

THAI SOLAR ENERGY PUBLIC COMPANY LIMITED

CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

31 DECEMBER 2021

Independent Auditor's Report

To the Shareholders and the Board of Directors of Thai Solar Energy Public Company Limited

My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Thai Solar Energy Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2021, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2021;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that are relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key audit matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the consolidated and separate financial statements of the current period. I determined one key audit matter: Impairment of property, plant and equipment. The matter was addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on the matter.

Key audit matter	How my audit addressed the key audit matter
<p>Impairment of property, plant and equipment</p> <p>Refer to note 7 Accounting policies for critical accounting estimates and judgements and note 17 Property plant and equipment.</p> <p>Before 2021, the management assessed the impairment of property, plant and equipment attributable to the thermal plant cash generating unit (CGU) which ceased their operation and recorded provision impairment loss totalling Baht 545.92 million in the consolidated statement of financial position.</p> <p>In 2021, the management changed their objective of use of these assets and decided to terminate the use of certain assets that cannot be used in other solar power plant projects. As a result, additional impairment loss of Baht 154.56 million was recognised. The remaining net book value of assets are Baht 44.89 million.</p> <p>Management assessed the recoverable amount of the remaining assets based on the value in use. The value in use was based on feasible of the project and management's judgement of variables such as revenue, revenue growth, profit margin and discount rate.</p> <p>I focused on this area because the assumption of the recoverable amount involved management's judgement of determination of variables.</p>	<p>My key procedures included the following:</p> <ul style="list-style-type: none">• understanding and evaluating management's cash flow forecasts and the process by which the forecasts were developed,• agreeing the cash flow forecasts with the approved budgets set by the Group Chief Financial Officer,• challenging management's key assumptions, such as revenue, revenue growth, profit margin and discount rates, by comparing them against the industry outlook including the feasible of the plan and• engaging my firm's valuation experts to assess the reasonableness of the discount rate applied in the DCF model <p>Based on my procedures, I noted the key assumptions used by management were supportable and appropriate in light of the current environment and circumstance.</p>

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRS, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group's and the Company's financial reporting process.

Auditor's responsibilities for the audit of the consolidated and separate financial statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe the matter in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.

Nuntika Limviriyalers
Certified Public Accountant (Thailand) No. 7358
Bangkok
24 February 2022

Thai Solar Energy Public Company Limited

Statement of Financial Position

As at 31 December 2021

	Notes	Consolidated financial statements		Separate financial statements	
		2021 Baht	2020 Baht	2021 Baht	2020 Baht
Assets					
Current assets					
Cash and cash equivalents	9	849,068,198	883,246,238	79,388,743	124,974,583
Short-term restricted bank deposits	10	9,124,751	13,747,528	9,124,751	9,096,416
Financial assets measured at amortised cost	11	467,589	466,660	467,589	466,660
Trade and other receivables	12	371,513,189	340,859,233	327,699,310	185,268,566
Current portion of long-term loans to subsidiaries	36.3	-	-	78,520,000	81,140,000
Inventories		26,301,577	22,804,726	-	-
Refundable Value Added Tax		71,076,712	105,116,659	-	-
Undue input Value Added Tax		419,219,001	270,518,463	288,825	602,510
Other current assets	13	3,153,152	17,660,703	2,884,447	16,621,284
Total current assets		1,749,924,169	1,654,420,210	498,373,665	418,170,019
Non-current assets					
Long-term restricted bank deposits	10	46,236,784	42,349,359	1,050,000	2,300,000
Long-term loans to subsidiaries	36.3	-	-	5,830,077,641	6,133,449,798
Receivables from disposal of investments	36.2	-	-	1,383,683,149	1,383,683,149
Investments in subsidiaries	15	-	-	1,199,149,897	1,199,149,897
Investments in joint ventures	14	2,049,707,165	1,992,688,021	350,000,130	350,000,130
Investment properties	16	101,930,512	102,892,513	89,977,885	89,977,885
Property, plant and equipment	17	10,463,170,193	10,018,472,757	89,744,639	251,569,722
Right-of-use assets	18	302,291,711	325,646,578	22,597,270	30,342,972
Goodwill	19	48,539,794	50,855,042	-	-
Intangible assets	20	4,885,480,446	4,945,269,597	3,356,774	5,120,131
Deferred tax assets	21	22,021,077	21,733,866	-	-
Other non-current assets		37,614,540	22,450,747	19,812,429	2,661,544
Total non-current assets		17,956,992,222	17,522,358,480	8,989,449,814	9,448,255,228
Total assets		19,706,916,391	19,176,778,690	9,487,823,479	9,866,425,247

Director _____ Director _____

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Financial Position (Cont'd)
As at 31 December 2021

	Notes	Consolidated financial statements		Separate financial statements	
		2021	2020	2021	2020
		Baht	Baht	Baht	Baht
Liabilities and equity					
Current liabilities					
Short-term borrowings from financial institutions	23.1	230,000,000	250,000,000	230,000,000	250,000,000
Trade and other payables	22	152,265,624	254,290,843	45,074,890	150,510,902
Current portion of right in power purchase agreement payables		842,823	795,875	-	-
Current portion of lease liabilities	23.2	29,091,881	28,895,457	7,989,350	8,233,557
Current portion of long-term borrowings	23.3	600,855,831	2,443,767,344	331,320,868	2,144,265,435
Current portion of debentures	23.5	2,348,497,958	-	2,348,497,958	-
Income tax payable		5,536,865	1,985,053	-	-
Other current liabilities		38,948,970	70,925,130	12,704,537	5,853,596
Total current liabilities		3,406,039,952	3,050,659,702	2,975,587,603	2,558,863,490
Non-current liabilities					
Right in power purchase agreement payables		24,933,727	25,776,550	-	-
Lease liabilities	23.2	288,316,598	309,524,936	4,861,779	12,298,150
Long-term borrowings from financial institutions	23.3	8,393,802,259	6,278,580,339	1,854,568,747	394,385,850
Debentures	23.5	1,098,310,884	3,444,096,320	1,098,310,884	3,444,096,320
Derivative liabilities	24	50,463,036	58,355,907	-	-
Employee benefit obligations	25	21,559,034	17,371,256	21,559,034	17,371,256
Provision for decommissioning costs		31,114,679	29,027,161	2,721,982	2,652,516
Deferred tax liabilities	21	42,924,412	43,981,714	3,557,083	4,688,555
Other non-current liabilities		72,000	72,000	72,000	72,000
Total non-current liabilities		9,951,496,629	10,206,786,183	2,985,651,509	3,875,564,647
Total liabilities		13,357,536,581	13,257,445,885	5,961,239,112	6,434,428,137

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited

Statement of Financial Position (Cont'd)

As at 31 December 2021

	Notes	Consolidated financial statements		Separate financial statements	
		2021	2020	2021	2020
		Baht	Baht	Baht	Baht
Liabilities and equity (Cont'd)					
Equity					
Share capital					
Authorised share capital					
Ordinary shares 2,477,474,454 shares of par Baht 1 each	26	2,477,474,454	2,477,474,454	2,477,474,454	2,477,474,454
Issued and paid-up share capital					
Ordinary shares 2,117,716,281 shares of fully-paid	26	2,117,716,281	2,117,716,281	2,117,716,281	2,117,716,281
Premium on ordinary shares	26	1,045,504,325	1,045,504,325	1,045,504,325	1,045,504,325
Retained earnings					
Appropriated-legal reserve	27	130,022,093	106,757,899	91,877,074	80,090,954
Unappropriated		3,250,080,099	2,865,346,957	271,486,687	188,685,550
Other components of equity		(193,942,988)	(218,023,703)	-	-
Equity attributable to owners of the parent		6,349,379,810	5,917,301,759	3,526,584,367	3,431,997,110
Non-controlling interests		-	2,031,046	-	-
Total equity		6,349,379,810	5,919,332,805	3,526,584,367	3,431,997,110
Total liabilities and equity		19,706,916,391	19,176,778,690	9,487,823,479	9,866,425,247

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2021

	Notes	Consolidated financial statements		Separate financial statements	
		2021 Baht	2020 Baht	2021 Baht	2020 Baht
Revenue from sales and service		1,308,508,946	1,322,349,502	-	-
Subsidy for adders		166,241,916	161,007,323	-	-
Management service fee income		49,327,078	47,092,170	194,993,395	112,988,170
Total revenue		1,524,077,940	1,530,448,995	194,993,395	112,988,170
Cost of sales and services		(1,075,242,834)	(1,023,345,198)	(111,285,345)	(88,822,385)
Gross profit		448,835,106	507,103,797	83,708,050	24,165,785
Dividends income		58	45	597,387,947	490,700,087
Other income	28	9,871,559	12,290,093	15,040,495	18,367,665
Other gains (losses)	29	87,087,217	(100,438,213)	(8,467,729)	75,854,841
Administrative expenses		(348,776,071)	(302,580,018)	(262,525,052)	(124,082,426)
Finance costs	31	(338,316,401)	(340,728,316)	(246,979,275)	(280,835,526)
Share of profit from investment in joint ventures	14	642,919,195	643,333,543	-	-
Profit before income tax		501,620,663	418,980,931	178,164,436	204,170,426
Income tax	32	(8,635,487)	(174,230)	1,131,472	1,654,307
Profit for the year		492,985,176	418,806,701	179,295,908	205,824,733
Other comprehensive income for the year:					
Items that will be reclassified subsequently to profit or loss:					
Currency translation differences		14,285,513	311,585,026	-	-
Change in fair value of hedge derivatives	24	8,009,244	(8,119,989)	-	-
Total comprehensive income for the year		515,279,933	722,271,738	179,295,908	205,824,733
Profit attributable to:					
Owners of the parent		492,705,987	421,428,545	179,295,908	205,824,733
Non-controlling interests		279,189	(2,621,844)	-	-
		492,985,176	418,806,701	179,295,908	205,824,733
Total comprehensive income attributable to:					
Owners of the parent		514,958,378	724,564,481	179,295,908	205,824,733
Non-controlling interests		321,555	(2,292,743)	-	-
		515,279,933	722,271,738	179,295,908	205,824,733
Earnings per share	33				
Basic earnings per share		0.23	0.20	0.08	0.10

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2021

Consolidated financial statements											
Attribute to owners of the parent											
Notes	Issued and called-up share capital Baht	Premium on ordinary capital Baht	Retained earnings		Other components of equity			Fair value of hedge derivatives Baht	Total owners of the parent Baht	Non-controlling interests Baht	Total Baht
			Appropriated - legal reserve Baht	Unappropriated Baht	Changes in parent's ownership interest in subsidiary Baht	Translation of financial statements Baht					
Opening balance at 1 January 2020	2,117,716,281	1,045,504,325	81,303,726	2,829,382,401	(18,292,375)	(455,015,006)	(47,852,258)	5,552,747,094	4,323,789	5,557,070,883	
Change in equity for the year											
Appropriation of legal reserve	27	-	-	25,454,173	(25,454,173)	-	-	-	-	-	
Cash dividends	35	-	-	(360,009,816)	-	-	-	(360,009,816)	-	(360,009,816)	
Total comprehensive income for the year		-	-	421,428,545	-	311,255,925	(8,119,989)	724,564,481	(2,292,743)	722,271,738	
Closing balance at 31 December 2020	<u>2,117,716,281</u>	<u>1,045,504,325</u>	<u>106,757,899</u>	<u>2,865,346,957</u>	<u>(18,292,375)</u>	<u>(143,759,081)</u>	<u>(55,972,247)</u>	<u>5,917,301,759</u>	<u>2,031,046</u>	<u>5,919,332,805</u>	
Opening balance at 1 January 2021	2,117,716,281	1,045,504,325	106,757,899	2,865,346,957	(18,292,375)	(143,759,081)	(55,972,247)	5,917,301,759	2,031,046	5,919,332,805	
Change in equity for the year											
Additional investment in subsidiary by purchasing shares from non-controlling interests		-	-	-	-	1,828,324	-	1,828,324	(2,352,601)	(524,277)	
Appropriation of legal reserve	27	-	-	23,264,194	(23,264,194)	-	-	-	-	-	
Cash dividends	35	-	-	(84,708,651)	-	-	-	(84,708,651)	-	(84,708,651)	
Total comprehensive income for the year		-	-	492,705,987	-	14,243,147	8,009,244	514,958,378	321,555	515,279,933	
Closing balance at 31 December 2021	<u>2,117,716,281</u>	<u>1,045,504,325</u>	<u>130,022,093</u>	<u>3,250,080,099</u>	<u>(16,464,051)</u>	<u>(129,515,934)</u>	<u>(47,963,003)</u>	<u>6,349,379,810</u>	<u>-</u>	<u>6,349,379,810</u>	

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Changes in Equity (Cont'd)
For the year ended 31 December 2021

	Separate financial statements					
	Notes	Issued and paid-up share capital Baht	Premium on ordinary share capital Baht	Retained earnings		Total Baht
				Appropriated - legal reserve Baht	Unappropriated Baht	
Opening balance at 1 January 2020		2,117,716,281	1,045,504,325	67,603,094	355,358,493	3,586,182,193
Change in equity for the year						
Appropriation of legal reserve	27	-	-	12,487,860	(12,487,860)	-
Cash dividends	35	-	-	-	(360,009,816)	(360,009,816)
Total comprehensive income for the year		-	-	-	205,824,733	205,824,733
Closing balance at 31 December 2020		<u>2,117,716,281</u>	<u>1,045,504,325</u>	<u>80,090,954</u>	<u>188,685,550</u>	<u>3,431,997,110</u>
Opening balance at 1 January 2021		2,117,716,281	1,045,504,325	80,090,954	188,685,550	3,431,997,110
Change in equity for the year						
Appropriation of legal reserve	27	-	-	11,786,120	(11,786,120)	-
Cash dividends	35	-	-	-	(84,708,651)	(84,708,651)
Total comprehensive income for the year		-	-	-	179,295,908	179,295,908
Closing balance at 31 December 2021		<u>2,117,716,281</u>	<u>1,045,504,325</u>	<u>91,877,074</u>	<u>271,486,687</u>	<u>3,526,584,367</u>

