Sanix / 4651

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Research Coverage Report by Shared Research Inc.

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How to read a Shared Research report: This report begins with the trends and outlook section, which discusses the company's most recent earnings. First-time readers should start at the business section later in the report.

Key financial data

Income statement (JPYmn)	FY03/11 Cons.	FY03/12 Cons.	FY03/13 Cons.	FY03/14 Cons.	FY03/15 Cons.	FY03/16 Cons.	FY03/17 Cons.	FY03/18 Cons.	FY03/19 Cons.	FY03/20 Cons.	FY03/21 Est.
Sales	**28,980**	**31,454**	**43,366**	**84,212**	**95,629**	**61,916**	**50,955**	**49,993**	**50,719**	**52,531**	**49,127**
YoY	18.1%	8.5%	37.9%	94.2%	13.6%	-35.3%	-17.7%	-1.9%	1.5%	3.6%	-6.5%
Gross profit	**10,276**	**10,442**	**13,370**	**21,421**	**18,907**	**13,783**	**14,142**	**14,044**	**14,830**	**17,556**	**16,885**
YoY	3.6%	1.6%	28.0%	60.2%	-11.7%	-27.1%	2.6%	-0.7%	5.6%	18.4%	-3.8%
GPM	35.5%	33.2%	30.8%	25.4%	19.8%	22.3%	27.8%	28.1%	29.2%	33.4%	34.4%
Operating profit	**502**	**410**	**1,870**	**4,508**	**-3,142**	**-2,229**	**1,036**	**1,246**	**1,224**	**2,791**	**1,840**
YoY	28.6%	-18.3%	356.4%	141.0%	-	-	-	20.3%	-1.8%	128.0%	-34.1%
OPM	1.7%	1.3%	4.3%	5.4%	-	-	2.0%	2.5%	2.4%	5.3%	3.7%
Recurring profit	**430**	**348**	**1,789**	**4,310**	**-3,439**	**-1,949**	**907**	**1,019**	**1,182**	**2,592**	**1,610**
YoY	91.2%	-19.1%	414.1%	140.9%	-	-	-	12.3%	16.0%	119.3%	-37.9%
RPM	1.5%	1.1%	4.1%	5.1%	-	-	1.8%	2.0%	2.3%	4.9%	3.3%
Net income	**50**	**14**	**1,575**	**2,965**	**-4,966**	**-4,602**	**416**	**1,180**	**240**	**1,850**	**1,199**
YoY	-	-71.8%	-	88.2%	-	-	-	183.7%	-79.7%	670.8%	-35.2%
Net margin	0.2%	0.0%	3.6%	3.5%	-	-	0.8%	2.4%	0.5%	3.5%	2.4%
Per-share data											
Shares issued (year-end; '000)	48,919	48,919	48,919	48,919	48,919	48,919	48,919	48,919	48,919	48,919	
EPS	1.0	0.3	33.0	62.1	-104.0	-96.3	8.7	24.7	5.0	38.7	25.1
EPS (fully diluted)	-	-	-	-	-	-	-	-	-	-	
Dividend per share	-	-	-	-	-	-	-	-	-	-	-
Book value per share	148.2	149.0	184.6	247.2	152.7	54.3	58.9	84.5	87.1	126.2	
Balance sheet (JPYmn)											
Cash and cash equivalents	1,138	1,366	3,559	9,237	7,026	3,038	5,578	5,482	5,238	5,919	
Total current assets	**5,890**	**6,964**	**14,652**	**38,649**	**31,569**	**16,930**	**17,522**	**15,759**	**16,613**	**16,277**	
Tangible fixed assets	11,763	11,724	12,326	14,181	15,099	12,417	12,278	11,926	12,057	13,739	
Investments and other assets	1,843	1,802	1,533	1,914	1,906	1,458	1,518	2,037	2,074	2,047	
Intangible fixed assets	910	796	685	573	545	440	325	214	262	450	
Total assets	**20,407**	**21,286**	**29,196**	**55,317**	**49,120**	**31,248**	**31,645**	**29,938**	**31,009**	**32,514**	
Accounts payable	868	1,386	5,460	20,115	18,537	7,227	6,365	5,079	4,188	3,716	
Short-term debt	3,186	3,085	4,186	5,948	7,416	11,014	13,504	11,825	12,440	10,453	
Total current liabilities	**6,961**	**8,381**	**14,873**	**36,582**	**35,560**	**24,642**	**25,586**	**23,003**	**23,529**	**21,576**	
Long-term debt	4,319	3,630	2,870	3,725	3,055	1,077	484	325	210	762	
Total fixed liabilities	**6,343**	**5,770**	**5,486**	**6,907**	**6,229**	**3,976**	**3,212**	**2,857**	**3,285**	**4,881**	
Total liabilities	**13,304**	**14,151**	**20,359**	**43,489**	**41,789**	**28,618**	**28,799**	**25,861**	**26,815**	**26,458**	
Total net assets	**7,103**	**7,135**	**8,837**	**11,828**	**7,331**	**2,629**	**2,845**	**4,076**	**4,193**	**6,056**	
Total interest bearing debt	7,505	6,714	7,056	9,674	10,471	12,091	13,988	12,150	12,650	11,215	
Cash flow statement (JPYmn)											
Cash flows from operating activities	55	1,260	2,185	4,934	-1,794	-5,403	1,668	2,184	-25	4,080	
Cash flows from investing activities	-214	-151	-222	-3,271	-1,181	1,062	-409	171	-947	-2,154	
Cash flows from financing activities	43	-882	230	2,433	647	1,288	1,437	-2,156	392	-1,110	
Financial ratios											
ROA (RP-based)	2.1%	1.7%	7.1%	10.2%	-	-	2.9%	3.3%	3.9%	8.2%	
ROE	0.7%	0.2%	19.8%	28.8%	-	-	15.4%	34.4%	5.9%	36.3%	
Equity ratio	34.7%	33.4%	30.2%	21.3%	14.9%	8.3%	8.9%	13.5%	13.4%	18.5%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Net income refers to income attributable to owners of the parent.

Recent updates

Highlights

On February 12, 2021, Sanix Incorporated announced earnings results for Q3 FY03/21; see the results section for details.

On the same day, the company announced a revised FY03/21 earnings forecast.

Revision of FY03/21 earnings forecast

- Sales: JPY49.1bn (previous projection was JPY49.7bn)
- Operating profit: JPY1.8bn (JPY1.9bn)
- Recurring profit: JPY1.6bn (JPY1.8bn)
- Net income: JPY1.2bn (JPY1.3bn)
- EPS: JPY25.10 (JPY28.14)

*Net income attributable to owners of the parent

Reasons for revision

Sanix revised its sales and profit projections primarily in the Energy and Solar Engineering segments for the following reasons.

- In the Energy segment, the company expects sales to be JPY1.2bn higher than the previous projection with increased power sales volume and higher market prices arising from winter weather factors and an LNG shortage. However, it expects an increase in power procurement costs to push operating profit JPY433mn lower than the previous forecast.
- In the Solar Engineering segment, the company expects sales to be JPY1.7bn lower than the previous projection because sales of solar power systems for in-house power consumption, which began in FY03/21, have not proceeded as anticipated, largely due to the impact of the COVID-19 pandemic.

On December 22, 2020, Shared Research updated the report following interviews with the company.

For previous releases and developments, please refer to the News and topics section.

Trends and outlook

Quarterly trends and results

Cumulative	FY03/20				FY03/21				FY03/21	
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	% of Est.	FY Est.
Sales	11,603	24,538	37,893	52,531	11,893	23,947	35,812		72.9%	49,127
YoY	-1.1%	0.4%	2.3%	3.6%	2.5%	-2.4%	-5.5%			-6.5%
Gross profit	4,263	8,863	13,260	17,556	4,505	9,132	13,553		77.2%	17,562
YoY	20.4%	18.1%	18.4%	18.4%	5.7%	3.0%	2.2%			0.0%
GPM	36.7%	36.1%	35.0%	33.4%	37.9%	38.1%	37.8%			35.7%
SG&A expenses	3,640	7,311	10,976	14,765	3,720	7,467	11,172			
YoY	5.9%	7.3%	7.4%	8.5%	2.2%	2.1%	1.8%			
SG&A ratio	31.4%	29.8%	29.0%	28.1%	31.3%	31.2%	31.2%			
Operating profit	623	1,551	2,284	2,791	784	1,664	2,381		129.4%	1,840
YoY	504.9%	125.4%	133.5%	128.0%	25.8%	7.3%	4.2%			-34.1%
OPM	5.4%	12.0%	17.1%	19.1%	6.6%	13.8%	20.1%			3.7%
Recurring profit	600	1,429	2,087	2,592	755	1,562	2,224		138.1%	1,610
YoY	289.6%	107.4%	122.5%	119.3%	25.8%	9.3%	6.6%			-37.9%
RPM	5.2%	11.0%	15.6%	17.7%	6.3%	13.0%	18.7%			3.3%
Net income	436	1,140	1,531	1,850	663	1,410	1,915		159.7%	1,199
YoY	292.8%	487.6%	693.3%	670.8%	52.1%	23.7%	25.1%			-35.2%
Net margin	3.8%	8.8%	11.5%	12.6%	5.6%	11.7%	16.1%			2.4%

Quarterly	FY03/20				FY03/21			
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales	11,603	12,935	13,355	14,638	11,893	12,054	11,865	
YoY	-1.1%	1.7%	6.1%	7.0%	2.5%	-6.8%	-11.2%	
Gross profit	4,263	4,600	4,397	4,296	4,505	4,627	4,421	
YoY	20.4%	16.1%	19.0%	18.2%	5.7%	0.6%	0.5%	
GPM	36.7%	35.6%	32.9%	29.3%	37.9%	38.4%	37.3%	
SG&A expenses	3,640	3,671	3,665	3,789	3,720	3,747	3,705	
YoY	5.9%	8.6%	7.7%	11.9%	2.2%	2.1%	1.1%	
SG&A ratio	31.4%	28.4%	27.4%	25.9%	31.3%	31.1%	31.2%	
Operating profit	623	928	733	507	784	880	717	
YoY	504.9%	58.6%	152.8%	106.1%	25.8%	-5.2%	-2.2%	
OPM	5.4%	7.2%	5.5%	3.5%	6.6%	7.3%	6.0%	
Recurring profit	600	829	658	505	755	807	662	
YoY	289.6%	55.0%	164.3%	107.0%	25.8%	-2.7%	0.6%	
RPM	5.2%	6.4%	4.9%	3.4%	6.3%	6.7%	5.6%	
Net income	436	704	391	319	663	747	505	
YoY	292.8%	748.2%	-	578.7%	52.1%	6.1%	29.2%	
Net margin	3.8%	5.4%	2.9%	2.2%	5.6%	6.2%	4.3%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Net income refers to net income attributable to owners of the parent.

Quarterly segment earnings

Segment sales and profit (cumulative)	FY03/20				FY03/21				FY03/21	
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	% of Est.	FY Est.
Sales	**11,603**	**24,538**	**37,893**	**52,531**	**11,893**	**23,947**	**35,812**		**72.9%**	**49,127**
YoY	-1.1%	0.4%	2.3%	3.6%	2.5%	-2.4%	-5.5%			-6.5%
Solar Engineering	2,355	5,606	9,869	15,195	3,024	5,399	7,706		74.0%	10,417
YoY	-15.3%	-5.7%	2.1%	5.3%	28.4%	-3.7%	-21.9%			-31.4%
Environmental Resources Development	4,093	8,045	12,294	16,759	4,131	8,296	12,647		75.9%	16,659
YoY	12.2%	10.6%	14.8%	18.7%	0.9%	3.1%	2.9%			-0.6%
Energy	2,342	5,041	7,103	9,132	1,963	4,402	6,790		64.7%	10,491
YoY	-14.4%	-13.1%	-13.3%	-13.9%	-16.2%	-12.7%	-4.4%			14.9%
Home Sanitation	2,948	5,884	8,529	11,235	2,854	5,886	8,658		76.3%	11,354
YoY	8.7%	7.1%	5.6%	4.5%	-3.2%	0.0%	1.5%			1.1%
Establishment Sanitation	487	1,102	1,584	2,261	520	1,132	1,712		71.5%	2,396
YoY	17.3%	21.8%	14.4%	17.4%	6.8%	2.7%	8.1%			6.0%
Adjustments	-624	-1,142	-1,488	-2,053	-602	-1,169	-1,702		-	-2,190
Operating profit	**623**	**1,551**	**2,284**	**2,791**	**784**	**1,664**	**2,381**		**129.4%**	**1,840**
YoY	504.9%	125.4%	133.5%	128.0%	25.8%	7.3%	4.2%			-34.1%
Operating profit margin	5.4%	6.3%	6.0%	5.3%	6.6%	6.9%	6.6%			3.7%
Solar Engineering	20	298	741	901	263	233	219		63.8%	343
YoY	-	441.8%	44.4%	-25.2%	-	-21.8%	-70.4%			-61.9%
OPM	0.8%	5.3%	7.5%	5.9%	8.7%	4.3%	2.8%			3.3%
Environmental Resources Development	867	1,655	2,317	3,483	942	1,974	2,998		92.5%	3,242
YoY	150.6%	133.8%	208.5%	723.4%	8.7%	19.3%	29.4%			-6.9%
OPM	21.2%	20.6%	18.8%	20.8%	22.8%	23.8%	23.7%			19.5%
Energy	-41	-30	10	-485	-80	-33	28		-	-407
YoY	-	-	-97.0%	-	-	-	180.0%			-
OPM	-	-	0.1%	-	-	-	0.4%			-
Home Sanitation	655	1,235	1,633	2,061	545	1,168	1,639		80.3%	2,042
YoY	12.9%	-0.2%	-4.2%	-7.6%	-16.8%	-5.4%	0.4%			-0.9%
OPM	22.2%	21.0%	19.1%	18.3%	19.1%	19.8%	18.9%			18.0%
Establishment Sanitation	40	137	155	281	29	118	180		62.9%	286
YoY	-23.1%	7.0%	-20.9%	-2.1%	-27.5%	-13.9%	16.1%			1.8%
OPM	8.2%	12.4%	9.8%	12.4%	5.6%	10.4%	10.5%			11.9%
Adjustments	-919	-1,744	-2,574	-3,452	-915	-1,798	-2,686		-	-3,665

Segment sales and profit (quarterly)	FY03/20				FY03/21			
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales	**11,603**	**12,935**	**13,355**	**14,638**	**11,893**	**12,054**	**11,865**	
YoY	-1.1%	1.7%	6.1%	7.0%	2.5%	-6.8%	-11.2%	
Solar Engineering	2,355	3,251	4,263	5,326	3,024	2,375	2,307	
YoY	-15.3%	2.6%	14.7%	11.8%	28.4%	-26.9%	-45.9%	
Environmental Resources Development	4,093	3,952	4,249	4,465	4,131	4,165	4,351	
YoY	12.2%	8.9%	23.9%	30.9%	0.9%	5.4%	2.4%	
Energy	2,342	2,699	2,062	2,029	1,963	2,439	2,388	
YoY	-14.4%	-12.1%	-13.5%	-16.2%	-16.2%	-9.6%	15.8%	
Home Sanitation	2,948	2,936	2,645	2,706	2,854	3,032	2,772	
YoY	8.7%	5.5%	2.6%	1.0%	-3.2%	3.3%	4.8%	
Establishment Sanitation	487	615	482	677	520	612	580	
YoY	17.3%	25.5%	0.4%	25.1%	6.8%	-0.5%	20.3%	
Adjustments	-624	-518	-346	-565	-602	-567	-533	
Operating profit	**623**	**928**	**733**	**507**	**784**	**880**	**717**	
YoY	504.9%	58.6%	152.8%	106.1%	25.8%	-5.2%	-2.2%	
Operating profit margin	5.4%	7.2%	5.5%	3.5%	6.6%	7.3%	6.0%	
Solar Engineering	20	278	443	160	263	-30	-14	
YoY	-	94.4%	-3.3%	-76.8%	-	-	-	
OPM	0.8%	8.6%	10.4%	3.0%	8.7%	-	-	
Environmental Resources Development	867	788	662	1,166	942	1,032	1,024	
YoY	150.6%	117.7%	-	-	8.7%	31.0%	54.7%	
OPM	21.2%	19.9%	15.6%	26.1%	22.8%	24.8%	23.5%	
Energy	-41	11	40	-495	-80	47	61	
YoY	-	-93.1%	-51.8%	-	-	327.3%	52.5%	
OPM	-	0.4%	1.9%	-	-	1.9%	2.6%	
Home Sanitation	655	580	398	428	545	623	471	
YoY	12.9%	-11.9%	-14.6%	-18.8%	-16.8%	7.4%	18.3%	
OPM	22.2%	19.8%	15.0%	15.8%	19.1%	20.5%	17.0%	
Establishment Sanitation	40	97	18	126	29	89	62	
YoY	-23.1%	27.6%	-73.5%	38.5%	-27.5%	-8.2%	244.4%	
OPM	8.2%	15.8%	3.7%	18.6%	5.6%	14.5%	10.7%	
Adjustments	-919	-825	-830	-878	-915	-883	-888	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: "-"denotes YoY change of more than 1,000%.

SE segment earnings

Cumulative		FY03/20				FY03/21		
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales	2,355	5,606	9,869	15,195	3,024	5,399	7,706	
YoY	-15.3%	-5.7%	2.1%	5.3%	28.4%	-3.7%	-21.9%	
Direct sales	2,262	5,417	9,581	14,807	2,956	5,248	7,481	
YoY	-13.1%	-2.6%	4.8%	8.4%	30.7%	-3.1%	-21.9%	
Wholesale	61	121	186	269	41	98	153	
YoY	-46.5%	-58.0%	-53.5%	-53.5%	-32.8%	-19.0%	-17.7%	
Other	31	67	101	117	26	51	71	
Cost of sales	1,541	3,655	6,603	10,886	2,014	3,656	5,250	
Cost ratio	65.4%	65.2%	66.9%	71.6%	66.6%	67.7%	68.1%	
Materials	861	2,127	3,872	6,711	1,140	2,104	2,989	
% of sales	36.6%	37.9%	39.2%	44.2%	37.7%	39.0%	38.8%	
Labor	170	338	539	715	166	328	490	
% of sales	7.2%	6.0%	5.5%	4.7%	5.5%	6.1%	6.4%	
Gross profit	814	1,950	3,265	4,308	1,010	1,742	2,456	
YoY	7.0%	10.0%	5.1%	-8.1%	24.1%	-10.7%	-24.8%	
GPM	34.6%	34.8%	33.1%	28.4%	33.4%	32.3%	31.9%	
SG&A expenses	793	1,652	2,523	3,406	746	1,508	2,236	
YoY	-6.6%	-3.8%	-2.7%	-2.2%	-5.9%	-8.7%	-11.4%	
SG&A ratio	33.7%	29.5%	25.6%	22.4%	24.7%	27.9%	29.0%	
Personnel expenses	440	885	1,357	1,878	437	835	1,205	
Operating profit	20	298	741	901	263	233	219	
YoY	-	441.8%	44.4%	-25.2%	1215.0%	-21.8%	-70.4%	
OPM	0.8%	5.3%	7.5%	5.9%	8.7%	4.3%	2.8%	
Quarterly		FY03/20				FY03/21		
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales	2,355	3,251	4,263	5,326	3,024	2,375	2,307	
YoY	-15.3%	2.6%	14.7%	11.8%	28.4%	-26.9%	-45.9%	
Direct sales	2,262	3,155	4,164	5,226	2,956	2,292	2,233	
YoY	-13.1%	6.5%	16.4%	15.6%	30.7%	-27.4%	-46.4%	
Wholesale	61	60	65	83	41	57	55	
YoY	-46.5%	-65.5%	-42.0%	-53.4%	-32.8%	-5.0%	-15.4%	
Other	31	36	34	16	26	25	20	
Cost of sales	1,541	2,114	2,948	4,283	2,014	1,642	1,594	
Cost ratio	65.4%	65.0%	69.2%	80.4%	66.6%	69.1%	69.1%	
Materials	861	1,266	1,745	2,839	1,140	964	885	
% of sales	36.6%	38.9%	40.9%	53.3%	37.7%	40.6%	38.4%	
Labor	170	168	201	176	166	162	162	
% of sales	7.2%	5.2%	4.7%	3.3%	5.5%	6.8%	7.0%	
Gross profit	814	1,136	1,315	1,043	1,010	732	714	
YoY	7.0%	12.4%	-1.4%	-34.0%	24.1%	-35.6%	-45.7%	
GPM	34.6%	34.9%	30.8%	19.6%	33.4%	30.8%	30.9%	
SG&A expenses	793	859	871	883	746	762	728	
YoY	-6.6%	-1.0%	-0.6%	-0.7%	-5.9%	-11.3%	-16.4%	
SG&A ratio	33.7%	26.4%	20.4%	16.6%	24.7%	32.1%	31.6%	
Personnel expenses	440	445	472	521	437	398	370	
Operating profit	20	278	443	160	263	-30	-14	
YoY	-	94.4%	-3.3%	-76.8%	-	-	-	
OPM	0.8%	8.6%	10.4%	3.0%	8.7%	-	-	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Sales, volume, and unit price for solar power systems

Cumulative		FY03/20				FY03/21		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales (JPYmn)	2,262	5,417	9,581	14,807	3,024	5,248	7,481	
YoY	-13.1%	-2.6%	4.8%	8.4%	33.7%	-3.1%	-21.9%	
PV system sales volume (kW)	13,650	33,651	59,185	90,835	17,908	30,241	40,310	
YoY	-3.2%	6.0%	12.3%	12.7%	31.2%	-10.1%	-31.9%	
PV system price (JPY'000/kW)	166	161	162	163	169	174	186	
YoY	-10.2%	-8.1%	-6.7%	-3.8%	1.9%	7.8%	14.6%	
Quarterly		FY03/20				FY03/21		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales (JPYmn)	2,262	3,155	4,164	5,226	3,024	2,224	2,233	
YoY	-13.1%	6.5%	16.4%	15.6%	33.7%	-29.5%	-46.4%	
PV system sales volume (kW)	13,650	20,001	25,534	31,650	17,908	12,333	10,069	
YoY	-3.2%	13.2%	22.1%	13.3%	31.2%	-38.3%	-60.6%	
PV system price (JPY'000/kW)	166	158	163	165	169	180	222	
YoY	-10.2%	-5.9%	-4.7%	2.1%	1.9%	14.3%	36.0%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Unit price is calculated as sales divided by volume.

Environmental Resources Development (ERD) segment earnings

Cumulative	FY03/20				FY03/21			
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales	4,093	8,045	12,294	16,759	4,131	8,296	12,647	
YoY	12.2%	10.6%	14.8%	18.7%	0.9%	3.1%	2.9%	
Waste plastic processing	2,367	4,703	7,484	10,111	2,575	5,146	7,897	
YoY	15.4%	14.6%	16.0%	17.4%	8.8%	9.4%	5.5%	
Power generation	868	1,644	2,211	3,023	784	1,570	2,334	
YoY	6.2%	8.3%	27.7%	43.5%	-9.7%	-4.5%	5.6%	
Other	858	1,698	2,599	3,625	772	1,580	2,416	
YoY	10.3%	2.8%	3.0%	6.8%	-10.0%	-6.9%	-7.0%	
Gross profit	1,329	2,589	3,724	5,384	1,397	2,888	4,387	
GPM	32.5%	32.2%	30.3%	32.1%	33.8%	34.8%	34.7%	
SG&A expenses	461	934	1,407	1,901	454	914	1,388	
SG&A ratio	11.3%	11.6%	11.4%	11.3%	11.0%	11.0%	11.0%	
Operating profit	867	1,655	2,317	3,483	942	1,974	2,998	
YoY	150.6%	133.8%	208.5%	723.4%	8.7%	19.3%	29.4%	
OPM	21.2%	20.6%	18.8%	20.8%	22.8%	23.8%		
Quarterly	**FY03/20**				**FY03/21**			
(JPYmn)	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Sales	4,093	3,952	4,249	4,465	4,131	4,165	4,351	
YoY	12.2%	8.9%	23.9%	30.9%	0.9%	5.4%	2.4%	
Waste plastic processing	2,367	2,336	2,781	2,627	2,575	2,571	2,751	
YoY	15.4%	13.8%	18.5%	21.4%	8.8%	10.1%	-1.1%	
Power generation	868	776	567	812	784	786	764	
YoY	6.2%	10.7%	166.2%	116.0%	-9.7%	1.3%	34.7%	
Other	858	840	901	1,026	772	808	836	
YoY	10.3%	-3.9%	3.4%	17.8%	-10.0%	-3.8%	-7.2%	
Gross profit	1,329	1,260	1,135	1,660	1,397	1,491	1,499	
GPM	32.5%	31.9%	26.7%	37.2%	33.8%	35.8%	34.5%	
SG&A expenses	461	473	473	494	454	460	474	
SG&A ratio	11.3%	12.0%	11.1%	11.1%	11.0%	11.0%	10.9%	
Operating profit	867	788	662	1,166	942	1,032	1,024	
YoY	150.6%	117.7%	-	-	8.7%	31.0%	54.7%	
OPM	21.2%	19.9%	15.6%	26.1%	22.8%	24.8%	23.5%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Sales, volume, and unit price for waste plastic processing

Cumulative	FY03/20				FY03/21			
(JPYmn)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales (JPYmn)	2,367	4,703	7,484	10,111	2,575	5,146	7,897	
YoY	15.4%	14.6%	16.0%	17.4%	8.8%	9.4%	5.5%	
Acceptance volume (tons)	74,909	143,391	219,687	287,713	66,112	131,048	204,194	
YoY	-11.3%	-13.7%	-13.8%	-12.5%	-11.7%	-8.6%	-7.1%	
Unit price (JPY'000/t)	31.6	32.8	34.1	35.1	38.9	39.3	38.7	
YoY	30.1%	32.8%	34.7%	34.2%	23.3%	19.7%	13.5%	
Quarterly	**FY03/20**				**FY03/21**			
(JPYmn)	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Sales (JPYmn)	2,367	2,336	2,781	2,627	2,575	2,571	2,751	
YoY	15.4%	13.8%	18.5%	21.4%	8.8%	10.1%	-1.1%	
Acceptance volume (tons)	74,909	68,482	76,296	68,026	66,112	64,936	73,146	
YoY	-11.3%	-16.2%	-14.1%	-8.0%	-11.7%	-5.2%	-4.1%	
Unit price (JPY'000/ton)	31.6	34.1	36.5	38.6	38.9	39.6	37.6	
YoY	30.1%	35.7%	38.0%	31.9%	23.3%	16.1%	3.2%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Unit price is calculated as sales divided by volume.

