December 20th, 2022

Shinhan Securities



Refrigeration Electrical Engineering Corporation

[Vietnam / Utilities]

Bloomberg Code (REE VN) | Reuters Code (REE.HM)

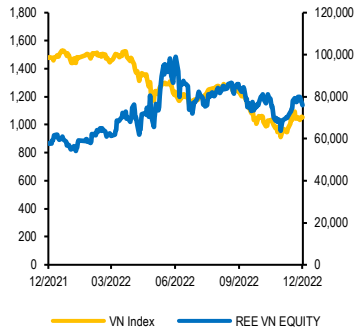
BUY

Initiation Coverage

Target price (12 months)	**88,300 VND**
Current price (20/12/22)	75,400 VND
Upside/downside (%)	17.1%

VNINDEX		1,023
P/E market (22F, x)		10.8
Market Cap (bn VND)		26,797
Outstanding shares (mn)		409
Free-Floating (mn)		40.1
52-Wk High/Low (VND)		100,000/54,435
90-day avg. trading volume (mn)		0.7
90-day avg. turnover (bn VND)		40
Foreign ownership (%)		49
Major shareholders (%)	Platinum Victory PTE. Ltd	33.54
	Nguyen Thi Mai Thanh	12.17

Performance	3M	6M	12M
Absolute (%)	-9.5	-21.4	30.2
Relative to VN-Index (%)	5.4	-6.3	58.8



Source: Bloomberg

Power takes the throne

Initiate coverage with BUY calland target price at VND 88,300

Refrigeration Electrical Engineering Corporation (HoSE: REE) is one of the top leaders in the utility sector listed on the stock exchange. REE has had a stable ROE through many years and an effective business model with the BoD has a suitable orientation for the times. Based on the FCFF method, we recommend buying REE at a valuation of VND 88,300. The revenue and NPAT of REE are expected to increase solidly thanks to: (1) The hydropower segment skyrocketed & tap water segment brought steady cash flow; (2) Etown 6 project will robust the revenue of the real estate segment from 2023; (3) The recovery of the M&E segment with key projects.

The hydropower takes the throne & tap water segment brings stable cash flow

The power output of REE is expected to exceed 9,500 million kWh (+80% YoY) in 2022 owing to favorable weather and the contribution of the Thuong Kon Tum hydropower plant. In addition, FMP prices in the competitive generation market jumped strongly due to the rally of materials. Besides, the mobilization rate of hydropower improvement solidly is the factor driving the explosion in the power segment. Nevertheless, the renewable power segment is shining when the strategy of REE is focusing on this segment. Shortly, we believe this segment will contribute the larger part to the revenue of REE.

Regarding the tap water segment, the ecosystem of REE includes more than 10 names that come from tap water production to delivery water conducting around VND 270 billion per year. Indeed, REE has a lot of ambitions for this segment. In 2021, REE acquired TK Plus – the consulting company, which is a strategic step in the long-term.

Etown 6 will boost the revenue of the real estate segment from 2023

The real estate for rent contributes anchored cash flow for REE. However, the revenue of this segment will surge significantly when the Etown 6 project come into operation in 4Q2023. Based on the brand name and position of REE, we believe the occupancy rate will maintain around 95% like other offices of REE. Besides, the modern equipment & trending will push the unit price around 20% higher than the old project of REE.

For the present, BoD of REE announced that the company is following 3-4 potential projects for which legal conditions are completed or the owner of that project has clean land use rights but a shortage of capital.

The recovery of the M&E segment with key projects

The M&E segment is the traditional business of REE but it falls into a contraction phase in years due to the competition of peers and the impact of Covid-19. However, public investment in Vietnam is expected to enhance the demand in the M&E segment. Based on the experience and reputation of REE, we believe the Long Thanh airport M&E package will belong to this company.

Year to Dec.	2020	2021	2022F	2023F	2024F
Revenue (bn VND)	**5,640**	**5,810**	**9,227**	**9,211**	**9,740**
OP (bn VND)	1,901	2,387	3,353	3,294	3,708
NP (bn VND)	**1,714**	**2,135**	**3,014**	**2,958**	**3,329**
EPS (VND)	5,251	6,003	8,846	8,491	9,661
BPS (VND)	14,928	14,707	52,538	60,774	68,330
OPM	34%	41%	36%	36%	38%
NPM	30%	37%	33%	32%	34%
ROE	**14%**	**13%**	**16%**	**14%**	**14%**
PER (x)	11.7	14.8	8.9	9.3	8.2
PBR (x)	1.7	1.8	1.5	1.3	1.2
EV/EBITDA (x)	5.2	6.0	9.2	9.2	8.0