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2021

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2021	2020	2021	2020
		Baht	Baht	Baht	Baht
Cash flows from operating activities					
Profit before income tax		501,620,663	418,980,931	178,164,436	204,170,426
Adjustments for:					
Depreciation	30	370,438,422	367,174,627	15,935,584	13,291,571
Amortisation	30	60,124,835	56,268,674	2,006,997	2,062,100
Expected credit loss		7,605,020	894,980	7,605,020	894,980
Share of profit from investments in joint ventures	14	(642,919,195)	(643,333,543)	-	-
Provision for long-term employee benefits obligations	25	4,304,857	3,849,431	4,304,857	3,849,431
Unrealised loss (gain) on exchange		11,174,854	215,236,293	67,718,928	(87,607,908)
Gain on disposal of trading securities	29	-	(218,977)	-	(218,977)
Loss from impairment of assets	30	154,562,421	637,220	154,562,421	-
Write-off equipment	30	4,598,100	21,592,803	-	20,170
Gain on loan restructuring	29	(60,451,325)	-	(60,451,325)	-
(Gain) loss from disposal of subsidiaries	29	(104,410,828)	2,704,575	-	-
Write-off withholding tax		198,854	5,922	-	-
Dividends income		(58)	(45)	(597,387,947)	(490,700,087)
Interest income	28	(442,201)	(797,169)	(13,855,736)	(16,836,996)
Finance cost	31	338,316,401	340,728,316	246,979,275	280,835,526
Loss on impairment of goodwill	19	2,315,248	1,521,796	-	-
		647,036,068	785,245,834	5,582,510	(90,239,764)
Changes in operating assets and liabilities					
Trade and other receivables		24,021,529	8,575,371	(99,082,914)	39,052,833
Inventories		(3,496,851)	1,224,242	-	-
Value added tax refundable		34,039,947	162,301,185	-	-
Undue input Value Added Tax		(148,700,538)	(254,234,552)	313,685	52,130
Other current assets		1,858,212	70,952	(2)	-
Other non-current assets		1,953,396	(5,849,938)	(33,660)	4,685,604
Trade and other payables		21,508,236	(169,387,441)	1,486,461	(4,548,361)
Other current liabilities		(28,629,952)	44,583,687	6,850,942	561,193
Employee benefit payments	25	(117,079)	-	(117,079)	-
Cash flows from (used in) operating activities		549,472,968	572,529,340	(85,000,057)	(50,436,365)
<u>Less</u> Income tax paid		(11,443,985)	(6,877,949)	(3,380,368)	(2,693,404)
Cash flows from (used in) operating activities		538,028,983	565,651,391	(88,380,425)	(53,129,769)

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited
Statement of Cash Flows (Cont'd)
For the year ended 31 December 2021

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2021	2020	2021	2020
		Baht	Baht	Baht	Baht
Cash flows from investing activities					
Acquisition of subsidiaries, net of cash acquired		-	(123,160,507)	-	-
Proceeds from disposal of subsidiaries		351,185,241	69,312,138	-	-
(Increase) decrease in restricted bank deposits		(2,157,852)	14,993,338	1,221,665	15,882,295
Purchase of short-term investments	11	-	(520,000,000)	-	(520,000,000)
Proceeds from disposals of short-term investments		-	740,868,963	-	740,868,963
Short-term loans made to others		-	(6,650,000)	-	(6,650,000)
Short-term loans repayments received from others		-	6,650,000	-	6,650,000
Short-term loans made to subsidiaries		-	-	-	(41,300,000)
Short-term loan repayments received from subsidiaries		-	-	-	69,450,000
Long-term loans made to subsidiaries	36.3	-	-	(200,597,300)	(619,772,929)
Long-term loan repayments received from subsidiaries	36.3	-	-	508,208,010	292,168,628
Purchase of property, plant and equipment		(1,786,861,569)	(2,659,017,870)	(259,073)	(2,092,130)
Purchase of intangible asset	20	(848,476)	(347,956)	(243,640)	(125,055)
Interest received		446,414	802,183	10,531,059	(6,455,335)
Dividends received		549,787,997	555,100,143	549,787,939	555,100,098
Net cash (used in) generated from investing activities		(888,448,245)	(1,921,449,568)	868,648,660	483,724,535
Cash flows from financing activities					
Proceeds from short-term borrowings from financial institutions, net of financial service fee	23.1	60,000,000	1,327,629,613	60,000,000	1,327,629,613
Repayment to short-term borrowings from financial institutions	23.1	(80,000,000)	(1,180,000,000)	(80,000,000)	(1,180,000,000)
Repayment to lease liabilities	23.2	(43,236,031)	(34,081,298)	(9,049,409)	(8,502,143)
Proceeds from long-term borrowings	23.3	1,557,491,210	3,155,668,685	-	370,000,000
Financial service fee from long-term borrowings	23.3	(4,539,901)	(85,136,624)	(4,539,901)	(1,012,500)
Repayment to long-term borrowings from financial institutions	23.3	(652,363,726)	(1,095,850,251)	(360,771,656)	(501,434,656)
Proceeds from issuance of debentures	23.5	-	1,096,750,000	-	1,096,750,000
Redemption of debentures	23.5	-	(950,000,000)	-	(950,000,000)
Purchase shares in subsidiary from non-controlling interests		(524,277)	-	-	-
Cash dividends payment	35	(190,593,465)	(254,125,002)	(190,593,465)	(254,125,002)
Interest paid		(328,512,808)	(323,143,553)	(240,957,391)	(248,718,234)
Net cash generated from (used in) financing activities		317,721,002	1,657,711,570	(825,911,822)	(349,412,922)

The accompanying notes are an integral of these consolidated and separate financial statements.

Thai Solar Energy Public Company Limited

Statement of Cash Flows (Cont'd)

For the year ended 31 December 2021

	Consolidated		Separate	
	financial statements		financial statements	
	2021	2020	2021	2020
	Baht	Baht	Baht	Baht
Net (decrease) increase in cash and cash equivalents	(32,698,260)	301,913,393	(45,643,587)	81,181,844
Cash and cash equivalents at beginning of the year	883,246,238	643,594,118	124,974,583	43,843,636
Effect of exchange differences on cash and cash equivalents	(46,655)	(890,465)	57,747	(50,897)
Effect of exchange differences on translation of financial statements	(1,433,125)	(61,370,808)	-	-
Cash and cash equivalents at end of the year	849,068,198	883,246,238	79,388,743	124,974,583
Non-cash transactions				
Significant non-cash transactions are as follows:				
Payable arising from construction and purchase of equipment	1,145,800	17,914,782	-	-
Capitalise borrowing cost to property, plant and equipment and intangible assets	18,499,575	66,310,662	-	-

The accompanying notes are an integral of these consolidated and separate financial statements.

1 General information

Thai Solar Energy Public Company Limited (“the Company”) is a Public Company Limited which is incorporated and domiciled in Thailand. The Company is listed on the Stock Exchange of Thailand. Its parent company is P.M. Energy Company Limited (incorporated in Thailand) (“Parent Company”). The address of the Company’s registered office is as follows:

725 Metropolis Building, 19th Floor, Sukhumvit Rd., Klongton Nua, Wattana, Bangkok.

For reporting purposes, the Company, its subsidiaries and Joint Venture are referred to as the Group.

The principal business operations of the Group are generation and distribution of electricity from solar power and biomass to government and private sector.

These consolidated and separate financial statements have been approved for issue by the Board of Directors on 24 February 2022.

2 Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards (“TFRS”) and other financial reporting requirements issued under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention except certain financial assets and liabilities (including derivative instrument) as disclosed in accounting policy.

The preparation of financial statements in conformity with TFRS requires management to use certain critical accounting estimates and to exercise its judgement in applying the Group’s accounting policies. The areas involving a higher degree of judgement or complexity, or areas that are more likely to be materially adjusted due to changes in estimates and assumptions are disclosed in Note 7.

An English version of the consolidated and separate financial statements have been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

3 New and amended financial reporting standards

3.1 New and amended financial reporting standards that are effective for accounting period beginning on or after 1 January 2021 and related to the Group

- a) **Revised Conceptual Framework for Financial Reporting** added the following key principals and guidance:
- Measurement basis, including factors in considering difference measurement basis
 - Presentation and disclosure, including classification of income and expenses in other comprehensive income
 - Definition of a reporting entity, which maybe a legal entity, or a portion of an entity
 - Derecognition of assets and liabilities

The amendment also includes the revision to the definition of an asset and liability in the financial statements, and clarification to the prominence of stewardship in the objective of financial reporting.

- b) **Amendment to TFRS 3, Business combinations** amended the definition of a business which requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term ‘outputs’ is amended to focus on goods and services provided to customers and to exclude returns in the form of lower costs and other economic benefits.

- c) **Amendment to TAS 1, Presentation of financial statements and TAS 8, Accounting policies, changes in accounting estimates and errors** amended to definition of materiality. The amendment allows for a consistent definition of materiality throughout the Thai Financial Reporting Standards and the Conceptual Framework for Financial Reporting. It also clarified when information is material and incorporates some of the guidance in TAS 1 about immaterial information.

The amended financial reporting standards do not have significant impacts to the Group.

3.2 Amended financial reporting standards that are effective for accounting period beginning or after 1 January 2022 and related to the Group

The Group have not early adopted the amended financial reporting standards before effective date. The Group's management is currently assessing the impact of initial adoption of these standards.

4 Accounting policies

4.1 Principles of consolidation and equity accounting

a) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group 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. Subsidiaries are consolidated from the date on which control is transferred to the Group until the date that control ceases.

In the separate financial statements, investments in subsidiaries are accounted for using cost method.

b) Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint venture depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangements.

Joint venture

A joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement. Interests in joint venture are accounted for using the equity method.

In the separate financial statements, investments in joint venture are accounted for using cost method.

List of joint venture is disclosed in Note 14.

c) Equity method

The investment is initially recognised at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognises shares of its joint venture's profits or losses and other comprehensive income in the profit or loss and other comprehensive income, respectively. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates and joint venture equals or exceeds its interest joint venture, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint venture.

d) Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A difference between the amount of the adjustment to non-controlling interests to reflect their relative interest in the subsidiary and any consideration paid or received is recognised within equity.

If the ownership interest in associates and joint venture is reduced but significant influence and joint control is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in associates and joint venture is recognise in profit or loss.

When the Group losses control, joint control or significant influence over investments, any retained interest in the investment is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value becomes the initial carrying amount of the retained interest which is reclassified to investment in an associate, or a joint venture or a financial asset accordingly.

e) Intercompany transactions on consolidation

Intra-group transactions, balances and unrealised gains on transactions are eliminated. Unrealised gains on transactions between the Group and its associates and joint venture are eliminated to the extent of the Group's interest in the associates and joint venture. Unrealised losses are also eliminated in the same manner unless the transaction provides evidence of an impairment of the asset transferred.

4.2 Business combination

The Group applies the acquisition method to account for business combinations with an exception on business combination under common control. The consideration transferred for the acquisition of a subsidiary comprises:

- fair value of the assets transferred
- liabilities incurred to the former owners of the acquiree
- equity interests issued by the Group

Identifiable assets and liabilities acquired and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

On an acquisition-by-acquisition basis, the Group initially recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest recognised and the acquisition-date fair value of any previous equity interest in the acquiree (for business combination achieved in stages) over the fair value of the identifiable net assets acquired is recorded as goodwill. In the case of a bargain purchase, the difference is recognised directly in profit or loss.

Acquisition-related cost

Acquisition-related cost are recognised as expenses.

Changes in fair value of contingent consideration paid/received

Subsequent changes to the fair value of the contingent consideration that is an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured.

Business combination under common control

The Group accounts for business combination under common control by measuring acquired assets and liabilities of the acquiree at their carrying values presented in the highest level of the consolidation. The Group retrospectively adjusted the business combination under common control transactions as if the combination had occurred on the later of the beginning of the preceding comparative period and the date the acquiree has become under common control.

Consideration of business combination under common control are the aggregated amount of fair value of assets transferred, liabilities incurred and equity instruments issued by the acquirer at the date of which the exchange in control occurs.

4.3 Foreign currency translation

a) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company's and the Group's functional and presentation currency.

b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

Any exchange component of gains and losses on a non-monetary item that recognised in profit or loss, or other comprehensive income is recognised following the recognition of a gain or loss on the non-monetary item.

c) Group companies

The operational results and financial position of the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a different functional currency from the Group's presentation currency are translated into the presentation currency as follows:

- Assets and liabilities are translated at the closing rate at the date of respective statement of financial position;
- Income and expenses for statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

4.4 Cash and cash equivalents

In the statements of cash flows, cash and cash equivalents includes cash on hand, deposits held at call, short-term highly liquid investments with maturities of three months or less from acquisition date

4.5 Restricted bank deposits

Restricted bank deposits mean all types of bank deposits that are under condition of withdrawal process for specific purpose according to financial agreement and loan facilities agreement with financial institution which provide credit to the Group.

4.6 Trade accounts receivable

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 60 days and therefore are all classified as current.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

4.7 Inventories

Inventories are stated at the lower of cost or net realisable value.

Cost of inventories is determined by the weighted average method. Cost of raw materials comprise all purchase cost and costs directly attributable to the acquisition of the inventory less all attributable discounts, direct labour and other direct costs.

4.8 Financial assets

Investments and other financial assets

a) Classification

The Group classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

For investments in equity instruments, the Group has an irrevocable election at the time of initial recognition to account for the equity investment at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI) except those that are held for trading, they are measured at FVPL.

b) Recognition and derecognition

Regular way purchases, acquires and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

c) Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest (SPPI).

d) Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories:

- Amortised cost: Assets that are held for collection of contractual cash flows that represent solely payments of principal and interest (SPPI) are measured at amortised cost. Interest income is included in other income using the effective interest method. Any gain or loss on derecognition is presented in other gains/(losses), together with foreign exchange gains and losses. Impairment losses are presented as separate line item.
- FVOCI: Assets that are held for collection of contractual cash flows that represent SPPI and for selling the financial assets are measured at FVOCI. Movements in the carrying amount are taken through OCI, except impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognised in profit or loss. Interest revenue is included in finance income. Foreign exchange gains and losses are presented in other gains/(losses). Impairment losses are presented as separate line item. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified to profit or loss in other gains/(losses).
- FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on subsequent measurement is presented in other gains/(losses).