Home Sanitation (HS) segment earnings

Cumulative (JPYmn)	FY03/20 Q1	FY03/20 Q2	FY03/20 Q3	FY03/20 Q4	FY03/21 Q1	FY03/21 Q2	FY03/21 Q3	FY03/21 Q4
Sales	2,948	5,884	8,529	11,235	2,854	5,886	8,658	
YoY	8.7%	7.1%	5.6%	4.5%	-3.2%	0.0%	1.5%	
Termite control service	1,024	1,991	2,762	3,547	953	1,931	2,756	
YoY	10.7%	8.7%	5.3%	3.1%	-6.9%	-3.0%	-0.2%	
Floor and ceiling ventilation systems	557	1,187	1,843	2,497	725	1,520	2,233	
YoY	35.5%	36.4%	38.8%	38.8%	30.2%	28.1%	21.2%	
Foundation repairing & building strengthening work	517	969	1,388	1,881	442	845	1,273	
YoY	-9.5%	-12.7%	-13.3%	-11.5%	-14.5%	-12.8%	-8.3%	
Other	848	1,736	2,535	3,308	733	1,588	2,394	
YoY	5.6%	3.3%	0.6%	-2.2%	-13.6%	-8.5%	-5.6%	
Gross profit	1,828	3,606	5,155	6,746	1,768	3,640	5,304	
GPM	62.0%	61.3%	60.4%	60.0%	61.9%	61.8%	61.3%	
SG&A expenses	1,172	2,371	3,522	4,684	1,223	2,471	3,664	
SG&A ratio	39.8%	40.3%	41.3%	41.7%	42.9%	42.0%	42.3%	
Operating profit	655	1,235	1,633	2,061	545	1,168	1,639	
YoY	12.9%	-0.2%	-4.2%	-7.6%	-16.8%	-5.4%	0.4%	
OPM	22.2%	21.0%	19.1%	18.3%	19.1%	19.8%	18.9%	
Quarterly (JPYmn)	**FY03/20 Q1**	**FY03/20 Q2**	**FY03/20 Q3**	**FY03/20 Q4**	**FY03/21 Q1**	**FY03/21 Q2**	**FY03/21 Q3**	**FY03/21 Q4**
Sales	2,948	2,936	2,645	2,706	2,854	3,032	2,772	
YoY	8.7%	5.5%	2.6%	1.0%	-3.2%	3.3%	4.8%	
Termite control service	1,024	967	771	785	953	978	825	
YoY	10.7%	6.7%	-2.7%	-4.0%	-6.9%	1.1%	7.0%	
Floor and ceiling ventilation systems	557	630	656	654	725	795	713	
YoY	35.5%	37.3%	43.2%	38.9%	30.2%	26.2%	8.7%	
Foundation repairing & building strengthening work	517	452	419	493	442	403	428	
YoY	-9.5%	-16.1%	-14.5%	-6.3%	-14.5%	-10.8%	2.1%	
Other	848	888	799	773	733	855	806	
YoY	5.6%	1.1%	-4.9%	-10.4%	-13.6%	-3.7%	0.9%	
Gross profit	1,828	1,778	1,549	1,591	1,768	1,872	1,664	
GPM	62.0%	60.6%	58.6%	58.8%	61.9%	61.7%	60.0%	
SG&A expenses	1,172	1,199	1,151	1,162	1,223	1,248	1,193	
SG&A ratio	39.8%	40.8%	43.5%	42.9%	42.9%	41.2%	43.0%	
Operating profit	655	580	398	428	545	623	471	
YoY	12.9%	-11.9%	-14.6%	-18.8%	-16.8%	7.4%	18.3%	
OPM	22.2%	19.8%	15.0%	15.8%	19.1%	20.5%	17.0%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Sales, volume, and unit price for termite control services

Cumulative (JPYmn)	FY03/20 Q1	FY03/20 Q2	FY03/20 Q3	FY03/20 Q4	FY03/21 Q1	FY03/21 Q2	FY03/21 Q3	FY03/21 Q4
Sales	1,024	1,991	2,762	3,547	953	1,931	2,756	
YoY	10.7%	8.7%	5.3%	3.1%	-6.9%	-3.0%	-0.2%	
Treatment area ('000sqm)	575	1,111	1,531	1,977	509	1,025	1,468	
YoY	5.5%	3.1%	-0.2%	-1.8%	-11.5%	-7.7%	-4.1%	
Price per sqm (JPY'000)	1.8	1.8	1.8	1.8	1.9	1.9	1.9	
YoY	5.0%	5.5%	5.5%	5.0%	5.2%	5.1%	4.1%	
Quarterly (JPYmn)	**FY03/20 Q1**	**FY03/20 Q2**	**FY03/20 Q3**	**FY03/20 Q4**	**FY03/21 Q1**	**FY03/21 Q2**	**FY03/21 Q3**	**FY03/21 Q4**
Sales	1,024	967	771	785	953	978	825	
YoY	10.7%	6.7%	-2.7%	-4.0%	-6.9%	1.1%	7.0%	
Treatment area ('000sqm)	575	536	420	446	509	516	443	
YoY	5.5%	0.6%	-8.0%	-6.9%	-11.5%	-3.7%	5.5%	
Price per sqm (JPY'000)	1.8	1.8	1.8	1.8	1.9	1.9	1.9	
YoY	5.0%	6.1%	5.8%	3.1%	5.2%	5.0%	1.4%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Price per sqm is calculated as sales divided by treatment area.

Energy segment earnings (quarterly)

Cumulative (JPYmn)	FY03/20 Q1	FY03/20 Q2	FY03/20 Q3	FY03/20 Q4	FY03/21 Q1	FY03/21 Q2	FY03/21 Q3	FY03/21 Q4
Sales	2,342	5,041	7,103	9,132	1,963	4,402	6,790	
YoY	-14.4%	-13.1%	-13.3%	-13.9%	-16.2%	-12.7%	-4.4%	
Gross profit	38	146	302	-71	54	250	482	
GPM	1.6%	2.9%	4.3%	-	2.8%	5.7%	7.1%	
SG&A expenses	80	177	291	413	134	283	453	
SG&A ratio	3.4%	3.5%	4.1%	4.5%	6.8%	6.4%	6.7%	
Operating profit	-41	-30	10	-485	-80	-33	28	
YoY	-	-	-97.0%	-	-	-	180.0%	
OPM	-	-	0.1%	-	-	-	0.4%	
Quarterly (JPYmn)	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Sales	2,342	2,699	2,062	2,029	1,963	2,439	2,388	
YoY	-14.4%	-12.1%	-13.5%	-	-16.2%	-9.6%	15.8%	
Gross profit	38	108	156	-373	54	196	232	
GPM	1.6%	4.0%	7.6%	-18.4%	2.8%	8.0%	9.7%	
SG&A expenses	80	97	114	122	134	149	170	
SG&A ratio	3.4%	3.6%	5.5%	6.0%	6.8%	6.1%	7.1%	
Operating profit	-41	11	40	-495	-80	47	61	
YoY	-	-93.1%	-51.8%	-	-	327.3%	52.5%	
OPM	-	0.4%	1.9%	-	-	1.9%	2.6%	

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Cumulative Q3 FY03/21 results

- Sales: JPY35.8bn (-5.5% YoY)
- Operating profit: JPY2.4bn (+4.2% YoY)
- Recurring profit: JPY2.2bn (+6.6% YoY)
- Net income*: JPY1.9bn (+25.1% YoY)

*Net income attributable to owners of the parent

At the Solar Engineering segment, sales efforts aimed at bringing in new orders were slow in the wake of the COVID-19 pandemic and solar power system installations were likewise delayed, leaving segment sales down YoY. The Environmental Resources Development, Home Sanitation, and Establishment Sanitation segments all reported higher sales YoY. Sales at the Energy segment were down YoY, hurt by lower revenue from power sales.

On the profit front, the Solar Engineering segment posted lower profit on decreased sales, but the Environmental Resources Development segment reported higher profit on lower repair costs at the Tomakomai Power Plant, resulting in a YoY rise in consolidated operating profit.

Solar Engineering (SE) segment

- Sales: JPY7.7bn (-21.9% YoY)
- Operating profit: JPY219mn (-70.4% YoY)

In response to revision of the FIT scheme, Sanix anticipated a decline in installation of solar power systems bundled with land, which contributed to earnings in FY03/20, and therefore sought to develop a new market by launching sales of systems for the purpose of in-house power consumption in FY03/21. However, sales efforts did not proceed as planned due to the pandemic. Sales from installations of solar power systems fell 21.9% YoY to JPY7.5bn.

Profit declined as efforts to reduce SG&A expenses was not enough to offset the impact of lower sales.

Environmental Resources Development (ERD) segment

- Sales: JPY12.6bn (+2.9% YoY)
- Operating profit: JPY3.0bn (+29.4% YoY)

Sales from plastic fuel rose 5.5% YoY to JPY7.9bn, and sales from electric power generation rose 5.6% YoY to JPY2.3bn. In regard to plastic fuel, although the acceptance volume of plastic waste declined, sales grew YoY as the company focused on profitability and quality through detailed examinations of the waste plastic it accepted for processing.

Profit increased as the company improved profitability and quality through detailed examinations of the waste plastic it accepted for processing, and repair costs at the Tomakomai Power Plant declined YoY.

Home Sanitation (HS) segment

- Sales: JPY8.7bn (+1.5% YoY)
- Operating profit: JPY1.6bn (+0.4% YoY)

The government's state of emergency declaration in April 2020 in response to the pandemic negatively impacted the company's sales activities as it refrained from conducting any new sales efforts. Despite this environment, customer referrals by partner companies increased by 39.9% YoY, helping to boost new customer acquisition by 18.1% YoY.

Sales were JPY2.8bn (-0.2% YoY) for termite control services, JPY2.2bn (+21.2% YoY) for ceiling and floor ventilation system installation, and JPY1.3bn (-8.3% YoY) for foundation repairing and strengthening construction work for buildings. While the state of emergency declaration was in place amid the COVID-19 pandemic, Sanix dealt with customer inquiries and refrained from new marketing activities. Once the state of emergency declaration was lifted, the company returned to its normal marketing routines after putting all necessary infection mitigation measures in place.

Profit was down YoY on higher personnel expenses stemming from additions to its workforce.

Establishment Sanitation (ES) segment

- Sales: JPY1.7bn (+8.1% YoY)
- Operating profit: JPY180mn (+16.1% YoY)

Sales were JPY875mn (+14.7% YoY) in the segment's mainstay anti-rust equipment installation business (product name: Daelman Shock) and JPY426mn (+29.5% YoY) in plumbing repairs. By boosting headcount and opening new offices, the company worked to build closer ties with owners of buildings and condominiums, management companies, and other partners.

Profit rose YoY on higher sales, despite a rise in personnel expenses stemming from the expansion of staffing levels.

Energy segment

- Sales: JPY6.8bn (-4.4% YoY)
- Operating profit: JPY28mn (+180.0% YoY)

Power sales revenue was JPY6.4bn (-9.4% YoY). The number of low-voltage retail contracts grew 64.9% YoY. At the same time, the wholesale volume to Japan Electric Power Exchange (JEPX) declined as Sanix reduced the volume of power procured via bilateral transactions as it sought to improve profitability by reducing the volume of surplus power it sold over JEPX.

Profit rose YoY on improved profitability of the new electricity business with a reduction in the volume of power procured via bilateral transactions, despite sales force growth in support of its effort to sign up more homeowners for its third-party owned solar power generation systems.

For details on previous quarterly and annual results, please refer to the Historical performance section.

Company forecast for FY03/21

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**24,538**	**27,993**	**52,531**	**23,947**	**25,180**	**49,127**
YoY	0.4%	6.6%	3.6%	-2.4%	-10.0%	-6.5%
Cost of sales	15,675	19,300	34,975	14,815	17,427	32,242
Gross profit	**8,863**	**8,693**	**17,556**	**9,132**	**7,753**	**16,885**
YoY	18.1%	18.6%	18.4%	3.0%	-10.8%	-3.8%
GPM	36.1%	31.1%	33.4%	38.1%	30.8%	34.4%
SG&A expenses	7,311	7,454	14,765	7,467	7,578	15,045
SG&A ratio	29.8%	26.6%	28.1%	31.2%	30.1%	30.6%
Operating profit	**1,551**	**1,240**	**2,791**	**1,664**	**176**	**1,840**
YoY	125.4%	131.3%	128.0%	7.3%	-85.8%	-34.1%
OPM	6.3%	4.4%	5.3%	6.9%	0.7%	3.7%
Recurring profit	**1,429**	**1,163**	**2,592**	**1,562**	**48**	**1,610**
YoY	107.4%	135.9%	119.3%	9.3%	-95.9%	-37.9%
RPM	5.8%	4.2%	4.9%	6.5%	0.2%	3.3%
Net income	**1,140**	**710**	**1,850**	**1,410**	**-211**	**1,199**
YoY	487.6%	-	670.8%	23.7%	-	-35.2%

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.
Note: Net income refers to net income attributable to owners of the parent.

Segment results and forecast

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**24,538**	**27,993**	**52,531**	**23,947**	**25,180**	**49,127**
YoY	0.4%	6.6%	3.6%	-2.4%	-10.0%	-6.5%
Solar Engineering (SE)	5,606	9,589	15,195	5,399	5,018	10,417
YoY	-5.7%	13.1%	5.3%	-3.7%	-47.7%	-31.4%
Home Sanitation (HS)	5,884	5,351	11,235	5,886	5,468	11,354
YoY	7.1%	1.8%	4.5%	0.0%	2.2%	1.1%
Establishment Sanitation (ES)	1,102	1,159	2,261	1,132	1,264	2,396
YoY	21.6%	13.5%	17.3%	2.7%	9.1%	6.0%
Environmental Resource Development (ERD)	8,045	8,714	16,759	8,296	8,363	16,659
YoY	10.6%	27.4%	18.7%	3.1%	-4.0%	-0.6%
Energy	5,041	4,091	9,132	4,402	6,089	10,491
YoY	-13.1%	-14.9%	-13.9%	-12.7%	48.8%	14.9%
Operating profit	**1,551**	**1,240**	**2,791**	**1,664**	**176**	**1,840**
YoY	125.4%	131.3%	128.0%	7.3%	-85.8%	-34.1%
Solar Engineering (SE)	298	603	901	233	110	343
YoY	432.1%	-47.5%	-25.2%	-21.8%	-81.8%	-61.9%
Home Sanitation (HS)	1,235	826	2,061	1,168	874	2,042
YoY	-0.3%	-16.7%	-7.6%	-5.4%	5.8%	-0.9%
Establishment Sanitation (ES)	137	144	281	118	168	286
YoY	7.0%	-9.4%	-2.1%	-13.9%	16.7%	1.8%
Environmental Resource Development (ERD)	1,655	1,828	3,483	1,974	1,268	3,242
YoY	133.4%	-741.4%	723.4%	19.3%	-30.6%	-6.9%
Energy	-30	-455	-485	-33	-374	-407
YoY	-111.9%	-384.4%	-217.4%	-	-	-
Unallocated expenses	-1,744	-1,708	-3,452	-1,798	-1,867	-3,665

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Solar Engineering results and forecast

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**5,606**	**9,589**	**15,195**	**5,399**	**5,018**	**10,417**
YoY	-5.7%	13.1%	5.3%	-3.7%	-47.7%	-31.4%
Sale and installation of PV systems	5,417	9,390	14,807	5,248	4,863	10,111
YoY	-2.6%	16.0%	8.4%	-3.1%	-48.2%	-31.7%
Wholesale operations	121	148	269	98	115	213
YoY	-58.0%	-49.0%	-53.5%	-19.0%	-22.3%	-20.8%
Cost of sales	3,655	7,231	10,886	3,656	3,408	7,064
Cost ratio	65.2%	75.4%	71.6%	67.7%	67.9%	67.8%
Material costs	2,127	4,584	6,711	2,104	1,962	4,066
Labor costs	338	377	715	328	332	660
Gross profit	1,950	2,358	4,308	1,742	1,610	3,352
GPM	34.8%	24.6%	28.4%	32.3%	32.1%	32.2%
SG&A expenses	1,652	1,754	3,406	1,508	1,501	3,009
Personnel expenses	885	993	1,878	835	769	1,604
Operating profit	**298**	**603**	**901**	**233**	**110**	**343**
YoY	441.8%	-47.5%	-25.2%	-21.8%	-81.8%	-61.9%

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Home Sanitation results and forecast

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**5,884**	**5,351**	**11,235**	**5,886**	**5,468**	**11,354**
YoY	7.1%	1.8%	4.5%	0.0%	2.2%	1.1%
Termite control service	1,991	1,556	3,547	1,931	1,667	3,598
YoY	8.7%	-3.4%	3.1%	-3.0%	7.1%	1.4%
Floor and ceiling ventilation systems	1,187	1,310	2,497	1,520	1,367	2,887
YoY	36.4%	41.0%	38.8%	28.1%	4.4%	15.6%
Foundation repairing & building strengthening work	969	912	1,881	845	921	1,766
YoY	-12.7%	-10.2%	-11.5%	-12.8%	1.0%	-6.1%
Other	1,736	1,572	3,308	1,588	1,513	3,101
YoY	3.3%	-7.7%	-2.2%	-8.5%	-3.8%	-6.3%
Gross profit	3,606	3,140	6,746	3,640	3,263	6,903
GPM	61.3%	58.7%	60.0%	61.8%	59.7%	60.8%
SG&A expenses	2,371	2,313	4,684	2,471	2,390	4,861
SG&A ratio	40.3%	43.2%	41.7%	42.0%	43.7%	42.8%
Operating profit	**1,235**	**826**	**2,061**	**1,168**	**874**	**2,042**
YoY	-0.2%	-16.8%	-7.6%	-5.4%	5.8%	-0.9%

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Environmental Resources Development results and forecast

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**8,045**	**8,714**	**16,759**	**8,296**	**8,363**	**16,659**
YoY	10.6%	27.4%	18.7%	3.1%	-4.0%	-0.6%
Waste plastic processing	4,703	5,408	10,111	5,146	5,204	10,350
YoY	14.6%	19.9%	17.4%	9.4%	-3.8%	2.4%
Power generation	1,644	1,379	3,023	1,570	1,585	3,155
YoY	8.3%	133.7%	43.4%	-4.5%	14.9%	4.4%
Other	1,698	1,927	3,625	1,580	1,574	3,154
YoY	2.8%	10.6%	6.8%	-6.9%	-18.3%	-13.0%
Gross profit	2,589	2,795	5,384	2,888	2,235	5,123
GPM	32.2%	32.1%	32.1%	34.8%	26.7%	30.8%
SG&A expenses	934	967	1,901	914	967	1,881
SG&A ratio	11.6%	11.1%	11.3%	11.0%	11.6%	11.3%
Operating profit	**1,655**	**1,828**	**3,483**	**1,974**	**1,268**	**3,242**
YoY	133.8%	-	723.4%	19.3%	-30.6%	-6.9%

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Energy results and forecast

	FY03/20			FY03/21		
(JPYmn)	1H Act.	2H Act.	FY Act.	1H Act.	2H Est.	FY Est.
Sales	**5,041**	**4,091**	**9,132**	**4,402**	**6,089**	**10,491**
YoY	-13.1%	-14.9%	-13.9%	-12.7%	48.8%	14.9%
Gross profit	146	-217	-71	250	-25	225
GPM	2.9%	-	-	5.7%	-	2.1%
SG&A expenses	177	236	413	283	349	632
SG&A ratio	3.5%	5.8%	4.5%	6.4%	5.7%	6.0%
Operating profit	**-30**	**-455**	**-485**	**-33**	**-374**	**-407**
YoY	-	-	-	-	-	-

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods.

Company forecast for FY03/21

At the time of its Q3 FY03/21 results announcement, the company also revised its forecast for the full year. The company now forecasts FY03/21 sales of JPY49.1bn (-6.5% YoY), operating profit of JPY1.8bn (-34.1% YoY), recurring profit of JPY1.6bn (-37.9% YoY), and net income attributable to owners of the parent of JPY1.2bn (-35.2% YoY).

Versus the previous forecast, this revision lowered the projections for sales by JPY610mn, operating profit by JPY99mn, recurring profit by JPY174mn, and net income attributable to owners of the parent by JPY145mn.

Reasons for revision

Sanix revised its sales and profit projections primarily in the Energy and Solar Engineering segments for the following reasons.

- In the Energy segment, the company expects sales to be JPY1.2bn higher than the previous projection with increased power sales volume and higher market prices arising from winter weather factors and an LNG shortage. However, it expects an increase in power procurement costs to push operating profit JPY433mn lower than the previous forecast.

▷ In the Solar Engineering segment, the company expects sales to be JPY1.7bn lower than the previous projection because sales of solar power systems for in-house power consumption, which began in FY03/21, have not proceeded as anticipated, largely due to the impact of the COVID-19 pandemic.

The following explanation is based on information available prior to the latest revision of the company's FY03/21 earnings forecast. Shared Research will update this content after interviews with the company.

SE segment

FY03/21 forecast: Sales of JPY12.2bn (-20.0% YoY) and operating profit of JPY381mn (-57.7% YoY).

In the SE segment, the company previously focused on selling solar power systems as investment products under an FIT scheme that permitted the full purchase of generated electricity. From fiscal 2020 (FY03/21), however, the FIT scheme adopted a design premised on self-consumption (self-consumption + sales of surplus electricity). In response, Sanix changed its sales policy, switching from an approach of selling solar power systems as investment products to affluent individuals who seek to efficiently utilize land holdings, to selling the systems to plants and stores mainly for the purpose of in-house power consumption. In 1H FY03/21, sales were down 3.7% YoY as the company focused on installation and sales of projects involving solar power systems with land currently undergoing FIT screening or already approved based on applications submitted through FY03/20. In 2H, it expects growth in self-consumption projects, but it refrained from marketing in April–May 2020 during the emergency declaration over the COVID-19 pandemic so installation work is likely to decline YoY. It expects sales to decline by double digits YoY in 2H as strong sales of solar power systems with land packages in 2H FY03/20 drop out of the equation.

Requirements for 10–50kW self-consumption projects:
- At least 30% of the generated electricity must be consumed in-house.
- Installation of minimum equipment to be utilized in the event of a disaster.

While the COVID-19 pandemic affected marketing activities, the company said it had not caused any installation work delays.

ERD segment

FY03/21 forecast: Sales of JPY16.8bn (+0.4% YoY) and operating profit of JPY3.1bn (-10.7% YoY).

The company lifted its forecast for sales by JPY45mn from the previous forecast and its forecast for operating profit by JPY189mn. Factoring in 1H performance, the company lifted its forecast for plastic fuel income by JPY33mn. On the other hand, the company's profit forecast reflects a decline in cost of sales on lower plastic fuel outsourcing expenses.

The company's revised forecasts call for sales of JPY10.4bn (+2.4% YoY) from plastic fuel, JPY3.4bn (+11.1% YoY) from electric power generation, and JPY583mn (-48.0% YoY) from landfill.

▷ In plastic fuel, the company foresees higher sales as a decline in the acceptance volume of plastic waste is offset by an increase in unit prices for the waste plastic accepted for processing. In 2017, China, previously the main export destination for waste plastic from Japan, prohibited its import. As a result, waste plastic accumulated in Japan, leading to the company's higher unit prices for waste plastic accepted. The company said it expected the uptrend to take a breather in FY03/21, and prices to maintain the Q1 level of JPY38,900 per ton (+10.7% versus FY03/20) over the full year.

▷ The company expects electric power generation sales to grow due to growth in the number of contracts in the Energy segment.

▷ In landfill, shipments of waste resulting from the Hokkaido Eastern Iburi Earthquake, which occurred in September 2018, have run their course, so the company expects lower sales YoY.

In Q4 FY03/21 (January–March 2021), the company plans to halt operations at the Tomakomai Power Plant for roughly one month to conduct a statutory inspection. It expects this will have a negative impact of about JPY300mn on sales and about

JPY700mn on operating profit. In FY03/20, the company also closed the plant for a month to implement periodic repair work, and this had a negative impact of JPY500–600mn on operating profit.

In FY03/21, the company expects the impact from the novel coronavirus disease on the segment to be small.

HS segment

FY03/21 forecast: Sales of JPY11.5bn (+2.1% YoY) and operating profit of JPY2.0bn (-2.1% YoY).

In the HS segment, Sanix aims to strengthen its sales and construction teams by boosting headcount. It expects lower sales and profit YoY in 1H as it refrained from marketing activities during the April–May 2020 emergency declaration, and some construction schedules were pushed back. In 2H, it expects its enhanced sales and construction teams to help increase sales and profit.

ES segment

FY03/21 forecast: Sales of JPY2.3bn (+2.6% YoY) and operating profit of JPY282mn (+0.4% YoY).

As in the HS segment, the company has hired personnel to strengthen its sales force in the ES segment. It is also focusing on cultivating alliances with management companies, establishing closer ties with partners, and negotiating with property owners. These efforts should help drive sales growth in its mainstay anti-rust equipment installation business (product name: Daelman Shock). For 1H, it expects lower sales and profit YoY on lower orders as it and partnering management companies refrained from marketing activities during the April–May 2020 emergency declaration. Further, the Q2 FY03/20 demand spike ahead of the consumption tax hike will drop out of the equation. For 2H, the company expects growth in sales and profit, partly due to the strengthened sales force.

Energy segment

FY03/21 forecast: Sales of JPY9.3bn (+1.5% YoY) and operating profit of JPY26mn (operating loss of JPY485mn in FY03/20).

The company lowered its forecast for sales by JPY650mn from the previous forecast and its forecast for operating profit by JPY90mn. The revised sales and profit forecasts reflect delays to 1H sales activities for the third-party owned solar electric power model.

For the new electricity business, in addition to marketing activities, the company expects the number of retail contracts to increase through business tie-ups with other companies and other measures. In the Energy segment, the company procures electricity from the Tomakomai Power Plant, via transactions with electric power companies, and through purchases from JEPX. In FY03/21, Sanix plans to reduce the share of transactions with electric power companies and raise that obtained via purchases from JEPX to improve margins.

