 | - | - | - |
| Fuel and spare parts | 8 | 16,955 | 11,960 | 14,980 | 10,107 |
| Other current financial assets | 22 | 7,821 | 9,412 | - | 59 |
| Other current assets | | 379 | 357 | 316 | 267 |
| Total current assets | | 201,946 | 153,369 | 181,425 | 136,349 |
| Non-current assets | | | | | |
| Other non-current financial assets | 22 | 10,077 | 8,224 | 6,125 | 6,204 |
| Investments in subsidiaries | 10 | - | - | 19,003 | 19,003 |
| Investments in associates | 9 | 52,044 | 43,346 | 1,588 | 1,588 |
| Investments in joint ventures | 9 | 41,608 | 35,491 | 645 | 585 |
| Lease receivable | | 17,449 | - | - | - |
| Long-term loans to related parties | 5, 22 | 656 | 523 | - | - |
| Long-term loans to other parties | 22 | 2,652 | 2,385 | - | - |
| Property, plant and equipment | 11 | 435,142 | 425,693 | 396,451 | 393,913 |
| Right-of-use assets - power plants | 12 | 265,711 | 261,161 | 265,711 | 261,161 |
| Goodwill | | 1,600 | 170 | - | - |
| Intangible assets | 13 | 61,431 | 54,529 | 58,301 | 51,235 |
| Other non-current assets | 14 | 11,131 | 9,872 | 7,643 | 6,983 |
| Total non-current assets | | 899,501 | 841,394 | 755,467 | 740,672 |
| Total assets | | 1,101,447 | 994,763 | 936,892 | 877,021 |

(Mr. Boonyanit Wongrukmit)
Director and Governor

(Ms. Kamolrat Kularbkeo)
Deputy Governor - Finance and Accounting (CFO)

The accompanying notes form an integral part of the financial statements.



Electricity Generating Authority of Thailand
Statement of financial position

| | Note | Consolidated financial statements | | Separate financial statements | |
|---|-----------|--------------------------------------|----------------|----------------------------------|----------------|
| | | 31 December | | 31 December | |
| Liabilities and equity | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| Current liabilities | | | | | |
| Short-term loans from financial institutions | 16, 22 | 5,365 | 60 | - | - |
| Trade accounts payable | 5, 22 | 91,313 | 62,582 | 92,569 | 63,928 |
| Other payables | 5, 22 | 16,149 | 9,460 | 12,330 | 8,491 |
| Surplus revenue from electric energy sales according to automatic tariff adjustment (Ft) | 15 | - | 3,366 | - | 3,366 |
| Accrued interest expenses | | 1,306 | 1,334 | 962 | 1,008 |
| Accrued remittance to the Ministry of Finance | 5 | 11,007 | 5,247 | 11,007 | 5,247 |
| Accrued expenses | | 5,870 | 3,947 | 5,805 | 3,909 |
| Current portion of long-term loans | 5, 16, 22 | 9,709 | 10,424 | 5,038 | 8,938 |
| Current portion of loan from infrastructure fund | 16, 22 | 718 | 723 | 718 | 723 |
| Current portion of lease liabilities from Power Purchase Agreement | 5, 16, 22 | 14,319 | 12,763 | 17,128 | 15,339 |
| Current portion of other lease liabilities | 22 | 504 | 466 | 340 | 347 |
| Other current liabilities | | 4,571 | 4,399 | 4,139 | 4,148 |
| Total current liabilities | | 160,831 | 114,771 | 150,036 | 115,444 |
| Non-current liabilities | | | | | |
| Long-term loans | 5, 16, 22 | 129,179 | 109,054 | 79,762 | 68,948 |
| Loan from infrastructure fund | 16, 22 | 16,416 | 17,183 | 16,416 | 17,183 |
| Lease liabilities from Power Purchase Agreement | 5, 16, 22 | 235,737 | 214,774 | 243,491 | 225,336 |
| Other lease liabilities | 22 | 2,055 | 1,739 | 544 | 372 |
| Other non-current payables from related parties | 5 | 3,197 | 4,878 | - | - |
| Deferred tax liabilities | | 4,139 | 1,831 | - | - |
| Non-current provisions for employee benefits | 17 | 15,940 | 16,784 | 15,649 | 16,539 |
| Provision for mine rehabilitation | 18 | 3,613 | 4,087 | 3,613 | 4,087 |
| Other non-current liabilities | | 19,714 | 21,521 | 18,273 | 20,317 |
| Total non-current liabilities | | 429,990 | 391,851 | 377,748 | 352,782 |
| Total liabilities | | 590,821 | 506,622 | 527,784 | 468,226 |

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Electricity Generating Authority of Thailand
Statement of financial position

| | Consolidated | | Separate | |
|---|--------------------------|----------------|----------------------|----------------|
| | financial statements | | financial statements | |
| | 31 December | | 31 December | |
| Liabilities and equity | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Equity | | | | |
| Contribution from the government | 10,872 | 10,872 | 10,872 | 10,872 |
| Surplus from royalty on state property service | 475 | 475 | 475 | 475 |
| Surplus from the change in the ownership interests in subsidiaries | 689 | 689 | - | - |
| Retained earnings | | | | |
| Appropriated | | | | |
| Capital expenditure appropriation | 80,186 | 80,186 | 80,186 | 80,186 |
| Unappropriated | 374,525 | 370,659 | 316,473 | 316,124 |
| Other components of equity | (2,381) | (8,208) | 1,102 | 1,138 |
| Equity attributable to owners of EGAT | 464,366 | 454,673 | 409,108 | 408,795 |
| Non-controlling interests | 46,260 | 33,468 | - | - |
| Total equity | 510,626 | 488,141 | 409,108 | 408,795 |
| Total liabilities and equity | 1,101,447 | 994,763 | 936,892 | 877,021 |

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Electricity Generating Authority of Thailand

Statement of income

| | Note | Consolidated financial statements | | Separate financial statements | |
|---|-----------|--------------------------------------|---------------|----------------------------------|---------------|
| | | Year ended 31 December | | Year ended 31 December | |
| | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| Revenue from electric energy sales | 5 | 556,331 | 507,254 | 552,448 | 504,488 |
| Revenue from sales of other goods and services | 5, 20 | 3,831 | 3,453 | 5,051 | 3,858 |
| Cost of electric energy sales | 5, 19, 21 | (472,530) | (440,013) | (471,223) | (438,855) |
| Cost of sales of other goods and services | 5, 20, 21 | (2,311) | (1,945) | (3,381) | (2,418) |
| Gross profit | | 85,321 | 68,749 | 82,895 | 67,073 |
| Dividend income and other income | | 3,401 | 3,506 | 5,163 | 5,514 |
| Distribution costs | 21 | (132) | (144) | (132) | (144) |
| Administrative expenses | 5, 21 | (15,625) | (13,726) | (14,043) | (11,953) |
| Other expenses | 21 | (453) | (306) | (122) | (288) |
| Net foreign exchange gain (loss) | 19 | (13,237) | 160 | (13,461) | (85) |
| Gain (loss) on fair value adjustment of derivatives | | 144 | (130) | - | - |
| Profit from operating activities | | 59,419 | 58,109 | 60,300 | 60,117 |
| Finance costs | 19 | (34,490) | (33,783) | (34,529) | (34,637) |
| Share of profit of associates and joint ventures accounted for using equity method | 9 | 8,950 | 7,090 | - | - |
| Profit before income tax expense | | 33,879 | 31,416 | 25,771 | 25,480 |
| Tax expense | | (393) | (105) | - | - |
| Profit for the year | | 33,486 | 31,311 | 25,771 | 25,480 |
| Profit attributable to: | | | | | |
| Owners of EGAT | | 29,294 | 28,031 | 25,771 | 25,480 |
| Non-controlling interests | | 4,192 | 3,280 | - | - |
| Profit for the year | | 33,486 | 31,311 | 25,771 | 25,480 |

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Electricity Generating Authority of Thailand
Statement of comprehensive income

| | Note | Consolidated financial statements | | Separate financial statements | |
|--|------|--------------------------------------|----------------|----------------------------------|---------------|
| | | Year ended 31 December | | Year ended 31 December | |
| | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| Profit for the year | | 33,486 | 31,311 | 25,771 | 25,480 |
| Other comprehensive income (expense) | | | | | |
| <i>Items that will be reclassified subsequently to profit or loss</i> | | | | | |
| Exchange differences on translating financial statements | | 3,845 | 312 | - | - |
| Gain (loss) on cash flow hedges | | 602 | (142) | - | - |
| Share of other comprehensive income (expense) of associates and joint ventures accounted for using equity method | 9 | 4,505 | (2,131) | - | - |
| Total items that will be reclassified subsequently to profit or loss, net of tax | | 8,952 | (1,961) | - | - |
| <i>Items that will not be reclassified to profit or loss</i> | | | | | |
| Gain (loss) on investments measured at fair value through other comprehensive income | | 34 | (926) | (36) | (260) |
| Gain (loss) on remeasurements of defined benefit plans | 17 | 66 | (24) | 61 | - |
| Share of other comprehensive income (expense) of associates and joint ventures accounted for using equity method | 9 | (3) | (4) | - | - |
| Total items that will not be reclassified to profit or loss, net of tax | | 97 | (954) | 25 | (260) |
| Other comprehensive income (expense) for the year, net of tax | | 9,049 | (2,915) | 25 | (260) |
| Total comprehensive income for the year | | 42,535 | 28,396 | 25,796 | 25,220 |
| Total comprehensive income attributable to: | | | | | |
| Owners of EGAT | | 35,176 | 26,038 | 25,796 | 25,220 |
| Non-controlling interests | | 7,359 | 2,358 | - | - |
| Total comprehensive income for the year | | 42,535 | 28,396 | 25,796 | 25,220 |

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Electricity Generating Authority of Thailand
Statement of changes in equity

| Note | Consolidated financial statements | | | | | | | | | | | | |
|---|-----------------------------------|--|--|--|----------------|----------------------------|--------------------|-----------------|--|----------------------------------|---|---------------------------|--------------|
| | Retained earnings | | | | | Other components of equity | | | | | | | |
| | Contribution from the government | Surplus from royalty on state property service | Surplus from the change in the ownership interests in subsidiaries | Appropriated Capital expenditure appropriation | Unappropriated | Transmission reserve | Fair value reserve | Hedging reserve | Share of other comprehensive income (expense) of associates and joint ventures using equity method | Total other components of equity | Total equity attributable to owners of EGAT | Non-controlling interests | Total equity |
| | 10,872 | 475 | 689 | 80,186 | 355,627 | (3,225) | 784 | (358) | (3,430) | (6,229) | 441,620 | 33,029 | 474,649 |
| Year ended 31 December 2020 | | | | | | | | | | | | | |
| Balance at 1 January 2020 | | | | | | | | | | | | | |
| Transactions with owners, recorded directly in equity | | | | | | | | | | | | | |
| <i>Changes in equity for the year</i> | | | | | | | | | | | | | |
| Reserve for remittance to the Ministry of Finance | - | - | - | - | (12,985) | - | - | - | - | - | (12,985) | - | (12,985) |
| Dividends | - | - | - | - | - | - | - | - | - | - | - | (1,919) | (1,919) |
| Total transactions with owners, recorded directly in equity | - | - | - | - | (12,985) | - | - | - | - | - | (12,985) | (1,919) | (14,904) |
| Comprehensive income (expense) for the year | | | | | | | | | | | | | |
| Profit | - | - | - | - | 28,031 | - | - | - | - | - | 28,031 | 3,280 | 31,311 |
| Other comprehensive income (expense) | - | - | - | - | (14) | 137 | (560) | (63) | (1,493) | (1,979) | (1,993) | (922) | (2,915) |
| Total comprehensive income (expense) for the year | - | - | - | - | 28,017 | 137 | (560) | (63) | (1,493) | (1,979) | 26,038 | 2,358 | 28,396 |
| Balance at 31 December 2020 | 10,872 | 475 | 689 | 80,186 | 370,659 | (3,088) | 224 | (421) | (4,923) | (8,208) | 454,673 | 33,468 | 488,141 |
| Year ended 31 December 2021 | | | | | | | | | | | | | |
| Balance at 1 January 2021 | 10,872 | 475 | 689 | 80,186 | 370,659 | (3,088) | 224 | (421) | (4,923) | (8,208) | 454,673 | 33,468 | 488,141 |
| Transactions with owners, recorded directly in equity | | | | | | | | | | | | | |
| <i>Changes in equity for the year</i> | | | | | | | | | | | | | |
| Reserve for remittance to the Ministry of Finance | - | - | - | - | (25,483) | - | - | - | - | - | (25,483) | - | (25,483) |
| Dividends | - | - | - | - | - | - | - | - | - | - | - | (1,925) | (1,925) |
| Increase in non-controlling interests of subsidiary | - | - | - | - | - | - | - | - | - | - | - | 7,358 | 7,358 |
| Total transactions with owners, recorded directly in equity | - | - | - | - | (25,483) | - | - | - | - | - | (25,483) | 5,433 | (20,050) |
| Comprehensive income for the year | | | | | | | | | | | | | |
| Profit | - | - | - | - | 29,294 | - | - | - | - | - | 29,294 | 4,192 | 33,486 |
| Other comprehensive income | - | - | - | - | 55 | 1,930 | 19 | 271 | 3,607 | 5,827 | 5,882 | 3,167 | 9,049 |
| Total comprehensive income for the year | - | - | - | - | 29,349 | 1,930 | 19 | 271 | 3,607 | 5,827 | 35,176 | 7,359 | 42,535 |
| Balance at 31 December 2021 | 10,872 | 475 | 689 | 80,186 | 374,525 | (1,158) | 243 | (150) | (1,316) | (2,381) | 464,366 | 46,260 | 510,626 |

The accompanying notes form an integral part of the financial statements.

Electricity Generating Authority of Thailand
Statement of changes in equity

| | Note | Separate financial statements | | | | | Total equity |
|--|------|----------------------------------|--|---|----------------|--------------------|--------------|
| | | Contribution from the government | Surplus from royalty on state property service | Retained earnings | | Fair value reserve | |
| | | | | Capital expenditure appropriation (in million Baht) | Unappropriated | | |
| Year ended 31 December 2020 | | | | | | | |
| Balance at 1 January 2020 | | 10,872 | 475 | 80,186 | 303,629 | 1,398 | 396,560 |
| Transactions with owners, recorded directly in equity | | | | | | | |
| <i>Changes in equity for the year</i> | | | | | | | |
| Reserve for remittance to the Ministry of Finance | 5 | - | - | - | (12,985) | - | (12,985) |
| Total transactions with owners, recorded directly in equity | | - | - | - | (12,985) | - | (12,985) |
| Comprehensive income (expense) for the year | | | | | | | |
| Profit | | - | - | - | 25,480 | - | 25,480 |
| Other comprehensive income (expense) | | - | - | - | - | (260) | (260) |
| Total comprehensive income (expense) for the year | | - | - | - | 25,480 | (260) | 25,220 |
| Balance at 31 December 2020 | | 10,872 | 475 | 80,186 | 316,124 | 1,138 | 408,795 |
| Year ended 31 December 2021 | | | | | | | |
| Balance at 1 January 2021 | | 10,872 | 475 | 80,186 | 316,124 | 1,138 | 408,795 |
| Transactions with owners, recorded directly in equity | | | | | | | |
| <i>Changes in equity for the year</i> | | | | | | | |
| Reserve for remittance to the Ministry of Finance | 5 | - | - | - | (25,483) | - | (25,483) |
| Total transactions with owners, recorded directly in equity | | - | - | - | (25,483) | - | (25,483) |
| Comprehensive income (expense) for the year | | | | | | | |
| Profit | | - | - | - | 25,771 | - | 25,771 |
| Other comprehensive income (expense) | | - | - | - | 61 | (36) | 25 |
| Total comprehensive income (expense) for the year | | - | - | - | 25,832 | (36) | 25,796 |
| Balance at 31 December 2021 | | 10,872 | 475 | 80,186 | 316,473 | 1,102 | 409,108 |

The accompanying notes form an integral part of the financial statements.



Electricity Generating Authority of Thailand

Statement of cash flows

| | Note | Consolidated financial statements | | Separate financial statements | |
|---|------|--------------------------------------|-----------------------|----------------------------------|-----------------------|
| | | Year ended 31 December | | Year ended 31 December | |
| | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| Cash flows from operating activities | | | | | |
| Profit for the year | | 33,486 | 31,311 | 25,771 | 25,480 |
| <i>Adjustments to reconcile profit to cash receipts (payments)</i> | | | | | |
| Tax expense | | 393 | 105 | - | - |
| Finance costs | | 34,490 | 33,783 | 34,529 | 34,637 |
| Depreciation and amortisation | | 53,221 | 53,604 | 51,033 | 51,730 |
| Write-off withholding tax deducted at source and others | | 5 | - | - | - |
| Donations income | | (19) | - | (19) | - |
| Unrealised loss on foreign exchange | | 14,162 | 783 | 14,458 | 958 |
| Gain (loss) on fair value adjustment of financial assets | | 6 | (10) | - | - |
| Gain on disposal of financial assets | | (3) | (4) | - | - |
| (Gain) loss on fair value adjustment of derivatives | | (144) | 130 | - | - |
| Impairment loss on assets | | 105 | 220 | 33 | 198 |
| Loss on allowance for obsolescence of fuel and spare parts | | 199 | 344 | 239 | 205 |
| Loss on disposal of subsidiaries | | - | 17 | - | - |
| (Gain) loss on write-off of assets | | (109) | 88 | (110) | 88 |
| Revenue from contribution income | | (611) | (596) | (611) | (596) |
| Fair value adjustment of lease receivable | | 17 | - | - | - |
| Share of profit of associates and joint ventures accounted for using equity method | 9 | (8,950) | (7,090) | - | - |
| Gain on bargain purchase | 4 | (178) | - | - | - |
| Non-current provisions for employee benefits | | 1,087 | 1,133 | 1,059 | 1,102 |
| Interest income | | (539) | (613) | (297) | (366) |
| Dividend income | | (378) | (496) | (2,956) | (2,972) |
| | | <u>126,240</u> | <u>112,709</u> | <u>123,129</u> | <u>110,464</u> |
| Changes in operating assets and liabilities | | | | | |
| Trade accounts receivable | | (1,319) | 5,258 | (2,028) | 4,984 |
| Accrued revenue from electric energy sales according to automatic tariff adjustment (Ft) | | (38,943) | 1,879 | (38,943) | 1,879 |
| Other receivables | | (3,377) | (109) | (2,943) | (387) |
| Fuel and spare parts | | (4,819) | 765 | (5,011) | 804 |
| Lease receivable | | 36 | - | - | - |
| Other current assets | | 47 | (26) | (50) | 46 |
| Other non-current assets | | (8,964) | (8,814) | (8,641) | (8,294) |
| Trade accounts payable | | 24,772 | (10,428) | 25,312 | (10,518) |
| Other payables | | 1,988 | 226 | 2,301 | 80 |
| Accrued expenses | | 1,919 | (824) | 1,896 | (847) |
| Other current liabilities | | (175) | 3,046 | (10) | 3,040 |
| Provision for mine rehabilitation | | (578) | 64 | (578) | 64 |
| Retirement benefit paid | | (2,058) | (1,943) | (2,035) | (1,911) |
| Other non-current liabilities | | 1,061 | 384 | 409 | 646 |
| Net cash generated from operating | | <u>95,830</u> | <u>102,187</u> | <u>92,808</u> | <u>100,050</u> |
| Interest received | | 289 | 402 | 287 | 399 |
| Income tax paid | | (404) | (463) | - | - |
| Net cash from operating activities | | <u>95,715</u> | <u>102,126</u> | <u>93,095</u> | <u>100,449</u> |

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Electricity Generating Authority of Thailand
Statement of cash flows

| | Note | Consolidated financial statements | | Separate financial statements | |
|---|------|--------------------------------------|-----------------|----------------------------------|-----------------|
| | | Year ended 31 December | | Year ended 31 December | |
| | | 2021 | 2020 | 2021 | 2020 |
| | | (in million Baht) | | | |
| Cash flows from investing activities | | | | | |
| Acquisition of subsidiaries, net of cash acquired | 4 | (2,577) | - | - | - |
| Payments for investments in associates and joint ventures | | (4,842) | (5,996) | (60) | - |
| Payments for investments in other entities | | (25) | (185) | (25) | - |
| Net cash decreased from disposal of subsidiary | | - | (2) | - | - |
| Payment for purchase of financial assets | | (6,102) | (9,277) | (3,800) | (2,542) |
| Proceeds from sale of financial assets | | 6,462 | 9,039 | 3,927 | 2,805 |
| Payment for purchase of property, plant and equipment and intangible assets | | (35,775) | (43,309) | (33,900) | (38,644) |
| Payment for borrowing cost of property and equipment | | (905) | (967) | (825) | (967) |
| Proceeds from sale of assets | | 186 | 75 | 186 | 54 |
| Proceeds from repayment of short-term loans to related parties | | - | 25 | - | - |
| Short-term loans to related parties | | - | (5) | - | - |
| Long-term loans to related parties | | (63) | - | - | - |
| Long-term loan to other party | | - | (2,501) | - | - |
| Payment for deferred project development cost | | (34) | (17) | - | - |
| Dividends received | | 3,734 | 4,097 | 2,956 | 2,972 |
| Interest received | | 228 | 234 | 11 | 9 |
| Net cash used in investing activities | | (39,713) | (48,789) | (31,530) | (36,313) |
| Cash flows from financing activities | | | | | |
| Proceeds from short-term loans from financial institutions | | 21,162 | 11,406 | - | - |
| Repayment for short-term loans from financial institutions | | (17,134) | (11,947) | - | - |
| Proceeds from long-term loans | | 21,626 | 14,202 | 15,859 | 3,963 |
| Repayment for long-term loans | | (10,994) | (10,589) | (8,938) | (9,038) |
| Repayment for long-term loans from infrastructure fund | | (772) | (661) | (772) | (661) |
| Payment of principle elements of lease liabilities from Power Purchase Agreements | | (14,430) | (13,742) | (17,005) | (17,012) |
| Payment of principle elements of other lease liabilities | | (627) | (468) | (465) | (407) |
| Proceeds from early unwinding of derivative | | - | 228 | - | - |
| Proceeds from unearned revenue | | 528 | 1,150 | 528 | 1,150 |
| Remittance to the Ministry of Finance | 5 | (19,723) | (18,056) | (19,723) | (18,056) |
| Dividend paid | | (1,926) | (1,919) | - | - |
| Finance costs paid | | (34,261) | (33,603) | (34,453) | (34,599) |
| Net cash used in financing activities | | (56,551) | (63,999) | (64,969) | (74,660) |
| Net decrease in cash and cash equivalents, before effect of exchange rates | | (549) | (10,662) | (3,404) | (10,524) |
| Effect of exchange rate changes on cash and cash equivalents | | 57 | 10 | (26) | 12 |
| Net decrease in cash and cash equivalents | | (492) | (10,652) | (3,430) | (10,512) |
| Cash and cash equivalents at 1 January | | 69,353 | 80,005 | 63,885 | 74,397 |
| Cash and cash equivalents at 31 December | 6 | 68,861 | 69,353 | 60,455 | 63,885 |
| Supplementary information | | | | | |
| Payables for property, plant and equipment and intangible assets | | 3,209 | 1,685 | 3,209 | 1,685 |
| Increase in assets under other lease liabilities | | 862 | 1,250 | 623 | 234 |
| Payables for deferred project development cost | | 6 | 1 | - | - |

The accompanying notes form an integral part of the financial statements.