The Group reclassifies debt instruments only when its business model for managing those assets changes.

e) Impairment

The Group assesses expected credit loss on a forward-looking basis for its financial assets carried at FVOCI and at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk, except trade receivables, contract assets, and lease receivables which the Group applies the simplified approach in determining its expected credit loss.

For trade receivables, the Group applies the simplified approach, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

Impairment (reversal of impairment) losses are recognised in profit or loss and included in administrative expenses.

4.9 Lease

Leases - where the Group is the lessee

Leases are recognised as a right-of-use asset and a lease liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small items of office furniture.

4.10 Investment property

Investment properties of the Group are lands and condominium which are held for capital appreciation and are not occupied by the Group.

Investment property is measured initially at cost, including directly attributable costs and borrowing costs.

Subsequently, investment property is carried at cost less any accumulated depreciation and any accumulated impairment losses.

Land is not depreciated. Depreciation on condominium is calculated by using straight-line method over 20 years.

Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are expensed when incurred. When part of an investment property is replaced, the carrying amount of the replaced part is derecognised.

4.11 Property, plant and equipment

All other property, plant and equipment are stated at historical cost less accumulated depreciation and impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount, only when it is probable that future economic benefits associated with the item will flow to the Group, capitalised where there is future economic benefits. The carrying amount of the replaced part is derecognised.

All other repairs and maintenance are charged to profit or loss when incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

	<u>Number of years</u>
Land improvement	15 years 4 months - 25 years
Power plants	15 years 4 months - 25 years
Office buildings	25 years
Tools and equipment	5 - 10 years
Office equipment	3 - 5 years
Vehicles	5 years

The assets' residual values and useful life are reviewed, and adjusted if appropriate, at the end of each reporting period.

Gains or losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised in the statement of comprehensive income.

4.12 Goodwill

Goodwill is tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired and is carried at cost less accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units or groups of units are identified at the lowest level at which goodwill is monitored for internal management purposes.

4.13 Intangible assets

4.13.1 Computer software

Acquired computer software is capitalised on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortised over their estimated useful life of 5 years.

4.13.2 Right in Power Purchase Agreement

Right in Power Purchasing Agreements ("PPAs") comprise of PPA for renewable energy (Biomass project) which the Group signed with Provincial Electricity Authority (PEA) and PPA for generating electricity from solar farm as specified in certification for power distribution granted by Ministry of Economy, Trade and Industry, Japan (METI Certificate). The Group acquired those PPAs from acquisition of subsidiaries. PPAs were amortised by using the straight-line method to allocate their cost to their residual values over their Power Purchase Agreement. Amortisation starts when the Group start their commercial operation.

4.13.3 Right in use of land

Land for the location of The Electricity Generating Authority of Thailand installed on the ground for government agencies and agricultural cooperatives that is a joint project between a subsidiary with a cooperative in Thailand. A subsidiary agreed to transfer the ownership in this plot of land to that cooperative by the end of the project. The Group remains the right to use such land over the agreement period. Right in use of land was amortised using straight-line method over the contractual period of 25 years.

4.14 Impairment assets

Assets that have an indefinite useful life are tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired. Assets that are subject to amortisation are reviewed for impairment whenever there is an indication of impairment. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use.

Where the reasons for previously recognised impairments no longer exist, the impairment losses on the assets concerned other than goodwill is reversed.

4.15 Financial liabilities

a) Classification

Financial instruments issued by the Group are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Group has an unconditional contractual obligation to deliver cash or another financial asset to another entity, it is considered a financial liability unless there is a predetermined or possible settlement for a fixed amount of cash in exchange of a fixed number of the Group's own equity instruments.
- Where the Group has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

b) Measurement

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

c) Derecognition and modification

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated/modified, the Group assesses whether the renegotiation / modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as other gains/(losses) in profit or loss.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the renegotiated / modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in other gains/(losses) in profit or loss.

4.16 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets (assets that take times to get ready for its intended use or sale) are added to the cost of those assets less investment income earned from those specific borrowings. The capitalisation of borrowing costs is ceased when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Other borrowing costs are expensed in the period in which they are incurred.

4.17 Current and deferred income taxes

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity.

Current tax

The current income tax is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax

Deferred income tax is recognised on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not recognised for temporary differences arise from:

- initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting nor taxable profit or loss is not recognised
- investments in subsidiaries, associates and joint arrangements where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax is measured using tax rates of the period in which temporary difference is expected to be reversed, based on tax rates and laws that have been enacted or substantially enacted by the end of the reporting period.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

4.18 Employee benefits

4.18.1 Short-term employee benefits

Liabilities for short-term employee benefits such as wages, salaries, paid annual leave and paid sick leave, bonuses, and medical care that are expected to be settled wholly within 12 months after the end of the period are recognised in respect of employees' service up to the end of the reporting period. They are measured at the amount expected to be paid.

4.18.2 Defined contribution plan

The Group operates a provident fund, being a defined contribution plan. The assets of which are held in a separate trustee - administered fund. The provident fund is funded by payments from employees and by the Company. Contributions to the provident fund are charged to the statement of comprehensive income in the period to which the contributions relate.

4.18.3 Defined benefit plans

A defined benefit plan is a retirement plan that is not a defined contribution plan. Typically defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related retirement liability. Actuarial 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. They are included in retained earnings in the statements of changes in equity / presented as a separate item in statements of changes in equity.

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

4.18.4 Termination benefits

The Group recognises termination benefits at the earlier of (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognises costs for the related restructuring. Benefits due more than 12 months are discounted to their present value.

4.19 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.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation. The increase in the provision due to passage of time is recognised as interest expense.

4.20 Government grants

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with attached conditions.

Government grants relating to the sales of electricity generated from solar power is recognised as profit or loss systematically throughout the period. Moreover, the Group recognised expenses related to cost which is compensated.

4.21 Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options (net of tax) are shown as a deduction in equity.

4.22 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and service in the ordinary course of the Company's activities. Revenue including electricity tariff adders, net of fuel adjustment (Ft) and the Provincial Electricity Authority's operating charges, are the invoiced value, excluding valued added tax of electricity supplied, and after eliminating sales within the Group. Revenue from sales of goods is recognised when the collectability of goods provided is high probable. The Group recognised service contracts with a continuous service provision as revenue on a straight line basis over the contract term, regardless of the payment pattern.

Management service income is recognised when service is completed.

Interest income is recognised using the effective interest method.

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

4.23 Dividend distribution

Dividend distributed to the Company's shareholders is recognised as a liability when interim dividends are approved by the Board of Directors, and when the annual dividends are approved by the shareholders.

4.24 Derivative and hedge accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The Group designates certain derivatives as either hedges of a particular risk associated with the cash flows of i) recognised assets and liabilities and ii) highly probable forecast transactions (cash flow hedges).

At inception of the hedge relationship, the Group documents i) the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items and ii) its risk management objective and strategy for undertaking its hedge transactions.

The full fair value of a hedging derivative is classified as a current or non-current asset or liability following the maturity of related hedged item.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognised in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within other gains (losses).

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedge reserve within other components of equity. The change in the forward element of the contract that relates to the hedged item ('aligned forward element') is recognised within other comprehensive income in the costs of hedging reserve within equity. In some cases, the Group may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedge reserve within other components of equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss. The gain or loss relating to the effective portion of the interest rate swaps hedging variable rate borrowings is recognised in profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in other components of equity at that time remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

4.25 Segment reporting

Operating segment are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resource and assessing performance of the operating segments, has been identified as the Chief Executive Officer and the Executive Committee that make strategic decision.

5 Financial risk management

5.1 Financial risk factors

The Group exposes to a variety of financial risks: market risk (currency risk, fair value risk and price risk), credit risk and liquidity risk.

5.1.1 Market risk

a) Foreign exchange risk

The Group hires contractor for construction of power plants. Contractors are operating in overseas. The Group is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to US Dollar and Japanese Yen, in terms of foreign exchange risk arises from future commercial transactions, recognition of assets and liabilities and net investments in foreign operations. However, the Group does not hedge foreign exchange risk as investments and borrowings were made in the same currency with future cash inflow and cash outflow.

The domestic subsidiary has granted loans denominated in Japanese Yen to its subsidiaries which expose the Company to a foreign exchange risk.

Sensitivity

The Group is primarily exposed to changes in Baht and Japanese Yen and Baht and US Dollar exchange rates. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in Japanese Yen and US Dollar.

	Consolidated financial statements			
	Impact to net profit		Impact to other components of equity	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Baht to Japanese Yen exchange rate - increase 1%*	-	19,170,656	-	-
Baht to Japanese Yen exchange rate - decrease 1%*	-	(19,170,656)	-	-
Baht to US Dollar exchange rate - increase 1%*	-	52,364	-	-
Baht to US Dollar exchange rate - decrease 1%*	-	(52,364)	-	-

* Holding all other variables constant

	Separate financial statements			
	Impact to net profit		Impact to other components of equity	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Baht to Japanese Yen exchange rate - increase 1%*	-	19,170,656	-	-
Baht to Japanese Yen exchange rate - decrease 1%*	-	(19,170,656)	-	-

* Holding all other variables constant

b) Cash flow and fair value interest rate risk

Interest rate risk of the Group occurs from credit facilities of commercial bank which is floating rate. Credit terms and interest rates depend on each borrower's creditability that cause the Company exposing to cash flow risk from interest rate. Generally, the Group enters into long-term borrowings at floating rates and swaps them into fixed rates that are lower than those available if the Group borrowed at fixed rates directly. The Group's borrowings at variable rate were mainly denominated in Thai Baht and Japanese Yen.

Instruments used by the Group

The Group entered interest rate swaps covering TIBOR + 1.22% (2020: TIBOR + 1.22%) of the variable loan principal outstanding. The fixed interest rate of the swaps is 1.97% (2020: 1.97%), and the variable rate of the loans of 0.68% above TIBOR + 1.22% which is 1.29% (2020: 1.29%) at the end of the reporting period.

The swap contracts require settlement of net interest receivable or payable every 90 days. The settlement dates coincide with the dates on which interest is payable on the underlying debt.

Sensitivity

Profit or loss is sensitive to higher or lower interest income from cash and cash equivalents, and interest expenses from borrowings as a result of changes in interest rates. Other components of equity changes as a result of an increase or decrease in the fair value of the cash flow hedges of borrowings and the fair value of debt investments at fair value through other comprehensive income.

	Consolidated financial statements			
	Impact to net profit		Impact to other components of equity	
	2021	2020	2021	2020
	Baht	Baht	Baht	Baht
Interest rate - increase 10%*	(19,110,024)	(25,342,347)	(2,157,217)	(2,432,694)
Interest rate - decrease 10%*	19,110,024	25,342,347	2,157,217	2,432,694
* Holding all other variables constant				
	Separate financial statements			
	Impact to net profit		Impact to other components of equity	
	2021	2020	2021	2020
	Baht	Baht	Baht	Baht
Interest rate - increase 10%*	(3,660,599)	(8,878,190)	-	-
Interest rate - decrease 10%*	3,660,599	8,878,190	-	-
* Holding all other variables constant				

5.1.2 Credit risk

Credit risk arises from cash and cash equivalents and derivative financial instruments as well as credit exposures to customers, including outstanding receivables.

a) Risk management

Credit risk is managed on a group basis. For banks and financial institutions, only independently rated parties with a minimum rating of 'A' are accepted.

If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. Individual risk limits are set based on tips assessments in accordance with limits set by the board. The compliance with credit limits by customers is regularly monitored by line management.

b) Impairment

The Group and the Company has financial assets that are subject to the expected credit loss model:

- Trade and other receivables
- Loan to related parties

While cash and cash equivalents are also subject to the impairment requirements of TFRS 9, the identified impairment loss was immaterial.

Trade receivables

The Group applies the TFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due. The contract assets relate to unbilled work in progress and have substantially the same risk characteristics as the trade receivables for the same types of contracts. The Group has therefore concluded that the expected loss rates for trade receivables are a reasonable approximation of the loss rates for the contract assets.

The expected loss rates are based on the payment profiles of sales before 31 December 2021 and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

Loans to related parties

Loans to related parties measured at amortised cost are considered to have low credit risk, and the loss allowance recognised during the year was therefore limited to 12 months expected losses. Lifetime expected credit losses is recognised for the loans that the credit risk is significant increased.

5.1.3 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due and to close out market positions. At the end of the reporting period the Group held deposits at call of Baht 849.07 million (2020: Baht 883.25 million) that are expected to readily generate cash inflows for managing liquidity risk. Due to the dynamic nature of the underlying businesses, the Group Treasury maintains flexibility in funding by maintaining availability under committed credit lines.

Management monitors i) rolling forecasts of the Group's liquidity reserve (comprising the undrawn borrowing facilities below); and ii) cash and cash equivalents on the basis of expected cash flows. In addition, the Group's liquidity management policy involves projecting cash flows in major currencies and considering the level of liquid assets necessary, monitoring balance sheet liquidity ratios and maintaining financing plans.

The Group have adequate source of fund including operating cash flows and other financing sources in accordance with the Group's business plan. Accordingly, the preparation of these financial statements are based on accounting principles applicable to going concern basis

a) Financing arrangements

The detail of undrawn facilities as at 31 December are disclosed in Note 23.

b) Maturity of financial liabilities

Trade payables and financial liabilities have maturity within 1 year. The maturity of the borrowing from financial institutes, lease liabilities and debentures are disclosed in Note 23.

5.2 Capital management

Risk management

The objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, to provide returns for shareholders and benefits for other stakeholders, and
- Maintain an optimal capital structure to reduce the cost of capital

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Consistent with others in the industry, the Group monitors capital based on gearing ratio which is determined by dividing net debt with equity.