> Under the Electricity Business Act, new electric power company operators such as Sanix are obliged to ensure they have obtained power supply to meet customer demand at the actual supply/demand stage including certain reserves (to cope with power loss and higher than expected demand).

- In April 2018, the company started transactions with major electric power companies, obtaining a certain amount of power supply thereby. When the power Sanix obtained exceeded retail volume and it had surplus power, it sold this over JEPX. As of April 2018, JEPX trading volume was low and trade prices were high, so selling surplus power obtained from power companies helped to improve the company's margins.
- In FY03/20, retail volume declined on fewer contracts with high-voltage customers (factories, large commercial facilities, and hospitals), but the company was obliged to obtain a certain amount of electricity under contracts from power companies, and it increased sales via JEPX. The amount of electricity traded on JEPX is increasing year by year and transaction prices have been in a downtrend, so in FY03/20, JEPX trading prices were below those for power Sanix obtained from power companies. The result was an operating loss in the Energy segment.
- The company reviewed its transaction contracts with power companies in June 2020, and reduced the volume of electricity thus obtained. It plans to obtain power mainly via JEPX going forward to improve its margins.

In the energy business development domain, the company is expanding sales of the third-party owned solar electric power model launched in FY03/20. The spread of COVID-19 put limits on sales activity in 1H, though the company expects those limits to ease in 2H, with sales rising from 1H.

Third-party owned solar electric power model: The company's partner (an electric power company) pays for the installation of solar power panels on the roofs of privately owned detached houses, with the company installing the panels and booking received revenue as a contractor. While electricity generated goes to the partner, which owns the panels, the owners of the detached houses can have the solar panels installed at no cost to them and receive a discount on energy supplied by the partner company of about 10%–20%. The owners of the detached house can take ownership of the panels 10–20 years after installation, allowing them free use of any electricity generated from those panels.

Medium-term outlook

In May 2019, the company formulated a new medium-term management plan covering the three-year period from FY03/20 to FY03/22. This new plan targets sales of JPY59.4bn (CAGR of 5.4% versus FY03/19) and operating profit of JPY2.4bn (CAGR of 24.4% versus FY03/19) for the final year of the plan, FY03/22. Sanix made no changes to its medium-term management plan when it announced FY03/20 results announcements, citing a lack of clarity on the impact of the spread of the novel coronavirus disease on results over the medium term.

From FY03/15 to FY03/16, as the solar power market environment was deteriorating in the wake of Kyushu Electric's September 2014 decision to halt system connections and a January 2015 revision of the FIT scheme, Sanix booked an operating loss after concentrating its management resources in the solar power business. Under its medium-term plan (FY03/17–FY03/19) announced in April 2016, about 500 employees left in June and July 2016 as part of an early retirement program, and Sanix conducted measures to streamline operations and reallocate management resources not concentrated is specified business. As a result, the company achieved a stable earnings base, which brought its operating profit level to JPY1.0–1.2bn during the previous medium-term plan.

The new medium-term plan calls for shrinking the SE segment as the solar power business contracts, but maintaining or even enhancing initiatives in the other segments and growing earnings by providing new services in the various segments.

Figures for medium-term management plan (FY03/20–FY03/22)

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	49,993	50,719	52,531	53,660	59,410
YoY	-1.9%	1.5%	3.6%	2.1%	10.7%
Gross profit	14,044	14,830	17,556	18,020	19,500
GPM	28.1%	29.2%	33.4%	33.6%	32.8%
SG&A expenses	12,798	13,606	14,765	16,080	17,140
SG&A ratio	25.6%	26.8%	28.1%	30.0%	28.9%
Operating profit	1,246	1,224	2,791	1,940	2,360
YoY	20.3%	-1.8%	128.0%	-30.5%	21.6%
OPM	2.5%	2.4%	5.3%	3.6%	4.0%
Recurring profit	1,019	1,182	2,592	1,840	2,260
YoY	12.3%	16.0%	119.3%	-29.0%	22.8%
OPM	2.0%	2.3%	4.9%	3.4%	3.8%
Net income	1,180	240	1,850	1,330	1,710
YoY	183.7%	-79.7%	670.8%	-28.1%	28.6%
Net margin	2.4%	0.5%	3.5%	2.5%	2.9%

Source: Shared Research based on company data

Medium-term management plan targets by segment

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	49,993	50,719	52,531	53,660	59,410
YoY	-1.9%	1.5%	-15.2%	2.1%	10.7%
Solar Engineering (SE)	17,870	14,427	15,195	10,513	10,194
YoY	-31.9%	-19.3%	5.3%	-30.8%	-3.0%
% of sales	35.7%	28.4%	28.9%	19.6%	17.2%
Home Sanitation (HS)	8,922	10,752	11,235	13,000	14,444
YoY	36.0%	20.5%	4.5%	15.7%	11.1%
% of sales	17.8%	21.2%	21.4%	24.2%	24.3%
Establishment Sanitation (ES)	1,444	1,926	2,261	2,700	3,000
YoY	39.8%	33.4%	17.4%	19.4%	11.1%
% of sales	2.9%	3.8%	4.3%	5.0%	5.0%
Environmental Resource Development (ERD)	14,134	14,116	16,759	16,160	16,688
YoY	-	-0.1%	18.7%	-3.6%	3.3%
% of sales	28.3%	27.8%	31.9%	30.1%	28.1%
Energy	7,621	10,609	9,132	13,645	17,600
YoY	-	39.2%	-13.9%	49.4%	29.0%
% of sales	15.2%	20.9%	17.4%	25.4%	29.6%
Inter-segment transactions		-1,113	-2,053	-2,358	-2,516
Operating profit	1,246	1,224	2,791	1,940	2,360
YoY	20.3%	-1.8%	128.0%	-30.5%	21.6%
OPM	2.5%	2.4%	5.3%	3.6%	4.0%
Solar Engineering (SE)	1,668	1,204	901	610	460
YoY	-0.1%	-27.8%	-25.2%	-32.3%	-24.6%
% of OP (excl. unallocated)	38.9%	26.4%	14.4%	11.0%	7.7%
OPM	9.3%	8.3%	5.9%	5.8%	4.5%
Home Sanitation (HS)	1,471	2,231	2,061	2,413	2,619
YoY	50.3%	51.7%	-7.6%	17.1%	8.5%
% of OP (excl. unallocated)	34.3%	49.0%	33.0%	43.7%	43.7%
OPM	16.5%	20.7%	18.3%	18.6%	18.1%
Establishment Sanitation (ES)	179	287	281	316	326
YoY	90.4%	60.3%	-2.1%	12.5%	3.2%
% of OP (excl. unallocated)	4.2%	6.3%	4.5%	5.7%	5.4%
OPM	12.4%	14.9%	12.4%	11.7%	10.9%
Environmental Resource Development (ERD)	940	423	3,483	1,637	1,742
YoY	-	-55.0%	723.4%	-53.0%	6.4%
% of OP (excl. unallocated)	21.9%	9.3%	55.8%	29.6%	29.1%
OPM	6.7%	3.0%	20.8%	10.1%	10.4%
Energy	32	412	-485	550	846
YoY	-	-	-217.7%	-213.4%	53.8%
% of OP (excl. unallocated)	0.7%	9.0%	-7.8%	10.0%	14.1%
OPM	0.4%	3.9%	-5.3%	4.0%	4.8%
Unallocated	-3,045	-3,335	-3,452	-3,586	-3,633

Source: Shared Research based on company data

Medium-term management plan personnel targets

(employees)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Total	1,788	1,912	2,005	2,179	2,292
Solar Engineering (SE)	512	451	420	388	390
Home Sanitation (HS)	541	629	674	799	890
Establishment Sanitation (ES)	83	107	124	141	153
Environmental Resource Development (ERD)	371	401	397	414	417
Energy	0	0	35	78	82
Head office	249	272	293	304	304
Corporate	32	52	62	55	56

Source: Shared Research based on company data

SE segment

SE segment targets

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	17,870	14,427	15,195	10,513	10,194
YoY	-31.9%	-19.3%	5.3%	-30.8%	-3.0%
Gross profit	5,562	4,687	4,308	4,203	4,083
GPM	31.1%	32.5%	28.4%	40.0%	40.1%
Operating profit	1,668	1,204	901	610	460
YoY	-0.1%	-27.8%	-25.2%	-32.3%	-24.6%
OPM	9.3%	8.3%	5.9%	5.8%	4.5%

Source: Shared Research based on company data

In the SE segment, rapid contraction of the solar power facilities market seems to have run its course during the period covered by the previous medium-term plan, but the new plan presupposes gradual shrinking to continue, accompanied by lower sales. However, Sanix aims to get sales to decline at a slower pace than the pace at which the market contracts by promoting maintenance work related to ancillary equipment and sales of power systems with land (Sanix procures land and installs facilities for sale to investors in lots). In addition, the period of the FIT scheme for solar power systems installed on homes is 10 years, so since the scheme started in November 2009, some FIT scheme agreements will end in November 2019. The company aims to sell batteries to owners of systems for which the FIT scheme period has ended so they can store surplus electricity during the day.

Sanix changed its sales policy in FY03/21 in accordance with revisions to the FIT scheme in fiscal 2020. In the SE segment, the company previously focused on selling solar power systems as investment products under an FIT scheme that permitted the full purchase of generated electricity. From fiscal 2020, however, the FIT scheme adopted a design premised on self-consumption. In response, Sanix changed its sales policy in FY03/21, switching from an approach of selling solar power systems as investment products to affluent individuals who seek to efficiently utilize land holdings, to selling the systems to plants and stores mainly for the purpose of in-house power consumption.

Sanix is working to reduce labor costs by reassigning some SE segment personnel to the HS and ES segments and further reduce the cost of goods sold by reducing the cost of components. This is likely to improve the GPM but each profit item is still likely to decline as sales decrease.

HS and ES segments

HS segment targets

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	8,922	10,752	11,235	13,000	14,444
YoY	36.0%	20.5%	4.5%	15.7%	11.1%
Gross profit	4,947	6,371	6,746	7,659	8,459
GPM	55.4%	59.3%	60.0%	58.9%	58.6%
Operating profit	1,471	2,231	2,061	2,413	2,619
YoY	50.3%	51.7%	-7.6%	17.1%	8.5%
OPM	16.5%	20.7%	18.3%	18.6%	18.1%

Source: Shared Research based on company data

ES segment targets

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	1,444	1,926	2,261	2,700	3,000
YoY	39.8%	33.4%	17.4%	19.4%	11.1%
Gross profit	689	993	1,188	1,414	1,567
GPM	47.7%	51.6%	52.5%	52.4%	52.2%
Operating profit	179	287	281	316	326
YoY	90.4%	60.3%	-2.1%	12.5%	3.2%
OPM	12.4%	14.9%	12.4%	11.7%	10.9%

Source: Shared Research based on company data

According to its medium-term management plan, the company aims to raise sales and profit in the HS and ES segments by increasing personnel count.

From FY03/13, Sanix worked to expand the SE segment, so it reduced the size of the HS and ES segments and focused on after-sales maintenance for existing customers. Then from FY03/17, it began reassigning SE segment personnel to the HS and ES segments in an effort to limit the decrease in existing customer count and restart sales efforts that had been suspended in 2006, hoping to win new customers. These objectives are being maintained under the new medium-term plan as well.

ERD segment

ERD segment targets

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	14,134	14,116	16,759	16,160	16,688
YoY	-	-0.1%	18.7%	-3.6%	3.3%
Waste plastic processing	7,556	8,651	10,111	9,508	9,727
YoY	5.8%	14.5%	16.9%	-6.0%	2.3%
Electric power sales	3,474	2,107	3,023	3,588	3,781
YoY	-	-39.3%	43.5%	18.7%	5.4%
Other	3,104	3,358	3,625	3,064	3,180
Gross profit	2,637	2,160	5,384	3,504	3,671
GPM	18.7%	15.3%	32.1%	21.7%	22.0%
Operating profit	940	423	3,483	1,637	1,742
YoY	-	-55.0%	723.4%	-53.0%	6.4%
OPM	6.7%	3.0%	20.8%	10.1%	10.4%

Source: Shared Research based on company data
*In FY03/20, Sanix separated the new electric power generation business from the ERD segment and made it into an independent segment, the Energy segment. FY03/19 results are reference figures taking into account the new segmentation.

Earnings in the ERD segment are driven primarily by increases in plastic fuel processing volume and processing price. In the electric power business, Sanix suspended operations at the Tomakomai Power Plant for one month in FY03/20 to implement repairs. It plans to suspend operations at the plant for one month for a boiler inspection (held every two years) in FY03/21, and 1.5 months in FY03/22.

Energy segment

Energy segment targets

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.	FY03/21 MTP	FY03/22 MTP
Sales	7,621	10,609	9,132	13,645	17,600
YoY	-	39.2%	-13.9%	49.4%	29.0%
Gross profit	208	616	-71	1,240	1,720
GPM	2.7%	5.8%	-0.8%	9.1%	9.8%
Operating profit	32	412	-485	550	846
YoY	-	-	-	-	53.8%
OPM	0.4%	3.9%	-5.3%	4.0%	4.8%

Source: Shared Research based on company data
*In FY03/20, Sanix separated the new electric power generation business from the ERD segment and made it into an independent segment, the Energy segment.

In the Energy segment, the company gains revenue by selling electric procured from power companies or generated at the Tomakomai Power Plant to ordinary customers (including stores and offices). It also gains revenue by concluding Power Purchase Agreements (PPAs) and conducting installation work. In addition, the company sells electricity wholesale to power producers and suppliers.

Power Purchase Agreement (PPA): An investor other than the homeowner installs solar power panels on the roof of a home, but retains ownership. Sanix earns revenue as the installer of the panels. The investor sells the electricity generated to the homeowner as needed, with any surplus being sold to electric power companies.

Sanix aims to expand the number of retail contracts, focusing on low-voltage customers (stores and offices that are customers of the new electric power generation business), and also focus on developing PPAs. In addition, it plans a personnel increase to enable it to enhance PPS business systems and PPA sales efforts.

Business

Description

Sanix began as a termite control services company, and from the early 2000s branched out into the environmental resources development field, including power generation business. In March 2010, the company commenced solar power generation business. As of May 2020, the company has five business segments: the Solar Engineering (SE) segment focused on commercial solar power generation, the Environmental Resources Development (ERD) segment conducting power generation via waste recycling, the Home Sanitation (HS) and Establishment Sanitation (ES) segments conducting termite control and other services for residences and corporations, respectively, and the Energy segment focused on retail electricity sales.

Segments

The company's five business segments are SE, HS, ES, ERD, and Energy.

Sales, operating profit by segment

(JPYmn)	FY03/11 Act.	FY03/12 Act.	FY03/13 Act.	FY03/14 Act.	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Total sales	**28,980**	**31,454**	**43,366**	**84,221**	**95,629**	**61,916**	**50,955**	**49,993**	**50,719**	**52,531**
YoY	18.1%	8.5%	37.9%	94.2%	13.5%	-35.3%	-17.7%	-1.9%	1.5%	3.6%
Solar Engineering	-	-	-	56,637	72,247	39,871	26,225	17,870	14,427	15,195
YoY	-	-	-	-	27.6%	-44.8%	-34.2%	-31.9%	-19.3%	5.3%
% of total	-	-	-	67.2%	75.5%	64.4%	51.5%	35.7%	28.4%	27.8%
Commercial Photovoltaic (PV) Solutions	-	1,411	9,617	51,340	-	-	-	-	-	-
YoY	-	-	581.6%	433.9%	-	-	-	-	-	-
% of total	-	4.5%	22.2%	61.0%	-	-	-	-	-	-
Home Sanitation	16,657	15,395	14,814	10,819	7,605	6,519	6,562	8,922	10,752	11,235
YoY	18.5%	-7.6%	-3.8%	-27.0%	-	-14.3%	0.7%	36.0%	20.5%	4.5%
% of total	57.5%	48.9%	34.2%	12.8%	8.0%	10.5%	12.9%	17.8%	21.2%	20.6%
Establishment Sanitation	2,811	2,757	3,965	6,011	1,040	924	1,033	1,444	1,926	2,261
YoY	10.4%	-1.9%	43.8%	51.6%	-	-11.2%	11.8%	39.8%	33.4%	17.4%
% of total	9.7%	8.8%	9.1%	7.1%	1.1%	1.5%	2.0%	2.9%	3.8%	4.1%
Environmental Resources Development	9,511	11,890	14,967	16,051	14,735	14,601	17,133	21,755	23,612	16,759
YoY	19.9%	25.0%	25.9%	7.2%	-8.2%	-0.9%	17.3%	27.0%	8.5%	-
% of total	32.8%	37.8%	34.5%	19.1%	15.4%	23.6%	33.6%	43.5%	46.6%	30.7%
Solar Engineering	-	-	-	-	-	-	-	-	-	9,132
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	16.7%
Operating profit	**502**	**410**	**1,870**	**4,508**	**-3,142**	**-2,229**	**1,036**	**1,246**	**1,224**	**2,791**
YoY	28.6%	-18.3%	356.4%	141.0%	-	-	-	20.3%	-1.8%	128.0%
Solar Engineering	-	-	-	4,782	-2,291	-202	1,669	1,668	1,204	901
YoY				-	-	-	-	-0.1%	-27.8%	-25.2%
% of total				45.4%	-	-	44.3%	38.9%	26.4%	14.4%
Commercial Photovoltaic (PV) Solutions	-	-265	320	4,410	-	-	-	-	-	-
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	8.4%	62.1%	-	-	-	-	-	-
Home Sanitation	2,608	2,482	1,776	1,141	1,634	614	979	1,471	2,231	2,061
YoY	-22.5%	-4.8%	-28.5%	-35.7%	-	-62.4%	59.4%	50.3%	51.7%	-7.6%
% of total	102.4%	97.5%	46.7%	16.1%	-	82.2%	26.0%	34.3%	48.9%	33.0%
Establishment Sanitation	154	41	139	190	-48	53	94	179	287	281
YoY	-27.2%	-73.3%	240.5%	36.5%	-	-	77.4%	90.4%	60.3%	-2.1%
% of total	6.0%	1.6%	3.7%	2.7%	-	-	2.5%	4.2%	6.3%	4.5%
Environmental Resources Development	-216	288	1,568	1,365	970	282	1,029	972	836	3,483
YoY	-	-	444.8%	-12.9%	-28.9%	-70.9%	264.9%	-5.5%	-14.0%	-
% of total	-	11.3%	41.2%	19.2%	-	-	27.3%	22.7%	18.3%	55.8%
Environmental Resources Development	-	-	-	-	-	-	-	-	-	-485
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	-
Adjustments	-2,044	-2,134	-1,932	-2,598	-3,406	-2,977	-2,735	-3,045	-3,335	-3,452

Source: Shared Research based on company data
Note: Figures may differ from company materials due to differences in rounding methods
Note: In FY03/15, the company changed the Commercial Photovoltaic Solutions (CPS) segment to the Solar Engineering (SE) segment as it changed the solar power system sales and installations structure. The SE business encompasses the former CPS business, the West Japan residential solar power arm of the HS business, and the East Japan residential solar power arm of the ES business. From FY03/15, the company's segments are Solar Engineering (SE), Environmental Resources Development (ERD), and Home Sanitation and Establishment Sanitation (HS/ES).
Note: In FY03/20, the company revised its segment classification, combining the new electric power generation business that was previously included in the ERD segment and the energy business development department established in April 2019 to form the new Energy segment. Figures from FY03/20 reflect the new segment classification.

Solar Engineering (SE) segment

This segment is involved in the sale and installation of commercial and residential solar power systems, and wholesale solar power systems.

Home Sanitation (HS) segment

This segment provides termite control-related installation, ceiling and floor ventilation system installation, and foundation repairing and strengthening construction work for buildings.

In July 2006, the company was ordered by regulatory authorities to suspend operations in relation to door-to-door sales practices (see Termite Control Services and Floor/Ceiling Ventilation Systems). Subsequently, the company ceased new customer acquisition activities and decided to focus operations on after-sales maintenance for existing customers. According to the medium-term management plan announced in April 2016, the company intends to take resources it had concentrated in the SE segment and redistribute them to the HS and ES segments in order to increase the number of new customers and the total number of customers under management, thereby increasing profits.

Establishment Sanitation (ES) segment

This segment provides corporate customers with installation services relating to environmental sanitation, as well as maintenance services relating to office building and condominium plumbing facilities.

Environmental Resources Development (ERD) segment

The main businesses in this segment are waste plastic recycling, power generation at the Tomakomai Power Plant, and organic waste fluid processing. Waste plastic recycling involves taking waste plastic from industrial customers and processing it at the company's plastic-resource development factory into industrial waste-based plastic fuel. The power generation business uses this as its main fuel for generating electricity, which is sold to end-users (undisclosed). Furthermore, the company intends to sell plastic fuel as boiler fuel to paper companies.

Energy segment

This segment supplies electricity procured from electric power companies or generated at the Tomakomai Power Plant to general customers (such as stores and offices), and accordingly collects power generation revenue. It also sells electricity wholesale to power producers and suppliers.

Main businesses

Although the company operates a diverse array of businesses, its main businesses, explained in detail below, are: Solar Engineering; waste plastic recycling and power generation in the Environmental Resources Development segment; and termite control services and floor & ceiling ventilation systems installation in the Home Sanitation segment. The company also plans to focus on its Energy segment over the medium term.

Solar Engineering (27.8% of sales, 14.4% of operating profit before adjustments in FY03/20)

Overview

This segment engages in the installation and sale of commercial and residential solar power systems as well as the wholesale of these systems. An important feature of this segment is its end-to-end nature—the company does everything from solar power system procurement through to sales and installation. This allows the company to eliminate intermediary margins at the distribution level, enabling it to offer solar power generation systems at low prices.

Since the company sells and installs the systems, it receives a lump fee covering both equipment and installation. Sales may be calculated by the simple formula of installed capacity (kW) multiplied by the installation fee per kW (yen). In FY03/20, Sanix sold and installed solar power systems for approximately JPY163,000 per kW (Shared Research estimate). The company says this is 15-20% lower than its competitors.

This segment began supplying residential solar power generation systems in October 2009. In FY03/12 the company began handling commercial solar power systems of 10kW to 50kW capacity that can be installed in low-voltage power systems, offering them as a solution for the effective use of locations like factory/office building roofs and idle land.

PV systems of 10kW-50kW capacity, which can be installed in low-voltage power systems, do not require notification or other administrative procedures. They qualified for full purchase of power under the Feed-in Tariff (FIT) scheme in effect in FY03/19 (the FIT scheme was revised in FY03/20, and now requires self-consumption of a minimum of 30% of the power generated from 10kW-50kW PV systems, with only surplus power qualifying for purchase; see "Market" section for details on the Feed-in Tariff (FIT) Scheme). PV systems with capacity of 50kW and over require declaration of compliance with safety regulations and participation of a senior licensed electrician.

Most sales are to owners of idle land, fallow agricultural plots, and condominiums and factories. In East Japan, the company focused on the wholesale of solar power systems to residential construction companies until FY03/14. The company shifted its focus onto direct sales and installations of solar power systems from FY03/15.

The company changed its sales policy in FY03/21 in accordance with revisions to the FIT scheme in fiscal 2020. From fiscal 2020, the FIT scheme adopted a design premised on self-consumption (self-consumption + sales of surplus electricity). In response, the company switched from an approach of selling solar power systems as investment products to affluent individuals who seek to efficiently utilize land holdings, to selling the systems to plants and stores mainly for the purpose of in-house power consumption.

Requirements for 10–50kW self-consumption projects:
・At least 30% of the generated electricity must be consumed in-house.
・Install minimum equipment to be utilized in the event of a disaster.

The company regards its cost competitiveness as one of its primary strengths. As explained above, by performing end-to-end services spanning procurement, sales, and installation, the company is able to eliminate intermediary margins on every phase. It also monitors the market for low-cost materials and procures volume discounts on materials through regular, large-scale orders, while also working on in-house production. All these efforts add up and allows the company to offer low-price solar power generation systems.

The products and services sold by the company in its SE segment require a substantial amount of explanation, which means that differentiation depends not only on price but also sales channel. From the initial inquiry to installation, a sales company will need to discuss and explain a wide range of issues with the customer—these include installation method, power generation simulations, payment method, and the advantages of installing a solar power system. Consequently, specialist knowledge, the ability to respond to customer needs, and skills in explaining various aspects hold the key to closing a sale. This is not the type of product that can be simply handed over to a customer in a store, and to win a sales contract an installer or specialist sales person must visit the customer's site and confirm the exact location where the solar power system will be installed and agree on a date and time for the installation work to be carried out. Furthermore, after-sales service is also an important part of the business, which means the company's know-how in providing explanations and staff training programs cultivated in sales activities in the termite control business could be effectively leveraged. From a sales point of view, solar power systems have installation benefits such as reduced electricity costs, and solar power has a positive image since it is an environment-friendly renewable power source. Hence, compared with termite control services, solar power may be seen as having more immediate appeal among potential customers. Since there is no need to perform a free-of-charge inspection of the customer's premises during the initial period of sales discussions, sales staff can achieve efficient progress in their sales activities.

Price competitiveness in the SE business

Strength in the SE business lies in its price competitiveness

Shared Research believes that one of the company's strengths is price competitiveness. The manufacturing technology for solar power panels is well established. Since manufacturing is relatively standardized, it is probably difficult to achieve differentiation based on product quality. If the product is all essentially the same, selling cheaper is a logical tactical approach.

As of May 2020, the company sold and installed commercial solar power systems for approximately JPY163,000 per kW, as mentioned earlier. Sanix says this is 15-20% lower than its competitors. Although price for solar systems varies depending on installation conditions, making it difficult to compare simple averages, the government committee that determines the price paid under the FIT scheme releases average system costs. For 2019, it put the average for systems of 10kW to less than 50kW at JPY268,000 per kW. Hence, the company's average price per kW was very low in comparison with the overall market.