Electricity Generating Authority of Thailand

Notes to the financial statements

For the year ended 31 December 2021

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorised for issue by the Governor on 15 March 2022.

1 General information

Electricity Generating Authority of Thailand (EGAT), which is a juristic person, was established by Electricity Generating Authority of Thailand Act, B.E. 2511 (1968) and subsequent amendments. EGAT's main business objectives are generating, acquiring, transmission or distribution electric energy, the operation of electric energy business and energy sources deriving from natural resources and undertaking business concerning electric energy and other businesses concerning or related to the activities of EGAT, or collaborate with other persons. Besides, its businesses include production and selling lignite or any chemicals derived from lignite. The head office of EGAT is located at 53 Moo 2, Charansanitwong Road, Bang Kruai, Nonthaburi.

The major shareholder during the financial year was the Ministry of Finance (100% shareholding).

2 Basis of preparation of the financial statements

The financial statements are prepared in accordance with Thai Financial Reporting Standards ("TFRS"), guidelines promulgated by the Federation of Accounting Professions. The financial statements are presented in Thai Baht, which is EGAT's functional currency.

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group's accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

3 Significant accounting policies

(a) Basis of consolidation

The consolidated financial statements relate to EGAT and its subsidiaries (together referred to as the "Group") and the Group's interests in associates and joint ventures.

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree. In addition, when there is a change in the Group's interest in a subsidiary that do not result in a loss of control, any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid from the acquisition of the non-controlling interests with no change in control are accounted for as other surpluses/deficits in shareholders' equity.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

The Group recognised investments in associates and joint ventures using the equity method in the consolidated financial statements. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's dividend income and share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with associates and joint ventures are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group other than business combinations with entities under common control. Expenses in connection with a business combination are recognised as incurred.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, any contingent consideration and equity interests issued by the Group.

Any contingent consideration is measured at fair value at the date of acquisition and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.



Business combinations under common control are accounted for using a method similar to the pooling of interest method, by recognising assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the moment of the transaction. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or deficit from business combinations under common control in shareholder's equity. The surplus or deficit will be written upon divestment of the businesses acquired. The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

(b) *Investments in subsidiaries, associates and joint ventures*

Investments in subsidiaries, associates and joint ventures in the separate financial statements are measured at cost less allowance for impairment losses. Dividend income is recognised in profit or loss on the date on which EGAT's right to receive payment is established. If EGAT disposes of part of its investment, the deemed cost of the part sold is determined using the weighted average method. Gains and losses on disposal of the investments are recognised in profit or loss.

(c) *Foreign currencies*

Transactions in foreign currencies including non-monetary assets and liabilities denominated in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date. Non-monetary assets and liabilities measured at fair value in foreign currencies are translated at the exchange rates at the dates that fair value was determined.

Foreign currency differences are generally recognised in profit or loss. However, foreign currency differences arising from the translation of the following items are recognised in other comprehensive income:

- an investment in equity securities designated as at FVOCI (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss); and
- qualifying cash flow hedges to the extent the hedge is effective.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date. The revenues and expenses of foreign operation are translated to Thai Baht at rates approximating the exchange rates at the dates of the transactions.

Foreign exchange differences are recognised in other comprehensive income and accumulated in the translation reserve until disposal of the investment, except to extent that the translation difference is allocated to non-controlling interest.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Group disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognised in other comprehensive income, and presented in the translation reserve in equity until disposal of the investment.

(d) Financial instruments

(d.1) Classification and measurement

Financial assets and financial liabilities (except trade receivables (see note 3(f)) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value, taking into account for transaction costs that are directly attributable to its acquisition or issue of the securities, except for financial assets and financial liabilities measured at FVTPL, which are initially and subsequently measured at fair value, and any transaction costs that are directly attributable to its acquisition or issue of the securities are recognised in profit or loss.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or fair value through profit or loss (FVTPL). Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Debt investments measured at FVOCI are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and expected credit loss are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividend income is recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

(d.2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.



The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Financial assets and financial liabilities are offset, and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Derivatives

Derivatives are recognised at fair value and remeasured at fair value at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for cash flow hedge accounting or hedges of net investment in a foreign operation, in which case recognition of any resultant gain or loss depends on nature of the item being hedged.

(d.4) Hedging

At inception of designated hedging relationships, the Group documents the risk management objective and strategy for undertaking the risk, the economic relationship between the hedged item and the hedging instrument, including consideration of the hedge effectiveness at the inception of the hedging relationship and throughout the remaining period to determine the existence of economic relationship between the hedged item and the hedging instrument.

Cash flow hedges

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in the hedging reserve. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

The Group designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts (forward points) is recognised in a cash flow hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the cash flow hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

For all other hedged forecast transactions, the amount accumulated in the cash flow hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the cash flow hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the cash flow hedging reserve are immediately reclassified to profit or loss.

(d.5) Impairment of financial assets other than trade receivables

The Group recognises allowances for expected credit losses (ECLs) on financial assets measured at amortised cost, debt investments measured at FVOCI, lease receivables, and loan commitments issued which are not measured at FVTPL.

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to have low credit risk when its credit rating is equivalent to the globally understood definition of 'investment grade'. The Group recognises ECLs for low credit risk financial asset as 12-month ECLs.

The Group assumes that the credit risk on a financial asset has increased significantly if it is significant deterioration in credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when:

- the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is over the payment specified in the contract

(d.6) Write offs

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(d.7) Interest

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability.

(e) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, call deposits and highly liquid short-term investments which has a maturity of three months or less from the date of acquisition.

(f) Trade and other account receivables

A receivable is recognised when the Group has an unconditional right to receive consideration. A receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.



The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date. Moreover, the Group also considers the individual assessment by using discounted cashflow method. For this, management uses an estimate debtor's future cash flows based on the penalty rate of late payment according to agreements or the incremental borrowing rate of EGAT.

(g) Fuel and spare parts

Cost of fuel is determined by the moving average method.

Cost of spare parts are determined by the lower of the moving average method less allowance for obsolescence or net realisable value.

Fuel contains fuel in each power plant and lignite. Spare parts consist of spare parts used in the maintenance of each power plant, spare parts used in the maintenance of mining machinery, general use materials and other equipment. Important spare parts and devices that expected to be used for more than one year are shown under the heading of property, plant and equipment.

The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the fuel and spare parts, such as import duties and transportation charges, less all attributable discounts.

The Group has estimated allowance for obsolescence of spare parts is made on an aging analysis.

- Spare parts for each power plants and mine machinery is calculated by straight-line method based on useful life of the asset.
- General materials which has not moved for 6 months and above. The allowance for obsolescence of stocks are stated as follows:

| No movement within | Percentage of allowance for obsolescence |
|---------------------|--|
| 6 - 18 months | 10 |
| Over 18 - 30 months | 30 |
| Over 30 - 48 months | 50 |
| Over 48 - 60 months | 75 |
| Over 60 months | 100 |

(h) Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset, the cost of self-constructed assets includes capitalised borrowing costs and any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

Any gains and losses on disposal of item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised in profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset and recognised in profit or loss. No depreciation is provided on freehold land and assets under construction.

The estimated useful lives are as follows:

| | |
|---|--------------|
| Buildings and building improvements | 1 - 40 years |
| Dam and reservoir | 3 - 80 years |
| Power plant, machinery and equipment | 1 - 30 years |
| Electrical control system | 1 - 25 years |
| Electric power transmission system | 1 - 45 years |
| Communication system | 1 - 25 years |
| Lignite conveyor belt system and mine machinery spare parts | 8 - 25 years |
| Vehicles | 1 - 12 years |
| Supplies | 1 - 20 years |

(i) Goodwill

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment.

(j) Research and development

Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditure and expenditure on research activities are recognised in profit or loss as incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and accumulated impairment losses. It will be amortised when it is available for use in the manner intended.

Estimated useful lives of research and development is 1 - 30 years

(k) Other Intangible assets

Other intangible assets are measured at cost less accumulated amortisation and accumulated impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits. Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.



The estimated useful lives are as follows:

| | | |
|--|--------|-------|
| Land rights for power plant | 30 | years |
| Software licences | 2 - 11 | years |
| Rights to use royal state properties | 59 | years |
| Right of power purchase and project development agreements | 9 - 30 | years |

Rights to use royal state properties

EGAT receives rights to utilise land and buildings around the Sirikit Dam, which is the state property without cost with the approval of the Ministry of Finance and EGAT recognised the cost value of the Sirikit Dam as a state property utilisation right. Only the parts that are used to generate electricity coupled with the surplus from the right to utilise in the state properties will be recognised as an expense amortised from the right to use state properties within 59 years according to the remaining useful life of the Sirikit Dam.

Project development rights

Project development costs are recognised as an asset only when the development costs can be reliably measured, when that project is technically and commercially likely to bring economic benefits in the future and when the Group intends to utilise the assets or sell them. Borrowing costs can be included as part of the asset's cost price. Project development rights will be amortised upon commencement of commercial operations.

Land rights

Land rights contain the land rights under transmission line that have infinite useful life and land rights for construction of power plant that have useful lives same as the useful lives of the power plants.

(l) Deferred development cost

Deferred development cost will record as an asset when the Ministry of Energy approved the principle of investment project. In any case, if Board of Directors of the Group consider and approve the termination of the project, the Group will write-off the development cost which was recognised as an asset to an expense in profit or loss in that period immediately.

(m) Deferred costs of lignite mining

Stripping costs

Stripping costs are calculated by multiplying the amount of lignite mined in each period by 7.55 (the stripping ratio of 7.55 : 1 is a ratio of soil quantity to total usable lignite) and multiplied by the average cost of surface stripping incurred per cubic metre of stripping load. In case the actual stripping ratio in each period is greater than 7.55, the surplus is recognised as deferred costs. However, these accumulated amortization of stripping costs must not exceed the existing deferred costs.

Mineral exploration and preliminary development costs

Mineral exploration and preliminary development costs are recognised as expenses in which they are incurred. Unless there is a plan to build a power plant on the survey site according to the power development plan, or the site is a mine expansion area, costs are recognised as deferred costs and amortised as expenses. The amortisation is calculated based on the ratio of deferred costs to total usable lignite multiplied by the amount of lignite mined in the incurred period.

Resettlement costs

Resettlement costs are recognised as expenses, which calculated based on the total actual resettlement costs divided by the amount of lignite that is expected to be mined over the useful lives of the power plants, and multiplied by the amount of lignite that can be mine in each period. The resettlement costs for areas not used for coal mining are recognised as expenses in the incurred period.

Mineral patent costs

Mineral patent costs are a special benefit to be paid to the government at a rate of 0.1% of the total mineral value in the mining concession plots in excess of Baht 50 million. (Mineral deposits where their value is less than or equal to Baht 50 million are exempted from such patent costs).

Each patent is granted for a period of 25 years, recognised as deferred costs and amortised as expenses over the period.

(n) Land for development projects

Land for development projects is recognised initially at cost, including directly attributable costs. Subsequently stated at historical cost less accumulated impairment losses.

(o) Leases

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

At commencement or on modification of a contract that contains a lease component and the leases of property the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which is recognised as an expense on a straight-line basis over the lease term.

Right-of-use asset is measured at cost, less any accumulated depreciation and accumulated impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. The lease payments included fixed payments less any lease incentive receivable, variable lease payments that depend on an index or a rate, and amounts expected to be payable under a residual value guarantee. The lease payments also include amount under purchase, extension or termination option if the Group is reasonably certain to exercise option. Variable lease payments that do not depend on index or a rate are recognised as expenses in the accounting period in which they are incurred.



The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in lease term, change in lease payments, change in the estimate of the amount expected to be payable under a residual value guarantee, or a change in the assessment of purchase, extension or termination options. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

As a lessor

At inception or on modification of a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each component on the basis of their relative standalone prices.

When the Group acts as a lessor, it determines at lease inception whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

The Group recognises lease payments received under operating leases as rental income on a straight-line basis over the lease term as part of other income. Initial direct costs incurred in arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as rental income in the accounting period in which they are earned.

The Group recognises finance lease receivables at the amount of the Group's net investment in the lease, which comprises the present value of the lease payments and any unguaranteed residual value, discounted using the interest rate implicit in the lease. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

The Group derecognises and determines impairment on the lease receivables as disclosed in note 3(d).

(p) Impairment of non-financial assets

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount, unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Impairment losses of assets recognised in prior periods is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(g) Employee benefits

The Group operates various post-employment benefits schemes which comprised defined contribution plan, defined benefit plans and other long-term benefits

Defined contribution plan

The Group provides provident fund, which is contributed by the employees and the Group, and managed by an external fund manager in accordance with the Provident Fund Act. B.E. 2530. The Group has no legal or constructive obligations to pay further contributions once the contributions have been paid even if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The contributions are recognised as employee benefit expense when they are due.

Defined benefit plans

The Group provides for post-employment benefits, payable to employees under the labour laws applicable in Thailand and other countries in which the Group has its operations, or when the term of service is terminated according to the agreement between the Group and employees. Typically, defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually depends on many factors such as age, years of service and compensation.

The liability in respect of employee benefits is the present value of the defined benefit obligation at the end of the reporting date which is calculated by an independent actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on government bonds that matches the terms and currency of the expected cash outflows.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in profit or loss.

Other long-term benefits

The obligations are measured similar to defined benefit plans except remeasurement gains and losses that are charged to profit or loss.

Other short-term benefits

The obligations are recognised as expenses in statement of income of the period. The Group will measure arising liabilities at the amount expected to be paid, if the Group has either legal or implied commitments resulted from past services rendered by employees, and the commitment can be reliably measured.



(r) Provisions

General provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

Provision for mine rehabilitation

EGAT has an obligation under the Minerals Act B.E.2560 to undertake rehabilitation of mine sites during and after the completion of mining operations. The provision for mine rehabilitation are measured at the present value of the estimated rehabilitation cost and rehabilitation expense according to the amount of lignite that has been mined in each period. The estimated for mine rehabilitation is reviewed annually. The increased provisions due to passage of time is recognised as finance cost in the profit or loss in the period in which they are incurred.

(s) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If the inputs used to measure the fair value of an asset or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

(t) Revenue

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax and is after deduction of any trade discounts.

Revenue under the Power Purchase Agreements (PPA)

Revenue from energy payment is recognised at a point in time when electricity is transferred to the customers according to unit of sale based on electric meter at destinations as stated in the agreements.

Revenue from automatic tariff adjustment (Ft) is recognised in the period in which they arise, comprised of the actual collected Ft revenue in accordance with the approval of the Energy Regulatory Commission (ERC) and recognised the accrued or surplus Ft revenue, which came from the difference of the calculated Ft price under the formula Ft with the collected Ft price in that period.

Deferred revenue for electricity compensation is resulted from receiving fuel costs or electricity compensation from fuel suppliers or power producers. ERC had considered allowing EGAT to separate its deposit account from cash and cash equivalents to restrict for use. In case that ERC grant an approval for compensation, EGAT will reduce electricity through Ft and presented as non-current assets.

The ERC has set financial criteria for EGAT regarding the tariff structure mandating EGAT to have sufficient revenue for investment and repayment of loans and related interests. In addition, returns from investment must not exceed Weighted Average Cost of Capital (WACC) in order to maintain fair and justified electricity price for electricity users. Therefore, the ERC will refund or recall revenue from sales of electricity once EGAT's financial performance below or exceed the threshold. On the other hands, if investments provide lower return than set criteria, the ERC will recall the revenue from electricity sales which is called "Claw back" in order to encourage EGAT to provide portions of investment to the ERC in the period when the ERC has approved to provide electricity discount to the users. The discount will be recognised as liabilities and electricity revenue deduction.

Revenue from sales of other goods

Revenue from sales of other goods such as revenue from fuel providing to related parties, sales of Hydrogen gas, distilled water, chemicals and by products from generating electricity. These are recognised as revenue when control of the products has transferred to customer.

Revenue from services

Revenue from services such as revenue from operation and maintenance services for power plants, telecommunication services are recognised over time as the services are provided. The related costs are recognised in profit or loss when they are incurred. The guarantee of operation and maintenance services for power plants is recognised as provision from guarantee to ensure customers that equipment are able to use as mentioned in contractual performance obligation.

For bundled packages, the Group recognises revenue from sales of products and rendering of services separately if a product or service is separately identifiable from other items and a customer can benefit from it or the multiple services are rendered in different reporting periods. The consideration received is allocated based on their relative stand-alone selling prices.

Revenue from finance lease contracts

Revenue from finance lease contracts is recognised in profit or loss by using the effective interest rate method over the period of the power purchase agreements.

Dividend income

Dividend income is recognised when the right to receive payment is established.



(u) Income tax

Income tax expense for the year comprises current and deferred tax, which is recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognise a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

4 Acquisition of subsidiaries

(a) Share acquisition of Fareast Renewable Development Pte. Ltd. (“FRD”)

On 19 November 2021, RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary of EGAT, acquired an additional 40% of ordinary shares in Fareast Renewable Development Pte. Ltd. (“FRD”), an indirect joint venture, from Hydro Sumatra International Pte. Ltd. (“HSI”), the existing shareholder, totalling 13 million shares. The investment value is approximately US Dollars 54 million or equivalent to approximately Baht 1,776 million.

FRD is incorporated in Singapore and investing in Asahan-1 Hydroelectric Power Project (“Asahan-1”) in the Republic of Indonesia which owns 53.21% shares of PT Bajradaya Sentranusa (“BDSN”).

The acquisition of additional shares of FRD on 19 November 2021 (“Acquisition date”) through obtaining the transferred shares 40% combined with the interests previously had 50%, as a result, RHIS held 90% interests of issued and paid-up share capital in FRD resulting in the change from an indirect joint venture to an indirect subsidiary through step up acquisition. After such transaction was completed, the shareholding structure of FRD comprises of RHIS at 90% and HSI at 10% resulting the increasing in RATCH Group Public Company Limited, a direct subsidiary of EGAT, held an indirect stake for participate in the operation of Asahan-1 Hydroelectric Power Project (“Asahan-1”) 47.89% (previously 26.61%). The Group required to remeasure the fair value of previously held equity interest in FRD prior to acquisition and recognise the difference between fair value and carrying value profit or loss on the acquisition date as follows:

| | |
|--|--------------------------|
| | <i>(in million Baht)</i> |
| Fair value of equity interests in FRD of RHIS prior to acquisition | 2,752 |
| Less Carrying value of FRD accounted for equity method in RHIS at the acquisition date | (2,930) |
| Less Amount arising from interests recognised in other comprehensive income | (69) |
| Difference from changes in fair value of investment in a joint venture | (247) |

Obtaining the control in FRD results the business alliances of the Group strength. This power plant is a renewable infrastructure dramatically helps strengthen North Sumatra’s power system stability in Republic of Indonesia. It also reflects in driving renewable energy capacity towards the Group’s target, which a Hydroelectric Power Project aside from wind, solar, and biomass power projects. As committed to renewable energy development, the Group intends to reduce greenhouse gas emission in order to lessen effect of climate change. In addition to environmental benefit, Asahan-1 also helps secure the power grid in North Sumatra province, increasing rate of people access to electricity in North Sumatra, as well as enhancing living quality of people and society at large and also support success of business restructure of FRD’s shareholders.

According to the above acquisitions, the Group has engaged an independent appraiser to determine the fair values of net assets and liabilities acquired. The determination of the fair values has been completed. The consideration transferred and the assets acquired, and liabilities assumed were recorded accordingly.



| | Fair value <i>(in million Baht)</i> |
|--|---|
| Cash and cash equivalents | 976 |
| Lease receivables | 17,313 |
| Trade accounts receivable and other assets | 574 |
| Loans | (5,075) |
| Trade and other payables | (277) |
| Derivative liabilities | (211) |
| Deferred tax liabilities | (2,175) |
| Provisions and other liabilities | (796) |
| Total identifiable net assets | 10,329 |
| Less Non-controlling interests | (5,376) |
| Total identifiable net assets received | 4,953 |
| Fair value of equity interests in FRD prior to acquisition | (2,752) |
| Gain on bargain purchase | (425) |
| Purchase consideration transferred | 1,776 |
| Net cash acquired | (976) |
| Net cash outflows | 800 |

At 31 December 2021, the consideration transferred totalling Baht 1,776 million comprise of cash paid of Baht 1,576 million and payable to shareholder of Baht 200 million which subsequently paid on 11 January 2022. The Group incurred acquisition-related costs of Baht 9 million which have been included in administrative expenses in the statement of income.