5.3 Major customer reliance risk

The Group relies on Provincial Electricity Authority (PEA) and Metropolitan Electricity Authority (MEA) who purchase of all electricity generated in specific quantities at specific price based on each specific period according to Power Purchase Agreements, in accordance with Ministry of Energy's policy to encourage production and usage of renewable energy. As a result, agreement termination may significantly impact the Group's operations.

5.4 Risk from generated electricity lower than estimation

The electricity volume generated from solar power plants might be affected by climate change and natural disaster, forming as a risk of production volume is lower than estimation. In consequence, it may impact to revenues and operating results of the Group as well as other electricity generators in this industry.

5.5 Debt settlement ability risk

According to credit facilities conditions with commercial bank, the Group has to comply with financial covenants stated in the agreement such as to maintain Debt-to-Equity ratio and maintain Debt service coverage ratio. If the Group cannot maintain those financial covenants, the Group might be called up for immediate debt settlement.

6 Fair value

Fair value of financial assets, investment property and derivative liabilities are disclosed in Notes 11, 16 and 24, respectively.

7 Critical accounting estimates and judgements

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Fair value of derivatives

The fair value of derivatives that are not traded in an active market is determined using valuation techniques based on observable information. Details of valuation technique are disclosed in Note 24.

Estimated impairment of assets

The Group tests whether asset has suffered any impairment, in accordance with the accounting policy stated in Note 4.14. The recoverable amounts of cash-generating units have been determined based on the higher amount between fair value less costs to sell determined with reference to market prices for equivalent assets, and value in use.

Determination of discount rate applied to lease liabilities

The Group determines the incremental borrowing rate as follows:

- Where possible, use recent third-party financing received by the individual lessee as a starting point, adjusting to reflect changes in its financing conditions.
- Make adjustments specific to the lease, e.g. term, country, currency and security.

8 Operating segments

The principal business operations of the Group are generation and distribution of electricity from solar power and biomass and operating its business in Thailand and in Japan. Segment information is presented in respect of the Group's geography segments which are domestic and international. The two segments presented were classified and reviewed by authorised persons which are Chief Executive Officer and the Executive Committee.

The following information is used by authorised persons to evaluate operation of each segment.

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Financial information by geography segment

	For the year ended 31 December (Million Baht)									
	Domestic		International		Total		Elimination		Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Revenue from operations	1,384.37	1,291.25	297.80	315.29	1,682.17	1,606.54	(158.09)	(76.09)	1,524.08	1,530.45
Other income	20.11	25.38	3.54	3.51	23.65	28.89	(13.78)	(16.60)	9.87	12.29
Dividends income	762.68	490.70	-	-	762.68	490.70	(762.68)	(490.70)	-	-
Cost of operations	(869.07)	(793.31)	(212.25)	(228.24)	(1,081.32)	(1,021.55)	6.08	(1.80)	(1,075.24)	(1,023.35)
Operating profit	1,298.09	1,014.02	89.09	90.56	1,387.18	1,104.58	(928.47)	(585.19)	458.71	519.39
Administrative expenses	(361.99)	(286.21)	(67.07)	(93.54)	(429.06)	(379.75)	80.28	77.18	(348.78)	(302.57)
Profit (loss) before finance cost and taxes	936.10	727.81	22.02	(2.98)	958.12	724.83	(848.19)	(508.01)	109.93	216.82
Finance costs	(333.28)	(377.00)	(37.32)	(46.64)	(370.60)	(423.64)	32.28	82.91	(338.32)	(340.73)
Other (losses) gains	(2.53)	39.75	99.25	(3.51)	96.72	36.24	(9.63)	(136.68)	87.09	(100.44)
Share of profit from investments in joint ventures	642.92	643.33	-	-	642.92	643.33	-	-	642.92	643.33
Operating results before taxes	1,243.21	1,033.89	83.95	(53.13)	1,327.16	980.76	(825.54)	(561.78)	501.62	418.98
Income tax	(6.57)	1.37	(2.06)	(1.54)	(8.63)	(0.17)	-	-	(8.63)	(0.17)
Net profit (loss)	1,236.64	1,035.26	81.89	(54.67)	1,318.53	980.59	(825.54)	(561.78)	492.99	418.81
Timing of revenue recognition										
At a point in time									1,474.75	1,483.36
Over time									49.33	47.09
Total revenue									1,524.08	1,530.45
Total assets	18,467.30	18,822.43	11,569.03	10,784.95	30,036.33	29,607.38	(10,329.56)	(10,430.60)	19,706.77	19,176.78
Total liabilities	12,900.68	13,753.34	9,014.04	7,901.64	21,914.72	21,654.98	(8,557.33)	(8,397.53)	13,357.39	13,257.45

9 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Cash on hand	225,000	6,435,907	25,000	25,000
Cash at bank	848,843,198	876,810,331	79,363,743	124,949,583
	849,068,198	883,246,238	79,388,743	124,974,583

The average effective interest rate on short-term bank deposits was 0.11% per annum (2020: 0.12% per annum).

10 Restricted bank deposits

Short-term restricted bank deposits comprise saving deposits specially for repayment of debenture's principals and interest, pledged saving deposits and pledged deposits in current accounts of subsidiaries and the transfer of claims in the deposit accounts to the lender according to the specified expenditure conditions to secure the credit facilities.

The long-term restricted bank deposits consist of the pledged saving bank deposits of the Company to guarantee its electricity consumption, the pledged saving bank deposits of the subsidiaries for the specific purpose specified in the credit facility agreement and a fixed deposit of the Company pledged to the lender to guarantee the credit.

11 Financial assets and financial liabilities

As at 31 December 2021, the Group has classified all financial assets and financial liabilities to be measured at amortised cost except derivative liabilities, which classified to be measured at fair value through profit or loss. Details and fair value of derivative liabilities are disclosed in Note 24.

The movements of financial assets during the year are as follows:

	Consolidated and separate financial statements
	Financial assets measured at amortised cost Baht
At 1 January 2020	221,114,307
Additions	520,000,000
Disposals	(740,649,986)
Interest received	2,339
At 31 December 2020	466,660
Interest received	929
At 31 December 2021	467,589

The fair value of investments are within level 2 of the fair value hierarchy which is based on bid price in liquidity market as at financial statement date.

12 Trade and other receivables

Trade and other receivables as at 31 December 2021 and 2020 comprise the following:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Trade receivables	199,692,438	208,663,980	-	-
<u>Less</u> Expected credit loss	-	-	-	-
Total trade receivables, net	199,692,438	208,663,980	-	-
Amounts due from and advances to related parties (Note 36.2)	4,469,272	4,256,449	187,115,196	84,184,990
Prepaid expenses	20,481,629	23,757,557	3,652,408	2,747,118
Dividends receivable (Note 36.2)	136,500,024	88,900,016	136,500,024	88,900,016
Other receivables	12,155,373	15,097,280	8,687,562	10,125,002
Advance payment	6,714,453	1,078,931	244,120	206,420
Total other receivables	180,320,751	133,090,233	336,199,310	186,163,546
<u>Less</u> Expected credit loss	(8,500,000)	(894,980)	(8,500,000)	(894,980)
Total other receivables, net	171,820,751	132,195,253	327,699,310	185,268,566
Total trade and other receivables	371,513,189	340,859,233	327,699,310	185,268,566

All outstanding trade receivable are not yet due.

13 Other current assets

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Withholding tax deducted at sources	2,758,841	16,596,752	2,693,405	16,430,244
Others	394,311	1,063,951	191,042	191,040
	3,153,152	17,660,703	2,884,447	16,621,284

14 Investments in joint ventures

Movement in investments in joint ventures

	Consolidated financial statements Baht	Separate financial statements Baht
For the year ended 31 December 2021		
Opening net book amount	1,992,688,021	350,000,130
Share of profit	642,919,195	-
Dividends received	(585,900,051)	-
Closing net book amount	2,049,707,165	350,000,130

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Details of joint ventures in 2021 and 2020 are as follows:

	Type of business	Country of incorporation	% Ownership		Measurement method
			2021	2020	
Joint venture directly held by the Company					
Thai Solar Renewable Co., Ltd.	Investment holding	Thailand	60	60	Equity
Joint venture held by Thai Solar Renewable Co., Ltd.					
Siam Solar Energy 1 Co., Ltd.*	Generation and distribution of electricity	Thailand	60	60	Equity

* The Company directly holds 1 share and the remaining shares are held by Thai Solar Renewable Co., Ltd.

Thai Solar Renewable Co., Ltd. is investment holding company and Siam Solar Energy 1 Co., Ltd. engages in the generation and distribution of electricity from solar energy. These companies are private companies and their shares are not traded. These companies were joint venture held by the Company and Global Power Synergy Public Co., Ltd.

Summarised financial information for joint ventures

Financial statements of Siam Solar Energy 1 Co., Ltd., subsidiary of Thai Solar Renewable Co., Ltd., was included in the consolidated financial statements of Thai Solar Renewable Co., Ltd.

Set out below are the summarised consolidated financial statements of Thai Solar Renewable Co., Ltd.

Summarised statement of financial positions

	Consolidated financial statements of Thai Solar Renewable Co., Ltd. As at 31 December	
	2021 Baht	2020 Baht
Current		
Cash and cash equivalents	681,405	933,796
Other current assets (excluding cash)	558,781,631	503,573,311
Total current assets	559,463,036	504,507,107
Current financial liabilities (excluding trade payables)	(376,393,752)	(700,614,716)
Other current liabilities (including trade payables)	(277,530,796)	(187,886,318)
Total current liabilities	(653,924,548)	(888,501,034)
Total current net assets	(94,461,512)	(383,993,927)
Non-current		
Assets	4,478,244,300	4,730,342,032
Financial liabilities	(1,104,686,420)	(1,162,120,609)
Total non-current net assets	3,373,557,880	3,568,221,423
Net assets	3,279,096,368	3,184,227,496

Summarised statement of comprehensive income

	Consolidated financial statements of Thai Solar Renewable Co., Ltd. For the year ended 31 December	
	2021 Baht	2020 Baht
Revenue from sales	496,467,987	490,897,737
Subsidy for adders	1,046,670,027	1,007,241,723
Cost of sales	(321,520,947)	(309,561,972)
Gross profit	1,221,617,067	1,188,577,488
Other income	3,857,781	1,486,860
Other gains	782,921	726,246
Administrative expenses	(80,838,951)	(32,340,387)
Finance costs	(59,875,968)	(85,853,653)
Profit before income tax	1,085,542,850	1,072,596,554
Income tax	(14,010,858)	(373,983)
Profit from continuing operations after income tax	1,071,531,992	1,072,222,571

The information above reflects the amounts presented in the financial statements of the joint venture (and not the Group's share of those amounts). Under equity method the Group recognised profit or loss of the joint venture in Statement of Comprehensive Income within "Share of profit from investments in joint venture" according to the Group's interest in the joint venture.

Reconciliation of summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in joint ventures.

	Thai Solar Renewable Co., Ltd. As at 31 December	
	2021 Baht	2020 Baht
Summarised financial information		
Closing net assets	3,279,096,368	3,184,227,496
Reconciliation:		
The difference from restructuring business under common control	136,913,097	136,913,097
Non-controlling interests	169,143	6,109
Closing net assets after reconciliation	3,416,178,608	3,321,146,702
Interest in joint ventures (60%)	2,049,707,165	1,992,688,021
Carrying value	2,049,707,165	1,992,688,021

As at 31 December 2021, Thai Solar Renewable Company Limited has pledged share certificates of Siam Solar Energy 1 Company Limited, amounting to Baht 1,080 million (2020: Baht 1,080 million) as collateral for its subsidiary's credit facilities granted by a commercial bank. In addition, Siam Solar Energy 1 Company Limited has mortgaged land with construction thereon and machinery with a total net book value of Baht 4,424.52 million (2020: Baht 4,523.59 million) and pledged bank deposits amounting to Baht 305 million (2020: Baht 264 million) as collateral for credit facilities granted by a commercial bank.

The Company has pledged all share certificates of the investment in the joint venture with the lender as the collateral for the credit facilities which the joint venture is granted from the commercial bank.

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15 Investments in subsidiaries

Details of investments as at 31 December 2021 and 2020 are as follows:

	Type of business	Country of incorporation	Proportion of ordinary shares directly held by parent (%)		Proportion of shares held by non-controlling interests (%)	
			2021	2020	2021	2020
Subsidiaries directly held by the Company						
TSE Rooftop Co., Ltd.	Investment	Thailand	100	100	-	-
Solar Visible Co., Ltd.	Investment	Thailand	100	100	-	-
TSE Overseas Group Co., Ltd.	Investment	Thailand	100	100	-	-
World Solar Co., Ltd.	Investment	Thailand	100	100	-	-
Thai Community Energy Co., Ltd.	Investment	Thailand	100	100	-	-
Subsidiaries held by TSE Rooftop Co., Ltd.						
Green Rooftop Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
North Rooftop Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Lucky Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Champ Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Roof Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Subsidiaries held by Solar Visible Co., Ltd.						
Solar Community Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Infinity Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
BS Bangsai Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Siam Solar Power Plc.	Production and distribution of electricity	Thailand	100	100	-	-
Siam Tara Floating Co., Ltd. (previously "B P Trading (Thailand) Co., Ltd.")	Production and distribution of electricity	Thailand	100	100	-	-
Earth Energy Systems Co., Ltd.	Investment	Thailand	100	100	-	-
Subsidiaries held by Thai Community Energy Co., Ltd.						
Bangsawan Green Co., Ltd.	Production and distribution of electricity	Thailand	100	49	-	51
Oscar Save The World Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Native Power Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	-	-	-
White Solution Energy Co., Ltd.	Production and distribution of electricity	Thailand	100	-	-	-
Clean Renewable Co., Ltd.	Production and distribution of electricity	Thailand	100	-	-	-
Subsidiary held by Siam Solar Power Plc.						
Siam Waste Power Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Subsidiary held by Earth Energy Systems Co., Ltd.						
Mars Solar Co., Ltd.	Production and distribution of electricity	Thailand	100	100	-	-
Subsidiaries held by World Solar Co., Ltd.						
Native Power Energy Co., Ltd.	Production and distribution of electricity	Thailand	-	100	-	-
White Solution Energy Co., Ltd.	Production and distribution of electricity	Thailand	-	100	-	-
Clean Renewable Co., Ltd.	Production and distribution of electricity	Thailand	-	100	-	-
Subsidiaries held by TSE Overseas Group Co., Ltd.						
TSE Group International Pte. Ltd.	Investment	Singapore	100	100	-	-
Solar Assets Pte. Ltd.	Investment	Singapore	100	100	-	-
Onikoube Solar Power Pte. Ltd.	Investment	Singapore	100	100	-	-
TSE Japan G.K.	Service	Japan	100	100	-	-

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Type of business	Country of incorporation	Proportion of ordinary shares directly held by parent (%)		Proportion of shares held by non-controlling interests (%)		
		2021	2020	2021	2020	
Subsidiaries held by TSE Group International Pte. Ltd.						
Eco Solar Aizu G.K.	Production and distribution of electricity	Japan	-	97	-	3
Ishikawa Hanamizuki 1 G.K.	Production and distribution of electricity	Japan	100	97	-	3
Subsidiaries held by Solar Assets Pte. Ltd.						
Ibaraki Ushiku 1 G.K.	Land lease	Japan	-	100	-	-
Ibaraki Ushiku 2 G.K.	Land lease	Japan	100	100	-	-
Subsidiaries held by Onikoube Solar Power Pte. Ltd.						
PurpleSol G.K.	Production and distribution of electricity	Japan	100	100	-	-

Movements of investments in subsidiaries during the year are as follow:

Disposal of investment under TSE Group International Pte. Ltd.