Costs for solar power systems for 10kW to less than 50kW and the company's unit price (JPY1,000/kW)

(JPY'000)	2013	2014	2015	2016	2017	2018	2019
a) Cost of PV system (per kW)	383	346	325	327	Over 300	288	268
YoY	-10.9%	-9.7%	-6.1%	0.6%	-	-	-6.9%
	FY03/14	FY03/15	FY03/16	FY03/17	FY03/18	FY03/19	FY03/20
b) Sanix PV system price (per kW)	243	226	220	194	181	169	163
YoY	-24.9%	-7.1%	-2.5%	-11.8%	-6.7%	-6.5%	-3.8%
b) ÷ a)	63.4%	65.2%	67.7%	59.4%	-	58.8%	60.8%

Source: Shared Research based on company data
*The company determines its unit price per kW by dividing sales by volume

Cost-effectiveness of solar power systems offered by Sanix (based on FIT scheme of fiscal 2019)

Assume that the installation cost of a 1kW facility of the company's solar power system is JPY170,000 (for the solar power system and connection fees). If the feed-in tariff is JPY14/kWh (the price of electricity generated by the solar power facility for fiscal 2019), and the solar power system generates 1,314kWh of electricity per 1kW of system capacity (assuming that the capacity utilization is 15% although it varies depending on the amount of sunlight and the angle of the solar power module), then the annual revenue from power sales would be JPY18,000.

Under this scenario, assuming the annual maintenance cost of JPY3,000/kW, the initial investment recovery period would be about 13 years, the gross yield about 9%, and the internal rate of return (IRR) about 7%.

However, this scenario assumes full purchase of power, which was terminated for electricity generated from solar power systems with 10–50kW capacity in the FIT scheme of fiscal 2020. The revised scheme requires self-consumption of at least 30% of the power generated from such systems, with only surplus power qualifying for purchase.

Annual revenue from electricity sales per 1kW of power facility, maintenance cost (if the feed-in tariff is JPY18/kWh)

Capacity utilization rate	16%
Power generated (kWh)	1,314
Annual revenue per 1kW (JPY1,000)	18
Maintenance cost per 1kW (JPY1,000)	3

*The maintenance cost and capacity utilization rate are taken from Feed-in Tariff Calculation Committee documents

Solar power system 20-year cash flow (per 1kW)

(JPY'000)	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Yr 16	Yr 17	Yr 18	Yr 19	Yr 20
Initial investments	-184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue from electric power sales	20	20	20	20	20	20	19	19	19	19	19	19	19	19	19	19	18	18	18	18
Operating and maintenance costs	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
Cash flows	-167	17	17	17	17	17	16	16	16	16	16	16	16	16	16	16	15	15	15	15
Cumulative cash flows	-167	-150	-133	-117	-100	-83	-67	-51	-34	-18	-2	14	29	45	61	76	92	107	122	138
IRR	7.1%																			
Gross rate of return	9.2%																			

*Degradation rate is set at 0.5% a year, with facilities operating for 20 years; costs of equipment removal are not considered.

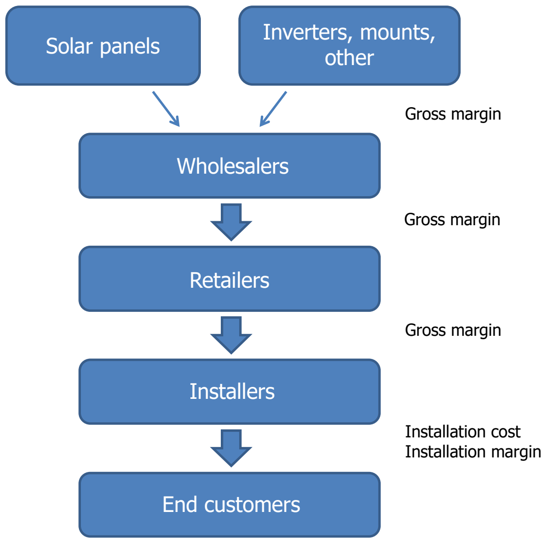
Mechanisms to maintain cost-competitiveness

The company says it achieves lower prices thanks to the following two key aspects. First, it works to procure solar power modules at the lowest possible price by constantly monitoring the market for suppliers of high-quality, low-priced panels. Second, by operating an end-to-end service encompassing procurement, direct sales and installation, Sanix can save money by eliminating multiple intermediaries. The company says this is a substantial advantage as virtually no large providers in this particular niche (small-scale “commercial”—i.e. producing electricity for sale—installations) offer a similar end-to-end service.

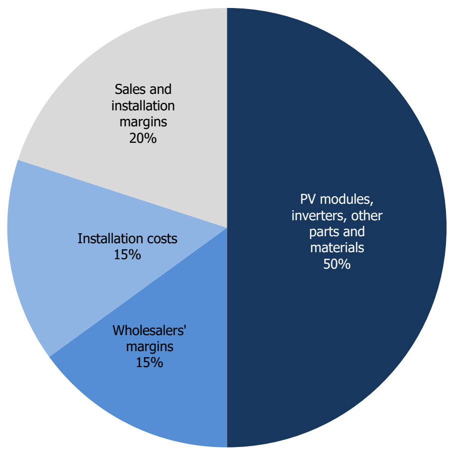
The company’s scale provides an advantage in volume discount negotiations. Specifically, the company focuses on small- to medium-sized solar power systems, and operates an order-based business. Hence, based on its installation plans, the company can continually place large-lot orders with solar power module suppliers. In contrast, given the order volume from small-scale providers that specialize in residential solar power systems are small, major solar power module manufacturers do not have the sales structure to deal directly with these small-lot dealers (i.e., order volume too small to make it worth dealing directly with these small-lot customers). Construction companies that handle mega-solar projects are able to place large-lot order for materials but may not be able to enjoy volume discounts given that such orders are done on an ad hoc basis. Sanix gathers a large number of small and medium-sized orders (i.e., its overall order volume is high and stable), and can deal directly with manufacturers for the best volume discounts. Furthermore, the company is trying to reduce costs by producing equipment such as inverters and panel mounts in-house.

With regard to the second aspect, generally within the sales channel, manufacturers, wholesalers and retailers of solar power panels, panel mounts and inverters add their own margin at each stage. By the time the product reaches the consumer, these margins add up to a substantial premium inflating the final price. Sanix does everything more or less by itself, sharing the savings with the customer as a lower price while earning a healthy margin. This is critically important because for the customer, a “commercial” installation is an investment and the initial price determines the return on this investment over the years.

Solar Power Value Chain



Breakdown of Solar Power Costs and Profit Margin



Source: Shared Research based on company data

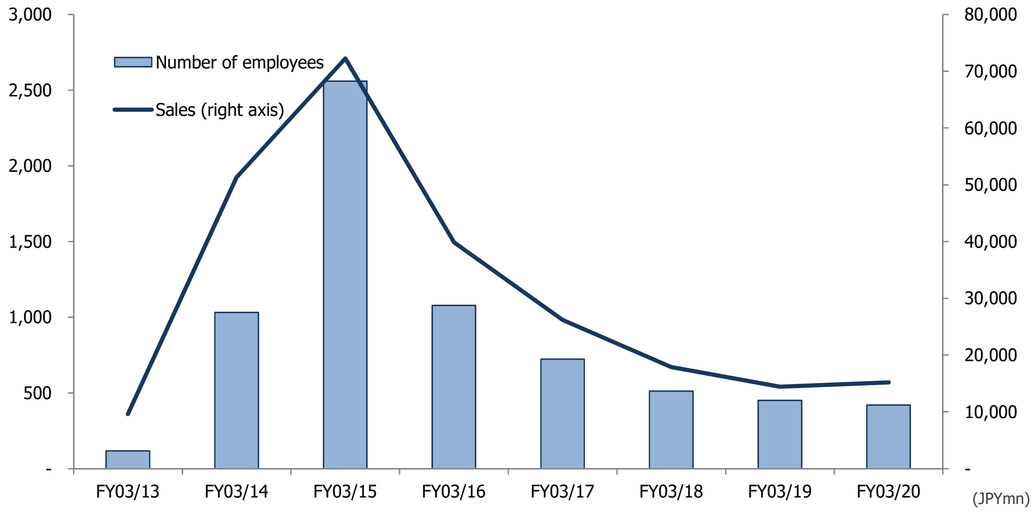
Organization of the solar power business

With regard to organization, in 2010 the company established Shanri (Shanghai) Energy Science and Technology Co., Ltd., as a solar power module manufacturing subsidiary in China. In 2012, to meet the needs of a full-fledged commercial solar power business, the company set up Sanix Engineering Inc. (100%-owned subsidiary) to handle planning, design, sales, installation and consulting for commercial solar power systems. Hence, the company is building on its track record in the residential solar power system field to establish itself in the commercial solar power market. In FY03/15, Sanix combined the commercial and residential PV businesses that had been dispersed throughout the company to form the Solar Engineering (SE) segment. The company established a system to develop the solar power segment from the SE segment headquarters in East and West Japan.

Sanix aggressively expanded its workforce in the SE segment from 58 sales staff and 277 technicians as of the end of March 2013 to 648 sales staff and 1,937 technicians as of end September 2014. However, electricity companies began to suspend responses to applications for connecting solar power facilities in September 2014, highlighting the problem of grid connection volume. In January 2015, the government revised the output control rules, making it difficult for the company to increase sales in the SE segment in line with the personnel expansion. As a cost-cutting measure, Sanix in May 2015 conducted a voluntary retirement program for workers in technical and administrative positions in the SE segment, resulting in the early retirement of 609 employees. This was followed by another 229 in December 2015, again mostly in the SE segment. In February 2016, 70 employees across all positions were let go as part of reorganization as the company sought to cope with falling sales. Between June and July 2016, about 500 employees left in a new early retirement program.

In April 2017, Sanix integrated the SE business departments in western and eastern Japan into a single SE business division, streamlining the organization into an efficient management structure.

Sales of commercial and residential PV businesses and the number of employees



	FY03/13	FY03/14	FY03/15	FY03/16	FY03/17	FY03/18	FY03/19	FY03/20
Sales (JPYmn)	9,617	51,340	72,247	39,871	26,225	17,870	14,427	15,195
Number of employees	117	1,032	2,560	1,077	723	512	451	420

Source: Shared Research based on company data

Structure of earnings of the SE segment

SE segment sales

Sales in the SE segment primarily consist of sales from installations of solar power systems. A simple formula for calculating sales is the capacity installed (kW) as measured by the number of units sold multiplied by system price per kW.

Sales and sales volume for the SE segment

(JPYmn)	FY03/14	FY03/15	FY03/16	FY03/17	FY03/18	FY03/19	FY03/20
Total sales	56,637	72,247	39,871	26,225	17,870	14,427	15,195
YoY	197.9%	27.6%	-44.8%	-34.2%	-31.9%	-19.3%	5.3%
PV systems	47,396	67,697	34,419	24,228	16,647	13,661	14,807
YoY	206.4%	42.8%	-49.2%	-29.6%	-31.3%	-17.9%	8.4%
Wholesale of PV systems	9,172	4,451	5,351	1,889	1,026	578	269
Other	68	98	99	107	196	188	117
PV systems sales volume (kW)	195,079	299,881	156,395	124,786	91,882	80,614	90,835
YoY	308.0%	53.7%	-47.8%	-20.2%	-26.4%	-12.3%	12.7%
PV system price per kW (JPY'000)	243	226	220	194	181	169	163
YoY	-24.9%	-7.1%	-2.5%	-11.8%	-6.7%	-6.5%	-3.8%

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

Sales of solar power systems had been on the rise until Q3 FY03/15 because of government measures to promote solar power generation. However, a major power utility in September 2014 began to put a hold on requests for grid connections, raising concerns about the capacity of power that can be connected to their networks. The government revised its output control rules in January 2015, reducing demand for solar power energy.

The company's unit price per 1kW continues to decline. This is because the company is seeking to compensate for a decline in feed-in tariffs and the benefits of solar power systems by reducing the unit price. Declining material costs and price competition with peers have also contributed to the price fall.

SE segment expenses

These include materials costs, such as solar power modules (including those manufactured in-house) and other solar power system components (such as inverters, power generation monitors, cables, and mounts); labor costs for construction personnel;

and fees for outsourced processing. The material costs-to-sales ratio and the labor expense ratio have been declining since FY03/16. The material costs-to-sales ratio fell because of a decline in procurement prices, such as those for solar cell modules, while the labor expense ratio was lowered as the number of employees declined.

SG&A expenses mainly comprises of fixed components, such sales force labor costs and advertising expenses. SG&A expenses began to decline in FY03/16. Advertising spending fell after the company stopped placing ads in newspapers. Labor costs dropped because of a decline in the number of employees.

Variable costs include materials, outsourced processing, and transportation. The marginal profit ratio exceeded 40% in FY03/20.

SE segment cost structure

(JPYmn)	FY03/14 Act.	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Total sales	56,637	72,247	39,871	26,225	17,870	14,427	15,195
YoY	197.9%	27.6%	-44.8%	-34.2%	-31.9%	-19.3%	5.3%
CoGS	43,621	60,180	31,853	18,802	12,308	9,740	10,886
YoY	-	38.0%	-47.1%	-41.0%	-34.5%	-20.9%	11.8%
CoGS ratio	77.0%	83.3%	79.9%	71.7%	68.9%	67.5%	71.6%
Raw materials	-	41,679	22,483	13,320	8,291	5,978	6,711
YoY	-	-	-46.1%	-40.8%	-37.8%	-27.9%	12.3%
% of sales	-	57.7%	56.4%	50.8%	46.4%	41.4%	44.2%
Labor	-	9,238	4,618	2,253	1,433	1,018	715
YoY	-	-	-50.0%	-51.2%	-36.4%	-29.0%	-29.8%
% of sales	-	12.8%	11.6%	8.6%	8.0%	7.1%	4.7%
Gross profit	13,016	12,067	8,017	7,423	5,562	4,687	4,308
YoY	-	-	-33.6%	-7.4%	-25.1%	-15.7%	-8.1%
GPM	23.0%	16.7%	20.1%	28.3%	31.1%	32.5%	28.4%
SG&A expenses	8,234	14,358	8,220	5,754	3,893	3,482	3,406
YoY	-	-	-42.7%	-30.0%	-32.3%	-10.6%	-2.2%
SG&A-to-sales ratio	14.5%	19.9%	20.6%	21.9%	21.8%	24.1%	22.4%
Personnel expenses	3,109	5,979	3,594	2,194	1,769	1,724	1,878
Operating profit	4,782	-2,291	-202	1,669	1,668	1,204	901
YoY	-	-	-	-	-0.1%	-27.8%	-25.2%
OPM	8.4%	-3.2%	-0.5%	6.4%	9.3%	8.3%	5.9%
Marginal profit ratio	35.2%	33.1%	36.8%	44.5%	46.8%	46.9%	-

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

Competitors in solar power

Direct competitors include the Hiroshima-based West Holdings Corporation (JASDAQ: 1407), which began as a house renovation firm and expanded into the solar power business. West is shifting from residential solar power systems toward mega-solar projects and commercial solar power systems. The company also provides maintenance services and engages in power and energy-conservation businesses.

Companies that compete with Sanix in a portion of their business include—in solar power modules—Sharp Corporation (TSE1: 6753), Kyocera Corporation (TSE1: 6971), Panasonic Corporation (TSE1: 6752), Mitsubishi Electric Corporation (TSE1: 6503), and Solar Frontier K.K. (subsidiary of Showa Shell Sekiyu K.K. (TSE1: 5002)). In solar power systems sales, partial competitors include Yamada Denki Co., Ltd. (TSE1: 9831), while in installation there are competing housing equipment firms in each local area.

However, there are very few companies competing on an end-to-end basis encompassing manufacture, sales and installation in the way Sanix does. Based on this fact, as mentioned previously, the company may be seen as having an advantage over its competitors through its structure that allows it to offer lower prices. It is also significant that the company has consciously chosen to focus on the 10kW to 50kW system market, thereby avoiding competition. In other words, for small, local housing equipment installers, the 10kW to 50kW range is beyond their capabilities, and for major construction companies, the scale is below their business threshold, meaning excessive competition is unlikely to occur.

Environmental Resources Development (30.7% of sales and 55.8% of operating profit before adjustments in FY03/20)

This segment's business is divided into waste plastic processing, electric power sales, organic waste liquid processing, landfill and other disposal, and others. The waste plastic processing and electric power sales account for a large portion of the segment's operations.

ERD performance

(JPYmn)	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.
Sales	14,735	14,601	17,133	21,755	23,612
YoY	-8.2%	-0.9%	17.3%	27.0%	8.5%
Waste plastic processing	7,534	7,227	7,139	7,556	8,615
YoY	-17.2%	-4.1%	-1.2%	5.8%	14.0%
Electric power sales	3,795	3,986	6,806	11,095	11,603
YoY	11.1%	5.0%	70.7%	63.0%	4.6%
Organic waste liquid processing	1,635	1,604	1,768	1,748	1,958
Landfill and other disposal	619	702	648	654	788
Others	1,150	1,080	770	701	646
Gross profit	2,793	2,177	3,023	2,846	4,687
GPM	19.0%	14.9%	17.6%	13.1%	19.9%
SG&A expenses	1,823	1,895	1,994	1,873	3,482
SG&A-to-sales ratio	12.4%	13.0%	11.6%	8.6%	14.7%
Operating profit	970	282	1,029	972	836
YoY	-28.9%	-70.9%	264.9%	-5.5%	-14.0%

(JPYmn)	FY03/19 Act.	FY03/20 Act.
Sales	14,116	16,759
YoY	-	18.7%
Waste plastic processing	8,615	10,111
YoY	-	17.4%
Electric power sales	2,107	3,023
YoY	-	43.5%
Organic waste liquid processing	1,958	1,968
Landfill and other disposal	788	1,122
Others	646	533
Gross profit	2,160	5,384
GPM	15.3%	32.1%
SG&A expenses	1,736	1,901
SG&A-to-sales ratio	12.3%	11.3%
Operating profit	423	3,483
YoY	-	723.4%

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods.
From FY03/19, the power sales and new electric power generation businesses was recategorized as wholesale and retail power sales.
In FY03/20, the company revised its segment classification, combining the new electric power generation business that was previously included in the ERD segment and the energy business development department established in April 2019 to form the new Energy segment. Figures from FY03/20 reflect the new segment classification.

Waste plastic processing

The waste plastic processing business collects plastic generated during the production processes of industrial customers, and Sanix then crushes and processes this plastic at its own factory. The company receives a processing fee for these services from customers whose waste it collects. Revenues vary according to the volume and fee charged. An important feature of this business is that the company turns the waste plastic it processes into fuel, which is then used in its power generation business.

The company conducts this business nationwide, and its customers span all industries, from large companies to small enterprises. The company's appropriate processing method and system to turn waste plastic into regenerated fuel is appraised highly by its customers and its processing volume is increasing. In FY03/20, the volume of waste plastic collected declined as the company raised its purchasing price for scrap plastic, and only accepted scrap plastic with minimal impurities to enhance the quality of its regenerated fuel.

Plastic fuel sales

(JPYmn)	FY03/11 Act.	FY03/12 Act.	FY03/13 Act.	FY03/14 Act.	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Sales	5,023	6,673	8,665	9,103	7,534	7,227	7,139	7,556	8,615	10,111
YoY	16.9%	32.8%	29.9%	5.1%	-17.2%	-4.1%	-1.2%	5.8%	14.0%	17.4%
Volume processed (tons)	290,738	348,854	370,362	404,794	363,440	381,584	330,599	324,249	328,893	287,713
YoY	20.6%	20.0%	6.2%	9.3%	-10.2%	5.0%	-13.4%	-1.9%	1.4%	-12.5%
Processing price (JPY'000)	17.3	19.1	23.4	22.5	20.7	18.9	21.6	23.3	26.2	35.1
YoY	-3.1%	10.7%	22.3%	-3.9%	-7.8%	-8.6%	14.0%	7.9%	12.4%	34.2%

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

The company entered the industrial waste processing business in 1994. It has established a large network of plants nationwide, through which it processes and recycles industrial waste. As of May 2020, the Sanix Group operated factories (waste plastic intermediate processing plants) at 15 locations throughout Japan. The plants were set up for the purpose of processing industrial waste plastic generated by companies and other work sites.

Its customers span all industries, from large companies to small enterprises, and total around 7,500 companies. In FY03/19, the company's total annual amount processed was around 290,000 tons. According to the company, this is the largest amount processed in Japan. Japan's waste plastic processing market was approximately 4.85mn tons in 2017, so the company's processing capacity is equivalent to about 6% of all waste plastic processed annually in Japan.

Sanix's waste plastic recycling flow is as follows.

- ▷ The company collects waste plastic generated by companies and other work sites and delivers it to the processing plant;
- ▷ The plastic is separated by suitable or non-suitable use as fuel;
- ▷ Plastic is processed in a crusher;
- ▷ After crushed, the suitable plastic is compressed into 1-meter cubes and packaged for use as plastic fuel. The plastic not suitable for fuel is processed at cement companies, or used landfills.

Since Sanix is able to process all types of plastic, but subcontracts this to a number of waste processing companies and provides strict guidance in the separation of such waste. All waste plastic storage and processing are conducted in enclosed spaces (inside plants and storage areas), thereby preventing airborne dispersion of waste, spills and noise pollution. Waste brought to the company's plants is also strictly managed, including through analysis and testing, throughout the processing system.

Article 3 of Japan's Waste Processing Law, which was amended in 2000, stipulates "A business operator must take responsibility for waste generated in its operations and dispose of such waste appropriately." This means that companies generating industrial waste are responsible for the waste's processing and disposal. Although the law mandates processing by the companies generating waste, such companies may contract this work out to authorized industrial waste processors. However, if an industrial waste processor improperly processes or illegally dumps waste, the company that generated the industrial waste and contracted the industrial waste processor may be liable to criminal penalties and obligated to restore a damaged area to its original state. For this reason, when a waste generating company selects a waste plastic processor, an important criterion is not only price but also whether the contractor will process the waste appropriately. The customer usually inspects the processing facilities and confirms the equipment and processing methods to be employed. Sanix has built a reputation for its appropriate processing, and this has been a decisive factor in the growth of the business.

Competition in waste plastic recycling generally encompasses three to four operators in each of Japan's 47 prefectures. Major operators include Taiheiyo Cement Corporation (TSE1: 5233), Mitsubishi Materials Corporation (TSE1: 5711), and JFE Kankyo Corporation (subsidiary of JFE Holdings, Inc. (TSE1: 5411)). In addition to its reliability for appropriate recycling methods, Sanix says that its other strength is that it generates power after recycling; meaning customers are able to contribute to the effective reuse of waste materials. Furthermore, the recycling capacity of each plant is high enough to accept large and steady waste shipments.

Factors affecting earnings of the waste plastic processing business

Sales of the waste plastic recycling may be calculated by multiplying the acceptance volume of waste by the average acceptance unit price. The acceptance volume is dependent on the overall volume of industrial waste generated in Japan. Although this volume is affected to a certain extent by the fortunes of economy, customers use waste processing firms on an ongoing basis and this usage does not greatly fluctuate. The recycling unit price is determined by negotiation, and may be affected by such factors as area, fluctuation in expenses, and the level of economic activity.

Waste plastic recycling companies are also involved in the sale of plastic fuel, and although the company sells plastic fuel to Sanix Energy Inc., these sales are eliminated as intercompany transactions at the consolidated level. In addition, the company also sells plastic fuels as boiler fuel to paper companies.

Cost of goods sold for industrial waste recycling business mainly comprises of outsourced work and labor costs. These two costs are essential for the operation of the processing plants, and are estimated to be partially controlled depending on the level of capacity utilization. Consequently, the main factors affecting profitability of the waste plastic recycling business are fluctuation in recycling volume, fluctuation in unit processing price, sales volume of post-processed plastic fuel, and fluctuation of selling prices.

Power generation business

In the power generation business, the company sells electricity generated by the Tomakomai Power Plant to its Energy segment (treated as internal transactions) or other parties (wholesale).

Power generation business at Tomakomai Power Plant

A unique feature of the power generation business at the Tomakomai Power Plant is use of waste plastic fuel. In this business, revenue is proportionate to the volume of power generated and it is a stable source of earnings for the company. Although the power plant experienced a variety of problems in the past (see History), and even suspended operations for about six months starting in September 2018 as a result of damage from an earthquake that hit the eastern part of the Iburi region of Hokkaido, it was operating smoothly as of May 2020.

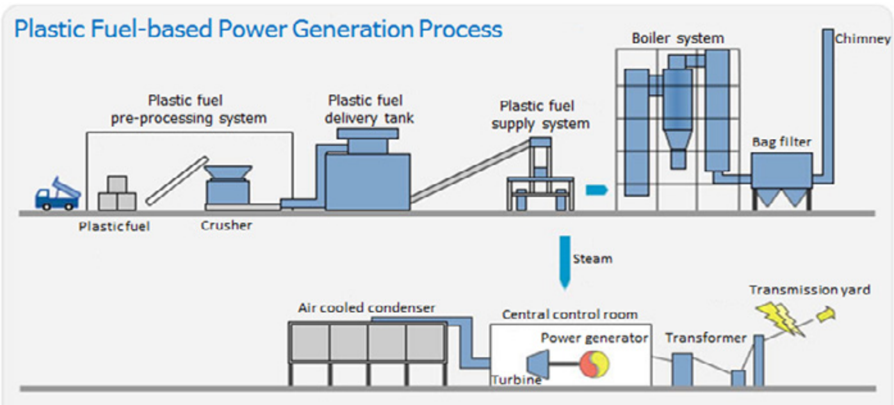
Sanix Energy Inc., which handles the power generation business, was established in October 2001, and commenced operation of the Sanix Energy Tomakomai Power Station in Hokkaido in 2003. This facility runs completely on waste plastic fuel and supplies electricity.

Tomakomai Power Station

Source: Shared Research based on company data

The flow of operations at Sanix Energy's Tomakomai Power Station is as follows.

- ▷ Plastic fuel is re-crushed at the power station into pieces up to 30mm.
- ▷ This plastic fuel is fed into the boiler furnace to produce steam, which turns the turbine to generate electricity.
- ▷ Electricity is sent through transmission lines to supply the electricity purchaser.



Source: Shared Research based on company data

The power station has one turbine generator with the maximum output of 74,000kW (equivalent to the power needed to supply 23,000 households). Of the 74,000kW capacity, approximately 15% is used within the company's plant and the remaining 85% is sold.