As a result, the Group recognised gain on bargain purchase and the difference from changing in fair value of equity interests prior to acquisition as at the acquisition date in the consolidated statements of income for the year ended 31 December 2021 amounting Baht 178 million.

The Group included the assets, liabilities and operating results of such subsidiary in the consolidated financial statements for the year ended 31 December 2021. Revenues and operating results of such subsidiaries from the purchasing date to 31 December 2021 are included in the consolidated statements of income, amounting to Baht 135 million and profit for the period attributable to equity holders amounting to Baht 1 million. If the acquisition of FRD had occurred on 1 January 2021, management estimates that revenue from leases and profit for the Group in the consolidated financial statements for the year ended 31 December 2021 would have been Baht 1,485 million and Baht 195 million, respectively.

(b) Share acquisition of Sahacogen (Chonburi) Public Company Limited (“SCG”)

On 13 December 2021, (“Acquisition date”), RATCH Group Public Company Limited (“RATCH”), a direct subsidiary of EGAT, completed the purchase of the ordinary shares of Sahacogen (Chonburi) Public Company Limited (“SCG”), which is listed on the Stock Exchange of Thailand, from 34 shareholders in the total amount of 385 million shares at Baht 5.75 per share amounting to Baht 2,213 million and the purchase of newly issued ordinary shares of SCG which has been issued and allotted to a specific person (Private Placement) in the amount of 209 million shares, with a par value of Baht 1.00 per share at the subscription price of Baht 5.75 per share amounting to Baht 1,200 million whereby SCG has registered the change of its paid-up capital with the Ministry of Commerce and after the issuance and allotment of such new ordinary shares to RATCH was complete. RATCH has therefore acquired a total amount of 593 million ordinary shares in SCG, equivalent to 51% of the total issued shares in SCG, which resulted in SCG becoming an indirect subsidiary of the Group.

The investment in SCG will help business alliances between the Group and Saha Group which applies knowledge and expertise to develop power plant projects. It creates power plant jointly partnership of the Group to encourage its strength and sustainable growth in its full capacity, including promoting the increase of capacity and competence in other projects of Saha Group in the future.

According to the above acquisition, the Group has engaged independent appraisers to determine the fair values of net assets and liabilities acquired. As at 31 December 2021, the determination of the fair values, especially for intangible assets acquired, has not been completed. Therefore, the Group has been recorded at provisional amounts in consolidated statement of financial position as at 31 December 2021. The fair values of the assets acquired and liabilities assumed and goodwill may be adjusted when the report of the appraiser is completed.

The Group has continuously reviewed fair values of the business acquired within one year from the acquisition date, taking into accounts additional information, facts as well as circumstances that existed at the acquisition date. Consequently, the adjustments on accounting transaction of such acquisition will be made.

Assets acquired and liabilities assumed at the acquisition date:

| | Fair value <i>(in million Baht)</i> |
|---|---|
| Cash and cash equivalents | 1,435 |
| Trade and other receivables | 573 |
| Inventories | 262 |
| Property, plant and equipment | 5,047 |
| Other assets | 413 |
| Trade and other payables | (351) |
| Loans and borrowings | (2,987) |
| Other liabilities | (428) |
| Total identifiable net assets | 3,964 |
| <i>Less Non-controlling interests</i> | <i>(1,982)</i> |
| Total identifiable net assets received | 1,982 |
| Goodwill arising from the acquisition | 1,430 |
| Purchase consideration transferred | 3,412 |
| Net cash acquired | (1,435) |
| Net cash outflows | 1,977 |

The Group incurred acquisition-related costs of Baht 21 million which have been included in administrative expenses in the statement of income.

During the period from acquisition date to 31 December 2021, SCG contributed revenue of Baht 247 million and profit of Baht 14 million to the Group's results. If the acquisition had occurred on 1 January 2021, management estimates that consolidated revenue would have increased by Baht 4,354 million and consolidated profit for the year would have increased by Baht 106 million.

In addition, on 22 December 2021, the Group, as the Tender Offeror in the tender offer for all of the remaining securities of SCG in the total amount of 128 million shares. On 31 January 2022, which is the end of the tender offer period, there were those who expressed the intentions to sell in the total amount of 8 million shares, equivalent to 0.67% of the total issued shares, at Baht 5.75 per share amounting to Baht 45 million. After such transaction is completed, RATCH hold the total of 601 million shares or equivalent to 51.67% of the total issued shares.



5 Related parties

A related party is a person or entity that has direct or indirect control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or has significant influence over the financial and managerial decision-making of a person or entity.

Relationships with subsidiaries, associates and joint ventures are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

| Name of entities | Country of incorporation/ nationality | Nature of relationships |
|---|--|---|
| Ministry of Energy | Thailand | Regulator |
| Ministry of Finance | Thailand | Regulator and owner |
| Metropolitan Electricity Authority | Thailand | Under the same owner as EGAT |
| Provincial Electricity Authority | Thailand | Under the same owner as EGAT |
| Department of Alternative Energy Development and Efficiency | Thailand | Under the same regulator as EGAT |
| PTT Public Company Limited (PTT) | Thailand | Under the same regulator and owner as EGAT |
| PTT LNG Company Limited (PTTLNG) | Thailand | Direct subsidiary of PTT |
| Energy Complex Company Limited | Thailand | Direct subsidiary of PTT |
| Global Power Synergy Public Company Limited (GPSC) | Thailand | Direct subsidiary of PTT |
| PTT Tank Terminal Company Limited (PTT TANK) | Thailand | Direct subsidiary of PTT |
| PTT Oil and Retail Business Public Company Limited (OR) | Thailand | Direct subsidiary of PTT |
| PTT Global Chemical Public Company Limited (PTTGC) | Thailand | Direct subsidiary of PTT |
| Thai Oil Public Company Limited (TOP) | Thailand | Direct subsidiary of PTT |
| Business Services Alliance Company Limited (BSA) | Thailand | Direct subsidiary of PTT |
| PTT International Trading Pte Ltd. (PTTT) | Singapore | Direct subsidiary of PTT |
| IRPC Clean power Company Limited (IRPCCP) | Thailand | Indirect subsidiary of PTT |
| Houay Ho Power Company Limited (HHPC) | Lao PDR | Indirect subsidiary of PTT |
| Glow Energy Public Company Limited (GEN) | Thailand | Indirect subsidiary of PTT |
| Glow SPP 2 Company Limited (GSPP2) | Thailand | Indirect subsidiary of PTT |
| Glow SPP 3 Company Limited (GSPP3) | Thailand | Indirect subsidiary of PTT |
| Glow SPP 11 Company Limited (GSPP11) | Thailand | Indirect subsidiary of PTT |
| Glow IPP Company Limited (GIPP) | Thailand | Indirect subsidiary of PTT |
| GHECO-One Company Limited (GHECO1) | Thailand | Indirect subsidiary of PTT |
| GC Maintenance & Engineering Company Limited (GCME) | Thailand | Indirect subsidiary of PTT |
| NPC Safety and Environmental Service Company Limited (NPCSE) | Thailand | Indirect subsidiary of PTT |
| Thaioil Power Company Limited (TP) | Thailand | Indirect subsidiary of PTT |
| TOP SPP Company Limited (TOPSPP) | Thailand | Indirect subsidiary of PTT |
| LABIX Company Limited (LABIX) | Thailand | Indirect subsidiary of PTT |

| Name of entities | Country of incorporation/ nationality | Nature of relationships |
|--|--|--|
| Bangpa-in Cogeneration Company Limited (BIC) | Thailand | Indirect associate of PTT |
| Xayaburi Power Company Limited (XPCL) | Lao PDR | Indirect associate of PTT |
| Nam Lik1 Power Company Limited (NL1PC) | Lao PDR | Indirect joint venture of PTT |
| Key management personnel | Thai | Persons having authority and responsibility for planning, directing, and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group. |

| <i>Significant transactions with related parties</i> <i>Year ended 31 December</i> | Consolidated financial statements | | Separate financial statements | |
|---|--|------------|--|------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Subsidiaries | | | | |
| Revenue from electric energy sales | - | - | 208 | 144 |
| Revenue from sales of other goods and services | - | - | 1,449 | 1,049 |
| Cost of electric energy sales | - | - | 32,806 | 30,424 |
| Purchase of goods or services | - | - | 808 | 639 |
| Associates | | | | |
| Revenue from electric energy sales | 23 | 21 | 23 | 21 |
| Revenue from sales of other goods and services | 200 | 67 | 187 | 60 |
| Cost of electric energy sales | 23,279 | 22,699 | 23,279 | 22,699 |
| Purchase of goods or services | 160 | 46 | 151 | 44 |
| Joint ventures | | | | |
| Revenue from electric energy sales | 79 | 134 | 79 | 134 |
| Revenue from sales of other goods and services | 2,452 | 2,174 | 2,151 | 1,863 |
| Cost of electric energy sales | 34,349 | 29,156 | 34,349 | 29,156 |
| Purchase of goods or services | 1,567 | 1,252 | 1,567 | 1,252 |
| Other related parties | | | | |
| Revenue from electric energy sales | 506,696 | 511,097 | 506,696 | 511,097 |
| Revenue from sales of other goods and services | 151 | 137 | 141 | 136 |
| Cost of electric energy sales | 113,918 | 101,348 | 112,451 | 100,012 |
| Purchase of goods or services | 67 | 65 | 67 | 65 |
| Key management personnel | | | | |
| Key management personnel compensation | | | | |
| Directors remuneration | 37 | 27 | 14 | 11 |
| Short-term employee benefits | 300 | 291 | 135 | 125 |
| Defined benefit plan and other long-term benefits | 8 | 7 | 4 | 4 |
| Total key management personnel compensation | <u>345</u> | <u>325</u> | <u>153</u> | <u>140</u> |



Balances as at 31 December with related parties were as follows:

| Trade receivables | Consolidated financial statements | | Separate financial statements | |
|---|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Subsidiaries | - | - | 604 | 327 |
| Associates | 10 | 14 | 10 | 13 |
| Joint ventures | 269 | 125 | 269 | 125 |
| Other related parties | 54,431 | 52,853 | 54,431 | 52,853 |
| Total | 54,710 | 52,992 | 55,314 | 53,318 |
| Less allowance for expected credit loss | - | - | - | - |
| Net | 54,710 | 52,992 | 55,314 | 53,318 |

| Other receivables | Consolidated financial statements | | Separate financial statements | |
|---|--|--------------|--|--------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Associates | 1,032 | 98 | 81 | 97 |
| Joint ventures | 493 | 225 | 470 | 165 |
| Other related parties | 2,481 | 2,115 | 2,481 | 2,115 |
| Total | 4,006 | 2,438 | 3,032 | 2,377 |
| Less allowance for expected credit loss | (100) | (79) | (100) | (79) |
| Net | 3,906 | 2,359 | 2,932 | 2,298 |

| | | | | |
|---|----|----|----|----|
| Expected credit losses of other receivables for the year ended 31 December | 21 | 73 | 21 | 73 |
|---|----|----|----|----|

| Long-term loans to | Interest rate | | Consolidated financial statements | | | |
|--|----------------------|---------------------|--|----------|-------------------------|---------------------|
| | 31 December 2020 | 31 December 2021 | 31 December 2020 | Increase | Exchange differences | 31 December 2021 |
| | <i>(% per annum)</i> | | | | | |
| Associates | - | 5.0 | - | 32 | - | 32 |
| Joint ventures | 4.21 - 4.22 | 4.21 - 5.30 | 539 | 31 | 61 | 631 |
| Less allowance for expected credit loss | | | (16) | | | (7) |
| Net | | | 523 | | | 656 |

| Long-term loans to | Interest rate | | Consolidated financial statements | | | |
|--|----------------------|---------------------|--|----------|-------------------------|---------------------|
| | 31 December 2019 | 31 December 2020 | 31 December 2019 | Increase | Exchange differences | 31 December 2020 |
| | <i>(% per annum)</i> | | | | | |
| Joint ventures | 5.94 | 4.21 - 4.22 | 541 | - | (2) | 539 |
| Less allowance for expected credit loss | | | (13) | | | (16) |
| Net | | | 528 | | | 523 |

| | Consolidated financial statements | |
|--|--|------|
| | 2021 | 2020 |
| (Reversal) Expected credit losses of long-term loan to for the year ended 31 December | (9) | 3 |

| <i>Trade accounts payable</i> | Consolidated financial statements | | Separate financial statements | |
|-------------------------------|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Subsidiaries | - | - | 8,953 | 5,222 |
| Associates | 6,275 | 4,425 | 6,275 | 4,425 |
| Joint ventures | 8,985 | 7,539 | 8,985 | 7,539 |
| Other related parties | 23,684 | 13,208 | 23,516 | 13,101 |
| Total | 38,944 | 25,172 | 47,729 | 30,287 |

| <i>Other payables</i> | Consolidated financial statements | | Separate financial statements | |
|-----------------------|--|--------------|--|------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| - Current | | | | |
| Subsidiaries | - | - | 1 | 1 |
| Associate | 2,249 | - | - | - |
| Joint ventures | 723 | 695 | 706 | 680 |
| Other related parties | 225 | 146 | 225 | 146 |
| Total | 3,197 | 841 | 932 | 827 |
| - Non-current | | | | |
| Associates | 3,193 | 4,878 | - | - |
| Joint ventures | 4 | - | - | - |
| Total | 3,197 | 4,878 | - | - |

| <i>Accrued remittance to the Ministry of Finance</i> | Consolidated and Separate financial statements | |
|--|---|--------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| At 1 January | 5,247 | 10,318 |
| Accrued remittance to the The Ministry of Finance | 25,483 | 12,985 |
| Amount remitted to the The Ministry of Finance | (19,723) | (18,056) |
| At 31 December | 11,007 | 5,247 |

The Ministry of Finance prescribed that EGAT has to remit the 50% of the net profit for the year before bonus expense of separate financial statement, this might vary depend on the revision of the Ministry of Finance.



| | Consolidated financial statements | | | | | |
|---|-----------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Current portion | | Non-current portion | | Total | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Lease liabilities from Power Purchase Agreement | 20,323 | 20,265 | 216,348 | 224,993 | 236,671 | 245,258 |
| Less deferred interest expenses | <u>(12,853)</u> | <u>(13,376)</u> | <u>(104,098)</u> | <u>(111,374)</u> | <u>(116,951)</u> | <u>(124,750)</u> |
| Lease liabilities from Power Purchase Agreement, net | <u>7,470</u> | <u>6,889</u> | <u>112,250</u> | <u>113,619</u> | <u>119,720</u> | <u>120,508</u> |

| | Separate financial statements | | | | | |
|---|-------------------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | Current portion | | Non-current portion | | Total | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Lease liabilities from Power Purchase Agreement | 23,132 | 22,841 | 224,103 | 235,556 | 247,235 | 258,397 |
| Less deferred interest expenses | <u>(12,853)</u> | <u>(13,376)</u> | <u>(104,100)</u> | <u>(111,376)</u> | <u>(116,953)</u> | <u>(124,752)</u> |
| Lease liabilities from Power Purchase Agreement, net | <u>10,279</u> | <u>9,465</u> | <u>120,003</u> | <u>124,180</u> | <u>130,282</u> | <u>133,645</u> |

| Loan | Interest rate | | Consolidated and separate financial statements | | | |
|-------------------------|----------------------|------------------|--|----------|----------|------------------|
| | 31 December 2020 | 31 December 2021 | 31 December 2020 | Increase | Decrease | 31 December 2021 |
| | <i>(% per annum)</i> | | <i>(in million Baht)</i> | | | |
| The Ministry of Finance | 3 | 3 | 45 | - | (6) | 39 |
| Net | | | <u>45</u> | | | <u>39</u> |

| Loan | Interest rate | | Consolidated and separate financial statements | | | |
|-------------------------|----------------------|------------------|--|----------|----------|------------------|
| | 31 December 2019 | 31 December 2020 | 31 December 2019 | Increase | Decrease | 31 December 2020 |
| | <i>(% per annum)</i> | | <i>(in million Baht)</i> | | | |
| The Ministry of Finance | 3 | 3 | 51 | - | (6) | 45 |
| Net | | | <u>51</u> | | | <u>45</u> |

Significant agreements with related parties

Fuel Purchase Agreements

At 31 December 2021, three subsidiaries had commitments under Gas Sales Agreement with PTT Public Company Limited (“PTT”) for a period of 25 years for 2 contracts and another contract will expire in March 2024. PTT will distribute natural gas to such subsidiaries at the agreed quantity and price.

At 31 December 2021, a subsidiary had a Diesel Purchase Agreement with PTT Oil and Retail Business Public Company Limited (“OR”) for a period of 3 years. OR will distribute diesel to the subsidiary at the agreed quantity and price. The agreement is automatically extended for a period of 1 year unless a written notice is provided at least 6 months before the agreement automatically extended.

At 31 December 2021, a subsidiary had commitments under the fuel oil purchase and sale agreement with PTT Oil and Retail Business Public Company Limited to reserves fuel oil and use to generate electricity at the Ratchaburi Thermal Power Plant.

At 31 December 2021, EGAT has commitments under the Natural Gas Purchase Agreement for power plants with PTT Public Company Limited amounting Baht 280,724 million (2020: Baht 298,053 million).

At 31 December 2021, EGAT has commitments under Power Plant Fuel Purchase Agreement with PTT Oil and Retail Business Public Company Limited amounting to Baht 924 million (2020: Nil).

At 31 December 2021, EGAT has commitments under LNG purchase agreements for power plants with PTT International Trading Pte. Ltd. in the amount of Baht 1,296 million (2020: Nil).

Fuel Management Service Agreement

On 1 July 2012, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into a Fuel Management Service Agreement with EGAT, whereby EGAT will coordinate the supply and delivery of fuel oil, according to the demand of such subsidiary and align with EGAT’s power dispatching plan. The agreement is effective from 1 July 2012 until 30 June 2013. The service fee is stipulated in the agreement. The agreement is automatically extended for a period of 1 year unless written notice.

Power Purchase Agreements

On 9 October 2000, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into a Power Purchase Agreement with EGAT for a period of 25 years, whereby such subsidiary will deliver net electricity generation from Thermal power plants unit 1 and 2 and Combined Cycle power plants block 1, 2 and 3 to EGAT under the conditions of the Power Purchase Agreement. Such subsidiary will receive revenue from EGAT, which are comprised of energy payment (EP) and availability payment (AP). An energy payment (EP) covers production costs which are comprised of fuel costs and variable costs of operation and maintenance. Such costs will be adjusted in accordance with fuel price, Energy Efficiency Ratio and Consumer Price Index. An availability payment (AP) covers the repayment of principal and interest of loans, return on shareholders’ equity, fixed operation and maintenance expenses, maintenance parts expenses and administrative expenses. Such costs will be adjusted to cover the changes of interest rates, Consumer Price Index and exchange rates.

On 3 December 2009, RATCH Cogeneration Company Limited, an indirect subsidiary, entered into a Power Purchase Agreement for RATCH Cogeneration Power Project located in Pathum Thani province with EGAT. The agreement is effective from the execution date until the 25-year from the commercial operation date. The project is a combined-cycle power plant project with total contracted capacity of 110 Megawatts which started its commercial operation in 2013.

On 12 July 2019, Hin Kong Power Company Limited, a subsidiary of an indirect joint venture, entered into a Power Purchase Agreement for Hin Kong Power Project located in Ratchaburi province with EGAT. The agreement is effective from the execution date until the 25-year from the commercial operation date. The project is a combined-cycle power plant project with total contracted capacity of 1,400 Megawatts which is scheduled for commercial operation in 2024 and 2025.



Sahacogen (Chonburi) Public Company Limited, an indirect subsidiary, entered into a Power Purchase Agreement with EGAT to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement period is 25 years and will expire in April 2024.

Sahacogen Green Company Limited, an indirect subsidiary, entered into an agreement with the Provincial Electricity Authority (PEA) in March 2009 to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 5 years, and will automatically renew every 5 years until termination. In 2016, the subsidiary joined the program for producers of electricity from renewable energy sources to change from an Adder to a Feed-in Tariff (FiT), and as a result entered into an amendment to the sales and purchase of electricity agreement with PEA in September 2016, whereby it is required to comply with certain conditions and the period for purchase of electricity is reduced, with the agreement expiring in October 2027.

Sahagreen Forest Company Limited, an indirect subsidiary, entered into an agreement with the Provincial Electricity Authority (PEA) in September 2009 to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 20 years. Since the subsidiary joined the program for producers of electricity from renewable energy sources to change from an Adder to a Feed-in Tariff (FiT) in September 2016, it entered into an amendment to the sales and purchase of electricity agreement with PEA, whereby it is required to comply with conditions regarding the sale and purchase of electricity and connection to the electricity grid and the period for purchase of electricity is reduced, with the agreement expiring in March 2029.

Operation and Maintenance Agreement

On 7 January 2009, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into an Operation and Maintenance Agreement with EGAT. The agreement is effective from 1 January 2009 until the termination dates of the Power Purchase Agreement for Thermal power plants and Combined Cycle power plants. EGAT will operate and provide routine maintenance services including major overhaul to such subsidiary. The initial value of the agreement is approximately Baht 16,608 million, which will be adjusted by the annual Consumer Price Index.