On 30 September 2021, TSE Group International Pte. Ltd. disposed investment in Eco Solar Aizu G.K. for a consideration of Baht 319.75 million. The Group deconsolidated and ceased consolidating this subsidiary since 30 September 2021. The Group recognised a gain from disposal of investment amounting to Baht 105.36 million under "Other gains (losses)" in the statement of comprehensive income in consolidated financial statements for the year ended 31 December 2021.

Disposal of investment under Solar Assets Pte. Ltd.

On 30 September 2021, Solar Assets Pte. Ltd. disposed investment in Ibaraki Ushiku 1 G.K. for a consideration of Baht 112.26 million. The Group deconsolidated and ceased consolidating this subsidiary since 30 September 2021. The Group recognised a loss from disposal of investment amounting to Baht 0.95 million under "Other gains (losses)" in the statement of comprehensive income in consolidated financial statements for the year ended 31 December 2021.

Changes in investment under World Solar Co., Ltd.

During 2021, the Group restructured its investments by selling shares of 3 subsidiaries under World Solar Co., Ltd. at book value to Thai Community Energy Co., Ltd. Details are as follows:

Subsidiaries	Investments Baht
Native Power Energy Co., Ltd.	249,995
White Solution Energy Co., Ltd.	249,995
Clean Renewable Co., Ltd.	3,749,995
	<u>4,249,985</u>

16 Investment properties

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Cost	124,193,203	124,193,203	110,193,203	110,193,203
<u>Less</u> Accumulated depreciation	(1,085,372)	(120,736)	-	-
Provision for impairment	(20,215,318)	(20,215,318)	(20,215,318)	(20,215,318)
Net book amount	102,892,513	103,857,149	89,977,885	89,977,885
Fair value	138,420,100	138,420,100	124,420,100	124,420,100
For the year ended 31 December				
Opening net book amount	102,892,513	103,857,149	89,977,885	89,977,885
Depreciation	(962,001)	(964,636)	-	-
Closing net book amount	101,930,512	102,892,513	89,977,885	89,977,885
As at 31 December				
Cost	124,193,203	124,193,203	110,193,203	110,193,203
<u>Less</u> Accumulated depreciation	(2,407,373)	(1,085,372)	-	-
Provision for impairment	(20,215,318)	(20,215,318)	(20,215,318)	(20,215,318)
Net book amount	101,930,512	102,892,513	89,977,885	89,977,885
Fair value	138,420,100	138,420,100	124,420,100	124,420,100

The fair value of investment property are within level 2 of the fair value hierarchy which are based on market comparable approach by comparing with the current price of recently sold properties in the same location.

Amounts recognised in profit and loss that are related to investment properties are as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Rental income	411,573	532,500	411,573	418,500
Direct operating expense relating to rental income	3,662	3,323	397	397
Operating expense not relating to rental income	4,190	4,190	4,190	4,190

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17 Property, plant and equipment

	Consolidated financial statements								Total Baht
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Vehicles Baht	Asset under construction Baht	
At 1 January 2020									
Cost	755,936,805	87,111,955	6,934,459,076	28,983,238	25,099,132	19,269,824	45,477,011	875,500,027	8,771,837,068
Less Accumulated depreciation	-	(6,282,681)	(658,158,617)	(8,727,457)	(8,509,787)	(9,912,982)	(14,594,889)	-	(706,186,413)
Provision for impairment	-	(1,903,108)	(550,065,354)	(6,780,379)	(123,722)	(123,206)	-	-	(558,995,769)
Net book amount	755,936,805	78,926,166	5,726,235,105	13,475,402	16,465,623	9,233,636	30,882,122	875,500,027	7,506,654,886
For the year ended 31 December 2020									
Opening net book amount	755,936,805	78,926,166	5,726,235,105	13,475,402	16,465,623	9,233,636	30,882,122	875,500,027	7,506,654,886
Acquisition of subsidiaries	-	14,800,000	167,385,707	-	-	14,293	-	-	182,200,000
Disposal of a subsidiary	-	(4,772,031)	(177,444,551)	-	(27,226)	-	-	-	(182,243,808)
Additions	-	4,674,575	2,907,726	163,000	8,222,062	2,160,253	449,110	2,670,390,646	2,688,967,372
Write-off, net	-	-	(21,572,633)	-	-	(20,170)	-	-	(21,592,803)
Transfer-in (out)	-	78,084	53,260,721	945,948	2,481,580	-	-	(56,766,333)	-
Depreciation charge	-	(10,842,311)	(304,283,868)	(3,417,931)	(4,199,755)	(3,586,096)	(9,215,002)	-	(335,544,963)
Impairment charge	-	-	(637,220)	-	-	-	-	-	(637,220)
Exchange differences	22,324,324	-	136,083,248	-	-	21,001	-	22,240,720	180,669,293
Closing net book amount	778,261,129	82,864,483	5,581,934,235	11,166,419	22,942,284	7,822,917	22,116,230	3,511,365,060	10,018,472,757
At 31 December 2020									
Cost	778,261,129	101,892,583	7,073,122,189	30,092,186	35,775,548	21,441,920	45,926,121	3,511,365,060	11,597,876,736
Less Accumulated depreciation	-	(17,124,992)	(954,043,248)	(12,145,388)	(12,709,542)	(13,495,797)	(23,809,891)	-	(1,033,328,858)
Provision for impairment	-	(1,903,108)	(537,144,706)	(6,780,379)	(123,722)	(123,206)	-	-	(546,075,121)
Net book amount	778,261,129	82,864,483	5,581,934,235	11,166,419	22,942,284	7,822,917	22,116,230	3,511,365,060	10,018,472,757

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	Consolidated financial statements								Total Baht
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Vehicles Baht	Asset under construction Baht	
For the year ended 31 December 2021									
Opening net book amount	778,261,129	82,864,483	5,581,934,235	11,166,419	22,942,284	7,822,917	22,116,230	3,511,365,060	10,018,472,757
Disposal of subsidiaries	(116,112,938)	-	(771,138,950)	-	-	-	-	-	(887,251,888)
Additions	-	314,808	11,847,108	363,000	4,968,624	703,628	-	1,770,394,994	1,788,592,162
Write-off, net	-	-	(4,541,084)	-	(57,000)	(16)	-	-	(4,598,100)
Transfer-in (out)	-	-	303,393,268	-	415,542	-	-	(303,808,810)	-
Depreciation charge	-	(11,488,710)	(298,269,619)	(3,794,126)	(5,773,129)	(2,911,764)	(8,940,621)	-	(331,177,969)
Impairment charge	-	(693,084)	(159,246,458)	5,455,211	(796)	(77,294)	-	-	(154,562,421)
Exchange differences	4,828,197	-	34,041,194	-	-	1,193	-	(5,174,932)	33,695,652
Closing net book amount	666,976,388	70,997,497	4,698,019,694	13,190,504	22,495,525	5,538,664	13,175,609	4,972,776,312	10,463,170,193
At 31 December 2021									
Cost	666,976,388	102,207,391	6,643,956,088	30,455,186	41,102,714	22,044,015	45,926,121	4,972,776,312	12,525,444,215
<u>Less</u> Accumulated depreciation	-	(28,613,702)	(1,256,740,355)	(17,264,682)	(18,482,671)	(16,505,351)	(32,750,521)	-	(1,370,357,273)
Provision for impairment	-	(2,596,192)	(689,196,039)	-	(124,518)	-	-	-	(691,916,749)
Net book amount	666,976,388	70,997,497	4,698,019,694	13,190,504	22,495,525	5,538,664	13,175,609	4,972,776,312	10,463,170,193

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	Separate financial statements							Total Baht
	Land Baht	Land improvement Baht	Power plants Baht	Office buildings Baht	Tools and equipment Baht	Office equipment Baht	Asset under construction Baht	
At 1 January 2020								
Cost	37,552,064	3,141,059	888,113,339	27,734,238	2,627,344	12,846,631	150,000	972,164,675
<u>Less</u> Accumulated depreciation	-	(544,867)	(153,206,543)	(8,340,534)	(2,277,474)	(7,583,975)	-	(171,953,393)
Provision for impairment	-	(1,903,108)	(536,408,457)	(6,780,379)	(123,722)	(123,206)	-	(545,338,872)
Net book amount	37,552,064	693,084	198,498,339	12,613,325	226,148	5,139,450	150,000	254,872,410
For the year ended 31 December 2020								
Opening net book amount	37,552,064	693,084	198,498,339	12,613,325	226,148	5,139,450	150,000	254,872,410
Additions	-	-	487,500	-	36,600	1,568,030	-	2,092,130
Write-off, net	-	-	-	-	-	(20,170)	-	(20,170)
Depreciation charge	-	-	(24,615)	(3,305,463)	(134,995)	(1,909,575)	-	(5,374,648)
Closing net book amount	37,552,064	693,084	198,961,224	9,307,862	127,753	4,777,735	150,000	251,569,722
At 31 December 2020								
Cost	37,552,064	3,141,059	888,600,839	27,734,238	2,663,944	14,391,211	150,000	974,233,355
<u>Less</u> Accumulated depreciation	-	(544,867)	(153,231,158)	(11,645,997)	(2,412,469)	(9,490,270)	-	(177,324,761)
Provision for impairment	-	(1,903,108)	(536,408,457)	(6,780,379)	(123,722)	(123,206)	-	(545,338,872)
Net book amount	37,552,064	693,084	198,961,224	9,307,862	127,753	4,777,735	150,000	251,569,722
For the year ended 31 December 2021								
Opening net book amount	37,552,064	693,084	198,961,224	9,307,862	127,753	4,777,735	150,000	251,569,722
Additions	-	-	-	-	171,213	87,860	-	259,073
Depreciation charge	-	-	(1,897,822)	(3,661,108)	(100,084)	(1,862,721)	-	(7,521,735)
Impairment charge	-	(693,084)	(159,246,458)	5,455,211	(796)	(77,294)	-	(154,562,421)
Closing net book amount	37,552,064	-	37,816,944	11,101,965	198,086	2,925,580	150,000	89,744,639
At 31 December 2021								
Cost	37,552,064	3,141,059	888,600,839	27,734,238	2,835,157	14,462,871	150,000	974,476,228
<u>Less</u> Accumulated depreciation	-	(544,867)	(161,587,856)	(16,632,273)	(2,512,553)	(11,527,291)	-	(192,814,840)
Provision for impairment	-	(2,596,192)	(689,196,039)	-	(124,518)	-	-	(691,916,749)
Net book amount	37,552,064	-	37,816,944	11,101,965	198,086	2,925,580	150,000	89,744,639

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Borrowing costs incurring from the borrowings for the construction of the power plants during the year were capitalised and included as “Additions” for Baht 117.63 million (2020: Baht 57.87 million). The Group used the capitalisation rates of 2.82% to 4.58% per annum (2020: 3.01% to 4.58% per annum) to calculate the borrowing costs for the capitalisation. The capitalisation rate are the actual rate of the borrowings which were used for the construction, and the interest rate differential between borrowing costs that would incur if the company borrowed in its functional currency and actual borrowing costs incurred on foreign currency borrowing.

During the year ended 31 December 2021, the management has reviewed the recoverable amount of the thermal power plant, which was ceased the operation. Accordingly, loss on impairment amounting to Baht 154.56 million was additionally recognised under “Administrative expense” in the statement of comprehensive income.

Depreciation expense has been recognised in the statement of comprehensive income as follows;

	Consolidated financial statements		Separate financial statements	
	2021 Baht million	2020 Baht million	2021 Baht million	2020 Baht million
Cost of sales	323.14	319.32	2.00	0.16
Administrative expense	8.04	16.22	5.52	5.22
	331.18	335.54	7.52	5.38

Land, building and equipment with the net book value amounting to Baht 8,724.29 million (2020: Baht 8,234.74 million) have been pledged as collaterals for credit facilities obtained from commercial bank.