The power station's basic design differs from the most common waste-to-energy (WtE) method, which is called Refuse Derived Fuel (RDF). The plant adopts a method whereby finely crushed waste plastic (boiler furnace fuel) only is directly fed through four chutes using compressed air into a single-fuel fired boiler (a boiler fired exclusively by waste plastic). The resulting high-temperature, high pressure steam turns a turbine to generate electricity. After power generation, the steam is recovered using an air-cooled condenser and the water is reused. For this reason, there is absolutely no output of heated wastewater, which is often cited as for power plants. Soot is recovered and together with the incineration ash is detoxified and recycled or sent to its consolidated subsidiary, C&R Co., Ltd. to be used in landfills.

Through technology development, the boiler is operated with an internal temperature of over 850 degrees centigrade, and the generation of dioxins is prevented by cooling this to 200 degrees centigrade.

Sanix Energy's Tomakomai Power Station encountered several problems between 2005 and 2009, and unavoidably temporarily halted operations (see History). It then suspended operations again for about six months as a result of damage from an earthquake that hit the eastern part of the Iburi region of Hokkaido in September 2018. However, the plant appears to have overcome these problems and implemented many improvements to increase its power generation capacity. As of May 2020, it was operating smoothly.

Factors affecting power generation earnings at Tomakomai Power Plant

The simple formula for calculating sales is volume of power sold multiplied by the unit selling price. The unit price is agreed by negotiation.

Main expenses include materials cost (such as landfill and chemicals costs), labor cost and outsourced work cost. Fuel cost is waste plastic processed by other companies in the Sanix Group, meaning there is no fluctuation risk for materials cost. Labor cost may also be assumed as essentially fixed, meaning profits are steady when the plant is operating smoothly.

However, since regular inspections (once every two years) and continual maintenance are necessary, profit is potentially affected if the plant does not operate for the number of days planned or if there is a rise in maintenance costs. In addition, generation efficiency deteriorates based on fuel quality attributable to the mixture of metal and chlorine, leading to a risk of not being able to meet its electricity sales volume target.

Home Sanitation (20.6% of sales and 33.0% of operating profit before adjustments in FY03/20)

The HS segment provides termite control, foundation repairing and strengthening, and ceiling and floor ventilation work for households.

HS segment performance

(JPYmn)	FY03/11 Act.	FY03/12 Act.	FY03/13 Act.	FY03/14 Act.	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Sales	16,657	15,395	14,814	10,819	7,605	6,519	6,562	8,922	10,752	11,235
YoY	18.5%	-7.6%	-3.8%	-27.0%	-29.7%	-14.3%	0.7%	36.0%	20.5%	4.5%
Termite control services	4,095	3,498	2,690	3,264	2,783	2,459	2,159	2,628	3,441	3,547
YoY	-14.2%	-14.6%	-23.1%	21.3%	-14.7%	-11.6%	-12.2%	21.7%	30.9%	3.1%
Floor and ceiling ventilation systems	2,568	2,092	1,310	1,641	1,078	895	854	1,254	1,799	2,497
YoY	-14.3%	-18.5%	-37.4%	25.3%	-34.3%	-17.0%	-4.6%	46.8%	43.5%	38.8%
Foundation repairing & building strengthening work	2,110	1,614	831	930	549	377	582	1,957	2,126	1,881
YoY	-29.1%	-23.5%	-48.5%	11.9%	-41.0%	-31.3%	54.4%	236.3%	8.6%	-11.5%
Other	7,884	8,191	9,983	4,984	3,195	2,788	2,967	3,083	3,386	3,310
YoY	138.3%	3.9%	21.9%	-50.1%	-35.9%	-12.7%	6.4%	3.9%	9.8%	-2.2%
Gross profit	7,964	7,381	6,161	4,845	3,755	3,255	3,285	4,947	4,947	6,746
GPM	47.8%	47.9%	41.6%	44.8%	49.4%	49.9%	50.1%	55.4%	46.0%	60.0%
SG&A expenses	5,356	4,899	4,385	3,703	2,121	2,640	2,306	3,475	3,475	4,684
SG&A ratio	32.2%	31.8%	29.6%	34.2%	27.9%	40.5%	35.1%	38.9%	32.3%	41.7%
Operating profit	2,608	2,482	1,776	1,141	1,634	614	979	1,471	1,471	2,061
YoY	-22.5%	-4.8%	-28.5%	-35.7%	43.2%	-62.4%	59.4%	50.3%	0.0%	40.1%

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods
In FY03/15, the company changed the structure for the solar power system sales and installations. Since then, the residential solar power construction business was moved from the HS segment to the SE segment.

Termite control services and floor/ceiling ventilation systems are included in the Home Sanitation (HS) segment and the termite control service is its original business since the company's founding. The company applies termite eradication agents to the wooden-structured houses of customers and installs ventilation systems. Revenue is derived from the provision of services and construction work, as well as anti-termite agents and other products.

In July 2006, the company was the subject of administrative sanctions ordered by the Ministry of Economy, Trade and Industry (METI) for violations of the Act on Specified Commercial Transactions (see History). After that, in addition to thorough measures to prevent recurrence of these problems, the company stopped acquiring new customers. For this reason, although at its peak this business served 320,000 customers, the number fell to about 120,000. Sanix restarted sales efforts in FY03/17 and has since been striving to raise the customer count.

In 2006, the company began focusing on providing after-sales maintenance to existing customers of its termite control and floor/ceiling ventilation system services. In March 2013, its focus shifted again, this time to the installation of solar power generation systems. For these reasons, sales have continued to decline in the termite control and floor/ceiling ventilation system installation businesses.

However, in January 2015 the government revised the Feed-in Tariff Scheme for Renewable Energy, changing output control rules. In response to this change in the segment's business environment, the company promoted the streamlining of operations to achieve sustainable growth, reducing the numbers of both workers and stores in the SE segment. From FY03/17, it plans to take resources it had concentrated in the SE segment and redistribute them to the HS and ES segments with the aim of stimulating a recovery in performance.

Termite-control services

	FY03/11	FY03/12	FY03/13	FY03/14	FY03/15	FY03/16	FY03/17	FY03/18	FY03/19	FY03/20
Sales (JPYmn)	4,095	3,498	2,690	3,264	2,783	2,459	2,159	2,628	3,441	3,547
Treatment area ('000sqm)	2,433	2,086	1,626	1,990	1,696	1,521	1,339	1,560	2,013	1,977
Price per sqm (JPY'000)	1.68	1.68	1.65	1.64	1.64	1.62	1.61	1.68	1.71	1.79

Source: Shared Research based on company data

Sales for termite-control services can be obtained by multiplying the treatment area by the unit price. From FY03/09 to FY03/17, the treatment area declined, but has been trending upward since changed its resource allocation in FY03/17. The unit price has remained stable at around JPY1,500–1,800/sqm.

Foundation repairing and reinforcement work for households

	FY03/11	FY03/12	FY03/13	FY03/14	FY03/15	FY03/16	FY03/17	FY03/18	FY03/19	FY03/20
Sales (JPYmn)	2,110	1,614	831	930	549	377	1,249	1,957	2,126	1,881
Number of construction works	4,593	3,437	1,807	1,963	1,170	803	3,714	5,551	5,562	4,669
Unit price (JPY'000)	0.46	0.47	0.46	0.47	0.47	0.47	0.34	0.35	0.38	0.40

Source: Shared Research based on company data

Sales for foundation repairing and reinforcement work for households can be obtained by multiplying the number of projects by the unit price. The number of projects, which had been on the decline up to FY03/17, began to register a YoY increase that year, reaching 5,562 projects in FY03/19. In FY03/20, sales for foundation repairing and reinforcement work for households declined YoY as the company focused on the comparatively high-margin termite control services (discussed below). The unit price has remained stable at around JPY400,000 per project.

The HS segment has GPM of about 40-60%, compared with 20-40% for the company as a whole. We believe that the HS segment has a higher GPM because termite-control services have a high GPM.

Energy segment (16.7% of sales, operating loss of JPY485mn in FY03/20)

In the Energy segment, the company generates revenue by selling procured electricity to general customers (retail) and power producers and suppliers (wholesale).

Energy segment performance

(JPYmn)	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Sales	7,621	10,609	9,132
YoY	-	39.2%	-13.9%
Gross profit	208	616	-71
GPM	2.7%	5.8%	-0.8%
Operating profit	32	412	-485
YoY	-	-	-
OPM	0.4%	3.9%	-5.3%

Source: Shared Research based on company data

Sanix procures electricity from the Tomakomai Power Plant operated by a subsidiary, through purchases from customers that have installed and use its solar power systems, via transactions with electric power companies, and through purchases from JEPX. Procurement prices for electricity from JEPX are subject to sharp fluctuations, which affect margins in the segment.

- In FY03/18, the OPM was below 1%. The company procured electricity from JEPX at relatively high rates amid tightening electricity supply, and this eroded profit margins in the ERD segment.
- In FY03/19, the OPM rose 3.5pp YoY to 3.9%. The company increased procurement via transactions with electric power companies—thus reducing the share of procurement from JEPX—and successfully stabilized its procurement prices.
- In FY03/20, the segment posted an operating loss. All profit items from the gross profit line down fell because the company's contracted procurement volume based on transactions with electric power companies exceeded its retail and wholesale sales volume, pushing CoGS above sales.

In retail sales, the company sells electricity to low-voltage consumers (e.g., stores, offices, and general households) with a contract load of less than 50kW, and to high-voltage consumers (e.g., factories, large commercial facilities, and hospitals) with a contract load of more than 50kW. In wholesale sales, it procures electricity from the Tomakomai Power Plant at comparatively affordable rates and through transactions with electric power companies, and supplies this to power producers and suppliers.

Strengths and weaknesses

Strengths

- **Relatively high GPM in mainstay HS segment:** As of FY03/20, the HS segment accounted for 20.6% of sales and 33.0% of operating profit before adjustments, making it one of the core segments. Thanks to contributions of the comparatively high-margin termite control services, the HS segment's 60.0% GPM is well above the companywide average of 33.4% (FY03/20 figures).
- **Stable earnings source:** In the waste plastic processing business, once a customer enters a service contract, the probability of that customer changing service providers is quite low. In addition, from FY03/18, unit prices for the waste plastic accepted by the company increased due to an accumulation of waste plastic in Japan after China, previously the main receiver of waste plastic exported by Japan, prohibited the import of waste plastic in 2017.
- **Operational expertise for Tomakomai Power Plant:** As of May 2020, the Tomakomai Power Plant operated smoothly, and generated sales and profit. In the past, the plant experienced a variety of problems such as the detection of dioxins in the soot and smoke of the plant in 2009 and damage from the Hokkaido Eastern Iburi earthquake in 2018. However, Sanix has resolved these issues and gained the expertise required to operate the plant smoothly. In addition to generating electricity, the plant functions as a disposal facility for scrap plastic collected in the waste plastic processing business, making it a core facility of the ERD segment.

Weaknesses

- **Management culture that historically tended to incorrectly discount risk:** Sanix's earnings slumped for 10 years after peaking in FY03/02. One of the causes of this slump was a full-scale entry into the power generation business in FY03/03, which involved capital investment of JPY12.0bn—an amount greater than the entire operating profit at the time. The Environmental Resources Development segment with its power generation business lost money every year until FY03/11 (see "Past segment data"). In FY03/15, the company expanded personnel sharply in the solar power business, but it incurred losses in FY03/15 and FY03/16 due to a change in the business environment. Shared Research feels that while the company is prone to move aggressively, in hindsight it often underestimated future risks in the past, both to its reputation and bottom line.
- **Sustainable cost competitiveness:** Shared Research believes that Sanix's competitive advantage in solar power business is providing both direct sales and installation, focused on solar power generating system of less than 50kW. The company has developed a system where it can provide a stable volume of orders to solar power generating equipment makers by bundling small lot orders together and offer competitive low prices. On the other hand, Sanix's strategy is based on being cost competitive, and consequently, may lose its competitiveness if competitors and new entrants with greater financial strength, initiates a low-priced strategy with a disregard for profits in the short term. In addition, the company's cost competitiveness is not based on commanding an overwhelming market share through production volume, and this low-price strategy may be imitated by competitors. It is inevitable that when competitors imitate the company's business model, the company may lose its low-price competitive advantage.
- **Worsening business environment for solar power generation attributable to periodic revisions of FIT scheme:** The FIT scheme price for solar power (10kW or more) fell from JPY40/kWh in FY2012 to JPY13/kWh in fiscal 2020. In addition, from fiscal 2020, the FIT scheme terminated the full purchase of power generated by solar power systems with 10kW to 50kW capacity, which are the company's mainstay products. The new FIT scheme adopts a design premised on self-consumption, with only surplus power qualifying for purchase. In response, the company changed its sales policy, switching from an approach of selling solar power systems as investment products to affluent individuals who seek to efficiently utilize land holdings, to selling the systems to plants and stores mainly for the purpose of in-house power consumption. Shared Research understands the falling feed-in tariffs and the shift in focus to self-consumption will lead to reduced demand for installation of solar power systems. In FY03/20, the SE segment accounted for 27.8% of total sales and 14.4% of operating profit.

Group companies

The Sanix Group comprises of the parent company and 10 consolidated subsidiaries.
The two main subsidiaries are listed below (shareholding ratio in parentheses).

- Shanri (Shanghai) Energy Science and Technology Co., Ltd. (100%): Manufacture of PV modules and sales to Sanix.
- Sanix Energy Inc. (98.6%): Purchasing of processed plastic fuel (processed by the parent company for use in its power station), and sales of the electricity

Market

SE segment market overview

Policies to promote solar power in Japan

FIT Act implemented in July 2012 to launch a system of feed-in tariffs for renewable energy

As a policy to promote the spread of renewable energy, the Act on Special Measures Concerning Procurement of Renewable Electric Energy by Operators of Electric Utilities (often abbreviated to "FIT Act") was enacted in August 2011 and implemented in July 2012. The result was a feed-in tariff mechanism under which the government guarantees the purchase of electricity generated by five types of renewable energy sources, such as solar, wind, and geothermal power, at predetermined prices for a certain period of time. The costs of purchasing power is added to electricity prices as a levy.

The spread of solar power in Spain and Germany is attributed to the introduction of a system similar to the feed-in tariff mechanism. The use of solar power tends to rise when purchase prices for renewable energy are high.

Revised FIT Act implemented in April 2017

According to a document released by the Agency for Natural Resources and Energy, the combined capacity of power generation facilities that use renewable sources reached 53.2mn kW at end October 2016, about 2.5 times the level of end June 2012, when the figure was about 20.6mn Kw. The cost of purchasing renewable energy, which was JPY0.3tn in fiscal 2012, rose to JPY2.3tn in fiscal 2016 (of which the levy was JPY1.8tn, JPY675 per average household). The agency expects that the cost of renewable energy purchases will increase to JPY3.7-4.0tn in 2030.

In April 2017, the Partial Revision of the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities (the revised FIT Act) was implemented to address the growing financial burdens on the public and an increase in idle facilities. The revised FIT Act sets forth medium- to long-term purchase price targets and calls for the establishment of a system of competitive bidding.

Purchase of excess electricity from systems of less than 10kW

For solar power generation systems of less than 10kW, the FIT scheme is applied, and surplus solar power generated by households is sold to electric utility companies. When the scheme was launched in 2009, the feed-in tariff for surplus power was set at JPY48/kWh (including tax) to promote use. Electricity companies were to purchase power generated at a fixed tariff for 10 years from installation of the solar power system. The tariff for newly installed generation capacity has been lowered each year thereafter. The feed-in tariffs for fiscal 2016 (March 2017) and later are shown in the table below.

Under the revised FIT Act, the target rate for residential solar power in 2019 will be roughly equivalent to household electricity prices (JPY24/kWh). The law also calls for the purchase price to match the market price (JPY11/kWh) at an early date in 2020 or thereafter.

Feed-in tariffs for less than 10kW of solar power

<table>
<tr><th colspan="2" rowspan="2">Procurement type</th><th colspan="5">Price per kWh</th><th rowspan="2">Procurement period</th></tr>
<tr><th>FY2016</th><th>FY2017</th><th>FY2018</th><th>FY2019</th><th>FY2020</th></tr>
<tr><td rowspan="2">Less than 10kW</td><td>Output control equipment not required</td><td>JPY31</td><td>JPY28</td><td>JPY26</td><td>JPY24</td><td rowspan="4">JPY21</td><td rowspan="4">10 years</td></tr>
<tr><td>Output control equipment required</td><td>JPY33</td><td>JPY30</td><td>JPY28</td><td>JPY26</td></tr>
<tr><td rowspan="2">Less than 10kW (double power generation)</td><td>Output control equipment not required</td><td>JPY25</td><td colspan="2">JPY25</td><td>JPY24</td></tr>
<tr><td>Output control equipment required</td><td>JPY27</td><td colspan="2">JPY27</td><td>JPY26</td></tr>
</table>

Source: Shared Research with data from the Agency for Natural Resources and Energy
*The installation of output control equipment is required within the service areas of Hokkaido Electric Power Company, Tohoku Electric Power Company, Hokuriku Electric Power Company, Chugoku Electric Power Company, Shikoku Electric Power Company, Kyushu Electric Power Company, and Okinawa Electric Power Company.

Net metering for systems of 10kW or more

In July 2012, a system called "net metering" was established within the FIT scheme, for facilities generating 10kW of solar power or more. Under this scheme, producers can sell all power generated to electricity companies, regardless of their own consumption. In fiscal 2020, the FIT scheme terminated the full purchase of power generated by solar power systems with 10kW to 50kW capacity. The revised scheme requires self-consumption of at least 30% of the power generated from such systems, with only surplus power qualifying for purchase.

In 2012, the tariff stood at JPY40/kWh (excluding tax). The tariff is fixed for 20 years, from the time of installation. The tariff was lowered in 2013 and 2014, to JPY36/kWh (excluding tax) and JPY32/kWh (excluding tax) respectively. The tariff was further lowered in fiscal 2015 to JPY29/kWh (excluding tax) for facilities concluding connection contracts with electricity companies by June and to JPY27/kWh (excluding tax) for facilities concluding connection contracts in July and later. The tariff was lowered yet again in 2016, to JPY24/kWh (excluding tax). The feed-in tariffs for fiscal 2016 and later are shown in the table below.

Feed-in tariffs for 10kW or more of solar power

<table>
<tr><th rowspan="2">Procurement type</th><th colspan="5">Procurement price per kWh</th><th rowspan="2">Procurement period</th></tr>
<tr><th>FY2016</th><th>FY2017</th><th>FY2018</th><th>FY2019</th><th>FY2020</th></tr>
<tr><td>From 10kW to less than 50kW</td><td rowspan="5">JPY24</td><td rowspan="4">JPY21</td><td rowspan="4">JPY18</td><td rowspan="3">JPY14</td><td>JPY13</td><td rowspan="5">20 years</td></tr>
<tr><td>From 50kW to less than 250kW</td><td>JPY12</td></tr>
<tr><td>From 250kW to less than 500kW</td><td></td></tr>
<tr><td>From 500kW to less than 2,000kW</td><td></td><td></td></tr>
<tr><td>2,000kW or more</td><td colspan="4">Determined by auction</td></tr>
</table>

Source: Shared Research with data from the Agency for Natural Resources and Energy

The tariff and purchase period set under the FIT scheme are set each year by the Minister of Economy, Trade and Industry prior to the commencement of the fiscal year. The minister is required to take into account the opinions of a neutral, third-party committee (Feed-in Tariff Calculation Committee), which conducts public deliberations.

SE segment barriers to entry

It is possible for a local home builder to go into the solar power generation system installation business tomorrow. However, given that Sanix (involved in the whole process from manufacturing to sales, to installation and maintenance), has already achieved low prices of sources, generated some brand equity, and gained scale to leverage advertising costs, new entrants may find it difficult to compete with the company. Sanix has also cut costs and made installations more efficient by producing inverters in-house and changing panel mounts. The company hopes that unique products and installation methods will allow it to lower costs—a further competitive advantage.

Significant capital investment and operating know-how are required in the plastic waste recycling business. Consequently, given the additional capital investment and know-how needed post-recycling, there appears to be little merits for a new company to enter into this business field.

HS segment market overview

According to the Yano Research Institute's report entitled PCO/TCO/Fumigation Service Market in Japan: Key Research Findings 2016, the termite control operator (TCO) service market has remained stable at about JPY45.0bn. The fiscal 2018 forecast for the TCO service market (operator sales basis) was JPY47.9bn (+1.2% YoY).

TCO service market trends

(JPYmn)	2011	2012	2013	2014	2015	2016	2017	2018
Termite control operator (TCO) market size	46,680	45,760	46,600	45,920	46,470	46,860	47,260	47,850
YoY	-	-2.0%	1.8%	-1.5%	1.2%	0.8%	0.9%	1.2%

Source: Yano Research Institute's PCO/TCO/Fumigation Service Market in Japan: Key Research Findings 2018
Note: Fiscal 2018 figures are forecasts.

Listed companies involved in termite control are Duskin (TSE1: 4665), ASANTE (TSE1: 6073), NITTOH (NSE2: 1738), and Freesia Macross (TSE2: 6343) subsidiary Picoi.

Comparison of competitor performance

	Sanix (HS segment)	Duskin	NITTOH	Picoi
Sales (JPYmn)	11,235	110,379	1,162	4,841
Segment profit (JPYmn)	2,061	11,603	153	985
Profit margin	18.3%	10.5%	13.2%	20.3%
Extermination cost (tax excluded)	JPY92,000 up to 40sqm, and JPY2,300/sqm over 40sqm	JPY112,500 up to 50sqm, and JPY2,250/sqm over 50sqm	Estimate required	Estimate required

Source: Shared Research based on data from the various companies
Duskin figures are the door-to-door sales group's FY03/20 results; NITTOH figures are the home services business' FY03/20 results; Picoi figures are sales and recurring profit for FY03/20.

Energy segment market overview

History of electricity business liberalization

After World War II, the Japanese government-controlled electricity rates, but regional electric power companies took on the burden of generating, distributing, and retailing electricity to consumers in their relative regions. After the bursting of Japan's bubble economy in the 1990s, in order to correct the high costs of the electricity business and the disparity with fees overseas, the government-initiated reforms with the aim of introducing elements of competition to the business. Since that time, the Electricity Business Act has been revised four times, in 1995, 1999, 2003, and 2014, and the electricity business has been liberalized in stages.

1995: Liberalization of power generation

The 1995 revision of the Electricity Business Act liberalized power generation, and it became possible for Independent Power Producers (IPPs) to generate and provide electricity to electric power companies.

1999: Liberalization of retail sales to large users

The 1999 revision liberalized some aspects of retail sales. Retail sales to large users such as large factories, department stores, and office buildings, which account for some 20-30% of electricity demand, were liberalized, and new electric power generation (Power Producer and Supplier [PPS]) was permitted. In addition, electricity rate controls were abolished.

2003: Liberalization of retail sales to mid-size users

The 2003 revision liberalized retail sales to mid-size users (with contract demand of 50kW or more and high voltage), including supermarkets and small and medium factories and buildings. This meant more than half of electricity sales volume had been liberalized.

2014: Liberalization of retail sales to small users (total retail liberalization)

The 2014 revision liberalized retail sales to small users, including ordinary households. This completed the liberalization of retail electricity sales.

New electric power generation (PPS) sales volume and share

New electric power generation sales volume is trending upward, as is the share of total electric sales volume. According to the Electricity and Gas Market Surveillance Commission's Electricity Trading Report, new electric power generation sales volume in December 2019 was 11,065,447 MWh (+6.8% YoY) and the share of total electric sales volume was 16.2% (+1.4pp YoY).

New electric power generation sales volume

(MWh)	Jun 2016	Dec 2016	Jun 2017	Dec 2017	Jun 2018	Dec 2018	Jun 2019	Dec 2019
Electric power sales volume	64,313,738	70,025,106	63,291,539	73,509,262	64,706,047	69,871,708	62,937,954	68,254,885
YoY	-	-	-1.6%	5.0%	2.2%	-4.9%	-2.7%	-2.3%
PPS	4,607,055	6,076,153	7,222,897	9,352,409	9,290,129	10,357,896	9,381,230	11,065,447
YoY	-	-	56.8%	53.9%	28.6%	10.8%	1.0%	6.8%
As % of total power sales	7.2%	8.7%	11.4%	12.7%	14.4%	14.8%	14.9%	16.2%

Source: Shared Research based on Electricity and Gas Market Surveillance Commission's Electricity Trading Report

Historical performance

1H FY03/21 results

- Sales: JPY23.9bn (-2.4% YoY)
- Operating profit: JPY1.7bn (+7.3% YoY)
- Recurring profit: JPY1.6bn (+9.3% YoY)
- Net income*: JPY1.4bn (+23.7% YoY)

*Net income attributable to owners of the parent

At the Solar Engineering segment, sales efforts at aimed at bringing in new orders were slow in the wake of the COVID-19 pandemic and solar power system installations were likewise delayed, leaving segment sales down YoY. The Establishment Sanitation segment and the Environmental Resources Development segment both reported higher sales. Sales at the Home Sanitation segment were flat YoY although the company refrained from new marketing activities while the Japanese government's state of emergency declaration was in place. Sales at the Energy segment were down YoY, hurt by lower power supply volume per building for high-voltage power customers and lower power sales to the wholesale electricity market. On the profit front, the Environmental Resources Development segment reported higher profit to go along with the rise in sales, while the Solar Engineering segment and the Energy segment both reported lower sales and profit. The Home Sanitation segment and the Establishment Sanitation segment both reported lower profit due to rising costs stemming from additions to its workforce and other factors.

Sanix announced revisions to its FY03/21 consolidated earnings forecasts in November 2020. While downwardly revising its forecast for sales by JPY605mn, the company made no change to its forecasts for earnings from the operating line down.

- The company expects sales to fall short of its prior forecast due to delays in sales activities in the Energy segment for the third-party owned solar electric power model.
- While expecting reduced sales in the Energy segment to weigh on profits, the company made no change to its operating profit forecast as relatively high margin landfill operations are proving stronger than initially expected and plastic fuel costs are declining. In plastic fuel, the company expects final disposal outsourcing costs to be lower than previously forecast amid an improvement in the quality of waste plastic received.