On 27 May 2020, RATCH-Lao Services Company Limited, an indirect subsidiary, entered into a Personnel Providing Service for Operation and Maintenance Agreement with EGAT, whereby such subsidiary will recruit and provide qualified personnel according to the number and qualifications specified in the agreement for operation and maintenance of Nam Ngiep 1 Hydropower Plant located in Lao PDR, for a period of 58 months. The agreement is effective from May 2020 to February 2025. The total value of the agreement is Baht 37 million.

On 28 October 2020, RATCH-Lao Services Company Limited, an indirect subsidiary, entered into an Operation and Maintenance Services Agreement for Hongsa Mine Mouth Power Project in Lao PDR with EGAT to operate and maintenance for Hongsa Power Project for a period of 36 months from November 2020 onwards. The total value of the agreement is Baht 168 million.

Land Lease Agreement and Common Facility Agreement

On 7 June 2004 and 21 October 2005, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into a Land Lease Agreement for an area of 145 rai with Ratchaburi Power Company Limited, an indirect joint venture. The land is located in the Ratchaburi Power Plant area. The rental period is 25 years and 3 months commencing from the commercial operation date of Ratchaburi Power Company Limited.

On 25 November 2005, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into a Common Facility Agreement with Ratchaburi Power Company Limited, an indirect joint venture, whereby such subsidiary will provide certain facilities, services, right to use and access rights to utilities relating to construction and operation to Ratchaburi Power Company Limited as stipulated in the agreement. This agreement is effective from the signing date in the agreement until the termination date of the Land Lease Agreement dated on 7 June 2004.

On 23 August 2019, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into land lease agreement 175 rai with Hin Kong Power Company Limited, a subsidiary of indirect joint venture, for a period of 29 years which effective from 1 January 2021 onwards.

On 30 June 2021, Ratchaburi Electricity Generating Company Limited, an indirect subsidiary, entered into land lease agreement 8 rai with Hin Kong Power Company Limited, a subsidiary of indirect joint venture, for a period of 28 years and 6 months which effective from 1 July 2021 onwards.

Management Service Agreement

On 27 February 2004, RATCH Group Public Company Limited, a direct subsidiary, entered into a Management Service Agreement with Ratchaburi Power Company Limited, an indirect joint venture, whereby RATCH Group Public Company Limited will receive management service fee amounting to US Dollars 3 million per annum for a period of 25 years and 3 months commencing from the commercial operation date of the Power Plant Unit 1 of Ratchaburi Power Company Limited. The total value of the agreement is US Dollars 63 million.

On 24 February 2021, RATCH Group Public Company Limited, a direct subsidiary, entered into a Management Service Agreement with Hin Kong Power Company Limited, a subsidiary of indirect joint venture, whereby RATCH Group Public Company Limited will receive management service fee amounting to Baht 36 million per year and will increase annually as stipulated in the agreement. The agreement is automatically extended for a period of 1 year unless written notice.

Agreement in relation to investment in Chubu Ratchaburi Electric Services Company Limited

On 29 September 2005, RATCH Group Public Company Limited, a direct subsidiary, and Chubu Electric Power (Thailand) Company Limited entered into a Shareholders Agreement to set up Chubu Ratchaburi Electric Services Company Limited, an indirect joint venture. Under the terms of the shareholders agreement, if Chubu Ratchaburi Electric Services Company Limited requires additional funding exceeding its authorised share capital, RATCH Group Public Company Limited agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees in proportion of investment of 50%. The agreement does not specify the amount of financial support. As at 31 December 2021, RATCH Group Public Company Limited has not provided any loans or guarantees under the agreement.

Sponsor Support Agreement with Northern Bangkok Monorail Company and Eastern Bangkok Monorail Company Limited

On 11 October 2017, RATCH Group Public Company Limited, a direct subsidiary, entered into a Sponsor Support Agreement with Northern Bangkok Monorail Company Limited and Eastern Bangkok Monorail Company Limited, indirect associates. RATCH Group Public Company Limited agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees in proportion of investment of 10% with credit limit and conditions as specified in the agreement. As at 31 December 2021, RATCH Group Public Company Limited has not yet provided any loans or guarantees under the agreement with Eastern Bangkok Monorail Company Limited.



Equity Contribution Agreement with Nexif Ratch Energy Rayong Company Limited

RATCH Group Public Company Limited, a direct subsidiary, entered into an Equity Contribution Agreement with Nexif Ratch Energy Rayong Company Limited, a subsidiary of an indirect joint venture. RATCH Group Public Company Limited agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees. As at 31 December 2021, RATCH Group Public Company Limited has provided the guarantee to such company with credit amount of Baht 97 million.

Loans to related parties

At 31 December 2021, RATCH Group Public Company Limited, a direct subsidiary, had outstanding balance of loans to Xe-Pian Xe-Namnoy Power Company Limited, an indirect joint venture, amounting to US Dollars 1 million or equivalent to Baht 44 million with interest at the rate of 3-Month London Interbank Offered Rate (LIBOR), plus fixed margin per annum. The loan agreement determined the repayment term of principal and interest within 27 years commencing from the joint venture made the first drawdown of loans from financial institutions on 5 February 2014. RATCH Group Public Company Limited had outstanding balance of loans for the purpose of covering additional expenditure of the Xe-Pian Xe-Namnoy Hydroelectric Power Project amounting to US Dollars 17 million or equivalent to Baht 556 million with interest at the rate of 3-Month London Interbank Offered Rate (LIBOR), plus fixed margin per annum. The principal and interest will be due as stipulated in the agreement.

At 31 December 2021, RATCH Group Public Company Limited, a direct subsidiary, had outstanding balance of loans to Smart Infranet Company Limited, an indirect joint venture, amounting to Baht 26 million with interest at the fixed rate of 5.30% per annum. The principal and interest will be due as stipulated in the agreement. RATCH Group Public Company Limited has no intention to recall the loans from the joint venture within one year. Therefore, RATCH Group Public Company Limited classified the balance of the loan as long-term loan.

At 31 December 2021, RATCH Group Public Company Limited, a direct subsidiary, had outstanding balance of loans to Things on Net Company Limited, an indirect joint venture, amounting to Baht 6 million with interest at the fixed rate of 5.30% per annum. The principal and interest will be due as stipulated in the agreement. RATCH Group Public Company Limited has no intention to recall the loans from the joint venture within one year. Therefore, RATCH Group Public Company Limited classified the balance of the loan as long-term loan.

At 31 December 2021, RATCH Group Public Company Limited, a direct subsidiary, had outstanding balance of loans to Northern Bangkok Monorail Company Limited, an indirect associate, amounting to Baht 32 million with interest at the fixed rate of 5.00% per annum. The principal and interest will be due as stipulated in the agreement. RATCH Group Public Company Limited has no intention to recall the loans from the associate within one year. Therefore, RATCH Group Public Company Limited classified the balance of the loan as long-term loan.

Obligations related to Share Purchase Agreement

RATCH Group Public Company Limited, a direct subsidiary, has obligations under a Share Purchase Agreement related to the purchase of ordinary shares in the two of associates. Under the terms of the agreement, the other shareholder has additional rights to RATCH Group Public Company Limited's dividend entitlements from those associates.

Obligations related to Guarantee Service Agreement with Hin Kong Power Holding Company Limited and Hin Kong Power Company Limited

RATCH Group Public Company Limited, a direct subsidiary, has obligations under a Guarantee Service Agreement to Hin Kong Power Holding Company Limited, an indirect joint venture, and Hin Kong Power Company Limited, a subsidiary of indirect joint venture. Under the terms of the agreement defined RATCH Group Public Company Limited as guarantor, in proportion of shareholder of 51%. The facilities and terms are stipulated in the agreement.

6 Cash and cash equivalents

| | Consolidated financial statements | | Separate financial statements | |
|------------------------|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Cash on hand | 7 | 5 | 5 | 4 |
| Cash at banks | 66,277 | 63,802 | 58,950 | 60,281 |
| Fixed deposit receipts | 2,577 | 5,546 | 1,500 | 3,600 |
| Total | 68,861 | 69,353 | 60,455 | 63,885 |

7 Trade accounts receivable

| | Consolidated financial statements | | Separate financial statements | |
|--|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Within credit terms | 43,469 | 53,736 | 43,141 | 53,789 |
| Overdue: | | | | |
| 1 - 180 days | 12,698 | 3 | 12,679 | 1 |
| Over 360 days | 50 | 50 | 50 | 50 |
| Total | 56,217 | 53,789 | 55,870 | 53,840 |
| <i>Less</i> allowance for expected credit loss | (50) | (50) | (50) | (50) |
| Net | 56,167 | 53,739 | 55,820 | 53,790 |

| | Consolidated financial statements | | Separate financial statements | |
|--|--|-----------|--|-----------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| <i>Allowance for expected credit loss</i> | | | | |
| At 1 January | 50 | 54 | 50 | 54 |
| Reversal | - | (4) | - | (4) |
| At 31 December | 50 | 50 | 50 | 50 |



8 Fuel and spare parts

| | Consolidated financial statements | | Separate financial statements | |
|---|--------------------------------------|---------------|----------------------------------|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Power plant fuel | 10,393 | 4,815 | 9,026 | 3,676 |
| Lignite coal | 1,630 | 1,911 | 1,630 | 1,911 |
| Spare parts and supplies | 12,764 | 12,839 | 11,199 | 11,156 |
| | 24,787 | 19,565 | 21,855 | 16,743 |
| Less allowance for obsolescence | (7,832) | (7,605) | (6,875) | (6,636) |
| Net | 16,955 | 11,960 | 14,980 | 10,107 |
| Fuel and spare parts recognised in 'cost of sales': | | | | |
| - Cost | 27,219 | 15,998 | 24,759 | 15,885 |
| - Write-down to obsolescence | 266 | 379 | 305 | 239 |
| Net | 27,485 | 16,377 | 25,064 | 16,124 |

9 Investments in associates and joint ventures

| | Note | Consolidated financial statements | | Separate financial statements | |
|--|------|--------------------------------------|---------------|----------------------------------|--------------|
| | | 2021 | 2020 | 2021 | 2020 |
| | | <i>(in million Baht)</i> | | | |
| At 1 January | | 78,837 | 69,004 | 2,173 | 2,173 |
| Share of profits of associates and joint ventures accounted for using equity method | | 8,950 | 7,090 | - | - |
| Share of other comprehensive income (expense) of associates and joint ventures accounted for using equity method | | 4,502 | (2,135) | - | - |
| Increase in investments in associates and joint ventures | | 4,911 | 5,996 | 60 | - |
| Transfer to investment in subsidiaries | 4 | (2,930) | - | - | - |
| Acquisition through business combination | 4 | 116 | - | - | - |
| Reclassification | | - | 2,380 | - | - |
| Dividend income | | (4,311) | (3,351) | - | - |
| Exchange differences on translating financial statements | | 3,641 | (149) | - | - |
| Changes in the interests of investments in joint ventures | | - | 2 | - | - |
| Allowance for impairment in investment in joint venture | | (64) | - | - | - |
| At 31 December | | 93,652 | 78,837 | 2,233 | 2,173 |

Investments in associates and joint ventures as at 31 December were as follows:

| | | Consolidated financial statements | | | | |
|--|--|-----------------------------------|-------------------------------------|-------|------------------|---------------|
| | | Cost | | | At equity method | |
| | | 2021 | 2020 | 2021 | 2020 | 2020 |
| | | <i>(in million Baht)</i> | | | | |
| | Type of business | Country of incorporation | Ownership interest of the Group (%) | | | |
| | | | 2021 | 2020 | | |
| Direct associate | | | | | | |
| Electricity Generating Public Company Limited | Generating and selling electricity | Thailand | 25.41 | 25.41 | 1,588 | 25,980 |
| Indirect associates | | | | | | |
| First Korat Wind Company Limited | Generating and selling electricity | Thailand | 20 | 20 | 399 | 427 |
| K.R. TWO Company Limited | Generating and selling electricity | Thailand | 20 | 20 | 365 | 387 |
| Northern Bangkok Monorail Company Limited | Mass transit system | Thailand | 10 | 10 | 1,180 | 994 |
| Eastern Bangkok Monorail Company Limited | Mass transit system | Thailand | 10 | 10 | 1,200 | 1,033 |
| Bangkok Aviation Fuel Services Public Company Limited | Aviation fuel services | Thailand | 15.53 | - | 2,712 | - |
| Solar Power (Korat 3) Company Limited | Generating and selling electricity | Thailand | 40 | 40 | 76 | 169 |
| Solar Power (Korat 4) Company Limited | Generating and selling electricity | Thailand | 40 | 40 | 80 | 180 |
| Solar Power (Korat 7) Company Limited | Generating and selling electricity | Thailand | 40 | 40 | 76 | 169 |
| Impact Solar Company Limited | Generating and providing rooftop solar power systems | Thailand | 21 | - | 118 | - |
| PT Adaro Indonesia | Generating and selling coal | Republic of Indonesia | 11.53 | 11.53 | 11,603 | 9,624 |
| Niam Ngiep 1 Power Company Limited | Generating and selling electricity | Laos | 30 | 30 | 118 | 1,515 |
| Perth Power Partnership (Kwinana) | Generating and selling electricity | Australia | 30 | 30 | 619 | 210 |
| Yandin WF Holdings Pty Ltd | Generating and selling electricity | Australia | 70 | 70 | 3,078 | 2,658 |
| Hou Ju Energy Technology Corporation | Invest in electric power business | Taiwan | 25 | - | 194 | - |
| Total | | | | | 22,939 | 43,346 |
| | | | | | 52,044 | |
| Direct joint ventures | | | | | | |
| District Cooling System and Power Plant Co., Ltd. | Generating and selling electricity and cold water | Thailand | 35 | 35 | 585 | 931 |
| Innopower Company Limited (including investment in joint venture held by RATCH Group Public Company Limited) | Investing in innovation and commercial inventions including future energy business | Thailand | 70 | - | 105 | - |



Consolidated financial statements

| | Country of incorporation | Type of business | Ownership interest of the Group (%) | | Cost | | | At equity method | |
|--|--------------------------|---|-------------------------------------|-------|--------|--------|--------|------------------|--|
| | | | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | |
| Indirect joint ventures | | | | | | | | | |
| Chubu Ratchaburi Electric Services Company Limited | Thailand | Providing operation and maintenance services | 50 | 50 | 10 | 10 | 88 | 81 | |
| SouthEast Asia Energy Limited | Thailand | Investing in the power energy business | 33.33 | 33.33 | 2,202 | 2,202 | 2,743 | 2,583 | |
| Smart Infranet Company Limited | Thailand | Investing in Underground Optic Fiber Network Project | 51 | 51 | 281 | 281 | 238 | 264 | |
| Things on Net Company Limited | Thailand | Investing in installation and development of telecommunication networks | 35 | 35 | 180 | 180 | 143 | 166 | |
| Hin Kong Power Holding Company Limited | Thailand | Investing in the power energy business | 51 | 51 | 468 | 156 | 445 | 148 | |
| R E N Korat Energy Company Limited | Thailand | Generating and selling electricity and steam | 40 | 40 | 120 | 10 | 112 | 8 | |
| Xe-Pian Xe-Namnoy Power Company Limited | Lao PDR | Generating and selling electricity | 25 | 25 | 2,524 | 2,524 | 2,635 | 1,813 | |
| NEXIF RATCH ENERGY SINGAPORE PTE. LTD. | Singapore | Investing in the power energy business | 49 | 49 | 985 | 984 | 1,044 | 984 | |
| Ratchaburi Power Company Limited | Thailand | Generating and selling electricity | 25 | 25 | 1,831 | 1,831 | 2,768 | 2,961 | |
| Nava Nakorn Electricity Generating Company Limited | Thailand | Generating and selling electricity and steam | 40 | 40 | 800 | 800 | 1,051 | 948 | |
| Ratchaburi World Cogeneration Company Limited | Thailand | Generating and selling electricity and steam | 40 | 40 | 1,000 | 1,000 | 1,351 | 1,286 | |
| Berkprai Cogeneration Company Limited | Thailand | Generating and selling electricity and steam | 35 | 35 | 466 | 466 | 627 | 586 | |
| Solartha Company Limited | Thailand | Generating and selling electricity | 49 | 49 | 546 | 546 | 1,620 | 1,527 | |
| Songkhla Biomass Company Limited | Thailand | Generating and selling electricity | 40 | 40 | 98 | 98 | 179 | 173 | |
| Songkhla Biofuel Company Limited | Thailand | Providing material of biofuel | 40 | 40 | - | - | - | - | |
| Hongsa Power Company Limited | Lao PDR | Generating and selling electricity | 40 | 40 | 12,930 | 12,930 | 20,099 | 14,480 | |
| Phu Fai Mining Company Limited | Lao PDR | Coal mining and trading | 37.50 | 37.50 | 1 | 1 | 276 | 140 | |
| Asia Water Co., Ltd. | Lao PDR | Generating and selling water | 40 | 40 | 179 | 179 | 185 | 182 | |
| SIPHANDONE-RATCH LAO CO., LTD. | Lao PDR | Generating and selling wood pellet | 25 | 25 | 25 | - | 22 | - | |

| Consolidated financial statements | | | | | | | | |
|---|---|--------------------------|-------------------------------------|---------------|------------------------|---------------|-----------------------|---------------|
| | Type of business | Country of incorporation | Ownership interest of the Group (%) | | Cost (in million Baht) | | At equity method 2020 | |
| | | | 2021 | 2020 | 2021 | 2020 | | |
| PT Medco Ratch Power Riau | Generating and selling electricity | Republic of Indonesia | 49 | 49 | 1,083 | 871 | 1,712 | 1,029 |
| Fareast Renewable Development Pte. Ltd. | Investing in the power energy business internationally | Singapore | - | 50 | - | 2,689 | - | 2,551 |
| RATCH & AIDC Wind Energy Pte. Ltd. | Investing in the wind energy business internationally | Singapore | 63.80 | 63.80 | 211 | 118 | 214 | 117 |
| An Binh Energy and Infrastructure Fund | Investing in the power energy business and infrastructure | Vietnam | 49 | 49 | 2,505 | 2,505 | 2,804 | 2,533 |
| NEXIF ENERGY BT PTE. LTD. | Investing in the power energy business internationally | Singapore | 50 | - | 227 | - | 227 | - |
| Total | | | 29,362 | 29,362 | 53,268 | 30,966 | 41,608 | 35,491 |
| | | | 53,268 | 53,268 | 53,905 | 53,905 | 93,652 | 78,837 |



| | Separate financial statements | | | | | | | | | |
|---|-------------------------------|-------|-----------------|--------------|--------------|--------------|--------------|--------------|-----------------------|------------|
| | Ownership interest (%) | | Paid-up Capital | | Cost | | At cost-net | | Dividend for the year | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | | | | | | | |
| Direct associate | | | | | | | | | | |
| Electricity Generating Public Company Limited | 25.41 | 25.41 | 1,588 | 1,588 | 1,588 | 1,588 | 1,588 | 1,588 | 903 | 836 |
| Total | | | 1,588 | 1,588 | 1,588 | 1,588 | 1,588 | 1,588 | 903 | 836 |
| Direct joint ventures | | | | | | | | | | |
| District Cooling System and Power Plant Co., Ltd. | 35 | 35 | 585 | 585 | 585 | 585 | 585 | 585 | 140 | 117 |
| Innopower Company Limited | 40 | - | 60 | - | 60 | - | 60 | - | - | - |
| Total | | | 645 | 585 | 645 | 585 | 645 | 585 | 140 | 117 |
| | | | 2,233 | 2,173 | 2,233 | 2,173 | 2,233 | 2,173 | 1,043 | 953 |

None of the Group and EGAT's associates and joint ventures are publicly listed and consequently do not have published price quotations except Electricity Generating Public Company Limited and Bangkok Aviation Fuel Services Public Company Limited which are listed companies on the Stock Exchange of Thailand. Based on the closing price of Baht 175.50 and 25.50 per share as at 31 December 2021 (2020: closing price of Electricity Generating Public Company Limited of Baht 192.50 per share), the fair value of the investment in Electricity Generating Public Company Limited and Bangkok Aviation Fuel Services Public Company Limited were Baht 23,477 and Baht 2,524 million (2020: the fair value of the investment in Electricity Generating Public Company Limited Baht 25,744 million).

Paid-up share capital

During 2021, the Group had paid for the share capital in proportion of investments as follows:

| Name of entities | Description | Amount <i>(in million Baht)</i> |
|---|---|------------------------------------|
| <i>Indirect associates</i> | | |
| Bangkok Aviation Fuel Services Public Company Limited | Paid for share capital | 2,712 |
| Yandin WF Holdings Pty Ltd | Paid for increase in share capital | 420 |
| Northern Bangkok Monorail Company Limited | Additional paid-up share capital | 260 |
| Eastern Bangkok Monorail Company Limited | Additional paid-up share capital | 240 |
| Hou Ju Energy Technology Corporation | Paid for share capital | 194 |
| <i>Direct joint venture</i> | | |
| Innopower Company Limited | Paid for share capital | 105 |
| <i>Indirect joint ventures</i> | | |
| Hin Kong Power Holding Company Limited | Paid for increase in share capital | 312 |
| NEXIF ENERGY BT PTE. LTD. | Paid for share capital and paid for increase in share capital | 228 |
| RATCH & AIDC Wind Energy Pte. Ltd. | Paid for increase in share capital | 92 |
| PT Medco Ratch Power Riau | Additional paid-up share capital | 212 |
| R E N Korat Energy Company Limited | Additional paid-up share capital and paid for increase in share capital | 110 |
| SIPHANDONE-RATCH LAO CO., LTD. | Paid for increase in share capital | 25 |
| NEXIF RATCH ENERGY SINGAPORE PTE. LTD. | Paid for increase in share capital | 1 |
| Total | | <u>4,911</u> |

Investment in indirect associate - Bangkok Aviation Fuel Services Public Company Limited (“BAFS”)

On 19 December 2020, RATCH Group Public Company Limited (“RATCH”), a direct subsidiary, attended the auction and offered the highest purchase price of Bangkok Aviation Fuel Services Public Company Limited (“BAFS”) totalling 99 million shares (or equivalent to 15.53% of total issued and paid-up shares) from Thai Airways International Public Company Limited (“THAI”) at Baht 27.40 per share totalling Baht 2,712 million. On 19 January 2021, THAI completely transferred the shares to RATCH and RATCH paid a total share purchase price to THAI.