18 Right-of-use assets

Right-of-use assets as at 31 December comprise the following:

	Consolidated financial statements			
	Properties Baht	Equipment Baht	Vehicles Baht	Total Baht
Balance as at 1 January 2021	262,691,329	15,132,266	47,822,983	325,646,578
Additions	13,520,585	-	1,519,094	15,039,679
Lease termination	-	-	(264,833)	(264,833)
Depreciation	(25,643,494)	(1,131,385)	(11,523,573)	(38,298,452)
Translation adjustments	168,739	-	-	168,739
Net book value as at 31 December 2021	250,737,159	14,000,881	37,553,671	302,291,711

	Separate financial statements		
	Properties Baht	Vehicles Baht	Total Baht
Balance as at 1 January 2021	9,532,294	20,810,678	30,342,972
Additions	-	668,147	668,147
Depreciation	(3,900,879)	(4,512,970)	(8,413,849)
Net book value as at 31 December 2021	5,631,415	16,965,855	22,597,270

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

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Expense relating to short-term leases	114,605	716,162	114,605	716,162
Expense relating to leases of low-value assets	225,360	218,760	115,440	108,840
Expense relating to variable lease payments	8,061,944	7,963,784	-	-
Total cash outflow of leases	51,637,940	43,123,971	9,279,454	9,311,745

19 Goodwill

	Consolidated financial statements	
	2021 Baht	2020 Baht
As 1 January		
Cost	53,332,214	18,084,426
<u>Less</u> Provision for impairment	(2,477,172)	(971,663)
Net book amount	50,855,042	17,112,763
For the year ended 31 December		
Opening net book amount	50,855,042	17,112,763
Acquisition of a subsidiary	-	35,605,786
Disposal of a subsidiary	-	(341,711)
Impairment charge	(2,315,248)	(1,521,796)
Closing net book amount	48,539,794	50,855,042
At 31 December		
Cost	53,332,214	53,332,214
<u>Less</u> Provision for impairment	(4,792,420)	(2,477,172)
Net book amount	48,539,794	50,855,042

The Group has reduced the carrying amount of goodwill to the amount that is recoverable by recognising the loss from impairment of goodwill. Such losses are included in cost of sales and services in profit or loss.

The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on financial budgets approved by management covering a contractual period of power purchase agreement. The growth rate does not exceed the long-term average growth rate for the business in which the CGU operates.

The key assumptions used for value-in-use calculations are as follows:

Gross margin ¹	52.91 - 68.90%
Growth rate ²	0.46 - 0.50%
Discount rate ³	8.00%

¹ Budgeted gross margin

² Weighted average growth rates used to extrapolate cash flows for the budget period

³ Post-tax discount rates applied to the cash flow projections

These assumptions are used for analysis a CGU generating cash in business segments.

Management determined budgeted gross margin based on past performance and expected market growth. The weighted average growth rates used are consistent with the forecasts throughout contractual period of power purchase agreement. The discount rates used are pre-tax and reflect specific risks relating to the relevant segments.

The impairment charge arose from the decreasing in the expected period of the operation in respect of the duration of the specified Power Purchase Agreement.

20 Intangible assets

	Consolidated financial statements			
	Software Baht	Power purchase agreement Baht	Works in progress Baht	Total Baht
As at 1 January 2020				
Cost	12,307,237	4,686,515,377	731,500	4,699,554,114
<u>Less</u> Accumulated amortisation	(5,270,176)	(48,717,668)	-	(53,987,844)
Net book amount	7,037,061	4,637,797,709	731,500	4,645,566,270
For the year ended 31 December 2020				
Opening net book amount	7,037,061	4,637,797,709	731,500	4,645,566,270
Acquisition of subsidiaries	-	189,500,000	-	189,500,000
Disposal of a subsidiary	-	(63,298,617)	-	(63,298,617)
Additions	347,956	47,282,699	-	47,630,655
Transfer - in (out)	731,500	-	(731,500)	-
Amortisation charge	(2,434,751)	(53,833,923)	-	(56,268,674)
Exchange differences	-	182,139,963	-	182,139,963
Closing net book amount	5,681,766	4,939,587,831	-	4,945,269,597
As at 31 December 2020				
Cost	13,386,693	5,037,813,126	-	5,051,199,819
<u>Less</u> Accumulated amortisation	(7,704,927)	(98,225,295)	-	(105,930,222)
Net book amount	5,681,766	4,939,587,831	-	4,945,269,597
For the year ended 31 December 2021				
Opening net book amount	5,681,766	4,939,587,831	-	4,945,269,597
Additions	848,476	-	-	848,476
Amortisation charge	(2,214,191)	(57,910,644)	-	(60,124,835)
Exchange differences	-	(512,792)	-	(512,792)
Closing net book amount	4,316,051	4,881,164,395	-	4,885,480,446
As at 31 December 2021				
Cost	14,235,169	5,037,300,334	-	5,051,535,503
<u>Less</u> Accumulated amortisation	(9,919,118)	(156,135,939)	-	(166,055,057)
Net book amount	4,316,051	4,881,164,395	-	4,885,480,446

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	Separate financial statements		
	Computer software Baht	Works in progress Baht	Total Baht
As at 1 January 2020			
Cost	11,493,202	731,500	12,224,702
<u>Less</u> Accumulated amortisation	(5,167,526)	-	(5,167,526)
Net book amount	6,325,676	731,500	7,057,176
For the year ended 31 December 2020			
Opening net book amount	6,325,676	731,500	7,057,176
Additions	125,055	-	125,055
Transfer-in (out)	731,500	(731,500)	-
Amortisation charge	(2,062,100)	-	(2,062,100)
Closing net book amount	5,120,131	-	5,120,131
As at 31 December 2020			
Cost	12,349,757	-	12,349,757
<u>Less</u> Accumulated amortisation	(7,229,626)	-	(7,229,626)
Net book amount	5,120,131	-	5,120,131
For the year ended 31 December 2021			
Opening net book amount	5,120,131	-	5,120,131
Additions	243,640	-	243,640
Amortisation charge	(2,006,997)	-	(2,006,997)
Closing net book amount	3,356,774	-	3,356,774
As at 31 December 2021			
Cost	12,593,397	-	12,593,397
<u>Less</u> Accumulated amortisation	(9,236,623)	-	(9,236,623)
Net book amount	3,356,774	-	3,356,774

Amortisation expenses recognised in the statement of comprehensive income are as follows;

	Consolidated financial statements		Separate financial statements	
	2021 Baht million	2020 Baht million	2021 Baht million	2020 Baht million
Cost of sales	57.91	53.84	-	-
Administrative expense	2.21	2.43	2.01	2.06
	60.12	56.27	2.01	2.06

21 Deferred income taxes

The analysis of deferred income tax assets and liabilities is as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Deferred income tax assets	83,034,709	85,869,845	-	-
Deferred income tax liabilities	(103,938,044)	(108,117,693)	(3,557,083)	(4,688,555)
Deferred income taxes - net	(20,903,335)	(22,247,848)	(3,557,083)	(4,688,555)

Movement of deferred income tax account is as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
As at 1 January	(22,247,848)	(26,169,314)	(4,688,555)	(6,342,862)
Acquisition of subsidiaries	-	(1,431,699)	-	-
Disposal of subsidiaries	(334,371)	3,438,465	-	-
Recognised in profit or loss (Note 32)	1,867,835	1,893,081	1,131,472	1,654,307
Exchange differences	(188,951)	21,619	-	-
As at 31 December	(20,903,335)	(22,247,848)	(3,557,083)	(4,688,555)

Movements of deferred income tax assets and liabilities during the year are as follows:

	Consolidated financial statements				
	Tax losses Baht	Fair value of plant and equipment from acquisition of subsidiaries Baht	Right-of-use assets Baht	Others Baht	Total Baht
Deferred income tax assets					
As at 1 January 2020	118,040	36,137,564	18,897,978	656,731	55,810,313
Acquisition of subsidiaries	-	14,970,721	7,601,049	-	22,571,770
Disposal of a subsidiary	-	(1,921,913)	-	-	(1,921,913)
Recognised in profit or loss	-	-	9,265,383	105,138	9,370,521
Exchange differences	6,306	-	-	32,848	39,154
As at 31 December 2020	124,346	49,186,372	35,764,410	794,717	85,869,845
As at 1 January 2021	124,346	49,186,372	35,764,410	794,717	85,869,845
Disposal of subsidiaries	(124,328)	-	-	(567,157)	(691,485)
Recognised in profit or loss	-	-	(1,916,073)	104,611	(1,811,462)
Exchange differences	(18)	-	-	(332,171)	(332,189)
As at 31 December 2021	-	49,186,372	33,848,337	-	83,034,709

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	Consolidated financial statements					
	Deferred debt issuance cost Baht	Depreciation Baht	Fair value of intangible assets Baht	Fair value of property from acquisition of subsidiaries Baht	Other Baht	Total Baht
Deferred income tax liabilities						
As at 1 January	(3,774,039)	(15,771,847)	(45,713,186)	(12,164,297)	(4,556,258)	(81,979,627)
Acquisition of subsidiaries	-	-	(17,831,903)	-	(6,171,566)	(24,003,469)
Disposal of a subsidiary	-	-	-	3,624,367	1,736,011	5,360,378
Recognised in profit or loss	1,227,044	(8,995,565)	-	-	291,080	(7,477,441)
Exchange differences	(110,145)	99,243	-	-	(6,632)	(17,534)
As at 31 December 2020	(2,657,140)	(24,668,169)	(63,545,089)	(8,539,930)	(8,707,365)	(108,117,693)
As at 1 January 2021	(2,657,140)	(24,668,169)	(63,545,089)	(8,539,930)	(8,707,365)	(108,117,693)
Disposal of subsidiaries	1,857,490	(1,500,376)	-	-	-	357,114
Recognised in profit or loss	(468,989)	3,693,153	-	-	455,133	3,679,297
Exchange differences	218,390	(64,104)	-	-	(11,048)	143,238
As at 31 December 2021	(1,050,249)	(22,539,496)	(63,545,089)	(8,539,930)	(8,263,280)	(103,938,044)

	Separate financial statements				
	Deferred debt issuance cost Baht	Depreciation Baht	Others Baht	Total Baht	
Deferred income tax liabilities					
As at 1 January 2020		(1,770,796)	(3,231,252)	(1,340,814)	(6,342,862)
Recognised in profit or loss		1,079,626	334,666	240,015	1,654,307
As at 31 December 2020		(691,170)	(2,896,586)	(1,100,799)	(4,688,555)
As at 1 January 2021		(691,170)	(2,896,586)	(1,100,799)	(4,688,555)
Recognised in profit or loss		(359,079)	948,047	542,504	1,131,472
As at 31 December 2021		(1,050,249)	(1,948,539)	(558,295)	(3,557,083)

Presentation in the statements of financial position is as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Deferred income tax assets	22,021,077	21,733,866	-	-
Deferred income tax liabilities	(42,924,412)	(43,981,714)	(3,557,083)	(4,688,555)
Deferred income tax, net	(20,903,335)	(22,247,848)	(3,557,083)	(4,688,555)

Deferred income tax assets and liabilities are offset when the income taxes related to the same fiscal authority. Deferred tax assets and deferred tax liabilities in the consolidated financial position are presented at net amount of assets and liabilities incurred in each entity.

Deferred income tax assets are recognised for tax loss carry forwards only to the extent that realisation of the related tax benefit through the future taxable profits is probable. The Group did not recognise deferred income tax assets of Baht 303.59 million (2020: Baht 276.54 million) in respect of losses carry forward amounting to Baht 1,517.94 million (2020: Baht 1,382.71 million).

A summary of the tax losses carried forward and the expiry dates are set out below:

Expiry year	Consolidated financial statements Baht	Separate financial statements Baht
2022	219,496,376	210,429,201
2023	304,730,957	291,765,982
2024	419,814,973	410,500,432
2025	311,592,310	235,528,229
2026	262,312,547	234,490,004
	1,517,947,163	1,382,713,848

22 Trade and other payables

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Trade account payables	54,654,948	48,235,144	1,973,393	832,285
Construction payables and retention guarantee	1,145,800	18,153,132	7,500	7,500
Payables from acquisition of investments (Note 36.2)	-	-	249,995	249,995
Dividends payable	-	105,884,814	-	105,884,814
Other accrued expenses	96,464,876	82,017,753	42,844,002	43,536,308
	152,265,624	254,290,843	45,074,890	150,510,902

23 Borrowings

23.1 Short-term borrowings from financial institutions

	Consolidated and Separate financial statements	
	2021 Baht	2020 Baht
Short-term borrowings from financial institutions	230,000,000	250,000,000

Movements in short-term borrowings from financial institutions during 2021 and 2020 are analysed as follows:

	Consolidated and Separate financial statements	
	2021 Baht	2020 Baht
Opening amount as at 1 January	250,000,000	98,470,171
Cash items:		
Additions	60,000,000	1,330,000,000
Discount on notes payable	-	(2,370,387)
Repayment of borrowings	(80,000,000)	(1,180,000,000)
Non-cash items:		
Amortisation of discount on notes payable	-	3,900,216
Closing amount as at 31 December	230,000,000	250,000,000

The short-term borrowings comprised promissory note issued to financial institution amounting to Baht 230 million with interest rate of 3.05% per annum. The principal repayment is due by 23 February 2022.