> Third-party owned solar electric power model: The company's partner (an electric power company) pays for the installation of solar power panels on the roofs of privately owned detached houses, with the company installing the panels and booking received revenue as a contractor. While electricity generated goes to the partner, which owns the panels, the owners of the detached houses can have the solar panels installed at no cost to them and receive a discount on energy supplied by the partner company of about 10%–20%. The owners of the detached house can take ownership of the panels 10–20 years after installation, allowing them free use of any electricity generated from those panels.

1H FY03/21 progress rates against the company's revised full-year forecasts were 48.1% for sales (1H FY03/20 sales were 46.7% of full-year FY03/20 sales), 85.8% for operating profit (55.6%), 87.5% for recurring profit (55.1%), and 104.8% for net income attributable to owners of the parent (61.6%). Progress rates at each level exceeded those shown at the same point the previous year. The company expects to implement a statutory inspection at the Tomakomai power plant in Q4 (January–March 2021) FY03/21, with the suspension in operations lasting about one month. The company forecasts an associated adverse impact of about JPY300mn on sales and about JPY700mn on operating profit. As a result, the company forecasts a decline in earnings in Q4 FY03/21.

Solar Engineering (SE) segment

- Sales: JPY5.4bn (-3.7% YoY)
- Operating profit: JPY233mn (-21.8% YoY)

Work on solar power systems bundled with land, which was carried over from FY03/20, progressed favorably. However, sales efforts aimed at bringing in new orders were slow in the wake of the COVID-19 pandemic. As a result, sales from installations of solar power systems fell 3.1% YoY to JPY5.2bn. On a capacity basis it installed 30,241 kW (-10.1% YoY), with solar power system unit prices of JPY174,000/kW (+7.8% YoY, Shared Research estimate). On a quarterly basis, sales were JPY3.0bn (+28.4% YoY) in Q1 and JPY2.4bn (-26.9% YoY) in Q2.

▷ Sales in Q1 FY03/21 grew on installation and sales of solar power systems and land packages that were subject to FIT scheme applications filed by end-FY03/20 and were either under review or approved (Sanix procures land and installs facilities for sale to investors in lots). On a capacity basis it installed 17,908kW (+31.2% YoY), with solar power system unit prices of JPY169,000/kW (+1.9% YoY, Shared Research estimate).

▷ Sales declined YoY in Q2 FY03/21. Due to the changes in the FIT system outlined below, the company from Q1 transitioned from sales activities focused on solar power systems bundled with land to sales activities focused on self-consumption systems. However, installation volume decreased YoY as the COVID-19 pandemic reduced face-to-face sales activities and put a cap on the inspection of properties slated for installation. On a capacity basis, the company installed 12,333kW (-29.5% YoY), with solar power system unit prices at JPY180,000/kW (+14.3% YoY, Shared Research estimate). Solar power system unit prices improved on the booking of self-consumption system sales. According to the company, unit prices for self-consumption system sales are relatively high because those systems require a device controlling the amount of electricity generated that was not necessary for solar power systems permitting the full purchase of generated electricity.

In the Solar Engineering business, the company has sold solar power systems to affluent individuals who sought to make best use of their land, and as an investment product based on the FIT scheme, which purchases all of the power generated by solar power systems over a 20-year period. From fiscal 2020 (year ended March 2021) the FIT scheme arrangements changed to assuming in-house consumption (self-consumption + sale of surplus power). The company is thus marketing self-consumption solar power systems not as an investment product as previously, but is touting the benefits of power self-consumption and selling surplus power to factories and stores. In Q1, it refrained from marketing due to the emergency declaration over the COVID-19 pandemic in April–May, but resumed marketing activities from June for solar power systems for in-house consumption. Sales activities need to focus on proposals that allow the customers to benefit from installation based on the power usage conditions at their plants or stores, including in regard to nighttime and weekend use. According to the company, sales activities in Q2 allowed it to identify certain customer attributes, including in regard to which industries are likely to benefit from the installation of solar power generation systems. With this understanding, the company aims to achieve growth from Q3 onward by focusing its sales activities on specific customer attributes.

> Under the fiscal 2020 FIT scheme, requirements for 10–50kW projects to be deemed for self-consumption are that at least 30% of the electricity generated must be consumed in-house and minimum equipment to be utilized in the event of a disaster must be installed. The purchase price of surplus power under the revised scheme will be JPY13/kWh (before tax).

Profit declined as efforts to reduce SG&A expenses was not enough to offset the impact of lower sales.

▷ Gross profit fell 10.7% YoY to JPY1.7bn, and GPM was down 2.5pp YoY to 32.3%. Sales of self-consumption systems have relatively low gross profit margins, and the launch of these kinds of sales in 1H FY03/21 contributed to the downturn in GPM.

▷ The cost of sales ratio came to 67.7%. The ratios of materials costs, labor costs, and other expenses (such as outsourcing costs) increased.

- Lifted by self-consumption sales, the ratio of materials costs to sales rose 1.0pp YoY to 39.0%.
- The ratio of labor costs to sales rose 0.1pp YoY to 6.1%.
- The ratio of other expenses to sales rose 1.4pp YoY to 22.7%. The increase was driven by growth in the ratio of solar power systems with land (where the company launched sales in Q2 FY03/20) to sales. According to the company, solar power

systems with land account for a larger portion of the ratio of outsourcing costs and other expenses to sales because the company outsources the maintenance of procured land and other related operations.

- ▷ Despite lower SG&A expenses, operating profit was down YoY on a decline in gross profit. SG&A expenses were JPY1.5bn (-8.7% YoY), reflecting a fall in personnel and other expenses.

Environmental Resources Development (ERD) segment

- ▷ Sales: JPY8.3bn (+3.1% YoY)
- ▷ Operating profit: JPY2.0bn (+19.3% YoY)

Sales from plastic fuel rose 9.4% YoY to JPY5.1bn, and sales from electric power generation fell 4.5% YoY to JPY1.6bn. In regard to plastic fuel, although the acceptance volume of plastic waste declined, sales grew YoY as the company focused on profitability and quality through detailed examinations of the waste plastic it accepted for processing.

- ▷ In regard to plastic fuel, although the acceptance volume of plastic waste declined 8.6% YoY to 131,000 tons, sales were up YoY thanks to an increase in unit prices for the waste plastic accepted for processing. Based on sales divided by accepted volume, Shared Research calculates unit prices for the waste plastic accepted for processing at JPY39,300/ton (+19.7% YoY). China, previously the main receiver of waste plastic exported by Japan, prohibited the import of waste plastic in 2017. As a result, waste plastic accumulated in Japan, leading to the company's higher unit prices for waste plastic from FY03/17. However, the company said that unit prices for plastic waste had plateaued recently, trending at about JPY39,000/ton from Q4 FY03/20.
- ▷ Power station sales were down YoY. Temporary problems at the Tomakomai Power Plant required an unscheduled inspection so operational days were down YoY.

In addition to benefitting from improved sales, profit increased on a decrease in outsourcing costs for the final disposal of waste plastics thanks to the company improving profitability and quality through detailed examinations of the waste plastic it accepted for processing.

Home Sanitation (HS) segment

- ▷ Sales: JPY5.9bn (flat YoY)
- ▷ Operating profit: JPY1.2bn (-5.4% YoY)

Sales were JPY1.9bn (-3.0% YoY) for termite control services, JPY1.5bn (+28.1% YoY) for ceiling and floor ventilation system installation, and JPY845mn (-12.8% YoY) for foundation repairing and strengthening construction work for buildings. While the state of emergency declaration was in place amid the COVID-19 pandemic, the company dealt with customer inquiries and refrained from new marketing activities. Once the state of emergency declaration was lifted, the company returned to its normal marketing routines after putting all necessary infection mitigation measures in place.

Profit was down YoY on higher personnel expenses stemming from additions to its workforce.

Establishment Sanitation (ES) segment

- ▷ Sales: JPY1.1bn (+2.7% YoY)
- ▷ Operating profit: JPY118mn (-13.9% YoY)

Sales rose 2.5% YoY to JPY568mn in the segment's mainstay anti-rust equipment installation business (product name: Daelman Shock) and grew 32.9% YoY to JPY286mn in plumbing repairs, but fell 41.9% YoY to JPY83mn in the waterproof coating repair for buildings business. By boosting headcount and opening new offices, the company worked to build closer ties with owners of buildings and condominiums, management companies, and other partners.

Despite growth in sales, profit fell YoY as the rise in personnel expenses stemming from the expansion of staffing levels and increases in other expenses outpaced sales.

Energy segment

- Sales: JPY4.4bn (-12.7% YoY)
- Operating loss: JPY33mn (versus an operating loss of JPY30mn in 1H FY03/20)

The Energy segment includes the new electricity business and energy business development. Sales in the new electricity business recorded sales of JPY4.2bn (-16.9% YoY) while sales in energy business development reached JPY236mn (+686.7% YoY).

New electricity business

Sales fell YoY. High-voltage retail sales volume declined due to lower contract numbers, and some bilateral procurement from electric utilities was cancelled, leading to lower wholesale volume to the electricity market. In the Energy segment, the company procures electricity from the Tomakomai Power Plant, via transactions with electric power companies, and through purchases from JEPX. In FY03/21, Sanix plans to reduce the share of transactions with electric power companies and raise that obtained via purchases from JEPX to improve margins.

> Under the Electricity Business Act, new electric power company operators such as Sanix are obliged to ensure they have obtained power supply to meet customer demand at the actual supply/demand stage including certain reserves (to cope with power loss and higher than expected demand).

- In April 2018, the company started transactions with major electric power companies, obtaining a certain amount of power supply thereby. When the power Sanix obtained exceeded retail volume and it had surplus power, it sold this over JEPX. As of April 2018, JEPX trading volume was low and trade prices were high, so selling surplus power obtained from power companies helped to improve the company's margins.
- In FY03/20, retail volume declined on fewer contracts with high-voltage customers (factories, large commercial facilities, and hospitals), but the company was obliged to obtain a certain amount of electricity under contracts from power companies, and it increased sales via JEPX. The amount of electricity traded on JEPX is increasing year by year and transaction prices have been in a downtrend, so in FY03/20, JEPX trading prices were below those for power Sanix obtained from power companies. The result was an operating loss in the Energy segment.
- The company reviewed its transaction contracts with power companies in June 2020, and reduced the volume of electricity thus obtained. It plans to obtain power mainly via JEPX going forward to improve its margins.

Energy business development

Energy business development sales improved YoY thanks to an increase in sales of the third-party owned solar power generation model launched in FY03/20.

> Third-party owned solar electric power model: The company's partner (an electric power company) pays for the installation of solar power panels on the roofs of privately owned detached houses, with the company installing the panels and booking received revenue as a contractor. While electricity generated goes to the partner, which owns the panels, the owners of the detached houses can have the solar panels installed at no cost to them and receive a discount on energy supplied by the partner company of about 10%–20%. The owners of the detached house can take ownership of the panels 10–20 years after installation, allowing them free use of any electricity generated from those panels.

Losses in the Energy segment widened due to impact from the additions to its sales force in support of its effort to sign up more homeowners for its third-party owned solar power generation systems, which was only partially offset by the margin improvement from the termination of the bilateral procurement agreements with electric power companies. Gross profit margins in the new electricity business improved in Q2 on the back of a change in procurement methods, with operating profit coming in at JPY47mn (+327.3% YoY).

Other topics: Tomakomai power plant certified as a non-FIT, non-fossil power source

The company's Tomakomai power plant received certification from the Japanese government as a non-FIT, non-fossil power source in 1H FY03/21. This means that electricity produced at the plant is recognized as having non-fossil fuel value, which allows the company to issue non-FIT, non-fossil certificates for power generated at the facility.

The Act on Sophisticated Methods of Energy Supply Structures requires electricity retailers to increase the ratio of non-fossil fuel sources for the electricity they supply to 44% by 2030. In order to support the achievement of this goal, the Agency for Natural Resources and Energy in April 2020 created a mechanism for the trading of non-fossil certificates from non-FIT power sources, with the Japan Electric Power Exchange (JEPX) launching auctions in the non-fossil fuel energy value trading market in November 2020. In the November 2020 auction, the contracted price for Tomakomai power plant non-FIT, non-fossil fuel certificates (without renewable energy designations) was JPY1.10/kWh.

The company intends to use its certification as a non-FIT, non-fossil fuel power source as a factor differentiating itself from its competitors in its sales activities. However, depending on sales, the company may also consider selling its non-FIT, non-fossil certificates on the non-fossil fuel energy value trading market.

Q1 FY03/21 results

- Sales: JPY11.9bn (+2.5% YoY)
- Operating profit: JPY784mn (+25.8% YoY)
- Recurring profit: JPY755mn (+25.8% YoY)
- Net income*: JPY663mn (+52.1% YoY)

*Net income attributable to owners of the parent

Sales rose YoY due mainly to solid work on solar power systems bundled with land in the Solar Engineering segment. The Establishment Sanitation and Environmental Resources Development segments also posted higher YoY sales. However, the Home Sanitation segment was affected as the company refrained from new marketing activities in regions subject to the state of emergency declaration due to COVID-19. In the Energy segment, sales declined due to lower power supply volume per building for high-voltage power customers and lower sales into the wholesale power market. Profit grew at all levels from operating profit down. The Solar Engineering and Environmental Resources Development segments grew profit on higher sales.

The company released FY03/21 forecasts along with the Q1 results. Versus 1H company forecasts, progress in Q1 was sales 49.2% (47.3% of 1H results in Q1 FY03/20), operating profit 60.0% (40.2%), recurring profit 63.1% (42.0%), and net income attributable to owners of the parent 67.5% (38.2%). Progress in Q1 FY03/21 was ahead of Q1 FY03/20 because construction work on solar power systems bundled with land with FIT applications filed by end-FY03/20 were concentrated in Q1 FY03/21. Sanix expects this to decline from Q2 onward.

Solar Engineering (SE) segment

- Sales: JPY3.0bn (+28.4% YoY)
- Operating profit: JPY263mn (up roughly 13x the figure in Q1 FY03/20)

Sales from installations of solar power systems increased 30.7% YoY to JPY3.0bn. Sales grew on installation and sales of solar power systems and land packages that were subject to FIT scheme applications filed by end-FY03/20 and were either under review or approved (Sanix procures land and installs facilities for sale to investors in lots). On a capacity basis it installed 17,908 kW (+31.2% YoY), with solar power system unit prices of JPY169,000/kW (+1.9% YoY, Shared Research estimate).

In the Solar Engineering business, the company has sold solar power systems to affluent individuals who sought to make best use of their land, and as an investment product based on the FIT scheme, which purchases all of the power generated by solar power systems over a 20-year period. From fiscal 2020 (year ended March 2021) the FIT scheme arrangements changed to assuming in-house consumption (self-consumption + sale of surplus power). The company is thus marketing solar power systems not as an investment product as previously, but is touting the benefits of power self-consumption and selling surplus power to factories and stores. In Q1, it refrained from marketing due to the emergency declaration over the COVID-19 pandemic in April–May, but resumed marketing activities from June for solar power systems for in-house consumption.

> Under the fiscal 2020 FIT scheme, requirements for 10–50kW projects to be deemed for self-consumption are that at least 30% of the electricity generated must be consumed in-house and minimum equipment to be utilized in the event of a disaster must be installed. The purchase price of surplus power under the revised scheme will be JPY13/kWh (before tax).

Operating profit increased YoY on higher sales and careful management of SG&A expenses.

- Gross profit rose 24.1% YoY to JPY1.0bn, and GPM was down 1.2pp YoY to 33.4%. The company started selling packages of solar power systems with land in Q2 FY03/20. In Q1 FY03/21, these relatively low GPM projects contributed to results, prompting a decline in the GPM.
- The cost of sales ratio came to 66.6%. The share of materials costs and other expenses (such as outsourcing costs) increased, while the share of labor costs fell.
  - The ratio of materials costs to sales rose 1.1pp YoY to 37.7%.
  - The ratio of labor costs to sales declined 1.7pp YoY to 5.5%.
  - The ratio of other expenses to sales rose 1.8pp YoY to 23.4%. The increase was driven by growth in the ratio of solar power systems with land to sales. According to the company, solar power systems with land account for a larger portion of the ratio of outsourcing costs and other expenses to sales because the company outsources the maintenance of procured land and other related operations.
- Operating profit was up YoY as gross profit expanded and SG&A expenses contracted. SG&A expenses were JPY746mn (-5.9 YoY), reflecting a fall in other expenses and flat personnel expenses.

Environmental Resources Development (ERD) segment

- Sales: JPY4.1bn (+0.9% YoY)
- Operating profit: JPY942mn (+8.7% YoY)

Sales from plastic fuel rose 8.8% YoY to JPY2.6bn, and sales from electric power generation fell 9.7% YoY to JPY784mn. In regard to plastic fuel, although the acceptance volume of plastic waste declined, sales growth was achieved while Sanix became more selective about inputs, focusing on profitability and quality.

- In regard to plastic fuel, although the acceptance volume of plastic waste declined 11.7% YoY to 66,000 tons, sales were up YoY thanks to an increase in unit prices for the waste plastic accepted for processing. China, previously the main receiver of waste plastic exported by Japan, prohibited the import of waste plastic in 2017. As a result, waste plastic accumulated in Japan, leading to the company’s higher unit prices for waste plastic from FY03/17. However, the company said that unit prices for plastic waste had plateaued recently. The unit price of waste plastic accepted (sales divided by volume accepted, calculated by Shared Research) was JPY38,900 per ton (+23.3% YoY, but just +0.9% QoQ) in Q1.
- Power station sales were down YoY. Temporary problems at the Tomakomai Power Plant required an unscheduled inspection so operational days were down YoY.

Profit increased as the company improved profitability and quality through detailed examinations of the waste plastic it accepted for processing.

Home Sanitation (HS) segment

- ▷ Sales: JPY2.9bn (-3.2% YoY)
- ▷ Operating profit: JPY545mn (-16.8% YoY)

Sales were JPY953mn (-6.9% YoY) for termite control services, JPY725mn (+30.2% YoY) for ceiling and floor ventilation system installation, and JPY442mn (-14.5% YoY) for foundation repairing and strengthening construction work for buildings. In areas under a state of emergency declaration due to COVID-19, the company dealt with customer inquiries and refrained from new marketing activities.

Profit was down YoY on higher personnel expenses stemming from increases in staffing levels and lower sales.

Establishment Sanitation (ES) segment

- ▷ Sales: JPY520mn (+6.8% YoY)
- ▷ Operating profit: JPY29mn (-27.5% YoY)

Sales fell 2.8% YoY to JPY243mn in the segment's mainstay anti-rust equipment installation business (product name: Daelman Shock) but rose 23.7% YoY to JPY133mn in plumbing repairs and 52.5% YoY to JPY49mn in the waterproof coating repair for buildings business. By boosting headcount and opening new offices, the company worked to build closer ties with owners of buildings and condominiums, management companies, and other partners.

Profit fell despite sales growth, owing to higher labor costs associated with an increase in personnel.

Energy segment

- ▷ Sales: JPY2.0bn (-16.2% YoY)
- ▷ Operating loss: JPY80mn (operating loss of JPY41mn in Q1 FY03/20)

Sales fell YoY. High-voltage retail sales volume declined due to lower contract numbers, and some bilateral procurement from electric utilities was cancelled, leading to lower wholesale volume to the electricity market. In the Energy segment, the company procures electricity from the Tomakomai Power Plant, via transactions with electric power companies, and through purchases from JEPX. In FY03/21, Sanix plans to reduce the share of transactions with electric power companies and raise that obtained via purchases from JEPX to improve margins.

Under the Electricity Business Act, new electric power company operators such as Sanix are obliged to ensure they have obtained power supply to meet customer demand at the actual supply/demand stage including certain reserves (to cope with power loss and higher than expected demand).

- ▷ In April 2018, the company started transactions with major electric power companies, obtaining a certain amount of power supply thereby. When the power Sanix obtained exceeded retail volume and it had surplus power, it sold this over JEPX. As of April 2018, JEPX trading volume was low and trade prices were high, so selling surplus power obtained from power companies helped to improve the company's margins.
- ▷ In FY03/20, retail volume declined on fewer contracts with high-voltage customers (factories, large commercial facilities, and hospitals), but the company was obliged to obtain a certain amount of electricity under contracts from power companies, and it increased sales via JEPX. The amount of electricity traded on JEPX is increasing year by year and transaction prices have been in a downtrend, so in FY03/20, JEPX trading prices were below those for power Sanix obtained from power companies. The result was an operating loss in the Energy segment.
- ▷ The company reviewed its transaction contracts with power companies in June 2020, and reduced the volume of electricity thus obtained. It plans to obtain power mainly via JEPX going forward to improve its margins.

The operating loss expanded YoY on lower sales.

Full-year FY03/20 results

- Sales: JPY52.5bn (+3.6% YoY)
- Operating profit: JPY2.8bn (+128.0% YoY)
- Recurring profit: JPY2.6bn (+119.3% YoY)
- Net income*: JPY1.9bn (+670.8% YoY)

*Net income attributable to owners of the parent

Sales increased YoY. A decline in sales in the Energy segment was offset by an increase in the Environmental Resources Development (ERD) segment. The increase in ERD segment profit drove growth in all income line items. In the Environmental Resources Development (ERD) segment, FY03/20 results rebounded after the negative impact of the earthquake in the Iburi region of Hokkaido in the previous year. Net income attributable to owners of the parent grew at a rate higher than recurring profit due to a drop-off of extraordinary losses booked in FY03/19 to repair damage from the earthquake in the Iburi region of Hokkaido.

Sanix announced revisions to its full-year FY03/20 forecast at its Q3 results briefing. The company made the revisions because it expects sales to exceed its previous forecast due to brisk sales of solar power systems with land in the Solar Engineering (SE) segment. It also revised projections for all profit lines upward because the unit price received for waste plastics in the ERD segment was higher than expected, although the volume of waste plastics received declined. The company raised its forecast for sales upward by JPY950mn, operating profit by JPY302mn, recurring profit by JPY251mn, and net income attributable to owners of the parent by JPY229mn.

Sales amounted to 102.8% of the revised forecast for FY03/20, operating profit to 109.5%, recurring profit to 111.2%, and net income attributable to owners of the parent to 102.3%. Sales exceeded the revised forecast thanks to stronger-than-expected performance in the SE segment. Sales of solar power systems with land were robust. All profit items from the operating profit line down surpassed the revised forecasts aided by contributions from a higher unit price for plastic fuel income in the ERD segment. In the SE segment, sales came in above target, but operating profit finished broadly in line with the revised forecast as the company recorded a loss on valuation of inventories in connection with company brand inverters.

From Q1 FY03/20, Sanix separated the new electric power generation business and the energy business development department (established in April 2019) from the Environmental Resource Development segment and created an independent segment, the Energy segment.

Solar Engineering (SE) segment

- Sales: JPY15.2bn (+5.3% YoY)
- Operating profit: JPY901mn (-25.2 YoY)

Revenues from installations of solar power systems increased 8.4% YoY to JPY14.8bn. The solar power market, which had been contracting, reached a floor and expanded YoY. The company reviewed sales prices to respond to the reduction in FIT scheme prices and began selling its systems with the land they are installed on as a new sales method to investors who do not own land.

In FY03/20, quarterly sales from solar power system installations were JPY2.3bn (-13.1% YoY) in Q1 (April–June 2019), JPY3.3bn (+2.6% YoY) in Q2 (July–September 2019), JPY4.2bn (+16.4% YoY) in Q3 (October–December 2019), and JPY5.2bn (+15.6% YoY) in Q4 (January–March 2020).

- On a capacity basis, installations were up 12.7% YoY to 90,835kW in FY03/20. By quarter, installed capacity was 13,650kW (-3.2% YoY) in Q1, 20,001kW (+13.2% YoY) in Q2, 25,534kW (+22.1%) in Q3, and 31,650kW (+13.3% YoY) in Q4. Since revision of the FIT scheme in January 2015, installed capacity was falling by double digits YoY, but from Q3 FY03/19 (October–December 2018), the pace of the decline has slowed. From Q2, the company achieved growth in installed capacity as sales were strong for solar power systems with land (Sanix procures land and installs systems for sale to investors in lots), which the company began selling in FY03/20.

- ▷ The unit price of a solar power system was JPY165,000/kW (-3.8% YoY according to Shared Research calculations). The company is reducing prices for solar power system installations in step with a decline in purchase prices under the fixed-price purchase scheme (FIT scheme). In Q2 (July–September 2019), approval procedures were completed for some systems in which the FY2019 purchasing price of JPY14/kWh (JPY18/kWh in fiscal 2018) applies, which contributed to sales as the unit price of solar systems fell.

Operating profit fell YoY. Despite contributions from sales growth, Sanix booked a JPY644mn loss on valuation of inventories under CoGS to account for impairment losses on inventories related to company brand inverters.

- ▷ Gross profit fell 8.1% YoY to JPY4.3bn, and GPM was down 4.1pp YoY to 28.4%. GPM rose 0.9pp YoY to 33.1% in cumulative Q3 as efforts to reduce materials and other costs paid off, but turned down 13.6pp YoY to 19.6% in Q4 due to the booking of a loss on valuation of inventories (discussed below). As a result, GPM declined over the full year.
  - ➢ The CoGS ratio came to 71.6%. The share of materials costs and other expenses (such as outsourcing costs) increased, while the share of labor costs fell.
  - ➢ The ratio of materials costs to sales rose 2.7pp YoY to 44.2% as a decline in the procurement cost of solar power modules was offset by the booking of a loss on valuation of inventories.
  - ➢ The ratio of labor costs to sales declined 2.4pp YoY to 4.7%. Sales fell, but the company reduced its labor cost ratio YoY by transferring some personnel from the SE segment to the HS and ES segments, leaving the SE segment with fewer employees.
  - ➢ The ratio of other expenses to sales rose 3.8pp YoY to 22.8%. The increase was driven by growth in the ratio of solar power systems with land to sales. According to the company, solar power systems with land account for a larger portion of the ratio of outsourcing costs and other expenses to sales because the company outsources the maintenance of procured land and other related operations.
  - ➢ In Q4, the company booked a JPY644mn loss on valuation of inventories under CoGS to account for impairment losses on inventories related to company brand inverters. It did so after reviewing inverter sales projections and considering possible returns in light of changes in the FIT scheme. The company had intended to use the inverters as materials accompanying upwardly tilted solar power systems installed directly on land on the assumption that the generated electricity would qualify for full purchase under the FIT scheme. From fiscal 2020, however, the FIT scheme terminated the full purchase of power generated by solar power systems with 10kW to 50kW capacity, which are the company's mainstay systems. The revised FIT scheme is premised on self-consumption, with only surplus electricity qualifying for purchase. In response, Sanix changed its sales policy, switching from an approach of selling solar power systems as investment products to affluent individuals who seek to efficiently utilize land holdings, to selling the systems to plants and stores mainly for the purpose of in-house power consumption.
- ▷ Operating profit was up YoY as gross profit expanded and SG&A expenses contracted. SG&A expenses were JPY2.5bn (-2.7% YoY), reflecting a fall in other expenses that offset a rise in personnel expenses.