An independent appraiser has been appointed by RATCH's management to determine the fair value of the business and determined the fair value of the purchased business as follows:

| | Carrying value | Fair value adjustments <i>(in million Baht)</i> | Fair value |
|--|----------------|---|---------------|
| Total net assets before fair value adjustment | 5,467 | - | 5,467 |
| Intangible assets | - | 16,549 | 16,549 |
| Investment properties | - | 3 | 3 |
| Debenture | - | 58 | 58 |
| Deferred tax liabilities | - | (3,322) | (3,322) |
| Non-controlling interest | - | (1,553) | (1,553) |
| Total identifiable net assets | 5,467 | 11,735 | 17,202 |
| Interest acquired (%) | | | 15.53 |
| | | | 2,671 |
| Excess of purchase consideration over fair value | | | 41 |
| Purchase consideration transferred | | | 2,712 |

Investment in direct associate - Hou Ju Energy Technology Corporation (“HKE”)

EGAT International Company Limited (“EGATi”), a direct subsidiary, has entered into Share Purchase Agreement to purchase shares of Hou Ju Energy Technology Corporation (“HKE”) from MP Energy Company Limited, the existing shareholder, in proportion of investment of 25%, amount of Taiwan Dollars 128 million and a share premium of Taiwan Dollars 35 million, totalling Taiwan Dollars 163 million or equivalent to Baht 194 million. HKE is a listed company in Taiwan, being a Holding Company with the purpose of investing in energy business which currently invests in a floating solar power plant project in Taiwan. Subsequently on 13 August 2021, EGATi paid a total share purchase price of Taiwan Dollars 128 million and a share premium of Taiwan Dollars 22 million and for the remaining share premium amounting to Taiwan Dollars 13 million will be paid when the project meets the conditions specified in the share purchase agreement. The investment and payable for the shares have been recorded in the financial statements.

Investment in direct joint venture - Innopower Company Limited (“Innopower”)

On 20 July 2021, the Cabinet approved EGAT to establish Innopower Company Limited (“Innopower”), an innovative company of EGAT and the Group. The shareholders consist of EGAT, RATCH Group Public Company Limited (“RATCH”) and Electricity Generating Public Company Limited. In the proportion of 40%, 30% and 30%, respectively, the investment in proportion to the shareholding of EGAT (40%) during a period of 5 years (2021 - 2025) totalling Baht 1,184 million. Innopower purposes to enhance research in innovation. and commercial inventions including investing in Collaboration Incubation & Acceleration CVC for investing in start-ups company and to prepare for the establishment of research and development projects (R&D spin-off) including energy business in the future (Future Energy). Subsequently on 6 September 2021, EGAT and RATCH paid the first installment of 25% of the registered capital in proportion to their investment in the amount of Baht 60 and 45 million, respectively, and the company was registered on 13 September 2021.

Investment in indirect joint venture - NEXIF ENERGY BT PTE. LTD. (“NEBTP”)

On 5 May 2021, RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary, has entered into Share Purchase and Subscription Agreement to purchase ordinary shares of NEXIF ENERGY BT PTE. LTD. (“NEBTP”) from NEXIF ENERGY PTE. LTD., the existing shareholder. The purpose of investment is to develop Nexif Energy Ben Tre Wind Power Project in the Socialist Republic of Vietnam totalling US Dollars 9 million or equivalent to Baht 273 million, in proportion of investment of 50%. Subsequently on 7 May 2021, RHIS paid a total share purchase price totalling US Dollars 5 million or equivalent to Baht 162 million, in proportion of investment of 50%. The Project is a near-shore wind power plant with the capacity of 80 megawatts. The project located in Thanh Hai commune, Thanh Phu district of Ben Tre Province, Socialist Republic of Vietnam. It has a 20-year power purchase agreement with Vietnam Electricity Group (EVN). The project is currently under development. The construction period is expected to take approximately 18 months, with commercial operation scheduled in December 2022 with aim to distribute electricity generation to Vietnam Electricity Group (EVN) under long-term power purchase agreement.

Subsequently on 30 June 2021, RHIS paid for increase in share capital, in proportion of investment of 50% of 1 million shares at par value of US Dollar 1 per share to NEBTP totalling US Dollars 1 million or equivalent to Baht 43 million.

Material associate

The following table summarises the financial information of the material associate as included in their own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group’s interest in this company.

| | Electricity Generating Public Company Limited | |
|--|--|---------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| Revenue | 35,903 | 33,578 |
| Profit from continuing operations | 4,117 | 8,760 |
| Other comprehensive income | 10,651 | (3,303) |
| Total comprehensive income | 14,768 | 5,457 |
| Group’s share of total comprehensive income | 3,748 | 1,380 |
| Dividend income from associate for the year | 903 | 836 |
| Current assets | 38,496 | 34,911 |
| Non-current assets | 203,436 | 179,526 |
| Current liabilities | (27,019) | (16,290) |
| Non-current liabilities | (100,876) | (95,313) |
| Non-controlling interests | (596) | (591) |
| Net assets | 113,441 | 102,243 |
| Group’s interest in net assets / carrying amount of investment in associate | 28,825 | 25,980 |



Immaterial associates and joint ventures

The following is summarised financial information for the Group's interest in immaterial associates and joint ventures based on the amounts reported in the Group's consolidated financial statements:

| | Immaterial associates and joint ventures | |
|--|--|---------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| Carrying amount of interests in immaterial associates and joint ventures | 64,827 | 52,857 |
| Group's share of: | | |
| - Profit from continuing operations | 7,907 | 4,871 |
| - Other comprehensive income (expense) | 1,797 | (1,296) |
| - Total comprehensive income | 9,704 | 3,575 |

10 Investments in subsidiaries

| | Separate financial statements | |
|---------------------------------------|-------------------------------|---------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| <i>For the year ended 31 December</i> | | |
| At 1 January | 19,003 | 19,003 |
| At 31 December | 19,003 | 19,003 |

Investments in subsidiaries as at 31 December are as follows:

| | Type of business | Country of operation | Ownership interest (%) | | Separate financial statements (in million Baht) | | | Cost |
|--------------------------------------|---|----------------------|------------------------|-------|--|---------------|--------------|---------------|
| | | | 2021 | 2020 | 2021 | 2020 | 2021 | |
| | | | | | Paid-up Capital | | | |
| Subsidiaries | | | | | | | | |
| EGAT International Company Limited | Invest in electricity generating and related businesses abroad | Thailand | 99.99 | 99.99 | 12,197 | 12,197 | 12,197 | 12,197 |
| EGAT Diamond Service Company Limited | Provide repairment services for gas turbines, components, and spare parts | Thailand | 45.00 | 45.00 | 281 | 281 | 281 | 281 |
| RATCH Group Public Company Limited | Invest in businesses related to electricity generation and distribution | Thailand | 45.00 | 45.00 | 6,525 | 6,525 | 6,525 | 6,525 |
| Total | | | | | 6,525 | 19,003 | 6,525 | 19,003 |

None of EGAT's subsidiaries are publicly listed and consequently do not have published price quotations except RATCH Group Public Company Limited which is listed company on the Stock Exchange of Thailand. Based on the closing price of Baht 45.00 per share as at 31 December 2021 (2020: Baht 53.00 per share), the fair value of the investment in RATCH Group Public Company Limited was Baht 29,363 million (2020: Baht 34,583 million).



The entity under the subsidiaries of EGAT which included in preparation of consolidation are as follows:

| | Type of business | Country of operation | Ownership interest | |
|---|--|----------------------|--------------------|--------|
| | | | 2564 | 2563 |
| | | | Of the Group | |
| | | | (%) | |
| <i>Indirect Subsidiaries</i> | | | | |
| Ratchaburi Electricity Generating Company Limited | Generating and selling electricity and investing in the power energy business | Thailand | 99.99 | 99.99 |
| Ratchaburi Energy Company Limited | Investing in the power energy business | Thailand | 99.99 | 99.99 |
| RE Solar 1 Company Limited | Generating and selling electricity | Thailand | 99.99 | 99.99 |
| RH International Corporation Limited | Investing in the power energy business | Thailand | 99.99 | 99.99 |
| RATCH O&M Company Limited | Providing operation and maintenance services | Thailand | 99.99 | 99.99 |
| Ratchaburi Alliances Company Limited | Investing in the power energy business | Thailand | 99.99 | 99.99 |
| Hin Kong Power Holding Company Limited | Investing in the power energy business | Thailand | 51.00 | 51.00 |
| RATCH Cogeneration Company Limited | Generating and selling electricity and steam | Thailand | 99.97 | 99.97 |
| RATCH-Lao Services Company Limited | Providing operation and Maintenance services and investing in the related business | Lao PDR | 99.99 | 99.99 |
| Sahacogen (Chonburi) Public Company Limited | Generating and selling electricity and steam | Thailand | 51.00 | - |
| Fareast Renewable Development Pte. Ltd. | Investing in the power energy business | Singapore | 90.00 | - |
| RH International (Mauritius) Corporation Limited | Investing in the power energy business | Mauritius | 100.00 | 100.00 |
| RH International (Singapore) Corporation Pte. Ltd. | Investing in the power energy business | Singapore | 100.00 | 100.00 |
| RATCH-Australia Corporation Pty. Ltd and its subsidiaries | Investing in the power energy business | Australia | 100.00 | 100.00 |
| RATCH China Power Limited | Investing in the power energy business | Hong Kong | 100.00 | 100.00 |

11 Property, plant and equipment

Consolidated financial statements

(in million Baht)

| | Land | Buildings and building improvements | Dam and reservoir | Power plant, machinery and equipment | Electrical control system | Electric power transmission system | Communication system | Lignite conveyor system and mining machinery spare parts | Vehicles | Other equipment | Construction in progress | Total |
|--|---------------|-------------------------------------|-------------------|--------------------------------------|---------------------------|------------------------------------|----------------------|--|--------------|-----------------|--------------------------|----------------|
| Cost | | | | | | | | | | | | |
| At 1 January 2020 | 17,277 | 40,116 | 29,714 | 442,522 | 504 | 212,134 | 7,399 | 7,483 | 4,479 | 12,397 | 104,219 | 878,244 |
| Additions | 188 | 15 | - | 945 | - | 1,001 | - | - | 290 | 506 | 28,663 | 31,608 |
| Transfers | - | 1,861 | 35 | 22,862 | 13 | 26,816 | 179 | 9 | (4) | 19 | (51,619) | 171 |
| Disposals | - | (308) | (41) | (2,699) | (28) | (657) | (231) | - | (200) | (295) | - | (4,459) |
| Effect of movements in exchange rates | 51 | 13 | - | 2,573 | - | 53 | - | - | - | - | 593 | 3,283 |
| At 31 December 2020 | 17,516 | 41,697 | 29,708 | 466,203 | 489 | 239,347 | 7,347 | 7,492 | 4,565 | 12,627 | 81,856 | 908,847 |
| Additions | 1,083 | 48 | - | 2,012 | - | - | - | - | 629 | 982 | 30,925 | 35,679 |
| Transfers | (103) | 2,022 | 6 | 11,549 | 24 | 8,649 | 311 | 69 | - | 56 | (28,146) | (5,563) |
| Disposals | - | (263) | (7) | (4,685) | (6) | (535) | (115) | (153) | (486) | (174) | - | (6,424) |
| Acquisition through business combination | 649 | 286 | - | 9,212 | - | - | - | - | 37 | 78 | 38 | 10,300 |
| Effect of movements in exchange rates | 54 | 9 | - | 1,729 | - | 88 | - | - | - | 1 | 317 | 2,198 |
| At 31 December 2021 | 19,199 | 43,799 | 29,707 | 486,020 | 507 | 247,549 | 7,543 | 7,408 | 4,745 | 13,570 | 84,990 | 945,037 |

Separate financial statements

| | Land | Buildings and building improvements | Dam and reservoir | Power plant, machinery and equipment | Electrical control system | Electric power transmission system | Communication system | Lignite conveyor system and mining machinery spare parts | Vehicles | Other equipment | Construction in progress | Total |
|----------------------------|---------------|-------------------------------------|-------------------|--------------------------------------|---------------------------|------------------------------------|----------------------|--|--------------|-----------------|--------------------------|----------------|
| Cost | | | | | | | | | | | | |
| At 1 January 2020 | 15,103 | 39,358 | 29,714 | 406,917 | 504 | 211,549 | 7,399 | 7,483 | 4,429 | 11,717 | 101,947 | 836,120 |
| Additions | 186 | 10 | - | 715 | - | - | - | - | 276 | 496 | 24,135 | 25,818 |
| Transfers | - | 1,861 | 35 | 22,433 | 13 | 26,816 | 180 | 9 | (4) | 14 | (51,357) | - |
| Disposals | - | (304) | (41) | (2,378) | (28) | (657) | (232) | - | (197) | (274) | - | (4,111) |
| At 31 December 2020 | 15,289 | 40,925 | 29,708 | 427,687 | 489 | 237,708 | 7,347 | 7,492 | 4,504 | 11,953 | 74,725 | 857,827 |
| Additions | 1,050 | 10 | - | 1,475 | - | - | - | - | 617 | 969 | 29,188 | 33,309 |
| Transfers | - | 1,949 | 6 | 3,936 | 24 | 8,649 | 311 | 69 | - | 54 | (20,459) | (5,461) |
| Disposals | - | (263) | (6) | (4,683) | (6) | (535) | (115) | (153) | (484) | (161) | - | (6,406) |
| At 31 December 2021 | 16,339 | 42,621 | 29,708 | 428,415 | 507 | 245,822 | 7,543 | 7,408 | 4,637 | 12,815 | 83,454 | 879,269 |

(in million Baht)

For the year ended 31 December 2021, capitalised borrowing costs relating to the acquisition of the land and the power plants and expand the power plant transmission system for the Group and EGAT are amounted to Baht 897 and 826 million, respectively (2020: Baht 1,086 and 967 million).

Expenses relating to leases that are not included in the measurement of lease liabilities and right-of-use are as follows:

| <i>For the year ended 31 December</i> | Consolidated financial statements | | Separate financial statements | |
|--|--|------|--|------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Expense relating to leases of low-value assets | 134 | 111 | 121 | 93 |
| Expense relating to leases of variable payment | 5 | 9 | 5 | 9 |

12 Right-of-use assets - power plants

| | Consolidated and separate financial statements | |
|--|---|-------------------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| <i>Cost</i> | | |
| At 1 January | 435,046 | 446,946 |
| Additions | 22,648 | - |
| Contract maturity | - | (11,900) |
| At 31 December | <u>457,694</u> | <u>435,046</u> |
| <i>Accumulated amortisation</i> | | |
| At 1 January | (173,885) | (167,960) |
| Amortisation for the year | (18,098) | (17,825) |
| Contract maturity | - | 11,900 |
| At 31 December | <u>(191,983)</u> | <u>(173,885)</u> |
| <i>Net book value</i> | | |
| At 31 December | <u>265,711</u> | <u>261,161</u> |

On 16 December 2020, EGAT entered into a Power Purchase Agreement with contractual electricity purchase volume (Firm) with UTHONG Green Power Company Limited, a Small Power Producer (SPP), for a contract period of 16 years, 10 months and 15 days.

On 12 December 2013, EGAT entered into a Power Purchase Agreement with contractual electricity purchase volume (Firm) with Gulf SRC Company Limited, an Independent Power Producer (IPP), with production units as follows: Production Unit 1 Commercial Operation Date (COD) on 31 March 2021, Production Unit 2 COD on 1 October 2021, Production Unit 3 has a scheduled commercial start date (SCOD) on 31 March 2022 and the Production unit 4 SCOD on 1 October 2022, with a period of 25 years starting from the date that Gulf SRC Company Limited COD all production units.



13 Intangible assets

| | Consolidated financial statements | | | | | | Total |
|--|-----------------------------------|-------------------------------|---|--|--------------------------|--------------------------|----------------|
| | Land rights | Computer software and license | Rights to use in royal state properties | Right of power purchase and project development agreements | Research and Development | Construction in progress | |
| <i>Cost</i> | | | | | | | |
| At 1 January 2020 | 42,989 | 2,141 | 475 | 6,270 | 13 | 163 | 52,051 |
| Additions | 11,378 | 60 | - | - | - | 173 | 11,611 |
| Transfers | - | 64 | - | (171) | 4 | (71) | (174) |
| Disposal | (3) | (30) | - | - | - | - | (33) |
| Effect of movements in exchange rates | - | - | - | 400 | - | - | 405 |
| At 31 December 2020 | 54,364 | 2,240 | 475 | 6,499 | 17 | 265 | 63,860 |
| At 1 January 2021 | 6,987 | 55 | - | - | - | 149 | 7,191 |
| Additions | - | 48 | - | - | 15 | (62) | 1 |
| Transfers | - | (13) | - | - | - | - | (13) |
| Disposal | - | 26 | - | 9 | - | - | 35 |
| Acquisition through business combination | - | 3 | - | 324 | - | - | 327 |
| Effect of movements in exchange rates | - | - | - | - | - | - | - |
| At 31 December 2021 | 61,351 | 2,359 | 475 | 6,832 | 32 | 352 | 71,401 |
| <i>Amortisation</i> | | | | | | | |
| At 1 January 2020 | (3,839) | (1,853) | (293) | (2,679) | (2) | - | (8,666) |
| Amortisation for the year | (1) | (115) | (6) | (318) | (4) | - | (443) |
| Transfers | - | (1) | - | - | - | - | (1) |
| Disposal | 3 | 29 | - | - | - | - | 32 |
| Effect of movements in exchange rates | - | (4) | - | (248) | - | - | (252) |
| At 31 December 2020 | (3,837) | (1,944) | (299) | (3,245) | (6) | - | (9,331) |
| At 1 January 2021 | (1) | (110) | (7) | (326) | (4) | - | (448) |
| Amortisation for the year | - | 13 | 1 | - | - | - | 14 |
| Disposal | - | (20) | - | - | - | - | (20) |
| Acquisition through business combination | - | (3) | - | (182) | - | - | (185) |
| Effect of movements in exchange rates | - | - | - | - | - | - | - |
| At 31 December 2021 | (3,838) | (2,064) | (305) | (3,753) | (10) | - | (9,970) |
| <i>Net book value</i> | | | | | | | |
| At 31 December 2020 | 50,527 | 296 | 176 | 3,254 | 11 | 265 | 54,529 |
| At 31 December 2021 | 57,513 | 295 | 170 | 3,079 | 22 | 352 | 61,431 |

Separate financial statements

| | Land rights | Computer software and license | Rights to use in royal state properties (in million Baht) | Research and Development | Construction in progress | Total |
|---|----------------|-------------------------------|--|--------------------------|--------------------------|----------------|
| Cost | | | | | | |
| At 1 January 2020 | 42,989 | 1,987 | 475 | 14 | 162 | 45,627 |
| Additions | 11,378 | 57 | - | - | 166 | 11,601 |
| Transfers | - | 63 | - | 2 | (70) | (5) |
| Disposal | (3) | (29) | - | - | - | (32) |
| At 31 December 2020 and 1 January 2021 | 54,364 | 2,078 | 475 | 16 | 258 | 57,191 |
| Additions | 6,988 | 55 | - | - | 138 | 7,181 |
| Transfers | - | 30 | - | 15 | (44) | 1 |
| Disposal | - | (13) | - | - | - | (13) |
| At 31 December 2021 | 61,352 | 2,150 | 475 | 31 | 352 | 64,360 |
| Amortisation | | | | | | |
| At 1 January 2020 | (3,839) | (1,740) | (293) | (2) | - | (5,874) |
| Amortisation for the year | (1) | (103) | (6) | (3) | - | (113) |
| Transfers | - | (1) | - | - | - | (1) |
| Disposal | 3 | 29 | - | - | - | 32 |
| At 31 December 2020 and 1 January 2021 | (3,837) | (1,815) | (299) | (5) | - | (5,956) |
| Amortisation for the year | (1) | (102) | (8) | (6) | - | (117) |
| Disposal | - | 13 | 1 | - | - | 14 |
| At 31 December 2021 | (3,838) | (1,904) | (306) | (11) | - | (6,059) |
| Net book value | | | | | | |
| At 31 December 2020 | 50,527 | 263 | 176 | 11 | 258 | 51,235 |
| At 31 December 2021 | 57,514 | 246 | 169 | 20 | 352 | 58,301 |