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23.2 Lease liabilities

The present value of lease liabilities are as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Not later than 1 year	29,091,881	28,895,457	7,989,350	8,233,557
Later than 1 year but not later than 5 years	60,389,269	69,071,455	4,861,779	12,298,150
Later than 5 years	227,927,329	240,453,481	-	-
	317,408,479	338,420,393	12,851,129	20,531,707

Movements in lease can be analysed as follows:

	Consolidated financial statements		
	Lease payables	Deferred interest	Lease liabilities
As at 1 January 2020	307,810,937	(62,572,905)	245,238,032
Cash items:			
Repayment	(34,081,298)	-	(34,081,298)
Non-cash items:			
Additions	102,884,422	(33,128,071)	69,756,351
Lease termination	(1,156,381)	5,868	(1,150,513)
Acquisition of subsidiaries	71,033,288	(25,810,003)	45,223,285
Amortised deferred interest	-	8,462,455	8,462,455
Foreign currency translation differences	5,439,234	(467,153)	4,972,081
As at 31 December 2020	451,930,202	(113,509,809)	338,420,393
As at 1 January 2021	451,930,202	(113,509,809)	338,420,393
Cash items:			
Repayment	(43,236,031)	-	(43,236,031)
Non-cash items:			
Additions	11,649,384	(254,381)	11,395,003
Lease termination	(293,715)	7,969	(285,746)
Amortised deferred interest	-	11,128,594	11,128,594
Foreign currency translation differences	(6,607)	(7,127)	(13,734)
As at 31 December 2021	420,043,233	(102,634,754)	317,408,479
	Separate financial statements		
	Lease payables	Deferred interest	Lease liabilities
As at 1 January 2020	26,008,446	(1,678,889)	24,329,557
Cash items:			
Repayment	(8,502,143)	-	(8,502,143)
Non-cash items:			
Additions	4,211,520	(414,134)	3,797,386
Amortised deferred interest	-	906,907	906,907
As at 31 December 2020	21,717,823	(1,186,116)	20,531,707
As at 1 January 2021	21,717,823	(1,186,116)	20,531,707
Cash items:			
Repayment	(9,049,409)	-	(9,049,409)
Non-cash items:			
Additions	720,000	(51,853)	668,147
Amortised deferred interest	-	700,684	700,684
As at 31 December 2021	13,388,414	(537,285)	12,851,129

23.3 Long-term borrowings from financial institutions

	Consolidated		Separate	
	financial statements		financial statements	
	2021	2020	2021	2020
	Baht	Baht	Baht	Baht
Current portion of long-term borrowings	600,855,831	2,443,767,344	331,320,868	2,144,265,435
Long-term borrowings payable between 1 to 5 years	7,098,652,162	4,172,879,911	1,839,874,374	337,164,964
Long-term borrowings payable more than 5 years	1,295,150,097	2,105,700,428	14,694,373	57,220,886
	8,994,658,090	8,722,347,683	2,185,889,615	2,538,651,285

The long-term borrowings from financial institutions are secured by the pledge and the assignment of rights over the Group's bank deposits, land with construction thereon and machinery, the assignment of rights under all project agreements, pledge of the certain shares held by the subsidiaries and the joint venture's shares held by the Company, pledge of the Company's shares that held by P.M. Energy Company Limited, shares of subsidiaries, and the right to receive dividends from subsidiaries and joint venture.

The loan agreements contain covenants imposed on the Group as specified in the agreements, related to such matters as dividend payment, reduction of share capital, merger or consolidation with any other entities and maintenance of certain debt to equity and debt service coverage ratios.

On 1 October 2021, the Company amended the loan agreement by converting currency of the outstanding balance from Japanese Yen to Thai Baht, changing interest rate from TIBOR +3% to MLR -1% and extending the borrowing term from 1 October 2021 to 3 October 2024.

The Company assessed the amendment of the new term and determined that it meets definition of derecognition. Accordingly, the Company recognised the new financial liability based on the fair value of its obligation. The outstanding balance of the existing liability is derecognised. The difference amounting to Baht 60.45 million is recorded as gain in other gains/losses.

Movements in long-term borrowings from financial institutions during 2021 and 2020 are analysed as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2021	2020	2021	2020
	Baht	Baht	Baht	Baht
Opening amount as at 1 January	8,722,347,683	6,474,190,075	2,538,651,285	2,563,955,157
Cash items:				
Addition	1,557,491,210	3,155,668,685	-	370,000,000
Financial service fee	(4,539,901)	(85,136,624)	(4,539,901)	(1,012,500)
Repayment of borrowings	(652,363,726)	(1,095,850,251)	(360,771,656)	(501,434,656)
Non-cash items:				
Acquisition of subsidiaries	-	174,292,767	-	-
Disposal of subsidiaries	(646,231,143)	(113,340,552)	-	-
Gain on loan restructuring	(60,451,325)	-	(60,451,325)	-
Amortisation of financial service fee	13,921,176	17,703,069	3,568,846	4,302,816
Foreign currency translation differences	64,484,116	194,820,514	69,432,366	102,840,468
Closing amount as at 31 December	8,994,658,090	8,722,347,683	2,185,889,615	2,538,651,285

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The contractual interest rates of the long-term borrowings at the statement of financial position date are as follows :

Consolidated financial statements				
Currency	2021		2020	
	Fixed interest rates	Floating interest rates	Fixed interest rates	Floating interest rates
Yen	-	TIBOR + 1.22 to 2.75	-	TIBOR + 1.22 to 3.00
Baht	3.25	Fixed deposit rate + 3.35	3.25	Fixed deposit rate + 3.35
	2.00	THBFIX + 3.50		THBFIX + 3.50
		MLR - 1.00 to 1.95		MLR - 1.95

Separate financial statements				
Currency	2021		2020	
	Fixed interest rates	Floating interest rates	Fixed interest rates	Floating interest rates
Yen	-	-	-	TIBOR + 3.00
Baht	3.25	MLR - 1.00 to 1.95	3.25	MLR - 1.95

23.4 Borrowing facilities

The Group and the Company have the following undrawn committed borrowing facilities:

	Currency	Consolidated financial statements		Separate financial statements	
		2021	2020	2021	2020
Floating rate					
Expiring beyond one year	Baht Thousand	197,132	105,350	35,400	400
	Yen Thousand	14,141,250	601,115	-	601,115
Fixed rate					
Expiring beyond one year	Baht Thousand	4,966	4,966	-	-

23.5 Debentures

	Consolidated and Separate financial statements	
	2021	2020
	Baht	Baht
Current portion of debentures	2,348,497,958	-
Debentures payable between 1 to 5 years	1,098,310,884	3,444,096,320
	3,446,808,842	3,444,096,320

Movements in debentures during 2021 and 2020 are analysed as follows:

	Consolidated and Separate financial statements	
	2021	2020
	Baht	Baht
Opening amount as at 1 January	3,444,096,320	3,294,825,758
Cash items:		
Issuance of debentures	-	1,099,600,000
Maturing of debentures	-	(950,000,000)
Deferred issuance cost	-	(2,850,000)
Non-cash items:		
Amortisation of issuance cost	2,712,522	2,520,562
Closing amount as at 31 December	3,446,808,842	3,444,096,320

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As at 31 December 2021, outstanding debentures comprise name-registered certificate of unsubordinated and unsecured debentures totaling 2,350,000 units and 1,099,600 units with the fixed interest of 4.50% per annum, with the interest payable every 3 and 6 months, respectively. Debentures have the face value of Baht 1,000. The debentures amounting to Baht 2,350 million and Baht 1,099.60 million will be redeemed on 22 October 2022 and 21 April 2023, respectively.

23.6 Fair value

The carrying amounts and fair values of certain lease liabilities, long-term borrowings from financial institutions and debentures are as follows:

	Consolidated financial statements			
	Carrying amounts		Fair value	
	31 December 2021 Baht	31 December 2020 Baht	31 December 2021 Baht	31 December 2020 Baht
Lease liabilities	317,408,479	338,420,393	258,126,355	247,013,906
Long-term borrowings from financial institutions	8,994,658,090	8,722,347,683	8,305,329,828	7,632,353,133
Debentures	3,446,808,842	3,444,096,320	3,429,551,010	3,419,264,566
	Separate financial statements			
	Carrying amounts		Fair value	
	31 December 2021 Baht	31 December 2020 Baht	31 December 2021 Baht	31 December 2020 Baht
Lease liabilities	12,851,129	20,531,707	12,384,627	12,904,696
Long-term borrowings from financial institutions	2,185,889,615	2,538,651,285	1,992,231,804	2,447,949,493
Debentures	3,446,808,842	3,444,096,320	3,429,551,010	3,419,264,566

The fair value of short-term borrowings from financial institutions equals their carrying amount, as the impact of discounting is not significant.

The fair values are based on discounted cash flows using a discount rate based upon the borrowing rates of 1.89% to 4.33% (2020: 1.88% to 3.71%) and are within level 2 of the fair value hierarchy.

23.7 Interest rates

The effective interest rates at the statement of financial position date are as follows:

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
Finance lease liabilities	1.88% - 4.33%	2.34% - 4.89%	3.30% - 4.33%	4.15% - 4.20%
Borrowings from financial institutions	4.15% - 4.85%	1.88% - 3.71%	4.15% - 4.85%	3.34% - 3.42%
Debentures	4.52%	4.58%	4.52%	4.58%

24 Derivative liabilities

	Consolidated financial statements	
	2021 Baht	2020 Baht
Non-current interest rate swap	50,463,036	58,355,907
Total interest rate swap	50,463,036	58,355,907

The fair value of interest rate swaps are within level 2 of the fair value hierarchy which are calculated as the present value of the estimated future cash flows based on observable yield curve.

Cash flow hedging on long-term borrowing

To avoid the uncertainty of floating interest rate exposure under JPY denominated borrowing, the Group entered into interest rate swap agreement of principal amounting to Baht 1,175.97 million with financial institution in March 2017 to swap floating rate to a fixed rate until 2037.

The ineffective portion that arises from cash flow hedge amounts will be recognised in the profit or loss; however, there is no ineffectiveness for the year ended 31 December 2021. The effective portion of the fair value of swap is recognised in the other comprehensive income (OCI).

The following table shows a reconciliation of cash flow hedge reserve.

	Consolidated financial statements Baht
As at 1 January 2021	58,355,907
Add: Change in fair value of hedge instrument recognised in OCI	(8,009,244)
Foreign currency translation differences	116,373
Closing balance 31 December 2021	<u>50,463,036</u>

25 Employee benefit obligations

	Consolidated and Separate financial statements	
	2021 Baht	2020 Baht
Statement of financial position:		
Retirement benefits		
Liability in the statement of financial position	21,559,034	17,371,256
Profit or loss charge included in operating profit for:		
Retirement benefits	4,304,857	3,849,431

The movement in the defined benefit obligations over the year is as follows:

	Consolidated and Separate financial statements	
	2021 Baht	2020 Baht
At 1 January	17,371,256	13,521,825
Current service cost	4,018,245	3,626,307
Interest expense	286,612	223,124
Benefit payment	(117,079)	-
At 31 December	<u>21,559,034</u>	<u>17,371,256</u>

The principal actuarial assumptions used were as follows:

	Consolidated and Separate financial statements	
	2021	2020
Discount rate	1.65%	1.65%
Salary growth rate	4.00%	4.00%

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The sensitivity analyses of significant actuarial assumptions in pension liability calculations.

	Change in assumption		Impact on defined benefit obligation			
			Increase in assumption		Decrease in assumption	
	2021	2020	2021	2020	2021	2020
Discount rate	1%	1%	Decrease by 10.68 %	Decrease by 11.10%	Increase by 12.66 %	Increase by 13.18%
Salary growth rate	1%	1%	Increase by 14.39 %	Increase by 13.81%	Decrease by 12.26 %	Decrease by 11.83%

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognised within the statement of financial position.

The methods and types of assumptions used in preparing the sensitivity analysis did not change compared to the previous year.

Through its defined benefit retirement plans, the Group is exposed to a number of risks, the most significant of which are detailed below:

Changes in bond yields A decrease in Government bond yields will increase plan liabilities.

Inflation risk Some of the Group pension obligations are linked to inflation, and higher inflation will lead to higher liabilities.

The weighted average duration of the defined benefit obligation is 24.60 years (2020: 24.38 years).

Expected maturity analysis of undiscounted retirement:

	Consolidated and Separate financial statements				
	Less than a year Baht	Between 1-2 years Baht	Between 2-5 years Baht	Over 5 years Baht	Total Baht
Retirement benefits					
As at 31 December 2020	117,079	409,672	752,438	223,151,587	224,430,776
As at 31 December 2021	409,672	619,580	1,872,380	221,412,065	224,313,697

26 Share capital and premium on share capital

	Consolidated and Separate financial statements				
	Number of shares Shares	Issued and paid Shares	Issued and paid up Baht	Share premium Baht	Total Baht
At 1 January 2020	2,477,474,454	2,117,716,281	2,117,716,281	1,045,504,325	3,163,220,606
At 31 December 2020	2,477,474,454	2,117,716,281	2,117,716,281	1,045,504,325	3,163,220,606
At 31 December 2021	2,477,474,454	2,117,716,281	2,117,716,281	1,045,504,325	3,163,220,606

As at 31 December 2021, the total authorised number of ordinary shares is 2,477,474,454 shares (2020: 2,477,474,454 shares) with a par value of Baht 1 each (2020: Baht 1 each). 2,117,716,281 shares are issued and fully paid (2020: 2,117,716,281 shares).

27 Legal reserve

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
At 1 January	106,757,899	81,303,726	80,090,954	67,603,094
Appropriation during the year	23,264,194	25,454,173	11,786,120	12,487,860
At 31 December	130,022,093	106,757,899	91,877,074	80,090,954

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10% of the registered capital. The legal reserve is non-distributable.