Environmental Resources Development (ERD) segment

- ▷ Sales: JPY16.8bn (+18.7% YoY)
- ▷ Operating profit: JPY3.5bn (+723.4% YoY)

Sales from plastic fuel rose 17.4% YoY to JPY10.1bn, and sales from electric power generation rose 43.5% YoY to JPY3.0bn.

- In regard to plastic fuel, although the acceptance volume of plastic waste declined 12.5% to 288,000 tons, sales were up YoY thanks to an increase in unit prices for the waste plastic accepted for processing. China, previously the main receiver of waste plastic exported by Japan, prohibited the import of waste plastic in 2017. As a result, waste plastic accumulated in Japan, leading to the company's higher unit prices for waste plastic. According to Ministry of Finance trade statistics, Japan exported some 1,431,000 tons of waste plastic in 2017 (of which, 749,000 tons went to China), dropping to 1,008,000 tons in 2018 (of which, just 46,000 tons went to China), and again to 898,000 tons from January–October 2019 (of which, 19,000 tons went to China). The quarterly unit price of waste plastic accepted (sales divided by volume accepted, calculated by Shared Research) was JPY31,600 per ton (+30.1% YoY) in Q1, JPY34,100 per ton (+35.7% YoY) in Q2, JPY36,500 per ton (+38.0% YoY) in Q3, and JPY38,600 per ton (+31.9% YoY) in Q4.
- "Power station sales" were up YoY. In FY03/19, operations at the Tomakomai Power Plant were suspended for about six months from September 2018 to March 2020 following the earthquake that hit the eastern part of the Iburi region of Hokkaido, and this had a negative impact on sales. In FY03/20, operations at the plant were halted only for about a month to implement a statutory inspection.

Profit increased as the company improved profitability and quality through detailed examinations of the waste plastic and organic waste fluid it accepted for processing, the Tomakomai Power Plant was operational for more days, and sales increased in the landfill business. In FY03/19, the suspension of operations at the Tomakomai Power Plant (roughly six months), restoration costs, and costs associated with a statutory inspection had a total negative impact of JPY1.4bn on profit. In FY03/20, the company lost only about a month of sales from halted operations at the plant, but repair costs accompanying a statutory inspection pushed profit down by JPY500mn.

Home Sanitation (HS) segment

- Sales: JPY11.2bn (+4.5% YoY)
- Operating profit: JPY2.1mn (-7.6% YoY)

The top-line gains reflect growth in multiple areas, including termite control services, where revenues rose 3.1% YoY to JPY3.6bn and in-floor/in-ceiling ventilation system installation work, where revenues rose 38.8% to JPY2.5bn. However, in foundation repair and strengthening construction work services to households, revenues fell 11.5% to JPY1.9bn. The company conducted hiring to expand businesses under the HS segment, and strengthened sales and work operations to provide detailed maintenance proposals to general households. The company also newly established two sales hubs (Karatsu sales office, Omura sales office).

Profits were down YoY on higher personnel expenses stemming from increases in staffing levels.

Establishment Sanitation (ES) segment

- Sales: JPY2.3bn (+17.4% YoY)
- Operating profit: JPY281mn (-2.1% YoY)

Sales were driven by the segment's mainstay anti-rust equipment installation business (product name: Daelman Shock), where sales rose 21.3% YoY to JPY1.1bn, and the waterproof coating repair for buildings business, which increased its sales 55.3% YoY to JPY292mn. By transferring people from its SE business and conducted hiring, the company was able to increase the number of employees at the ES segment and expand the business, focusing especially on sales to owners of buildings and condominiums and establishing closer ties with management companies and other partners.

Profit fell despite sales growth, owing to higher labor costs associated with an increase in personnel.

Energy segment

- ▷ Sales: JPY9.1bn (-13.9% YoY)
- ▷ Operating loss: JPY485mn (operating profit of JPY412 in FY03/19)

In the new electric power generation (PPS) business, retail electricity sales declined YoY, and wholesale electricity sales were affected by a drop in wholesale market selling prices. Sanix launched a business that offers bundled solar and retail electricity in collaboration with another company, but this was not sufficient to offset the sales decline in the segment.

- ▷ The company plans to focus on sales of low-voltage contracts (retail stores, offices, and homes) in the medium term. Retail electricity sales volume was down in FY03/20 because the number of high-voltage contracts (factories, large retail facilities, hospitals, etc.), which are low margin due to intense competition, declined.
- ▷ Wholesale electricity sales volume grew, because retail sales volume was down and the volume of surplus electricity increased. Wholesale market selling prices were down YoY.

The company booked an operating loss. Sanix procures electricity from the Tomakomai Power Plant, via transactions with electric power companies, and through purchases from the Japan Electric Power Exchange (JEPX). In FY03/20, the company's contracted procurement volume based on transactions with electric power companies exceeded its retail and wholesale sales volume. Consequently, its CoGS exceeded sales, and the company booked losses for all profit items from the gross profit line down. Profit was weighed down further by an increase in the share of wholesale electricity sales, which deliver comparatively low margins.

Cumulative Q3 FY03/20 results

- ▷ Sales: JPY37.9bn (+2.3% YoY)
- ▷ Operating profit: JPY2.3bn (+133.5% YoY)
- ▷ Recurring profit: JPY2.1bn (+122.5% YoY)
- ▷ Net income*: JPY1.5bn (+693.3% YoY)

*Net income attributable to owners of the parent

Sales increased YoY. A decline in sales in the Energy segment was offset by an increase in the Environmental Resources Development (ERD) segment. The increase in ERD segment sales drove growth in all income line items.

Sanix announced revisions to its full-year FY03/20 forecast at its Q3 results briefing. The company made the revisions because it expects sales to exceed its previous forecast due to brisk sales of solar power systems with land in the Solar Engineering (SE) segment. It also revised projections for all profit lines upward because the unit price received for waste plastics in the ERD segment was higher than expected, although the volume of waste plastics received declined. The company raised its forecast for sales upward by JPY950mn, operating profit by JPY302mn, recurring profit by JPY251mn, and net income attributable to owners of the parent by JPY229mn.

Progress in cumulative Q3 versus the revised forecasts was 74.2% for sales (73.0% in Q3 FY03/19 versus full-year FY03/19 results), 89.6% for operating profit (79.9%), 89.6% for recurring profit (79.4%), and 84.7% for net income attributable to owners of the parent (80.4%).

From Q1 FY03/20, Sanix separated the new electric power generation business and the energy business development department (established in April 2019) from the Environmental Resource Development segment and created an independent segment, the Energy segment.

Solar Engineering (SE) segment

- Sales: JPY9.9bn (+2.1% YoY)
- Operating profit: JPY741mn (+44.4 YoY)

Revenues from installations of solar power systems increased 4.8% YoY to JPY9.6bn. Contraction in the solar power market is easing, and the company began selling its systems with the land they are installed on as a new sales method.

In cumulative Q3 FY03/20, sales from solar power system installations, the core business in the segment, were JPY9.6bn (-4.8% YoY). By quarter, sales were JPY2.3bn (-13.1% YoY) in Q1 (April–June 2019), JPY3.3bn (+2.6% YoY) in Q2, and JPY4.2bn in Q3 (+16.4%).

- On a capacity basis, installations were up 12.3% YoY to 59,185kW in cumulative Q3. By quarter, installed capacity was 13,650kW (-3.2% YoY) in Q1, 20,001kW (+13.2% YoY) in Q2, and 25,534kW (+22.1%) in Q3. Since revision of the FIT scheme in January 2015, installed capacity was falling by double digits YoY, but from Q3 FY03/19 (October–December 2018), the pace of the decline has slowed. In Q2, the company achieved growth in installed capacity as sales were strong for solar power systems with land (Sanix procures land and installs systems for sale to investors in lots), which the company began selling in FY03/20. Capacity was up in Q3 thanks to brisk sales of solar power systems with land.
- The unit price of a solar power system was JPY162,000/kW (-6.7% YoY according to Shared Research calculations). The company is reducing prices for solar power system installations in step with a decline in purchase prices under the fixed-price purchase scheme (FIT scheme). In Q2 (July–September 2019), approval procedures were completed for some systems in which the FY2019 purchasing price of JPY14/kWh (JPY18/kWh in fiscal 2018) applies, which contributed to sales as the unit price of solar systems fell. Sanix says that, even with the purchasing price at JPY14/kWh, customers who install solar power systems can still enjoy a certain yield, so there is ongoing demand.

The segment achieved higher operating profit YoY on expense reductions arising from the transfer of personnel to the Home Sanitation segment and progress on reducing the cost of materials.

- Gross profit was JPY3.3bn (+5.1% YoY), GPM rose 0.9pp YoY to 33.1%, and the CoGS ratio was 66.9%. The company succeeded in lowering materials costs, which contributed to higher GPM. Outsourcing and other expenses accounted for a larger portion of CoS, while the ratios of material and labor costs fell.
  - The ratio of materials costs to sales fell 2.3pp YoY to 39.2% as the procurement cost of solar power modules fell. By quarter, the materials cost ratio was 36.6% (-8.3pp YoY) in Q1, 38.9% (-3.2pp YoY) in Q2, and 40.9% (+2.3pp YoY) in Q3. The materials cost ratio rose QoQ and YoY in Q3, while the company noted that the medium-term unit price of solar power systems has continued to fall.
  - The ratio of labor costs to sales fell 2.5pp YoY to 5.5%. Sales fell, but the company reduced its labor cost ratio YoY by transferring some personnel from the SE segment to the HS and ES segments, leaving the SE segment with fewer employees.
  - The ratio of other expenses to sales rose 3.9pp YoY to 22.2%. By quarter, the other expenses ratio was 21.7% (+3.6pp YoY) in Q1, 20.9% (+3.0pp) in Q2, and 23.5% (+4.7pp) in Q3. The increase is due to a larger sales share of solar power systems with land. According to the company, solar power systems with land account for a larger portion of the ratio of outsourcing costs and other expenses to sales because the company outsources the maintenance of procured land and other related operations.
- Operating profit was up YoY as gross profit expanded and SG&A expenses contracted. SG&A expenses were JPY2.5bn (-2.7% YoY), reflecting a fall in other expenses that offset a rise in personnel expenses.

Environmental Resources Development (ERD) segment

- Sales: JPY12.3bn (+14.8% YoY)
- Operating profit: JPY2.3bn (+208.5% YoY)

Sales from plastic fuel rose 16.0% YoY to JPY7.5bn, and sales from electric power generation rose 27.7% YoY to JPY2.2bn.

- In regard to plastic fuel, although the acceptance volume of plastic waste declined 13.8% to 220,000 tons, sales were up YoY thanks to an initiative to raise unit prices for the waste plastic accepted for processing. China, previously the main receiver of waste plastic exported by Japan, prohibited the import of waste plastic in 2017. As a result, waste plastic accumulated in Japan, leading to the company's higher unit prices for waste plastic. According to Ministry of Finance trade statistics, Japan exported some 1,431,000 tons of waste plastic in 2017 (of which, 749,000 tons went to China), dropping to 1,008,000 tons in 2018 (of which, just 46,000 tons went to China), and again to 898,000 tons from January–October 2019 (of which, 19,000 tons went to China). The quarterly unit price of waste plastic accepted (sales divided by volume accepted, calculated by Shared Research) was JPY31,600 per ton (+30.1% YoY) in Q1, JPY32,800 per ton (+32.8%) in Q2, and JPY34,100 per ton (+34.7% YoY) in Q3.
- "Power station sales" were up YoY. In Q3 FY03/19, the shutdown of the Tomakomai Power Plant from September 2018 following the earthquake that hit the eastern part of the Iburi region of Hokkaido had a negative impact of JPY830mn on sales. In cumulative Q3 FY03/20, a one-month shutdown of the Tomakomai Power Plant for statutory inspection had a negative impact of roughly JPY300mn on sales.

Profit increased on detailed examinations of the waste plastic and organic waste fluid it accepted for processing and the startup of the Tomakomai Power Plant. The impact of the shutdown of the Tomakomai Power Plant following the 2018 Hokkaido earthquake had a negative impact of JPY420mn on profit. In cumulative Q3 FY03/20, repair expenses (CoS) associated with the statutory inspection had a negative impact of approximately JPY500mn on profit.

Home Sanitation (HS) segment

- Sales: JPY8.5bn (+5.6% YoY)
- Operating profit: JPY1.6mn (-4.2% YoY)

The top-line gains reflect growth in multiple areas, including termite control services, where revenues rose 5.3% YoY to JPY2.8bn and in-floor/in-ceiling ventilation system installation work, where revenues rose 38.8% to JPY1.8bn. However, in foundation repair and strengthening construction work services to households, revenues fell 13.3% to JPY1.4bn. The company transferred employees from the SE segment and conducted hiring to expand businesses under the HS segment, and strengthened sales and work operations to provide detailed maintenance proposals to general households.

Profits were down YoY on higher personnel expenses stemming from increases in staffing levels.

Establishment Sanitation (ES) segment

- Sales: JPY1.6bn (+14.4% YoY)
- Operating profit: JPY155mn (-20.9% YoY)

Sales were driven by the segment's mainstay anti-rust equipment installation business (product name: Daelman Shock), where sales rose 14.5% YoY to JPY763mn, and the waterproof coating repair for buildings business, which increased its sales 86.1% YoY to JPY213mn. By transferring people from its SE business and conducted hiring, the company was able to increase the number of employees at the ES segment and expand the business, focusing especially on sales to owners of buildings and condominiums and establishing closer ties with management companies and other partners.

Profit fell despite sales growth, owing to higher labor costs associated with an increase in personnel.

Energy segment

- ▷ Sales: JPY7.1bn (-13.3% YoY)
- ▷ Operating profit: JPY10mn (-97.0% YoY)

- ▷ The company plans to focus on sales of low-voltage contracts (retail stores, offices, and homes) in the medium term. Retail electricity sales volume was down in cumulative Q3 FY03/20 because the number of high-voltage contracts (factories, large retail facilities, hospitals, etc.), which are low margin due to intense competition, declined.
- ▷ Wholesale electricity sales volume grew, because retail sales volume was down and the volume of surplus electricity increased. Wholesale market selling prices were down YoY.

Profit declined due to lower sales and an increase in personnel expenses as a result of hiring more salespeople. Operating profit increased QoQ from JPY11mn (-93.1% YoY) in Q2 to JPY40mn (-51.8% YoY) in Q3. Sanix had surplus electricity in Q2 because power demand fell short of its forecast, but supply and demand in Q3 were in line with forecast and surplus electricity declined. The company commented that power demand was lower than expected in recent months due to a mild winter.

Income statement

Income statement (JPYmn)	FY03/11 Cons.	FY03/12 Cons.	FY03/13 Cons.	FY03/14 Cons.	FY03/15 Cons.	FY03/16 Cons.	FY03/17 Cons.	FY03/18 Cons.	FY03/19 Cons.	FY03/20 Cons.
Sales	**28,980**	**31,454**	**43,366**	**84,212**	**95,629**	**61,916**	**50,955**	**49,993**	**50,719**	**52,531**
YoY	18.1%	8.5%	37.9%	94.2%	13.6%	-35.3%	-17.7%	-1.9%	1.5%	3.6%
CoGS	18,704	21,013	29,996	62,800	76,721	48,133	36,812	35,948	35,889	34,974
Gross profit	**10,276**	**10,442**	**13,370**	**21,421**	**18,907**	**13,783**	**14,142**	**14,044**	**14,830**	**17,556**
YoY	3.6%	1.6%	28.0%	60.2%	-11.7%	-27.1%	2.6%	-0.7%	5.6%	18.4%
GPM	35.5%	33.2%	30.8%	25.4%	19.8%	22.3%	27.8%	28.1%	29.2%	33.4%
SG&A expenses	9,774	10,032	11,500	16,913	22,049	16,013	13,106	12,798	13,605	14,765
SG&A ratio	33.7%	31.9%	26.5%	20.1%	23.1%	25.9%	25.7%	25.6%	26.8%	28.1%
Operating profit	**502**	**410**	**1,870**	**4,508**	**-3,142**	**-2,229**	**1,036**	**1,246**	**1,224**	**2,791**
YoY	28.6%	-18.3%	356.4%	141.0%	-	-	-	20.3%	-1.8%	128.0%
OPM	1.7%	1.3%	4.3%	5.4%	-	-	2.0%	2.5%	2.4%	5.3%
Non-operating income	126	133	138	209	278	561	208	205	209	164
Non-operating expenses	198	195	219	407	575	280	338	432	251	363
Recurring profit	**430**	**348**	**1,789**	**4,310**	**-3,439**	**-1,949**	**907**	**1,019**	**1,182**	**2,592**
YoY	91.2%	-19.1%	414.1%	140.9%	-	-	-	12.3%	16.0%	119.3%
RPM	1.5%	1.1%	4.1%	5.1%	-	-	1.8%	2.0%	2.3%	4.9%
Extraordinary gains	75	4	143	-	-	-	-	-	-	-
Extraordinary losses	153	10	19	-	271	991	177	-	472	-
Tax charges	302	329	337	1,345	1,256	308	312	-163	473	746
Implied tax rate	85.8%	96.3%	17.6%	31.2%	-33.9%	-10.5%	42.7%	-16.0%	66.6%	28.8%
Net income	**50**	**14**	**1,575**	**2,965**	**-4,966**	**-4,602**	**416**	**1,180**	**240**	**1,850**
YoY	-	-71.8%	-	88.2%	-	-	-	183.7%	-79.7%	670.8%
Net margin	0.2%	0.0%	3.6%	3.5%	-	-	0.8%	2.4%	0.5%	3.5%

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

Past segment data

(JPYmn)	FY03/11 Act.	FY03/12 Act.	FY03/13 Act.	FY03/14 Act.	FY03/15 Act.	FY03/16 Act.	FY03/17 Act.	FY03/18 Act.	FY03/19 Act.	FY03/20 Act.
Total sales	**28,980**	**31,454**	**43,366**	**84,221**	**95,629**	**61,916**	**50,955**	**49,993**	**50,719**	**52,531**
YoY	18.1%	8.5%	37.9%	94.2%	13.5%	-35.3%	-17.7%	-1.9%	1.5%	3.6%
Solar Engineering	-	-	-	56,637	72,247	39,871	26,225	17,870	14,427	15,195
YoY	-	-	-	-	27.6%	-44.8%	-34.2%	-31.9%	-19.3%	5.3%
% of total	-	-	-	67.2%	75.5%	64.4%	51.5%	35.7%	28.4%	27.8%
Commercial Photovoltaic (PV) Solutions	-	1,411	9,617	51,340	-	-	-	-	-	-
YoY	-	-	581.6%	433.9%	-	-	-	-	-	-
% of total	-	4.5%	22.2%	61.0%	-	-	-	-	-	-
Home Sanitation	16,657	15,395	14,814	10,819	7,605	6,519	6,562	8,922	10,752	11,235
YoY	18.5%	-7.6%	-3.8%	-27.0%	-	-14.3%	0.7%	36.0%	20.5%	4.5%
% of total	57.5%	48.9%	34.2%	12.8%	8.0%	10.5%	12.9%	17.8%	21.2%	20.6%
Establishment Sanitation	2,811	2,757	3,965	6,011	1,040	924	1,033	1,444	1,926	2,261
YoY	10.4%	-1.9%	43.8%	51.6%	-	-11.2%	11.8%	39.8%	33.4%	17.4%
% of total	9.7%	8.8%	9.1%	7.1%	1.1%	1.5%	2.0%	2.9%	3.8%	4.1%
Environmental Resources Development	9,511	11,890	14,967	16,051	14,735	14,601	17,133	21,755	23,612	16,759
YoY	19.9%	25.0%	25.9%	7.2%	-8.2%	-0.9%	17.3%	27.0%	8.5%	-
% of total	32.8%	37.8%	34.5%	19.1%	15.4%	23.6%	33.6%	43.5%	46.6%	30.7%
Solar Engineering	-	-	-	-	-	-	-	-	-	9,132
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	16.7%
Operating profit	**502**	**410**	**1,870**	**4,508**	**-3,142**	**-2,229**	**1,036**	**1,246**	**1,224**	**2,791**
YoY	28.6%	-18.3%	356.4%	141.0%	-	-	-	20.3%	-1.8%	128.0%
Solar Engineering	-	-	-	4,782	-2,291	-202	1,669	1,668	1,204	901
YoY				-	-	-	-	-0.1%	-27.8%	-25.2%
% of total				45.4%	-	-	44.3%	38.9%	26.4%	14.4%
Commercial Photovoltaic (PV) Solutions	-	-265	320	4,410	-	-	-	-	-	-
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	8.4%	62.1%	-	-	-	-	-	-
Home Sanitation	2,608	2,482	1,776	1,141	1,634	614	979	1,471	2,231	2,061
YoY	-22.5%	-4.8%	-28.5%	-35.7%	-	-62.4%	59.4%	50.3%	51.7%	-7.6%
% of total	102.4%	97.5%	46.7%	16.1%	-	82.2%	26.0%	34.3%	48.9%	33.0%
Establishment Sanitation	154	41	139	190	-48	53	94	179	287	281
YoY	-27.2%	-73.3%	240.5%	36.5%	-	-	77.4%	90.4%	60.3%	-2.1%
% of total	6.0%	1.6%	3.7%	2.7%	-	-	2.5%	4.2%	6.3%	4.5%
Environmental Resources Development	-216	288	1,568	1,365	970	282	1,029	972	836	3,483
YoY	-	-	444.8%	-12.9%	-28.9%	-70.9%	264.9%	-5.5%	-14.0%	-
% of total	-	11.3%	41.2%	19.2%	-	-	27.3%	22.7%	18.3%	55.8%
Environmental Resources Development	-	-	-	-	-	-	-	-	-	-485
YoY	-	-	-	-	-	-	-	-	-	-
% of total	-	-	-	-	-	-	-	-	-	-
Adjustments	-2,044	-2,134	-1,932	-2,598	-3,406	-2,977	-2,735	-3,045	-3,335	-3,452

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods
Operating profit composition (shown in "% of OP excl. adjustments") is based on simple aggregation of segments before adjustments. As it includes segments with operating losses, the percentage may add up to over 100%.
In FY03/15, the company changed the structure for the solar power system sales and installations. Since then, the residential solar power construction business was moved from the HS segment to the SE segment.
In FY03/20, the company revised its segment classification, combining the new electric power generation business that was previously included in the ERD segment and the energy business development department established in April 2019 to form the new Energy segment. Figures from FY03/20 reflect the new segment classification.

The company's earnings since FY03/10 have gone through three stages. Until FY03/10, the company had a poor record of sales and operating profit/loss. Sales and profits improved during the period from FY03/11 through FY03/14. However, starting in FY03/15, Sanix has been seeking to bounce back from an earnings slump.

Sales decline, poor operating profit/loss until FY03/10

Sales declined for five straight years until FY03/10. The company also had a poor record of operating profit/loss during the period. The HS segment had a sales decline after it stopped seeking new customers. The ERD segment also tended to post a sales decline and continued to post an operating loss.

Past performance of the home sanitation (HS) segment

In July 2006, the company faced administrative sanctions from the Ministry of Economy, Trade and Industry (METI) based on the Specified Commercial Transactions Act, which included a three-month suspension of operations at six stores. In response to the sanctions, Sanix reviewed its compliance system, and changed its organization to prevent any incidents from recurring, but segment operating profit was significantly affected and stagnated at roughly JPY2.0bn in FY03/07.

In FY03/08, earnings bottomed as new services such as foundation repairs and reinforcement and cost reduction measures such as store mergers, job cuts, and pay cuts helped turn around operating profit. However, segment profit declined again in FY03/09 and FY03/10. Termite-control and floor/ceiling ventilation businesses were highly profitable, but the company stopped seeking new customers for these services after it received the sanctions mentioned earlier. The company instead focused on maintenance for existing customers.

Past performance of Environmental Resources Development (ERD) segment

The ERD segment posted losses from FY03/01 until FY03/11 because of expenses linked with capital investments. However, the operating loss began to narrow from FY03/05 until FY03/07. This is primarily because the company gradually increased power generation and sales volume, and wrote off JPY9.6bn for impairment losses in FY03/05, which contributed to a reduction in depreciation expense (a JPY1.7bn decline in FY03/06 from FY03/05).

However, operating loss was widened in FY03/08 and FY03/09. In FY03/08, together with safety measures taken following the fire in FY03/07, the plant suspended operations again in November 2007 after flue gas concentration exceeded the level specified in the plant's pollution prevention agreement. As a result of these plant suspensions, the company restrained its volume of waste plastic to avoid a build-up of fuel inventories, which contributed to a decline in revenues for power generation and plastic processing services. Consequently, segment operating losses once again expanded.

FY03/11 – FY03/14: Increased sales and profits due to strong performance of the SE, ERD segments

The company increased sales and profits during a period from FY03/11 through FY03/14. The SE segment made contributions to the company's overall earnings. The ERD segment also posted an increase in sales and profits. However, the HS segment, which was designated as a non-core business, had a decline in sales and profits during the period.

Changes in the performance of the SE segment

The company, which began to sell residential solar power systems in FY03/10, began to put emphasis on the procurement, sale, and construction of commercial solar power systems in FY03/13, positioning this business as a major pillar of its operations.

In July 2012, a mechanism was adopted in which solar power of over 10kW would all be purchased, a move that increased demand for solar power systems. The SE segment had a sudden expansion in earnings as a result.

Changes in performance of the ERD segment

A change in end-user in FY03/11, improved utilization rates from stable operations, and an increase in unit selling prices in FY03/12 and FY03/13 led to a sales rise. Furthermore, volume in waste plastic operations expanded favorably during this period, and together with cost reductions and improvement in production, the Environmental Resources Development segment saw a significant profit increase.