14 Other non-current assets

| | Consolidated financial statements | | | | | | Total |
|---|-------------------------------------|------------------|---|--------------------|----------------------|---|------------------|
| | Deferred expenses on lignite mining | | | | | | |
| | Land for development projects | Stripping costs | Mineral exploration and preliminary development costs | Resettlement costs | Mineral patent costs | Total deferred expenses on lignite mining | |
| | <i>(in million Baht)</i> | | | | | | |
| Cost | | | | | | | |
| At 1 January 2020 | 2,497 | 130,591 | 646 | 2,025 | 356 | 133,618 | 136,115 |
| Additions | - | 7,985 | - | - | - | 7,985 | 7,985 |
| Disposal | (18) | - | - | - | - | - | (18) |
| At 31 December 2020 and 1 January 2021 | 2,479 | 138,576 | 646 | 2,025 | 356 | 141,603 | 144,082 |
| Additions | - | 8,418 | - | - | - | 8,418 | 8,418 |
| Transfers | 103 | - | - | - | - | - | 103 |
| At 31 December 2021 | 2,582 | 146,994 | 646 | 2,025 | 356 | 150,021 | 152,603 |
| Amortisation | | | | | | | |
| At 1 January 2020 | (1,160) | (130,591) | (372) | (1,960) | (134) | (133,057) | (134,217) |
| Amortisation for the year | - | (7,065) | (8) | (23) | (14) | (7,110) | (7,110) |
| At 31 December 2020 and 1 January 2021 | (1,160) | (137,656) | (380) | (1,983) | (148) | (140,167) | (141,327) |
| Amortisation for the year | - | (7,727) | (17) | (3) | (18) | (7,765) | (7,765) |
| At 31 December 2021 | (1,160) | (145,383) | (397) | (1,986) | (166) | (147,932) | (149,092) |
| Net book value | | | | | | | |
| At 31 December 2020 | 1,319 | 920 | 266 | 42 | 208 | 1,436 | 2,755 |
| Deposit for deferred revenue for electricity compensation (see note 15) | | | | | | | 748 |
| Others | | | | | | | 6,369 |
| Total other non-current assets at 31 December 2020 | | | | | | | 9,872 |
| At 31 December 2021 | 1,422 | 1,611 | 249 | 39 | 190 | 2,089 | 3,511 |
| Deposit for deferred revenue for electricity compensation (see note 15) | | | | | | | 922 |
| Others | | | | | | | 6,698 |
| Total other non-current assets at 31 December 2021 | | | | | | | 11,131 |

Separate financial statements
Deferred expenses on lignite mining

| | Land for development projects | Stripping costs | Mineral exploration and preliminary development costs | Resettlement costs <i>(in million Baht)</i> | Mineral patent costs | Total deferred expenses on lignite mining | Total |
|---|-------------------------------|------------------|---|--|----------------------|---|------------------|
| Cost | | | | | | | |
| At 1 January 2020 | 2,078 | 130,591 | 646 | 2,025 | 356 | 133,618 | 135,696 |
| Additions | - | 7,985 | - | - | - | 7,985 | 7,985 |
| At 31 December 2020 and 1 January 2021 | 2,078 | 138,576 | 646 | 2,025 | 356 | 141,603 | 143,681 |
| Additions | - | 8,418 | - | - | - | 8,418 | 8,418 |
| At 31 December 2021 | 2,078 | 146,994 | 646 | 2,025 | 356 | 150,021 | 152,099 |
| Amortisation | | | | | | | |
| At 1 January 2020 | (1,139) | (130,591) | (372) | (1,960) | (134) | (133,057) | (134,196) |
| Amortisation for the year | - | (7,065) | (8) | (23) | (14) | (7,110) | (7,110) |
| At 31 December 2020 and 1 January 2021 | (1,139) | (137,656) | (380) | (1,983) | (148) | (140,167) | (141,306) |
| Amortisation for the year | - | (7,727) | (17) | (3) | (18) | (7,765) | (7,765) |
| At 31 December 2021 | (1,139) | (145,383) | (397) | (1,986) | (166) | (147,932) | (149,071) |
| Net book value | | | | | | | |
| At 31 December 2020 | 939 | 920 | 266 | 42 | 208 | 1,436 | 2,375 |
| Deposit for deferred revenue for electricity compensation (see note 15) | | | | | | | 748 |
| Others | | | | | | | 3,860 |
| Total other non-current assets at 31 December 2020 | | | | | | | 6,983 |
| At 31 December 2021 | 939 | 1,611 | 249 | 39 | 190 | 2,089 | 3,028 |
| Deposit for deferred revenue for electricity compensation (see note 15) | | | | | | | 922 |
| Others | | | | | | | 3,693 |
| Total other non-current assets at 31 December 2021 | | | | | | | 7,643 |



15 Accrued/(surplus) revenue from electric energy sales according to automatic tariff adjustment (Ft), deposit for deferred revenue for electricity compensation and deferred revenue for electricity compensation

Accrued/(surplus) revenue from electric energy sales according to automatic tariff adjustment (Ft)

| | Consolidated and separate financial statements | |
|--|---|-----------------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| At 1 January | (3,366) | 1,879 |
| Excess of cost of sales and collected revenue from automatic tariff adjustment (Ft) | 42,309 | 457 |
| Recall due to electricity compensation | - | (264) |
| Revenue remittance from underperformance | - | (9,567) |
| Ft management cost | - | 4,129 |
| At 31 December | <u>38,943</u> | <u>(3,366)</u> |

On 4 and 25 November 2020, the committee of Energy Regulatory Commission of Thailand (“ERC”) granted an approval for accrued revenue from electric sales from automatic tariff (Ft) amounting to Baht 4,129 million which provided EGAT to use for Ft management costs to pledge against the fluctuation of global energy prices that affect to Thailand’s fuel and energy costs, and the amount was recognised as other current liabilities.

Subsequently, at the meeting held on 29 November 2021, the ERC approved to use the Ft management cost to reduce the electricity expense for electricity users through the reduction of the Ft during January - April 2022.

Deposit for deferred revenue for electricity compensation

| | <i>Note</i> | Consolidated and separate financial statements | |
|-----------------------------------|-------------|---|-------------------|
| | | 2021 | 2020 |
| | | <i>(in million Baht)</i> | |
| At 1 January | | 748 | 778 |
| Received electricity compensation | | 174 | 234 |
| Paid electricity compensation | | - | (264) |
| At 31 December | <i>14</i> | <u>922</u> | <u>748</u> |

Deferred revenue for electricity compensation

| | Consolidated and separate financial statements | |
|-----------------------------------|---|-------------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| At 1 January | 791 | 865 |
| Received electricity compensation | 446 | 190 |
| Paid electricity compensation | - | (264) |
| At 31 December | <u>1,237</u> | <u>791</u> |

16 Interest-bearing liabilities

| | Note | Consolidated financial statements | | Separate financial statements | |
|---|------|--------------------------------------|----------------|----------------------------------|---------------|
| | | 2021 | 2020 | 2021 | 2020 |
| <i>(in million Baht)</i> | | | | | |
| Short-term loans | | | | | |
| <i>Domestic unsecured loans</i> | | | | | |
| Loans from financial institutions | | 3,861 | - | - | - |
| <i>Foreign unsecured loans</i> | | | | | |
| Loans from financial institutions in US Dollars | | 1,504 | 60 | - | - |
| Total short-term loans | | 5,365 | 60 | - | - |
| Long-term loans | | | | | |
| <i>Domestic unsecured loans</i> | | | | | |
| Loans from the Ministry of Finance | 5 | 39 | 45 | 39 | 45 |
| Loans from financial institutions | | 17,477 | 13,687 | 8,144 | 10,176 |
| Long-term loan | | 320 | - | - | - |
| EGAT bonds | | 76,617 | 67,665 | 76,617 | 67,665 |
| Debenture | | 9,990 | 9,988 | - | - |
| | | 104,443 | 91,385 | 84,800 | 77,886 |
| <i>Foreign unsecured loans</i> | | | | | |
| Loans from financial institutions in Australian Dollars | | 15,033 | 14,743 | - | - |
| Loans from financial institutions in US Dollars | | 5,050 | - | - | - |
| Debentures in Japanese Yen | | 4,350 | 4,356 | - | - |
| Debentures in US Dollars | | 10,012 | 8,994 | - | - |
| | | 34,445 | 28,093 | - | - |
| Total long-term loans | | 138,888 | 119,478 | 84,800 | 77,886 |
| Less Current portion of long-term loans | | (9,709) | (10,424) | (5,038) | (8,938) |
| Total long-term loans, net | | 129,179 | 109,054 | 79,762 | 68,948 |
| Unsecured loan from infrastructure fund | | | | | |
| Current portion | | 718 | 723 | 718 | 723 |
| Non-current portion | | 16,416 | 17,183 | 16,416 | 17,183 |
| Total | | 17,134 | 17,906 | 17,134 | 17,906 |

At 31 December 2021, the Group had unutilised credit facilities totalling Baht 50,226 million, US Dollars 855 million and Australian Dollars 100 million (2020: Baht 30,414 million, US Dollars 350 million and Australian Dollars 261 million).



Security

At 31 December 2021, EGAT Diamond Service Company Limited, a direct subsidiary, had mortgaged land with all buildings on land and machine totalling Baht 231 million as collateral for credit facilities and letter of guarantees from a financial institution (2020: Baht 233 million).

At 31 December 2021, RATCH-Australia Corporation Pty. Ltd., an indirect subsidiary, had mortgaged land, buildings and power plants and pledged power plant equipment of 5 power plants with a net book value of Australian Dollars 988 million or equivalent to Baht 23,958 million as collateral for long-term loans from financial institutions (2020: Australian Dollars 1,011 million or equivalent to Baht 23,276 million).

At 31 December 2021, RATCH Cogeneration Company Limited, an indirect subsidiary, had mortgaged land with all buildings on land and partial machine as collateral for long-term loans from financial institution.

Issuance of bonds of the Electricity Generating Authority of Thailand (EGAT)

During 2021, EGAT has issued bonds for private offering to institutional investors (Private Placement Institution Investor : PP - II) with unsecured by the Ministry of Finance in 4 sets as follows;

1. EGAT bond B.E. 2564 No.1, amounting to Baht 5,000 million for investment and improvement in the power transmission system projects. The bond has a maturity of 5 years and 9 months with an interest rate of 1.45% per annum, which will pay every 6 months, and mature on 2 March 2027.
2. EGAT bond B.E. 2564 No.2, amounting to Baht 3,000 million for replace matured bonds. The bond has a maturity of 5 years with an interest rate of 1.14% per annum, which will pay every 6 months, and mature on 27 August 2026.
3. EGAT bond B.E. 2564 No.3, amounting to Baht 3,900 million for replace matured bonds. The bond has a maturity of 20 years with an interest rate of 2.99% per annum, which will pay every 6 months, and mature on 27 August 2041.
4. EGAT bond B.E. 2564 No.4, amounting to Baht 4,000 million for investment and improvement in the power transmission system projects. The bond has a maturity of 20 years with an interest rate of 2.99% per annum, which will pay every 6 months, and mature on 27 August 2041.

Signing of Sustainable Loan Agreement

On 30 June 2021, RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary, (as the Borrower) and RATCH Group Public Company Limited, a direct subsidiary, (as the Guarantor) have executed US Dollars 150 million Sustainable Loan Agreement with International Finance Corporation Bank (“IFC”) to fund and/or refinance the capital expenditures incurred or to be incurred to support renewable power projects and/or other green infrastructure projects and/or projects in other non-infrastructure sectors in Thailand, Socialist Republic of Vietnam, Republic of Indonesia and Lao PDR. As at 31 December 2021 RHIS has not yet been drawdown.

Loan from infrastructure funds

On 27 August 2014, the Board of EGAT approved model of infrastructure fund structure for North Bangkok Combined Cycle Power Plant - Block 1 which required EGAT to quarterly remit net revenue (availability of payments (AP1) net insurance premium) of North Bangkok Combined Cycle Power Plant - Block 1 throughout the contractual period, according to the contract between EGAT and such fund. The amount of fund is not less than Baht 19,000 million, and the estimated contractual period is 20 years.

EGAT will record receipt from sale of investment units in amount of Baht 20,855 million (amount of investment units 2,085.50 million at par value of Baht 10 per unit) as liabilities. The remitted net revenue will be paid in respect of the return and repayment of investment until the maturity date of the contract. For the purpose that EGAT appointed the following:

1. Krung Thai Asset Management Public Company Limited (KTAM) as the fund manager
2. Siam Commercial Bank as the financial advisor and underwriter

EGAT hold the investment in amount of Baht 5,214 million (amount of investment units 521 million), representing 25% of the total investment units sold, which is included in financial assets measured at fair value through other comprehensive income as at 31 December 2021 in amount of Baht 6,125 million (2020: included in investment available for sale in amount of Baht 6,204 million). During 2021 and 2020, EGAT received dividend income from the investment amount of Baht 323 and Baht 436 million, respectively.

Lease liabilities from Power Purchase Agreement

| | Consolidated financial statements | | | | | |
|--|-----------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | Current portion | | Non-current portion | | Total | |
| | 31 December 2021 | 31 December 2020 | 31 December 2021 | 31 December 2020 | 31 December 2021 | 31 December 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Lease liabilities from Power Purchase Agreement | 45,812 | 41,343 | 504,280 | 452,211 | 550,092 | 493,554 |
| Less deferred interest expenses | <u>(31,493)</u> | <u>(28,580)</u> | <u>(268,543)</u> | <u>(237,437)</u> | <u>(300,036)</u> | <u>(266,017)</u> |
| Lease liabilities from Power Purchase Agreement, net | <u>14,319</u> | <u>12,763</u> | <u>235,737</u> | <u>214,774</u> | <u>250,056</u> | <u>227,537</u> |

| | Separate financial statements | | | | | |
|--|-------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | Current portion | | Non-current portion | | Total | |
| | 31 December 2021 | 31 December 2020 | 31 December 2021 | 31 December 2020 | 31 December 2021 | 31 December 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Lease liabilities from Power Purchase Agreement | 48,621 | 43,918 | 512,035 | 462,775 | 560,656 | 506,693 |
| Less deferred interest expenses | <u>(31,493)</u> | <u>(28,579)</u> | <u>(268,544)</u> | <u>(237,439)</u> | <u>(300,037)</u> | <u>(266,018)</u> |
| Lease liabilities from Power Purchase Agreement, net | <u>17,128</u> | <u>15,339</u> | <u>243,491</u> | <u>225,336</u> | <u>260,619</u> | <u>240,675</u> |



17 Non-current provisions for employee benefits

| <i>At 31 December</i> | Consolidated financial statements | | Separate financial statements | |
|-------------------------------------|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Retirement benefits | 12,045 | 10,986 | 11,754 | 10,741 |
| Post-retirement medical benefits | 3,895 | 5,798 | 3,895 | 5,798 |
| | 15,940 | 16,784 | 15,649 | 16,539 |

Retirement benefits

The Group operate a defined benefit plan based on the requirement of Thai Labour Protection Act B.E 1998 to provide retirement benefits to employees based on pensionable remuneration and length of service. The defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

| <i>Present value of the defined benefit obligations</i> | Consolidated financial statements | | Separate financial statements | |
|--|--|---------------|--|---------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| At 1 January | 10,986 | 11,983 | 10,741 | 11,767 |
| <i>Recognised in profit or loss and statement of financial position:</i> | | | | |
| Current service cost | 463 | 500 | 440 | 477 |
| Past service cost | - | - | - | - |
| Interest on obligation | 333 | 362 | 329 | 354 |
| Actuarial loss | 26 | - | 26 | - |
| Acquisition through business combination | 46 | - | - | - |
| | 11,854 | 12,845 | 11,536 | 12,598 |
| <i>Recognised in other comprehensive income:</i> | | | | |
| Actuarial (gain) loss | | | | |
| - Demographic assumptions | 15 | - | - | - |
| - Financial assumptions | 1,425 | 31 | 1,459 | - |
| - Experience adjustment | 758 | (1) | 744 | - |
| Effect of movements in exchange rates | 1 | - | - | - |
| | 14,053 | 12,875 | 13,739 | 12,598 |
| Benefit paid | (2,008) | (1,889) | (1,985) | (1,857) |
| At 31 December | 12,045 | 10,986 | 11,754 | 10,741 |

Post-employment medical benefits

EGAT operates a number of post-employment medical benefit schemes where the majority of these plans are unfunded. The method of accounting, significant assumptions and the frequency of valuations are similar to those used for defined benefit pension schemes.

| Present value of the defined benefit obligations | Consolidated and separate financial statements | |
|--|---|--------------|
| | 2021 | 2020 |
| | <i>(in million Baht)</i> | |
| At 1 January | 5,798 | 5,424 |
| Recognised in profit or loss and statement of financial position: | | |
| - Current service cost | 277 | 290 |
| - Interest on obligation | 134 | 138 |
| | 6,209 | 5,852 |
| Recognised in other comprehensive income: | | |
| Actuarial (gain) loss | | |
| - Demographic assumptions | - | - |
| - Financial assumptions | 170 | - |
| - Experience adjustment | (2,434) | - |
| | 3,945 | 5,852 |
| Benefit paid | (50) | (54) |
| At 31 December | 3,895 | 5,798 |

| Principal actuarial assumptions | Consolidated financial statements | | Separate financial statements | |
|--|--|------------|--------------------------------------|--------------|
| | 2021 | 2020 | 2021 | 2020 |
| | (%) | | | |
| Discount rate | | | | |
| - Retirement benefits | 0.51 - 8.0 | 1.69 - 4.5 | 2.2 - 2.82 | 3.11 - 3.23 |
| - Post-employment medical benefits | 2.82 | 3.23 | 2.82 | 3.23 |
| Inflation rate(Consumer Price Index) | 2.75 | 2.75 | 2.75 | 2.75 |
| Future salary growth | 4 to 8 | 4 to 8 | 6 | 5 |
| Medical cost trend rate | 8 | 8 | 8 | 8 |
| Employee turnover | 0 to 11.46 | 0 to 15 | 0.08 to 0.92 | 0.08 to 0.92 |

Assumptions regarding future mortality have been based on published statistics and mortality tables.

At 31 December 2021, the weighted-average duration of the defined benefit obligation of the Group and EGAT were 11 years to 28.70 years and 11 years to 15 years, respectively (2020: 11 years to 24 years and 11 years to 15 years, respectively).



Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant.

| <i>Effect to the defined benefit obligation</i> | Consolidated financial statements | | Separate financial statements | |
|---|--|----------|--------------------------------------|----------|
| | increase | decrease | increase | decrease |
| <i>(in million Baht)</i> | | | | |
| At 31 December 2021 | | | | |
| Retirement benefits | | | | |
| Discount rate (change 1%) | (1,063) | 1,261 | (1,036) | 1,230 |
| Future salary growth (change 1%) | 1,044 | (904) | 1,013 | (878) |
| Employee turnover (change 20%) | (36) | 37 | (30) | 30 |
| Post-employment medical benefits | | | | |
| Discount rate (change 1%) | (368) | 445 | (368) | 445 |
| Medical cost trend rate | 377 | (286) | 377 | (286) |
| Employee turnover (change 20%) | (11) | 11 | (11) | 11 |
| At 31 December 2020 | | | | |
| Retirement benefits | | | | |
| Discount rate (change 1%) | (816) | 946 | (793) | 919 |
| Future salary growth (change 1%) | 1,006 | (884) | 976 | (859) |
| Employee turnover (change 20%) | (33) | 34 | (23) | 24 |
| Post-employment medical benefits | | | | |
| Discount rate (change 1%) | (361) | 431 | (361) | 431 |
| Medical cost trend rate | 443 | (377) | 443 | (377) |
| Employee turnover (change 20%) | (13) | 13 | (13) | 13 |

18 Provision for mine rehabilitation

| | Consolidated/ Separate financial statements | |
|--------------------------------------|--|--------------|
| | 2021 | 2020 |
| <i>(in million Baht)</i> | | |
| At 1 January | 4,087 | 3,927 |
| <u>Add</u> Increase during the year | 163 | 147 |
| Financial cost | 129 | 123 |
| | 4,379 | 4,197 |
| <u>Less</u> Mine rehabilitation cost | (82) | (84) |
| Depreciation | (23) | (26) |
| Provision adjustment | (661) | - |
| At 31 December | 3,613 | 4,087 |

19 Impacts from lease under Power Purchase Agreements to performance

| Consolidated financial statements | | | | | | |
|--|---|-----------------------|-------------------------------|------------------------|---|-----------------------|
| <i>Year ended</i> 31 December | Balance before impacts from finance lease | | Impacts from finance lease | | Balance after impacts from finance lease finance lease | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Cost of fuel | 110,037 | 103,187 | 75,240 | 61,021 | 185,277 | 164,208 |
| Electric energy purchased | 378,313 | 348,306 | (159,403) | (141,949) | 218,910 | 206,357 |
| Operating expenses | 42,780 | 45,031 | 25,563 | 24,417 | 68,343 | 69,448 |
| Total cost of electric energy sales | <u>531,130</u> | <u>496,524</u> | <u>(58,600)</u> | <u>(56,511)</u> | <u>472,530</u> | <u>440,013</u> |
| Gain (loss) on exchange rate | 172 | 20 | (13,409) | 140 | (13,237) | 160 |
| Finance costs | 4,994 | 4,876 | 29,496 | 28,907 | 34,490 | 33,783 |
| Separate financial statements | | | | | | |
| <i>Year ended</i> 31 December | Balance before impacts from finance lease | | Impacts from finance lease | | Balance after impacts from finance lease finance lease | |
| | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | | | |
| Cost of fuel | 83,144 | 78,711 | 101,128 | 84,520 | 184,272 | 163,231 |
| Electric energy purchased | 380,336 | 350,139 | (159,403) | (141,949) | 220,933 | 208,190 |
| Operating expenses | 37,162 | 39,540 | 28,856 | 27,894 | 66,018 | 67,434 |
| Total cost of electric energy sales | <u>500,642</u> | <u>468,390</u> | <u>(29,419)</u> | <u>(29,535)</u> | <u>471,223</u> | <u>438,855</u> |
| Gain (loss) on exchange rate | (52) | (213) | (13,409) | 128 | (13,461) | (85) |
| Finance costs | 3,126 | 3,325 | 31,403 | 31,312 | 34,529 | 34,637 |



20 Revenue and costs from sales of other goods and services

| | Consolidated financial statements | | Separate financial statements | |
|---|-----------------------------------|--------------|-------------------------------|--------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Revenue from telecommunication services | 184 | 185 | 184 | 185 |
| Revenue from operation and maintenance services | 2,869 | 2,591 | 4,089 | 3,342 |
| Others | 778 | 677 | 778 | 331 |
| Total | 3,831 | 3,453 | 5,051 | 3,858 |
| Cost of telecommunication services | 14 | 17 | 14 | 17 |
| Cost operation and maintenance services | 1,682 | 1,765 | 2,752 | 2,238 |
| Others | 615 | 163 | 615 | 163 |
| Total | 2,311 | 1,945 | 3,381 | 2,418 |

EGAT has revenue from telecommunications business, which EGAT has been approved for a Type Three of Telecommunication Business License from the National Telecommunications Commission on 15 March 2007.