28 Other income

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Rental income	1,040,853	1,025,100	1,040,853	1,025,100
Interest income	442,201	797,169	13,855,736	16,836,996
Other income	8,388,505	10,467,824	143,906	505,569
	9,871,559	12,290,093	15,040,495	18,367,665

29 Other gains (losses)

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
(Loss) gain on exchange rate	(77,774,936)	(97,952,615)	(68,919,054)	75,635,864
Gain on loan restructuring	60,451,325	-	60,451,325	-
Realised gain on disposal of financial assets measured at fair value	-	218,977	-	218,977
Gain (loss) on sale of investment in subsidiaries	104,410,828	(2,704,575)	-	-
	87,087,217	(100,438,213)	(8,467,729)	75,854,841

30 Expenses by nature

The following expenditure items, classified by nature, have been charged in arriving at the operating profit:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Salary, wages and employees' benefits	179,232,892	159,273,659	156,226,299	140,435,542
Depreciation	370,438,422	367,174,627	15,935,584	13,291,571
Amortisation	60,124,835	56,268,674	2,006,997	2,062,100
Impairment loss (Note 17)	154,562,421	637,220	154,562,421	-
Write off equipment (Note 17)	4,598,100	21,592,803	-	20,170
Professional fees	157,282,593	214,705,547	13,935,104	30,175,554
Operation and maintenance of power plants	31,791,762	25,024,512	524,753	-
Expected credit loss	7,768,571	894,980	7,605,020	894,980

31 Finance costs

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Interest on borrowing from financial institutions	317,095,882	313,545,207	239,497,221	269,908,871
Financial service fees	10,623,716	15,095,345	6,781,370	10,019,748
Interest on lease liabilities	10,596,803	12,087,764	700,684	906,907
	338,316,401	340,728,316	246,979,275	280,835,526

32 Income tax

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Current tax on profits for the year	10,495,393	2,067,311	-	-
Deferred tax (Note 21)	(1,867,835)	(1,893,081)	(1,131,472)	(1,654,307)
Adjustments in respect of prior year	7,929	-	-	-
	8,635,487	174,230	(1,131,472)	(1,654,307)

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The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate as follows:

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Profit (loss) before tax	501,620,663	418,980,931	178,164,436	204,170,426
Tax calculated at a tax rate of 20% (2020: 20%)	100,324,133	83,796,186	35,632,887	40,834,085
Tax effect of:				
Foreign tax rate difference	6,995,686	12,395,452	-	-
Joint venture's results reported net of tax	(128,583,839)	(128,666,709)	-	-
Tax exemption for income under BOI	(46,662,169)	(58,065,402)	-	-
Income subject to tax	23,049,153	14,307,703	8,022,013	12,644,887
Income not subject to tax	(20,957,891)	(108,634)	(119,477,589)	(98,140,017)
Expenses not deductible for tax purpose	36,055,828	9,447,470	35,095,808	1,725,325
Expense deducted at greater amount	(6,547,686)	(10,630,573)	(6,171,120)	(6,390,517)
Tax losses for which no deferred income tax asset was recognised	51,838,724	64,282,318	46,898,001	48,006,596
Utilisation of previously unrecognised tax losses	(2,522,247)	(285,827)	-	-
Deferred tax expense relating to the origination and reversal of temporary differences	(1,867,833)	(430,284)	(1,131,472)	(334,666)
Unrealised (loss) gain from intercompany transactions	(2,494,301)	14,132,530	-	-
Adjustment in respect of prior periods	7,929	-	-	-
Tax charge	8,635,487	174,230	(1,131,472)	(1,654,307)

33 Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares in issue during the year.

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
Net profit attributable to ordinary shareholders of the company (Baht)	492,705,987	421,428,545	179,295,908	205,824,733
Weighted average number of outstanding ordinary shares (Shares)	2,117,716,281	2,117,716,281	2,117,716,281	2,117,716,281
Basic earnings per share (Baht per share)	0.23	0.20	0.08	0.10

There are no potential dilutive ordinary shares during 2021 and 2020.

34 Promotional privileges

The Group is granted with 34 certificates of promotional privileges from the Board of Investment for the production of electricity generated from solar power and biomass, the privilege includes an exemption of import duty on imported machinery, an exemption for corporate income tax for a period of 8 years from the date the promoted operation commenced generating revenue (the commercial operation date).

The Group's operating revenue from sales and subsidy for adders as per the statements of comprehensive income for the years ended 31 December 2021 and 2020 wholly derive from promoted operations in Thailand. Details of operating segments are disclosed in Note 8.

35 Dividends

2021

On 16 September 2021, the Board of Directors Meeting approved a dividend payment in respect of operating results during January to June 2021 to the shareholders at Baht 0.04 per share, totaling Baht 84.71 million. The dividends were paid on 12 October 2021.

2020

On 25 March 2020, the Board of Directors Meeting (special occasion) approved a dividend payment in respect of operating results for the year 2019 to the shareholders at Baht 0.12 per share, totaling Baht 254 million. The dividends were paid on 20 April 2020.

On 9 December 2020, the Board of Directors Meeting approved a dividend payment in respect of operating results during January to September 2020 to the shareholders at Baht 0.05 per share, totaling Baht 106 million. The dividends were paid on 8 January 2021.

36 Related party transactions

Enterprises and individuals that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the company, including holding companies, subsidiaries and fellow subsidiaries are related parties of the company. Associates and individuals owning, directly or indirectly, an interest in the voting power of the company that gives them significant influence over the enterprise, key management personnel, including directors and officers of the company and close members of the family of these individuals and companies associated with these individuals also constitute related parties.

In considering each possible related-party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

The Company is controlled by P.M. Energy Company Limited (incorporated in Thailand) which owns 37% of the Company's shares. The remaining 63% of the shares are held by Wave Entertainment (Public) Company Limited, Sino-Thai Engineering & Construction Public Company Limited and individual shareholders. The significant investments in joint venture, and subsidiaries are set out in Notes 14 and 15.

The following material transactions were carried out with related parties:

36.1 Sales of goods and services

For the year ended 31 December	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Subsidiaries				
Management service income	-	-	139,397,500	64,330,000
Operation and maintenance income	-	-	6,268,817	1,680,000
Dividends income	-	-	11,487,839	-
	-	-	157,154,156	66,010,000
Joint venture				
Management service income	49,327,078	46,978,170	49,327,078	46,978,170
Rental income	476,280	453,600	476,280	453,600
Dividends income	58	45	585,900,108	490,700,087
	49,803,416	47,431,815	635,703,466	538,131,857

36.2 Outstanding balances arising from sales/purchases of goods/services

	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Amounts due from and advances to related parties (Note 12)				
Subsidiaries	-	-	182,645,924	79,928,541
Joint venture	4,469,272	4,256,449	4,469,272	4,256,449
	4,469,272	4,256,449	187,115,196	84,184,990
Dividends receivable (Note 12)				
Joint venture	136,500,024	88,900,016	136,500,024	88,900,016
Receivables from disposal of investments				
Subsidiaries	-	-	1,383,683,149	1,383,683,149
Receivables from disposal of investments arose due to the Group's restructuring.				
Payables from acquisition of investments (Note 22)				
Subsidiaries	-	-	249,995	249,995

36.3 Long-term loans to subsidiaries

	Separate financial statements	
	2021 Baht	2020 Baht
Current portion of long-term loans to subsidiaries	78,520,000	81,140,000
Long-term loans to subsidiaries	5,830,077,641	6,133,449,798
	5,908,597,641	6,214,589,798

Movements in loans to subsidiaries for the year ended 31 December are analysed as follows:

	Separate financial statements	
	2021 Baht	2020 Baht
Opening net book amount	6,214,589,798	5,065,751,459
Cash items:		
Addition	200,597,300	619,772,929
Repayment received	(508,208,010)	(292,168,628)
Non-cash items:		
Transferred from short-term loan	-	650,350,825
Foreign currency translation differences	1,618,553	170,883,213
Closing net book amount	5,908,597,641	6,214,589,798

Long-term loans to subsidiaries are in form of loan agreements denominated in Japanese Yen and Thai Baht. Loans carry non-bearing interest and the rates range from 4.3% to 6.0% per annum respectively. Certain loans are due for repayment at call and other loans have maturity within 2022 to 2028.

The management do not have intention to call the for repayment of loans due at call in the next 12 months and classify these loans as long-term accordingly.

36.4 Key management compensation

For the year ended 31 December	Consolidated financial statements		Separate financial statements	
	2021 Baht	2020 Baht	2021 Baht	2020 Baht
Short-term employee benefits	44,185,171	39,210,338	25,354,216	22,281,141
Post-employment benefits	1,706,895	1,575,687	1,706,895	1,575,687
	45,892,066	40,786,025	27,061,111	23,856,828

37 Contingencies

Guarantees

As at 31 December 2021, there were outstanding bank guarantees amounting to Baht 6 million (2020: Baht 6 million) issued by banks on behalf of the Company and its subsidiaries in respect of certain performance bonds as required in the normal course of business.

38 Commitments

38.1 Capital commitments

Capital commitments exist as at the date of the statement of financial position but not included in the financial statements are as follows:

	Currency	Consolidated and Separate financial statements	
		31 December 2021	31 December 2020
Power plants	THB	-	106,724,300
Power plants	USD	17,555,070	40,986,702
Power plants	JPY	11,818,680,000	14,773,350,000

38.2 Power purchase agreements

Domestic

As at 31 December 2021, the Group has 34 power purchase agreements with the Provincial Electricity Authority (“PEA”) and the Metropolitan Electricity Authority (“MEA”) (2020: 34 agreements). Currently, the Group has commenced the production and distribution of electricity under 34 power purchase agreements which are summarised as follows:

	The electricity generated system	Company	Number of agreements	Production capacity MW	Electricity rate (Baht/kilowatt-hour)	The term of the agreements
Production and distribution of electricity	Renewable energy	Company	1	4.5	Peak period amounting to Baht 4.21 and off-peak period amounting to Baht 2.63 for the quantity which do not exceed the capacity factor and peak period amounting to Baht 4.22 and off-peak period amounting to Baht 2.36 for the quantity which exceed the capacity factor and the Company had also been granted an adder amounting to Baht 8 granted for a period of 10 years commencing from commercial operation date (COD).	The agreements are for a period of 5 years and will be automatically renewed every 5 years until the contract termination.
Production and distribution of electricity	Solar farm	Joint venture	10	80	Peak period amounting to Baht 4.21 and off-peak period amounting to Baht 2.63 for the quantity which do not exceed the capacity factor and peak period amounting to Baht 4.22 and off-peak period amounting to Baht 2.36 for the quantity which exceed the capacity factor and the Company had also been granted an adder amounting to Baht 6.50 granted for a period of 10 years commencing from commercial operation date (COD).	The agreements are for a period of 5 years and will be automatically renewed every 5 years until the contract termination.
Production and distribution of electricity	Solar rooftops	Subsidiaries	14	14	Feed-in Tariff system (FIT) amounting to Baht 6.16.	The agreements are for a period of 25 years commencing from commercial operation date (COD).
Production and distribution of electricity	Solar farm	Subsidiary	3	8	Feed-in Tariff system (FIT) amounting to Baht 5.66.	The agreements are for a period of 25 years commencing from commercial operation date (COD).
Production and distribution of electricity	Biomass energy	Subsidiary	1	4.6	Feed-in Tariff system (FIT) amounting to Baht 4.28 and Feed-in Tariff system (FIT) Premium amounting to Baht 0.30 granted for a period of 8 years commencing from commercial operation date (COD).	The agreements are for a period of 20 years commencing from commercial operation date (COD).
Production and distribution of electricity	Biomass energy	Subsidiary	2	17.6	Feed-in Tariff system (FIT) amounting to Baht 4.28 and Feed-in Tariff system (FIT) Premium amounting to Baht 0.30 granted for a period of 8 years commencing from commercial operation date (COD).	The agreements are for a period of 15 years 4 months commencing from commercial operation date (COD).
Production and distribution of electricity	Solar farm	Subsidiary	1	5	Feed-in Tariff system (FIT) amounting to Baht 4.12.	The agreements are for a period of 25 years commencing from commercial operation date (COD).
Production and distribution of electricity	Solar farm	Subsidiary	1	8	Peak period amounting to Baht 4.18 and off-peak period amounting to Baht 2.60 for the quantity which do not exceed the capacity factor and peak period amounting to Baht 4.22 and off-peak period amounting to Baht 2.36 for the quantity which exceed the capacity factor and the Company had also been granted an adder amounting to Baht 8 granted for a period of 10 years commencing from commercial operation date (COD).	The agreements are for a period of 1 year and will be automatically renewed every 1 year until the contract termination.
Production and distribution of electricity	Floating Solar	Subsidiary	1	8	Peak period amounting Baht 4.10 and off-peak period amounting to Baht 2.58 granted for a period of 25 years commencing from commercial operation date (COD).	For a period of 25 years commencing from commercial operation date (COD)

Overseas

As at 31 December 2021, subsidiaries operating in Japan have 1 power purchase agreements (2020: 7 agreements) with the power purchasing agencies, of which the power plants have already commenced generating and distributing the electricity. In addition, subsidiaries have 1 power purchase agreement and right to develop for the power purchase agreement (2020: 1 agreements) for the projects which have not yet commenced generating and distributing the electricity. The agreements are summarised as follows:

	The electricity generated system	Company	Number of agreements	Production capacity MW	Electricity rate (Baht/kilowatt-hour)	The term of the agreements
Production and distribution of electricity	Solar farm	Subsidiary	1	13.50	Feed-in Tariff system (FIT) amounting to Yen 36.	The agreements are for a period of 20 years starting from commercial operation date (COD).
Under development and construction	Solar farm	Subsidiary	1	154.98	Feed-in Tariff system (FIT) amounting to Yen 36.	The agreement has maturity within 2040 starting from commercial operation date (COD).

38.3 Contracts and other commitments

- a) A joint venture has commitments in respect of a management service agreement with the other venture amounting to Baht 6 million per annum for a period of 10 years from May 2013, with the service fee to increase on an annual basis at the rate specified in the agreement. The fees for the year ended 31 December 2021 amounting to Baht 4 million (2020: Baht 4 million) (in proportionate of the Company's interest in the joint venture) were recognised as expenses.
- b) A joint venture has commitments in respect of the operation and maintenance agreements of seven power plants with a company, amounting to Baht 9 million per annum for the period of 10 years from the commercial operation date. The fees for the year ended 31 December 2021 amounting to approximately Baht 5 million (2020: Baht 5 million) (in proportionate of the Company's interest in the joint venture) were recognised as expenses.
- c) A joint venture has commitments in respect of the operation and maintenance agreements of three power plants with a company, amounting to Baht 8 million per annum for the period of 5 years from June 2017. The fees for the year ended 31 December 2021 amounting to Baht 5 million per annum (2020: Baht 5 million) (in proportionate of the Company's interest in the joint venture) were recognised as expenses.
- d) A subsidiary has commitments in respect of the operation and maintenance agreements of two power plants with a company, amounting to Baht 44 million per annum for the period of 5 years from the commercial operation date. The fees for the year ended 31 December 2021 amounting to Baht 44 million (2020: Baht 44 million) were recognised as expenses.

39 Events after the reporting period

On 24 February 2022, the Board of Directors Meeting approved a dividend payment in respect of operating results during July to December 2021 to the shareholders at Baht 0.035 per share, totaling Baht 74.12 million. The dividends will be paid on 22 April 2022.