FY03/15 and later: seeking to overcome earnings slump

In FY03/15, the company tried to increase the number of employees along with an expansion in the SE segment. However, a major power utility under the feed-in tariff system suspended responding to any new requests submitted by solar power operators in September 2014 and onward, which created a grid connection capacity problem. The incident prompted a January 2015 change in output rules, a development that led to a decline in demand for solar power.

As a result, the company – most noticeably in the SE segment – had a sales increase but a profit drop in FY03/15. Sales fell in FY03/16 mainly because of a decline in sales in the SE segment. Although the company implemented an early retirement program and merged or closed some of its stores, it continued to post an operating loss.

In FY03/17, earnings recovered after the SE segment carried out an early retirement program, merged or closed some of its outlets, and made efforts to reduce procurement costs. In FY03/18, sales were even YoY as the company transferred personnel from the SE segment to the HS and ES segments. As a result, profits in each category rose due to the cut in SG&A expenses. In FY03/19, SE segment sales declined, but the appropriate allocation of personnel and other management resources meant that sales in the HS, ES, and ERD segments rose, resulting in a YoY increase in overall sales. Although profit rose in the HS and ES segments, overall operating profit fell slightly YoY due to damage at the Tomakomai Power Plant caused by the earthquake that struck the eastern part of the Iburi region of Hokkaido in September 2018 and acceleration of the schedule for statutory inspections.

Company forecasts versus actual results

Results vs. Initial Est. (JPYmn)	FY03/11 Cons.	FY03/12 Cons.	FY03/13 Cons.	FY03/14 Cons.	FY03/15 Cons.	FY03/16 Cons.	FY03/17 Cons.	FY03/18 Cons.	FY03/19 Cons.	FY03/20 Cons.
Sales (Initial Est.)	27,500	38,000	38,000	71,500	161,500	78,000	46,670	47,680	50,000	50,900
Sales (Results)	28,980	31,454	43,366	84,212	95,629	61,916	50,955	49,993	50,719	52,531
Results vs. Initial Est.	**5.4%**	**-17.2%**	**14.1%**	**17.8%**	**-40.8%**	**-20.6%**	**9.2%**	**4.9%**	**1.4%**	**3.2%**
Operating profit (Initial Est.)	1,240	1,300	2,000	8,000	14,000	4,000	600	1,210	2,190	1,910
Operating profit (Results)	502	410	1,870	4,508	-3,142	-2,229	1,036	1,246	1,224	2,791
Results vs. Initial Est.	**-59.5%**	**-68.5%**	**-6.5%**	**-43.6%**	**-**	**-**	**72.7%**	**3.0%**	**-44.1%**	**46.1%**
Recurring profit (Initial Est.)	1,150	1,250	1,970	7,950	13,800	3,820	480	1,090	2,100	1,810
Recurring profit (Results)	430	348	1,789	4,310	-3,439	-1,949	907	1,019	1,182	2,592
Results vs. Initial Est.	**-62.6%**	**-72.2%**	**-9.2%**	**-45.8%**	**-**	**-**	**89.0%**	**-6.5%**	**-43.7%**	**43.2%**
Net income (Initial Est.)	900	830	1,820	5,100	8,830	2,820	-60	810	1,610	1,370
Net income (Results)	50	14	1,575	2,965	-4,966	-4,602	416	1,180	240	1,850
Results vs. Initial Est.	**-94.5%**	**-98.3%**	**-13.5%**	**-41.9%**	**-**	**-**	**-**	**45.7%**	**-85.1%**	**35.0%**

Source: Shared Research based on company data
Initial Est. = Company forecasts; figures may differ from company materials due to differences in rounding methods

Past trends show a significant difference between the company's forecasts and actual results. The company's earnings forecasts are unreliable and may be revised several times a year. In addition, its actual results even differ from its revised earnings forecasts, indicating the company is unable to accurately forecast sales and profits.

Balance sheet

Balance sheet (JPYmn)	FY03/11 Cons.	FY03/12 Cons.	FY03/13 Cons.	FY03/14 Cons.	FY03/15 Cons.	FY03/16 Cons.	FY03/17 Cons.	FY03/18 Cons.	FY03/19 Cons.	FY03/20 Cons.
ASSETS										
Cash and deposits	1,138	1,366	3,559	9,237	7,026	3,038	5,578	5,482	5,238	5,919
Notes and accounts receivable	2,521	3,309	7,357	22,205	14,800	6,693	6,017	5,485	6,010	5,453
Inventories	1,642	1,767	2,898	6,145	10,285	7,164	5,458	4,517	4,687	3,743
Deferred tax assets	299	245	299	597	17	8	12	-	-	-
Allowance for doubtful accounts	-105	-107	-142	-624	-1,237	-693	-544	-525	-299	-202
Other	395	385	681	1,089	678	720	1,001	800	977	1,364
Total current assets	5,890	6,964	14,652	38,649	31,569	16,930	17,522	15,759	16,613	16,277
Buildings and structures (net)	2,260	2,090	1,890	1,890	2,533	1,909	1,720	2,080	1,901	1,732
Machinery, equipment, and vehicles (net)	144	239	557	1,270	1,640	1,323	1,234	1,189	1,355	2,071
Land	8,980	8,980	8,890	9,180	9,399	8,001	7,941	7,811	7,811	
Other	380	415	990	1,841	1,527	1,184	1,383	846	990	1,883
Total tangible fixed assets	11,763	11,724	12,326	14,181	15,099	12,417	12,278	11,926	12,057	13,739
Goodwill	849	737	625	513	401	289	177	65	-	-
Other	61	59	60	59	143	151	148	148	262	450
Total intangible assets	910	796	685	573	545	440	325	214	262	450
Investment securities	405	501	317	339	450	91	145	151	129	86
Lease and guarantee deposits	820	781	706	723	742	644	669	629	609	580
Deferred tax assets	233	129	96	313	66	59	52	582	612	614
Other	385	391	415	540	648	664	652	675	724	767
Investment and total other assets	1,843	1,802	1,533	1,914	1,906	1,458	1,518	2,037	2,074	2,047
Total fixed assets	14,516	14,322	14,545	16,668	17,551	14,317	14,122	14,178	14,395	16,237
Total assets	20,407	21,286	29,196	55,317	49,120	31,248	31,645	29,938	31,009	32,514
LIABILITIES										
Notes and accounts payable	868	1,386	5,460	20,115	18,537	7,227	6,365	5,079	4,188	3,716
Short-term debt	3,186	3,085	4,186	5,948	7,416	11,014	13,504	11,825	12,440	10,453
Accounts payable–other	1,449	2,330	3,166	4,836	4,408	3,298	2,644	3,069	3,930	3,471
Accrued expenses	754	825	931	1,813	2,000	1,374	1,041	1,049	1,098	1,156
Other	704	755	1,130	3,870	3,199	1,729	2,032	1,981	1,873	2,780
Total Current Liabilities	6,961	8,381	14,873	36,582	35,560	24,642	25,586	23,003	23,529	21,576
Long-term debt	4,319	3,630	2,870	3,725	3,055	1,077	484	325	210	762
Net defined benefit liability	1,329	1,382	1,419	1,534	1,490	1,371	1,404	1,465	1,642	1,727
Other	695	759	1,197	1,648	1,684	1,528	1,324	1,067	1,433	2,392
Total fixed liabilities	6,343	5,770	5,486	6,907	6,229	3,976	3,212	2,857	3,285	4,881
Total liabilities	13,304	14,151	20,359	43,489	41,789	28,618	28,799	25,861	26,815	26,458
Net assets										
Capital stock	14,042	14,042	14,042	14,042	14,042	14,042	14,041	14,041	14,041	14,041
Capital surplus	-	-	-	4	4	1	1	1	1	1
Retained earnings	-5,391	-5,377	-3,733	-769	-5,588	-10,193	-9,777	-8,597	-8,357	-6,506
Treasury stock	-1,611	-1,611	-1,611	-1,581	-1,481	-1,481	-1,481	-1,481	-1,481	-1,481
Accumulated other comprehensive income	33	53	111	102	325	229	28	76	-42	-25
Non-controlling interests	30	29	29	29	29	31	32	35	31	26
Total net assets	7,103	7,135	8,837	11,828	7,331	2,629	2,845	4,076	4,193	6,056
Working capital	3,296	3,690	4,794	8,235	6,548	6,630	5,110	4,923	6,509	5,480
Total interest-bearing debt	7,505	6,714	7,056	9,674	10,471	12,091	13,988	12,150	12,650	11,215
Net debt	6,367	5,349	3,497	437	3,445	9,053	8,410	6,668	7,412	5,296

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

Assets

Changes in assets

Over the past 10 years, the amount of total assets rose during the period from FY03/13 through FY03/14, but began to decline in FY03/15. From FY03/18, the amount of total assets rose due to an increase in the amount of tangible fixed assets as the company upgraded equipment in the ERD segment.

The amount of tangible fixed assets declined until FY03/10 as the company wrote down impairment losses primarily in the ERD segment. The combined assets rose in FY03/14 mainly because of an increase in liquid assets. This was due to growth in the SE segment (the old Photovoltaic Solutions segment), which led to an increase in notes receivable, accounts receivable, and inventory assets. In FY03/15 and thereafter, accounts receivable and inventory assets declined as the SE segment contracted. Liquid assets accounted for 54.2% of total assets at that time.

Main asset items

The company's major assets items are cash and cash equivalents, notes receivable and accounts receivable, inventory assets, and tangible fixed assets.

Tangible fixed assets

In FY03/20, the ratio of land to total tangible fixed assets was high. Specifically, they were facilities including the ERD segment's organic waste fluid processing facility (Fukuoka Prefecture), a waste plastic processing facility (Gunma Prefecture), and a landfill disposal facility operated by the company's C&R Co. Ltd. unit.

Liabilities

Changes in liabilities

The amount of total liabilities has changed in tandem with overall assets over the past 10 years. The amount rose from FY03/13 until FY03/15, but started to fall in FY03/16. It has remained more or less flat from FY03/18.

In FY03/13 and FY03/14, accounts payable, accounts receivable, and interest-bearing debt rose with the growth of the SE segment. Accounts payable and receivable started to decline in FY03/15 as the SE segment shrank.

Main liability items

Much of the company's liability is accounts payable and interest-bearing debt.

Notes and accounts payable

Notes and accounts payable, as did liquid assets, increased with growth in the SE segment starting in FY03/13. The amount increased until FY03/14, but began to fall in FY03/15.

Interest-bearing debt

Interest-bearing debt continued to increase until FY03/11 due to stagnant earnings but, such debt declined in FY03/12. Later, the debt amount trended upward due to expansion of businesses and a return of dull performance. It reached a peak in FY03/17, and subsequently declined. Regarding the balance of the company short and long-term interest-bearing debt, the ratio of short-term debt has increased since FY03/13.

Net assets

Net losses since FY03/03 continued to negatively impact net assets until FY03/10. Net assets were on a gradual recovery since FY03/11 due to an improvement in earnings. However, net assets decreased to JPY2.6bn in FY03/16 as the company booked net losses in FY03/15 and in FY03/16. From FY03/17, net assets began increasing as the company achieved a net income status. The equity ratio rose to 18.5% in FY03/20 from 13.4% in FY03/19.

Cash flow statement

Cash flow statement (JPYmn)		FY03/11 Cons.	FY03/12 Cons.	FY03/13 Cons.	FY03/14 Cons.	FY03/15 Cons.	FY03/16 Cons.	FY03/17 Cons.	FY03/18 Cons.	FY03/19 Cons.	FY03/20 Cons.
Cash flows from operating activities	(1)	55	1,260	2,185	4,934	-1,794	-5,403	1,668	2,184	-25	4,080
Pre-tax profit		352	341	1,913	4,309	-3,710	-4,293	729	1,019	710	2,592
Depreciation		416	371	387	547	887	918	668	709	808	914
Impairment losses		-	-	19	-	271	991	-	-	-	-
Goodwill amortization		112	112	112	112	112	112	112	112	65	-
Change in accounts receivable–trade		-465	-788	-4,000	-14,848	7,405	8,107	675	532	-525	557
Change in inventories		-425	-124	-967	-3,229	-4,091	3,108	1,704	947	-173	930
Change in accounts payable–trade		-291	519	4,013	14,665	-1,922	-11,074	-804	-1,308	-877	-417
Income taxes paid		-157	-271	-202	-536	-1,929	-287	-252	-396	-457	-632
Cash flows from investing activities	(2)	-214	-151	-222	-3,271	-1,181	1,062	-409	171	-947	-2,154
Purchase of tangible fixed assets		-176	-93	-616	-1,687	-1,254	-679	-454	-314	-577	-1,956
Proceeds from sale of tangible fixed assets		1	4	104	18	-	709	62	202	3	9
Purchase of intangible fixed assets		-	-	-	-	-32	-93	-25	-37	-	-236
Proceeds from sale of marketable securities		-	-	258	-	-	318	-	-	-	-
Free cash flow	(1+2)	-159	1,109	1,962	1,663	-2,975	-4,341	1,259	2,355	-972	1,926
Cash flows from financing activities		43	-882	230	2,433	647	1,288	1,437	-2,156	392	-1,110
Change in short-term debt		-2,920	-100	1,013	1,662	1,360	3,757	2,851	-1,284	612	-2,772
Proceeds from long-term debt		3,530	-	210	1,870	485	-	-	-	20	1,072
Repayments of long-term debt		-485	-761	-862	-894	-1,026	-2,128	-954	-553	-131	-235
Simple FCF	(Net income + A + B - C)	1,580	798	2,563	5,378	-6,940	-4,262	-803	1,463	2,122	-457
Depreciation and amortization	(A)	528	483	499	659	999	1,030	780	821	873	914
Capital expenditures	(B)	-176	-93	-616	-1,687	-1,286	-772	-479	-351	-577	-2,192
Working capital changes	(C)	-1,178	-394	-1,105	-3,441	1,687	-82	1,520	187	-1,586	1,029

Source: Shared Research based on company data
Figures may differ from company materials due to differences in rounding methods

Cash flows from operating activities

The company's cash flows from operating activities are influenced by changes in net income, depreciation expenses, and working capital. During the period from FY03/08 through FY03/10, and in FY03/16, impairment losses had a positive impact on the company's cash flows from operating activities.

Cash flows from investing activities

Increases or decreases in fixed deposits and spending to acquire tangible fixed assets are the main factors impacting the company's cash flows from investing activities. Its solar power-related operations do not require large amounts of capital expenditures, but additional capacity at its plastic waste recycling facilities and power generation plants may necessitate a temporary increase in capital expenditures.

Cash flows from financing activities

Cash flows from financing activities change in line with rises and falls in interest-bearing debt. Since FY03/13, in conjunction with an increase in interest-bearing debt, cash flows from financing activities have remained positive.

Other information

History

Sanix Inc. was established in April 1975 in Sasebo City, Nagasaki Prefecture, to provide termite control and corrosion-proof services to homeowners.

Shinichi Munemasa, the founder and former president saw a business opportunity in “dirty jobs”, work that most people wouldn’t want to do. His mission became “To Make the Dirty Clean.” Munemasa took upon himself to visit the U.S. and receive the necessary job training to expand his business. In 1982, Sanix established a foothold in western (Kansai) Japan, and expanded to East Japan (Kanto) in 1992.

In the 1990s, the company sought to branch out into new business fields and expand operations. In 1994, Sanix started operations to recycle and reduce industrial waste, as well as render such waste harmless. In 1999, it established a factory in Okazaki City, Aichi Prefecture, to process plastic waste into fuel. Sanix listed its shares on the second sections of the Tokyo Stock Exchange, Osaka Stock Exchange and Fukuoka Stock Exchange, respectively, in 1997. Its shares advanced to the first sections of the Tokyo Stock Exchange and the Osaka Securities Exchange, respectively, in 1999.

The company continued to expand in the early 2000s, and established Sanix Energy Inc. (currently a consolidated subsidiary) to sell generated power from plastic fuel in 2001. In 2003, Sanix Energy completed the construction of the Sanix Energy Tomakomai Power Station, in Tomakomai City, Hokkaido.

When discussing the company’s history, a business suspension order (also discussed elsewhere in this report) in 2006 must be mentioned. In July 2006, the company received administrative sanctions from the Ministry of Economy, Trade and Industry (METI) for violations of the Act on Specified Commercial Transactions (a misrepresentation, failure to clearly state the purpose of solicitation, forceful solicitation, act of taking advantage of the impaired judgment of a person and having such person conclude a sales contract, violation of the principle of suitability). The sanctions were imposed after the company was found to have pressed insistently to obtain contracts during door-to-door sales. Under the guise of a free-of-charge check, sales staff reported to householders that there were problems that required addressing when in fact no such problems existed. Such cases were said to include contracts signed with incapacitated individuals (dementia and schizophrenia sufferers). As a preventive measure, the company stopped new sales of termite control and floor-ceiling ventilation systems, and introduced a new business structure to only satisfy requests from existing customers. As a result, such problems have not reoccurred.

At the same time, the company encountered several problems at Tomakomai Power Plant from 2005 to 2009 as follows.

- In August 2005, there was a fire in a waste plastic fuel delivery tank.
- In FY03/07, there was a fire, and operation of the plant was suspended until June to enable extra fire prevention systems to be installed and management to be strengthened.
- For approximately two weeks in November 2007, operations were suspended after flue gas concentration exceeded the level specified in the plant’s pollution prevention agreement.
- In 2009, the plant voluntarily suspended operations after dioxins were detected in the soot and smoke from two power-generating boilers at levels exceeding the plant’s pollution control rules. Regulators ordered the plant to rectify the problem.

After the administrative sanctions by METI, Sanix scaled back its termite control operations, while its power generation business was operating at a loss. Unable to find new business opportunities, earnings struggled until FY03/09.

Starting in 2009, Sanix looked at the sale and installation of solar power generation systems as a business opportunity and worked to change the direction of the company, but the government revised the Feed-in Tariff Scheme for Renewable Energy in January 2015, including changes to output control rules. As part of its response to the changing business environment, the company promoted a streamlining of operations to achieve sustainable growth and reduced the number of workers and stores in its SE segment.

Under its medium-term management plan (FY03/17–FY03/19) announced in April 2016, about 500 employees left in June and July 2016 as part of an early retirement program, and Sanix conducted measures to streamline operations. In addition, it reassigned personnel from the SE segment to the HS segment, including the termite control business, and restructured the HS segment's sales system. With these measures, from FY03/17 to FY03/19, HS segment sales increased at an average of 28.0% per year and operating profit at an average of 51.0%. In FY03/19, the HS segment accounted for 21.2% of total sales and 48.9% of operating profit before adjustments.

Date	Event
Apr 1975	Business launched in Sasebo, Nagasaki Prefecture to provide termite control and corrosion-proof services for buildings
Sep 1978	Company established in Sasebo, Nagasaki Prefecture (under the name Sanyo Shodoku Inc.)
May 1986	Total sanitation business unit established in general household division with the aim of providing after sales maintenance services
Mar 1987	Company name changed to Sanix Inc.
Apr 1994	Set up Kitakyushu plant in Moji-ku, Kitakyushu, to process industrial waste and established industrial waste processing division, launching intermediate processing of industrial waste business
Dec 1995	Established Sunaim, Inc. (currently consolidated subsidiary) to be involved mainly in pharmaceutical sales
Sep 1996	Shares registered over-the-counter with Japan Securities Dealers Association
Sep 1997	Shares listed on Tokyo Stock Exchange Second Section, Osaka Stock Exchange Second Section, and Fukuoka Stock Exchange
Feb 1999	Established Energy Research Institute, mainly to engage in sales of recycled waste products such as fuel
Apr 1999	Set up plastic resource development plant in Okazaki, Aichi Prefecture, to process plastic waste into fuel. Changed name of Industrial Waste Processing Division to Environmental Resources Development Division with aim of developing industrial waste recycling activities across a broad front
Sep 1999	Shares transferred to Tokyo Stock Exchange First Section and Osaka Stock Exchange First Section
Mar 2000	Established Hibiki Organic Waste Liquid Processing Plant to process organic liquid waste in Wakamatsu-ku, Kitakyushu
Oct 2001	Established Sanix Energy Inc. (currently consolidated subsidiary) to operate business generating and selling electricity from plastic fuel
Oct 2003	Built Sanix Energy Tomakomai Power Plant in Tomakomai, Hokkaido
Feb 2009	Became a trading member of Japan Electric Power Exchange (JEPX)
Oct 2009	Sanix Energy acquired Hokuhai Co., Ltd. and C&R Co., Ltd. (currently consolidated subsidiary), mainly to dispose of incinerator ash discharged from Tomakomai Power Plant
Dec 2010	Established Shanri (Shanghai) Energy Science and Technology Co., Ltd. (currently consolidated subsidiary) in Shanghai, China primarily to manufacture and sell PV modules and ancillary equipment
Jan 2012	Established Sanix Engineering Inc., primarily to serve the market for industrial PV systems
Oct 2015	Launched electric power business to grow retail electricity business
Aug 2016	Established Shanri (Jiashan) Energy Technology Co., Ltd. (currently consolidated subsidiary) in Jiashan, Zhejiang, China primarily to manufacture PV modules and ancillary equipment
Apr 2018	In order to extract efficiencies from group operations, executed an absorption-type merger with Sanix Engineering (simple absorption-type merger with Sanix as the surviving company)
Aug 2018	Changed primary business objective of Energy Research Institute to retail electricity sales for households, and changed name to Sanix Solar Power (currently consolidated subsidiary)

News and topics

November 2020

On November 12, 2020, the company announced revisions to its full-year FY03/21 forecast.

Revised FY03/21 earnings forecast

- Sales: JPY49.7bn (versus previous forecast of JPY50.2bn)
- Operating profit: JPY1.9bn (unchanged versus previous forecast)
- Recurring profit: JPY1.8bn (unchanged versus previous forecast)
- Net income*: JPY1.3bn (unchanged versus previous forecast)
- EPS: JPY28.14 (unchanged versus previous forecast)

*Net income attributable to owners of the parent

Reasons for forecast revision

The company expects sales at its Energy business to decline, leaving full-year consolidated sales short of its previous forecast. It made various adjustments to its profit estimates at individual segments, and maintains its previous forecast at the operating profit level and below although it anticipates sales to fall short of previous forecast.

August 2020

On August 7, 2020, the company announced its 1H and full-year FY03/21 consolidated earnings forecasts.

1H FY03/21 forecast

- Sales: JPY24.2bn (1H FY03/20 result: JPY24.5bn)
- Operating profit: JPY1.3bn (JPY1.6bn)
- Recurring profit: JPY1.2bn (JPY1.4bn)
- Net income*: JPY982mn (JPY1.1bn)

*Net income attributable to owners of the parent.

Full-year FY03/21 forecast

- Sales: JPY50.3bn (FY03/20 result: JPY52.5bn)
- Operating profit: JPY1.9bn (JPY2.8bn)
- Recurring profit: JPY1.8bn (JPY2.6bn)
- Net income*: JPY1.3bn (JPY1.9bn)
- EPS: JPY28.14 (JPY38.72)

*Net income attributable to owners of the parent.

Background to announcement

The company had previously left its 1H and full-year FY03/21 earnings forecasts undetermined due to the difficulty of reasonably calculating the impact of COVID-19. The company said that with the gradual resumption of economic activity following the lifting of the state of emergency, it decided to announce its earnings forecast based on currently available information and forecasts. The company's FY03/21 forecast presumes that there will not be a large-scale second wave of the pandemic. However, the company added that companies and households are likely to maintain voluntary efforts to prevent infection until the global pandemic is brought under control, so some impact on FY03/21 earnings will be unavoidable.

Major shareholders

Top shareholders	Shares held ('000)	Shareholding ratio
BION Co., Ltd.	8,716	18.23%
Hiroshi Munemasa	6,454	13.50%
Korea Securities Depository–EBEST (Standing proxy: Citibank N.A. Tokyo Branch)	1,870	3.91%
Sanix Mutual Aid Society	1,700	3.56%
The Master Trust Bank of Japan, Ltd. (Trust account)	1,233	2.58%
Sanix Employees' Shareholding Association	947	1.98%
Japan Trustee Services Bank, Ltd. (Trust account 5)	651	1.36%
The Nishi-Nippon City Bank, Ltd.	536	1.12%
Japan Trustee Services Bank, Ltd. (Trust account 2)	406	0.85%
SBI Securities Co., Ltd.	337	0.70%
SUM	22,853	47.80%

Source: Shared Research based on company data
(As of March 31, 2019)

Company profile

Company Name	Head Office
Sanix Incorporated	2-1-23, Hakata Ekimae Higashi, Hakata-ku, Fukuoka
Phone	**Listed On**
+81-92-436-8870	Tokyo Stock Exchange 1st Section, Fukuoka Stock Exchange
Established	**Exchange Listing**
September 12, 1978	September 13, 1996
Website	**Financial Year-End**
https://sanix.jp/lang_en/index.html	March
IR Contact	**IR Web**
Management and Planning Division	-
IR Mail	**IR Phone**
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euglena Co., Ltd.
FaithNetwork Co., Ltd.
Ferrotec Holdings Corporation
FIELDS CORPORATION
Financial Products Group Co., Ltd.
First Brothers Col, Ltd.
FreeBit Co., Ltd.
Gamecard-Joyco Holdings, Inc.
GameWith, Inc.
GCA Corporation
Good Com Asset Co., Ltd.
Grandy House Corporation
Hakuto Co., Ltd.
Hamee Corp.
Happinet Corporation
Harmonic Drive Systems Inc.
HENNGE K.K.
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HOUSEDO Co., Ltd.
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Infocom Corporation
Infomart Corporation
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ipet Insurance CO., Ltd.
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JAFCO Co.,Ltd.
JMDC Inc.
JSB Co., Ltd.
JTEC Corporation
J Trust Co., Ltd
Japan Best Rescue System Co., Ltd.
JINS HOLDINGS Inc.
JP-HOLDINGS, INC.
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Kanamic Network Co.,LTD
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MATSUI SECURITIES CO., LTD.
Media Do Co., Ltd.
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MEDINET Co., Ltd.
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TOYOBO CO., LTD.
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TSURUHA Holdings
VISION INC.
VISIONARY HOLDINGS CO., LTD.
World Holdings Co., Ltd.
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