EGAT record the cost of telecommunication services with telecommunication service income since 15 March 2007 which is the date EGAT has received approval for a telecommunications business license from the National Telecommunications Commission. The cost of telecommunication services above are not included selling expenses, administrative expenses, and finance costs. Those expense has been shown in each type of expense in the statement of income.

21 Expenses by nature

| | Consolidated financial statements | | Separate financial statements | |
|--------------------------------------|-----------------------------------|----------------|-------------------------------|----------------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Electric energy purchased | 218,910 | 206,357 | 220,933 | 208,190 |
| Fuel and consumables used | 185,780 | 165,161 | 184,839 | 163,920 |
| Depreciation and amortisation | 53,221 | 53,604 | 51,033 | 51,730 |
| Employee expenses | 22,833 | 21,566 | 22,162 | 20,888 |
| Subcontract and maintenance expenses | 5,009 | 5,290 | 3,559 | 3,354 |
| Other expenses | 5,298 | 4,156 | 6,375 | 5,576 |
| Total | 491,051 | 456,134 | 488,901 | 453,658 |

22 Financial instruments

(a) Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

| | Consolidated financial statement | | | | | Fair value | | | |
|------------------------------------|----------------------------------|---|---|---|--------|------------|---------|---------|--------|
| | Carrying amount | | | Financial instruments measured at amortised cost (in million Baht) | Total | Level 1 | Level 2 | Level 3 | Total |
| | Hedging instruments | Financial instruments measured at FVTPL | Financial instruments measured at FVOCI | | | | | | |
| At 31 December | | | | | | | | | |
| 2021 | | | | | | | | | |
| Financial assets | | | | | | | | | |
| Loans to related parties | - | - | - | 656 | 656 | - | - | 656 | 656 |
| Loans to other parties | - | - | - | 2,652 | 2,652 | - | - | 2,652 | 2,652 |
| Other financial assets: | | | | | | | | | |
| Investment in equity instruments | - | - | 3,441 | - | 3,441 | 3,023 | - | 418 | 3,441 |
| Investment in debt instruments | - | 857 | - | 566 | 1,423 | - | 1,441 | - | 1,441 |
| Investment in infrastructure fund | - | - | 6,100 | - | 6,100 | - | 6,100 | - | 6,100 |
| Derivatives assets | - | 1 | - | - | 1 | - | 1 | - | 1 |
| Financial liabilities | | | | | | | | | |
| Loans from the Ministry of Finance | - | - | - | 39 | 39 | - | 41 | - | 41 |
| Loans from financial institutions | - | - | - | 37,560 | 37,560 | - | 37,933 | - | 37,933 |
| EGAT bonds | - | - | - | 76,617 | 76,617 | - | 79,133 | - | 79,133 |
| Long-term loans | - | - | - | 320 | 320 | - | - | 341 | 341 |
| Debentures | - | - | - | 24,352 | 24,352 | - | 26,802 | - | 26,802 |



| | | Consolidated financial statement | | | | | | | |
|-----------------------|---|---|---|--|------------|---------|---------|---------|-------|
| | | Carrying amount | | | Fair value | | | | |
| | | Financial instruments measured at FVTPL | Financial instruments measured at FVOCI | Financial instruments measured at amortised cost | Total | Level 1 | Level 2 | Level 3 | Total |
| At 31 December | | | | | | | | | |
| 2021 | | | | | | | | | |
| | Other financial liabilities: | | | | | | | | |
| | Interest rate swaps used for hedging | 667 | - | - | 667 | - | 667 | - | 667 |
| | Forward exchange contracts used for hedging | 2 | - | - | 2 | - | 2 | - | 2 |
| | Other derivatives liabilities | - | 138 | - | 138 | - | 138 | - | 138 |
| 2020 | | | | | | | | | |
| | Financial assets | | | | | | | | |
| | Loans to related parties | - | - | 523 | 523 | - | - | 523 | 523 |
| | Loans to other parties | - | - | 2,385 | 2,385 | - | - | 2,385 | 2,385 |
| | Other financial assets: | | | | | | | | |
| | Investment in equity instruments | - | 1,471 | - | 1,471 | 1,286 | - | 185 | 1,471 |
| | Investment in debt instruments | - | 843 | 2,565 | 3,408 | - | 3,424 | - | 3,424 |
| | Investment in infrastructure fund | - | 6,204 | - | 6,204 | - | 6,204 | - | 6,204 |
| | Derivatives assets | 6 | - | - | 6 | - | 6 | - | 6 |

| | Carrying amount | | | | Consolidated financial statement | | | | Fair value | | | | |
|--------------------------------------|---------------------|---|---|--|----------------------------------|---------|---------|---------|------------|---------|---------|---------|--------|
| | Hedging instruments | Financial instruments measured at FVTPL | Financial instruments measured at FVOCI | Financial instruments measured at amortised cost | Total | Level 1 | Level 2 | Level 3 | Total | Level 1 | Level 2 | Level 3 | Total |
| At 31 December | | | | | | | | | | | | | |
| 2020 | | | | | | | | | | | | | |
| Financial liabilities | | | | | | | | | | | | | |
| Loans from the Ministry of Finance | - | - | - | 45 | 45 | - | 49 | - | 49 | - | - | - | 49 |
| Loans from financial institutions | - | - | - | 28,430 | 28,430 | - | 29,011 | - | 29,011 | - | - | - | 29,011 |
| EGAT bonds | - | - | - | 67,665 | 67,665 | - | 73,912 | - | 73,912 | - | - | - | 73,912 |
| Debentures | - | - | - | 23,338 | 23,338 | - | 27,739 | - | 27,739 | - | - | - | 27,739 |
| Other financial liabilities: | | | | | | | | | | | | | |
| Interest rate swaps used for hedging | 1,008 | - | - | - | 1,008 | - | 1,008 | - | 1,008 | - | - | - | 1,008 |
| Other derivatives liabilities | - | 270 | - | - | 270 | - | 270 | - | 270 | - | - | - | 270 |



| | Separate financial statement | | | | | Total | Fair value | | | Total |
|------------------------------------|------------------------------|---|---|---|---------|--|------------|---------|---------|---------|
| | Carrying amount | | | Financial instruments measured at amortised cost (in million Baht) | Level 1 | | Level 2 | Level 3 | | |
| <i>At 31 December</i> | Hedging instruments | Financial instruments measured at FVTPL | Financial instruments measured at FVOCI | | | Financial instruments measured at amortised cost | | | Level 1 | Level 2 |
| 2021 | | | | | | | | | | |
| Financial assets | | | | | | | | | | |
| Other financial assets: | | | | | | | | | | |
| Investment in equity instruments | - | - | 25 | - | - | - | - | 25 | 25 | |
| Investment in infrastructure fund | - | - | 6,100 | - | - | - | 6,100 | - | 6,100 | |
| Financial liabilities | | | | | | | | | | |
| Loans from the Ministry of Finance | - | - | - | 39 | - | - | 41 | - | 41 | |
| Loans from financial institutions | - | - | - | 8,144 | - | - | 8,480 | - | 8,480 | |
| EGAT bonds | - | - | - | 76,617 | - | - | 79,133 | - | 79,133 | |

| | Separate financial statement | | | | Fair value | | | | |
|------------------------------------|------------------------------|---|---|--|------------|---------|---------|---------|--------|
| | Carrying amount | | Financial instruments measured at amortised cost (in million Baht) | | Level 1 | Level 2 | Level 3 | Total | |
| <i>At 31 December</i> | Hedging instruments | Financial instruments measured at FVTPL | Financial instruments measured at FVOCI | Financial instruments measured at amortised cost | Total | Level 1 | Level 2 | Level 3 | Total |
| 2020 | | | | | | | | | |
| Financial assets | | | | | | | | | |
| Other financial assets: | | | | | | | | | |
| Investment in infrastructure fund | - | - | 6,204 | - | 6,204 | - | 6,204 | - | 6,204 |
| Financial liabilities | | | | | | | | | |
| Loans from the Ministry of Finance | - | - | - | 45 | 45 | - | 49 | - | 49 |
| Loans from financial institutions | - | - | - | 10,176 | 10,176 | - | 10,757 | - | 10,757 |
| EGAT bonds | - | - | - | 67,665 | 67,665 | - | 73,912 | - | 73,912 |



The following tables present valuation technique of financial instruments measured at fair value in the statements of financial position:

| Type | Valuation technique |
|---|--|
| Corporate debt securities | <i>Market price comparison technique/discounted cash flow:</i> The fair value is estimated considering (i) current or recent quoted prices for identical securities in markets that are not active and (ii) a net present value calculated using discount rates derived from quoted prices of securities with similar maturity and credit rating that are traded in active markets, adjusted by an illiquidity factor. |
| Investments in marketable unit trusts classified as financial assets measured at FVTPL or FVOCI | The net asset value as of the reporting date. |
| Forward exchange contracts | <i>Forward pricing:</i> The fair value is determined using quoted forward exchange rates at the reporting date and present value calculations based on high credit quality yield curves in the respective currencies. |
| Interest rate swap contracts | <i>Swap model:</i> The present value of estimated future cash flows, using an observable yield curve. |
| Cross currency swap contracts | <i>Black-Scholes model/ discounted cash flows</i> |
| Debt securities and other financial liabilities | Discounted cash flows |

(b) *Financial risk management policies*

Risk management framework

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

(b.1) *Credit risk*

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers and investments in debt securities.

(b.1.1) Trade receivables

The management has established a credit policy to control the credit risk on a regular basis by analysing the financial status of every customers who requested a certain amount of credit. As of the reporting date, there were no significant credit risk exposure. The maximum credit risk is stated in the book value of each financial asset in the statement of financial position. However, as the major customers of the Group are government agencies, state of enterprises and large corporations with low credit risk. Management does not expect any material losses incurred from debt collection.

The Group limits its exposure to credit risk from trade accounts receivables by establishing a maximum payment period of 1 months. Outstanding trade receivables are regularly monitored by the Group. An impairment analysis is performed by the Group at each reporting date. The provision rates of expected credit loss are based on days past due for individual trade receivables to reflect differences between economic conditions in the past, current conditions and the Group's view of economic conditions over the expected lives of the receivables.

Information relevant to trade receivables are disclosed in note 7.

(b.1.2) Investment in debt securities, loans to and lease receivable

The Group limits its exposure to credit risk by investing only in liquid debt securities and only with counterparties that have consider a credit rating by international credit rating institutions.

The Group monitors changes in credit risk by tracking published external credit ratings. To determine whether published ratings remain up to date and to assess whether there has been a significant increase in credit risk at the reporting date that has not been reflected in published ratings.

The following table presents the exposure to credit risk and expected credit losses.

| Consolidated financial statements | | | | |
|--|---------------|--|--------------------------------------|---------------|
| <i>At 31 December</i> | 12-months ECL | Lifetime ECL- not credit - impaired | Lifetime ECL credit - impaired | Total |
| | | <i>(in million Baht)</i> | | |
| 2021 | | | | |
| Debt instruments measured at amortised cost | 563 | - | - | 563 |
| Loans to | 3,377 | - | - | 3,377 |
| Lease receivable | 17,687 | - | - | 17,687 |
| | 21,627 | - | - | 21,627 |
| Less allowance for expected credit loss | (159) | - | - | (159) |
| Net | 21,468 | - | - | 21,468 |



| Consolidated financial statements | | | | |
|--|---------------|--|--------------------------------------|--------------|
| | | Lifetime ECL- not credit - impaired | Lifetime ECL credit - impaired | Total |
| <i>At 31 December</i> | 12-months ECL | <i>(in million Baht)</i> | | |
| 2020 | | | | |
| Debt instruments measured at amortised cost | 2,566 | - | - | 2,566 |
| Loans to | 2,942 | - | - | 2,942 |
| | 5,508 | - | - | 5,508 |
| Less allowance for expected credit loss | (35) | - | - | (35) |
| Net | 5,473 | - | - | 5,473 |

| Consolidated financial statements | | | | |
|---|------------------|---|--------------------------------------|------------|
| | | Lifetime ECL- not credit- impaired | Lifetime ECL- credit- impaired | Total |
| <i>Movement of allowance for expected credit loss</i> | 12-months ECL | <i>(in million Baht)</i> | | |
| 2021 | | | | |
| At 1 January | 35 | - | - | 35 |
| Net remeasurement of loss allowance | (6) | - | - | (6) |
| Financial assets repaid | (1) | - | - | (1) |
| New financial assets acquired | 1 | - | - | 1 |
| New financial assets through business combination | 130 | - | - | 130 |
| At 31 December | 159 | - | - | 159 |
| 2020 | | | | |
| At 1 January | 15 | - | - | 15 |
| Net remeasurement of loss allowance | 3 | - | - | 3 |
| New financial assets acquired | 17 | - | - | 17 |
| At 31 December | 35 | - | - | 35 |

(b.1.3) Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are banks and financial institutions which the Group considers to have low credit risk.

(b.1.4) Guarantees

The Group's policy is to provide financial guarantees only for subsidiaries' liabilities. At 31 December 2021, the Group has issued a guarantee to certain banks in respect of credit facilities granted to subsidiaries (see note 5, 24).

(b.2) Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

| <i>At 31 December</i> | Carrying amount | Consolidated financial statements | | | | Total |
|--|-----------------|-----------------------------------|---|-------------------|--|----------------|
| | | Contractual cash flows | | | | |
| | | 1 year or less | More than 1 years but less than 5 years <i>(in million Baht)</i> | More than 5 years | | |
| 2021 | | | | | | |
| <i>Non-derivative financial liabilities</i> | | | | | | |
| Short-term loans from financial institutions | 5,365 | 5,365 | - | - | | 5,365 |
| Trade accounts payable | 91,313 | 91,313 | - | - | | 91,313 |
| Other payables | 16,149 | 16,149 | - | - | | 16,149 |
| Loans from the Ministry of Finance | 39 | 8 | 31 | 6 | | 45 |
| Long-term loans from financial institutions | 37,560 | 5,938 | 30,393 | 4,570 | | 40,901 |
| Loans from other parties | 320 | 11 | 45 | 330 | | 386 |
| EGAT bonds | 76,617 | 5,479 | 29,840 | 65,611 | | 100,930 |
| Debentures | 24,352 | 2,231 | 3,213 | 24,446 | | 29,890 |
| Loan from infrastructure fund | 17,134 | 1,750 | 7,511 | 16,271 | | 25,532 |
| Lease liabilities from Power Purchase Agreement | 250,056 | 45,812 | 165,283 | 338,997 | | 550,092 |
| Other lease liabilities | 2,559 | 531 | 1,067 | 2,724 | | 4,322 |
| | 521,464 | 174,587 | 237,383 | 452,955 | | 864,925 |
| <i>Derivative financial liabilities</i> | | | | | | |
| Cross currency swap contract | 138 | - | 138 | - | | 138 |
| Forward exchange contracts | 2 | 2 | - | - | | 2 |
| Interest rate swaps used for hedging | 667 | 173 | 295 | 199 | | 667 |
| | 807 | 175 | 433 | 199 | | 807 |



| Consolidated financial statements | | | | | |
|--|-----------------------|-----------------------|---|-----------------------|-----------------------|
| Contractual cash flows | | | | | |
| <i>At 31 December</i> | Carrying amount | 1 year or less | More than 1 years but less than 5 years <i>(in million Baht)</i> | More than 5 years | Carrying amount |
| 2020 | | | | | |
| <i>Non-derivative financial liabilities</i> | | | | | |
| Short-term loans from financial institutions | 60 | 60 | - | - | 60 |
| Trade accounts payable | 62,582 | 62,582 | - | - | 62,582 |
| Other payables | 9,460 | 9,460 | - | - | 9,460 |
| Loans from the Ministry of Finance | 45 | 8 | 31 | 14 | 53 |
| Long-term loans from financial institutions | 28,430 | 3,875 | 23,724 | 3,433 | 31,032 |
| EGAT bonds | 67,665 | 9,346 | 27,245 | 52,506 | 89,097 |
| Debentures | 23,338 | 261 | 5,269 | 23,832 | 29,362 |
| Loan from infrastructure fund | 17,906 | 1,797 | 7,440 | 18,105 | 27,342 |
| Lease liabilities from Power Purchase Agreement | 227,537 | 41,343 | 147,616 | 304,595 | 493,554 |
| Other lease liabilities | 2,205 | 499 | 820 | 2,564 | 3,883 |
| | <u>439,228</u> | <u>129,231</u> | <u>212,145</u> | <u>405,049</u> | <u>746,425</u> |
| <i>Derivative financial liabilities</i> | | | | | |
| Interest rate swaps | 24 | 24 | - | - | 24 |
| Cross currency swap contract | 242 | - | - | 242 | 242 |
| Forward exchange contracts | 4 | 4 | - | - | 4 |
| Interest rate swaps used for hedging | 1,008 | 198 | 299 | 511 | 1,008 |
| | <u>1,278</u> | <u>226</u> | <u>299</u> | <u>753</u> | <u>1,278</u> |

| <i>At 31 December</i> | Carrying amount | Separate financial statements Contractual cash flows | | | Carrying amount |
|--|-----------------|---|---|-------------------|-----------------|
| | | 1 year or less | More than 1 years but less than 5 years <i>(in million Baht)</i> | More than 5 years | |
| 2021 | | | | | |
| <i>Non-derivative financial liabilities</i> | | | | | |
| Trade accounts payable | 92,569 | 92,569 | - | - | 92,569 |
| Other payables | 12,330 | 12,330 | - | - | 12,330 |
| Loans from the Ministry of Finance | 39 | 8 | 31 | 6 | 45 |
| Long-term loans from financial institutions | 8,144 | 2,255 | 6,170 | 305 | 8,730 |
| EGAT bonds | 76,617 | 5,479 | 29,840 | 65,611 | 100,930 |
| Loan from infrastructure fund | 17,134 | 1,750 | 7,511 | 16,271 | 25,532 |
| Lease liabilities from Power Purchase Agreement | 260,619 | 48,621 | 172,050 | 339,985 | 560,656 |
| Other lease liabilities | 884 | 361 | 557 | 5 | 923 |
| | 468,336 | 163,373 | 216,159 | 422,183 | 801,715 |
| 2020 | | | | | |
| <i>Non-derivative financial liabilities</i> | | | | | |
| Trade accounts payable | 63,928 | 63,928 | - | - | 63,928 |
| Other payables | 8,491 | 8,491 | - | - | 8,491 |
| Loans from the Ministry of Finance | 45 | 8 | 31 | 14 | 53 |
| Long-term loans from financial institutions | 10,176 | 2,313 | 7,800 | 930 | 11,043 |
| EGAT bonds | 67,665 | 9,346 | 27,245 | 52,506 | 89,097 |
| Loan from infrastructure fund | 17,906 | 1,797 | 7,440 | 18,105 | 27,342 |
| Lease liabilities from Power Purchase Agreement | 240,675 | 43,918 | 155,600 | 307,175 | 506,693 |
| Other lease liabilities | 719 | 375 | 387 | 6 | 768 |
| | 409,605 | 130,176 | 198,503 | 378,736 | 707,415 |



(b.3) Market risk

The Group is exposed to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is as follows:

(b.3.1) Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases and sales which are denominated in foreign currencies. The Group primarily utilizes forward exchange contracts with maturities of less than one year to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and EGAT were exposed to foreign currency risk in respect of significant financial assets and liabilities denominated in the foreign currencies as follows:

| <i>Exposure to foreign currency At 31 December</i> | Consolidated financial statements | | | | |
|--|--|----------------|------------------------------|--------------|------------------|
| | United States Dollars | Japanese Yen | Lao Kip (in million Baht) | Others | Total |
| 2021 | | | | | |
| Cash and cash equivalents | 6,165 | 16 | - | 42 | 6,223 |
| Financial assets measured at amortised cost | 4,300 | - | - | - | 4,300 |
| Trade accounts receivable | 10 | - | - | - | 10 |
| Other receivables | 1,055 | 6 | - | 101 | 1,162 |
| Financial assets measured at fair value through other comprehensive income | - | - | 1,209 | - | 1,209 |
| Long-term loans to related parties | 600 | - | - | - | 600 |
| Deferred development cost | 77 | - | - | 508 | 585 |
| Trade accounts payable | (6,003) | (7) | - | (17) | (6,027) |
| Other payables | (2,832) | (380) | (5) | (509) | (3,726) |
| Current portion of lease liabilities from Power Purchase Agreement | (8,043) | (30) | - | - | (8,073) |
| Long-term loans | - | (4,352) | - | - | (4,352) |
| Lease liabilities from Power Purchase Agreement | (123,302) | (43) | - | - | (123,345) |
| Other non-current payables from related parties | (3,185) | - | - | - | (3,185) |
| Other non-current liabilities (retention) | (1,445) | (685) | - | (699) | (2,829) |
| Net statement of financial position exposure | (132,603) | (5,475) | 1,204 | (574) | (137,448) |
| Estimated forecast purchases | | | | | (4) |
| Gross exposure | | | | | (137,452) |
| Forward exchange contracts | | | | | 169 |
| Cross currency swap contracts | | | | | 4,356 |
| Net exposure | | | | | (132,927) |

| <i>Exposure to foreign currency At 31 December</i> | United States Dollars | Consolidated financial statements | | | |
|--|-----------------------------|--|-------------------------------------|--------------|------------------|
| | | Japanese Yen | Lao Kip <i>(in million Baht)</i> | Others | Total |
| 2020 | | | | | |
| Cash and cash equivalents | 1,230 | 29 | - | 15 | 1,274 |
| Financial assets measured at amortised cost | 4,158 | - | - | - | 4,158 |
| Trade accounts receivable | 8 | - | - | - | 8 |
| Other receivables | 132 | - | - | 240 | 372 |
| Financial assets measured at fair value through other comprehensive income | - | - | 1,286 | - | 1,286 |
| Long-term loans to related parties | 539 | - | - | - | 539 |
| Deferred development cost | 42 | - | - | 440 | 482 |
| Trade accounts payable | (1,930) | (15) | - | (18) | (1,963) |
| Other payables | (355) | (69) | (5) | (229) | (658) |
| Current portion of lease liabilities from Power Purchase Agreement | (7,158) | (29) | - | - | (7,187) |
| Long-term loans | - | (4,357) | - | - | (4,357) |
| Lease liabilities from Power Purchase Agreement | (113,938) | (72) | - | - | (114,010) |
| Other non-current payables from related parties | (4,878) | - | - | - | (4,878) |
| Other non-current liabilities (retention) | (1,831) | (1,358) | - | (1,078) | (4,267) |
| Net statement of financial position exposure | (123,981) | (5,871) | 1,281 | (630) | (129,201) |
| Estimated forecast purchases | | | | | (2) |
| Gross exposure | | | | | (129,203) |
| Forward exchange contracts | | | | | 51 |
| Cross currency swap contracts | | | | | 4,361 |
| Net exposure | | | | | (124,791) |

| <i>Exposure to foreign currency At 31 December</i> | United States Dollars | Separate financial statements | | | |
|--|-----------------------------|--------------------------------------|--------------|----------------|------------------|
| | | Japanese Yen | Others | Total | |
| 2021 | | | | | |
| Cash and cash equivalents | | 5,496 | 16 | 42 | 5,554 |
| Trade accounts receivable | | 10 | - | - | 10 |
| Other receivables | | 104 | - | 101 | 205 |
| Trade accounts payable | | (6,003) | (6) | (17) | (6,026) |
| Other payables | | (515) | (13) | (471) | (999) |
| Current portion of lease liabilities from Power Purchase Agreement | | (8,043) | (30) | - | (8,073) |
| Lease liabilities from Power Purchase Agreement | | (123,302) | (43) | - | (123,345) |
| Other non-current liabilities (retention) | | (1,445) | (685) | (670) | (2,800) |
| Net statement of financial position exposure | | (133,698) | (761) | (1,015) | (135,474) |



| <i>Exposure to foreign currency</i> <i>At 31 December</i> | Separate financial statements | | | |
|--|--------------------------------------|--|-----------------------|-------------------------|
| | United States Dollars | Japanese Yen <i>(in million Baht)</i> | Others | Total |
| 2020 | | | | |
| Cash and cash equivalents | 1,173 | 29 | 15 | 1,217 |
| Trade accounts receivable | 8 | - | - | 8 |
| Other receivables | 132 | - | 240 | 372 |
| Trade accounts payable | (1,930) | (15) | (17) | (1,962) |
| Other payables | (118) | (28) | (192) | (338) |
| Current portion of lease liabilities from Power Purchase Agreement | (7,158) | (29) | - | (7,187) |
| Lease liabilities from Power Purchase Agreement | (113,938) | (72) | - | (114,010) |
| Other non-current liabilities (retention) | (1,831) | (1,358) | (1,078) | (4,267) |
| Net statement of financial position exposure | <u>(123,662)</u> | <u>(1,473)</u> | <u>(1,032)</u> | <u>(126,167)</u> |

(b.3.2) Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because debt securities and loan interest rates are mainly fixed. The Group is primarily exposed to interest rate risk from its borrowings. The Group mitigates this risk by ensuring that the majority of its debt securities and borrowings are at fixed interest rates and uses derivatives, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific debt securities and borrowings.

| <i>Exposure to interest rate risk</i> <i>At 31 December</i> | Consolidated financial statements | | Separate financial statements | |
|--|--|------------------------|--------------------------------------|------|
| | 2021 | 2020 | 2021 | 2020 |
| | <i>(in million Baht)</i> | | | |
| Financial instruments with variable interest rates | | | | |
| Financial assets | 4,103 | 3,750 | - | - |
| Financial liabilities | (23,879) | (18,254) | - | - |
| Net statement of financial position exposure | (19,776) | (14,504) | - | - |
| Interest rate swaps | 16,476 | (1,032) | - | - |
| Net exposure | <u>(3,300)</u> | <u>(15,536)</u> | - | - |

Forward exchange contracts

At 31 December 2021, the Group entered into various forward exchange contracts with financial institutions to manage exposure of fluctuations in foreign currency risk relate to purchases. The Group had outstanding foreign currency forward contracts to buy US Dollars 3 million with Baht 105 million, Swedish Krona 17 million with Baht 64 million. The contracts will mature during January 2022 (2020: buy US Dollars 2 million with Baht 51 million).

Interest rate swap and cross currency swap contracts

The Group entered into various interest rate swap and cross currency swap contracts with financial institutions to manage exposure of fluctuations in interest rates and foreign currency risk on borrowings. The notional amounts of the outstanding interest rate swap and cross currency swap contracts as at 31 December 2021 comprises Baht currency totalling Baht 1,421 million, Japanese Yen currency totalling Japanese Yen 15,000 million and Australian Dollars currency totalling Australian Dollars 445 million and USD currency totalling US Dollars 157 million. All counterparties agreed to pay the interest and the principal amount in accordance with the terms and conditions specified in the contracts (2020: Baht currency totalling Baht 2,823 million, Japanese Yen currency totalling Japanese Yen 15,000 million and Australian Dollars currency totalling Australian Dollars 490 million).

23 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for owners and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

24 Commitments with non-related parties

The Group's commitments

Letters of guarantee

At 31 December 2021, subsidiaries and joint ventures had commitments from letters of guarantee issued by financial institutions to comply with certain conditions in agreements in normal course of business in the amount of Baht 1,479 million, US Dollars 10 million and Australian Dollars 5 million, totalling Baht 1,946 million (2020: Baht 1,053 million, US Dollars 12 million and Australian Dollars 22 million, totalling Baht 1,927 million).

Standby Letters of Credit

At 31 December 2021, subsidiaries had commitments from Standby Letters of Credit issued by financial institutions for Debt Service Reserve Guarantees and pledged for increase in share capital of joint ventures in the amount of Baht 1,600 million, US Dollars 25 million and Japanese Yen 18 million, totalling Baht 2,948 million (2020: Baht 1,600 million, US Dollars 25 million and Australian Dollars 30 million, totalling Baht 3,046 million).

A subsidiary had pledged collateral for the loan creditor of a joint venture. This is in accordance with the conditions in the Shareholder Support and Subordination Deed (SSSD) and Account Agreement (AA). As at 31 December 2021, it had outstanding balance of Baht 143 million and US Dollars 12 million, totalling Baht 548 million (2020: US Dollars 12 million and Baht 162 million, totalling Baht 525 million).

Unused of credit facilities

At 31 December 2021, the subsidiaries had unused of credit facilities totalling Baht 4,828 million, US Dollars 1,303 million (2020: Baht 7,232 million, US Dollars 1,066 million, Australian Dollars 210 million and Euros 182 million).



Consulting Service Agreement

At 31 December 2021, a subsidiary had commitments under consulting contracts amount to Baht 88 million and US Dollars 2 million (2020: Baht 88 million).

Operation and Maintenance Agreement

At 31 December 2021, a subsidiary had an Operation and Maintenance Agreement with a service provider for a period of 19 years from the date specified in the agreement. Under the terms of the agreement, such service provider will operate and provide maintenance services to the subsidiary. The operation and maintenance service fee is stipulated in the agreement.

Fuel Purchase Agreements

At 31 December 2021, a subsidiary had Fuel Purchase Agreement with Esso (Thailand) Public Company Limited to reserve the Fuel oil and generate electric of Ratchaburi power plant.

At 31 December 2021, a subsidiary had the agreement with that private entity, which purchase fuel as the price and terms of the agreement. This amended the term of the agreement to 10 years, ending in June 2030, with automatic renewal every 5 years throughout the term of the electricity sales agreements with the Electricity Generating Authority of Thailand (EGAT).

Contractual Service Agreement

At 31 December 2021, a subsidiary had Contractual Service Agreement for Combined Cycle power plants through a Consortium with General Electric International Operations Company Inc. and GE Energy Parts, Inc. amounting US Dollar 76 million. The agreement was effective from the agreement date until the end of the gas turbine operation in 2027 according to the Power Purchase Agreement (2020: US Dollar 97 million).

In addition, in accordance with the agreement, the subsidiary was required to open a letter of credit amounting US Dollar 6 million. As at 31 December 2021, the subsidiary had an outstanding unused letter of credit amounting US Dollar 6 million (2020: US Dollar 6 million).

At 31 December 2021, a subsidiary had outstanding Contractual Service Agreement with a service provider for a period of 15 years from the date specified in the agreement amounting to US Dollars 15 million (2020: US Dollars 19 million).

Electricity and Steam Sales Agreements

At 31 December 2021, two subsidiaries entered into a sales and purchase of electricity agreement with the Provincial Electricity Authority (PEA) as a Feed-in Tariff (FiT), the agreement expiring in October 2027 and March 2029, respectively.

At 31 December 2021, a subsidiary entered into an agreement with Thai President Foods Public Company Limited to sell steam in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 10 years, starting from April 2011, and will renew every year until termination.

At 31 December 2021, a subsidiary entered into agreements with a company to sell electricity and steam in a specified quantity and at a stipulated price as defined in the agreements. The agreement is for a period of 37 years after April 2014.

Maintenance and repair gas turbine engines Agreement

At 31 December 2021, a subsidiary entered into a long-term service agreement with an overseas company for the maintenance and repair the gas turbine engines, whereby the service charges are as stipulated in the agreement. The agreement terminates on 31 December 2023.

Service agreement related to delivery of electricity generated from solar power

At 31 December 2021, a subsidiary entered into a service agreement to deliver electricity generated from solar power with a company, whereby the subsidiary is to deliver electricity generated from solar energy to the electricity delivery points. The agreement is for a period of 17 years, starting from March 2020, and can be renewed annually until termination.

Biomass Fuel Purchase Agreement

At 31 December 2021, a subsidiary entered into a biomass fuel purchase agreement with a company to purchase specified quantities at stipulated prices defined in the agreement. The agreement is effective from 21 August 2010 until termination.

Operation and Maintenance Agreement

At 31 December 2021, a subsidiary entered into an agreement with a company to receive management and assistance services for the operation and maintenance of the power plant, which the subsidiary is committed to pay for at prices as determined in the agreement. The agreement will be expired on 31 December 2023.

Capital commitment

At 31 December 2021, a subsidiary had outstanding capital commitments under expansion power plant construction agreement (Engineering Procurement & Construction Contracts 31.2 MW) and other construction and service agreements amounting to Baht 464 million, US Dollars 3 million and Japanese Yen 2,845 million.

At 31 December 2021, a subsidiary had outstanding capital commitments under Engineering Procurement & Construction Contracts for Wind Farm and other service agreements amounting to Australian Dollars 1 million (2020: Australian Dollars 27 million).

At 31 December 2021, a subsidiary had outstanding capital commitments under the acquisition of equipment and maintenance cogeneration power plant and the acquisition of equipment and construction of building amounting to Baht 765 million, US Dollars 28 million and Swedish Krona 154 million.

Pledge of share certificate agreements

Subsidiaries and joint ventures had pledged share certificates of subsidiaries, associates and joint ventures as collateral for loans creditors of the subsidiaries, associates and joint ventures.



Signing of Sustainable Loan Agreement

On 30 June 2021, a subsidiary had executed US Dollars 150 million Sustainable Loan Agreement with International Finance Corporation Bank (“IFC”) to fund and/or refinance the capital expenditures incurred or to be incurred to support renewable power projects and/or other green infrastructure projects and/or projects in other infrastructure sectors in Thailand, Socialist Republic of Vietnam, Republic of Indonesia and Lao PDR.

EGAT’s commitments

At 31 December 2021, EGAT had commitments under Long-term Power Purchase Agreements from Thermal Power Plant and Combined Cycle Power Plant with electricity generators amounting to Baht 3,827,374 million (2020: 3,807,944 million baht).

At 31 December 2021, EGAT had commitments under Purchase Agreements amounting to Baht 61,854 million (2020: 70,270 million baht).

At 31 December 2021, EGAT had a total outstanding balance of Letter of Credit at approximately Baht 1,592 million (2020: 3,457 million baht).

25 Other matters

Approval of the Purchase of Agreement in respect of Investment in Thermal Power Plant in the Republic of Indonesia

At the Extraordinary Meeting of the Shareholders of RATCH Group Public Company Limited (“RATCH”), a direct subsidiary, held on 21 October 2021, the shareholders approved RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary, to enter into transaction of purchase of ordinary shares of PT Paiton Energy and Minejesa Capital B.V. of 45.52% and purchase of ordinary shares of IPM Asia Pte. Ltd. of 65% and approved RATCH and/or RHIS to allocate the proportion of investment at the share transferring date in accordance with the condition of the share purchase agreement.

26 Events after the reporting period

Issuance of bonds of the Electricity Generating Authority of Thailand (EGAT)

On 1 March 2022, EGAT had issued bonds for private offering to institutional investors in a Private placement (Private Placement Institution Investor : PP - II) with unsecured by the Ministry of Finance through the underwriter of 3 sets for investing in the transmission system development project as follows:

1. EGAT Bond B.E.2565 No. 1, amounting to Baht 2,100 million, for 10 years with an interest rate of 2.94% per annum.
2. EGAT Bond B.E.2565 No. 2, amounting to of Baht 2,100 million, for 12 years with an interest rate of 3.19% per annum.
3. EGAT Bond B.E.2565 No. 3, amounting to of Baht 4,500 million, for 20 years with an interest rate of 3.72% per annum.

Financing for Term Loan to enhance financial liquidity in 2022 - 2024

On 8 March 2022, the Cabinet approved the Electricity Generating Authority of Thailand (EGAT) to financing for enhancing the financial liquidity in 2022 - 2024 under the credit limit of Baht 25,000 million by financing in the form of Term Loan maturity period not over 3 years with unsecured by the Ministry of Finance.

Approval of the dividend payment for the year 2021

At the Board of Directors' meeting of RATCH Group Public Company Limited (“RATCH”) held on 2 March 2022, the Board of Directors passed a resolution to propose to the Annual General Meeting of Shareholders to approve the payment of dividends for the year 2021 at the rate of Baht 2.50 per share, totalling Baht 3,625 million, which RATCH already paid the interim dividends at the rate of Baht 1.15 per share. The remaining dividend will be paid at Baht 1.35 per share, totalling Baht 1,958 million to the shareholders who have right to receive. However, the dividend payment is subject to the approval of the shareholders at the Annual General Meeting of Shareholders on 27 April 2022.

Capital increase and issuing and offering new ordinary shares in proportion to the shareholding of existing shareholders

At the Board of Directors' meeting of RATCH Group Public Company Limited (“RATCH”) held on 2 March 2022, the Board of Directors passed a resolution to propose the shareholders at the 2022 Annual General Meeting of the Shareholders on 27 April 2022 to consider and approve the increase of the registered capital of RATCH from Baht 14,500 million to Baht 22,192 million by issuing new ordinary shares in the amount of 769 million shares at par value of Baht 10 each, totalling Baht 7,692 million for issuing and offering the shares in proportion to the shareholding of existing shareholders, exclude shareholders whose holding would subject the Company to obligations under the law of other jurisdictions and consider to approve the allocation of new ordinary shares. The date to determine the name of shareholders who are entitled to the offering of new ordinary shares will be on 9 May 2022.

Investment in Hin Kong Power Company Limited

On 14 February 2022, RATCH Group Public Company Limited (“RATCH”), a subsidiary, has entered into Share Purchase Agreement to purchase ordinary shares transaction of Hin Kong Power Company Limited (“HKP”) from Hin Kong Power Holding Company Limited (“HKH”), an existing shareholder, for jointly operating in Combined-cycle Power Plant Hin Kong Project in Ratchaburi. RATCH already paid for share capital totalling Baht 464 million, in investment proportion of 51% (Fully paid 0.20 million shares at the par value of Baht 10 and paid-up of 25%, in the total amount of 185 million shares) which resulted in HKP becoming an indirect joint venture of the Group.

After the transaction was completed, the shareholding structure in HKP will be RATCH with 51% and Gulf Energy Development Public Company Limited with 49%.

Combined-cycle Power Plant Hin Kong Project in Ratchaburi are 2 power plants with total contracted capacity of 1,400 Megawatts which is scheduled for commercial operation in 2024 and 2025 respectively.



27 Reclassification

Certain accounts in the 2020 financial statements have been reclassified to conform to the presentation in the 2021 financial statements as follow:

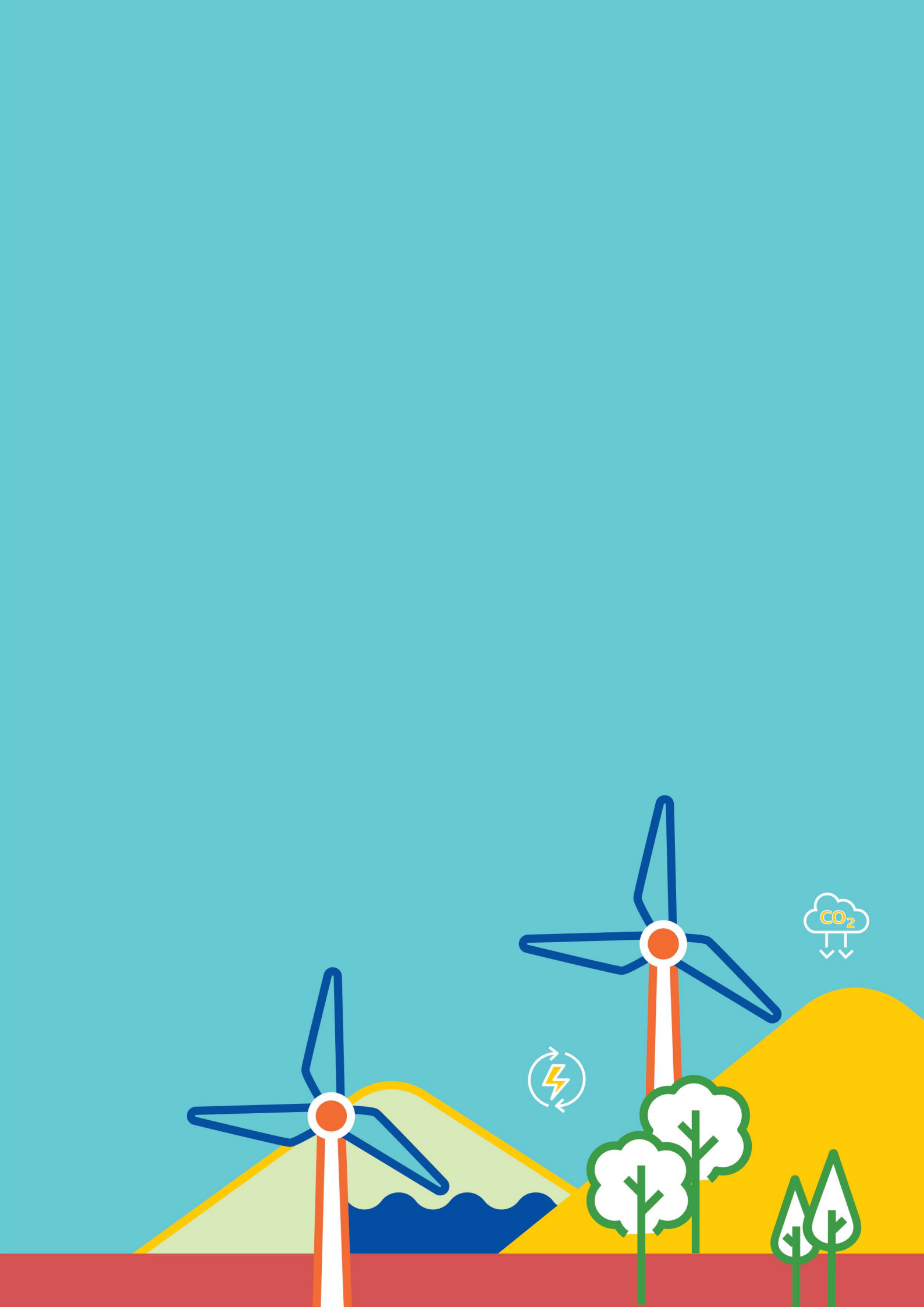
| | Before Reclassification | 2020 Reclassification <i>(in million Baht)</i> | After Reclassification |
|---|----------------------------|--|---------------------------|
| <i>Consolidated Statement of financial position as at 31 December 2020</i> | | | |
| Trade accounts receivable | 54,179 | (440) | 53,739 |
| Other receivables | 8,108 | 440 | 8,548 |
| Trade accounts payable | 62,608 | (26) | 62,582 |
| Other payables | 9,434 | 26 | 9,460 |
| | | <u> -</u> | |
| <i>Separate Statement of financial position as at 31 December 2020</i> | | | |
| Trade accounts receivable | 54,230 | (440) | 53,790 |
| Other receivables | 7,801 | 440 | 8,241 |
| Trade accounts payable | 63,954 | (26) | 63,928 |
| Other payables | 8,465 | 26 | 8,491 |
| | | <u> -</u> | |

The reclassifications have been made because, in the opinion of management, the new classification is more appropriate.

Remuneration of Auditor

EGAT paid audit fees to KPMG Phoomchai Audit Ltd. for the year 2021 for a total of Baht 5,000,000.







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