Source: Company data, Shinhan Securities Vietnam

Open account

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Company background

History of development

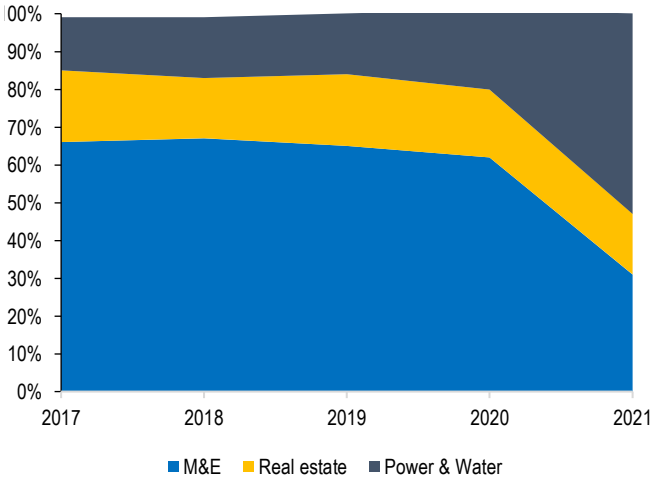
Refrigeration Electrical Engineering Corporation (HoSE: REE) was established in 1977. REE was one of two companies first listed on the Ho Chi Minh stock exchange in 2000. The shareholders of REE are concentrated because the major shareholders dominated nearly 60%. In which, Platinum Victory Pte. Ltd hold more than 30% and buy stock continously.

No.	Shareholders	Ownership's rate
1	Platinum Victory Pte. Ltd	30.9%
2	Nguyen Thi Mai Thanh	12.2%
3	Apollo Asia Fund Ltd	5.9%
4	Nguyen Ngoc Hai	5.5%
5	State-owned (HFIC)	5.3%
6	Others	40.3%

Source: Company data, Shinhan Securities Vietnam

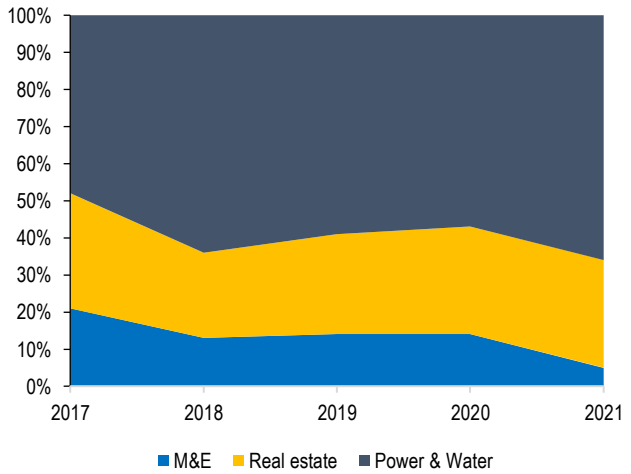
The company operates in 3 main segments: Mechanical & Electrical (M&E), Real estate and Power&Water. At present, the main segment of REE is Power&Water, which contributed 53% of revenue and 66% of NPAT in 2021. In 2010, REE expand in the utility sector, the portfolio of the power segment of REE has a total installed capacity of 978 MW. Hydropower contributed the largest part with following by coal-fired thermal power and renewable power. Besides, REE has Tra Vinh Electric Development JSC as a subsidiary company in the retail electricity segment.

REE's revenue breakdown



Source: Company data, Shinhan Securities Vietnam

REE's NPAT breakdown



Source: Company data, Shinhan Securities Vietnam

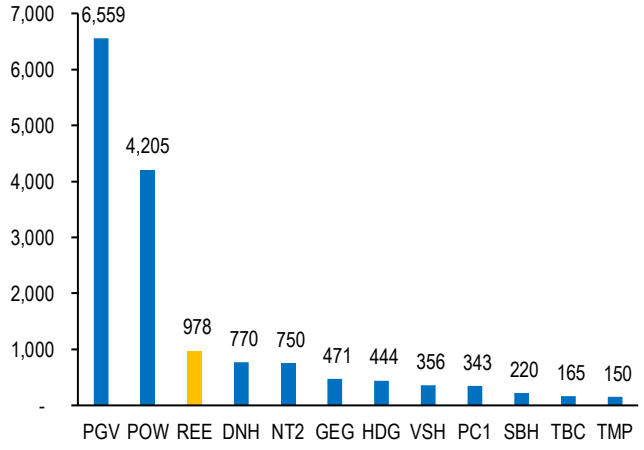
Meanwhile, the M&E segment is the traditional business of REE, this part always contributes around 60% of the revenue from 2017 to 2021. Nevertheless, the M&E segment was hit significantly by the fierce competition from peers companies and Covid-19, which pull down the revenue and NPAT. Indeed, the net profit margin of this segment is low (below 10%) so the contribution in the NPAT of the company is not too large.

In the real estate segment, REE run the first project at the same time when this company was listed on the stock exchange. The market target of REE is office rank B in Ho Chi Minh City, this segment contributes the second largest part in NPAT structure with 29%.

REE in tier 1 in the utility sector

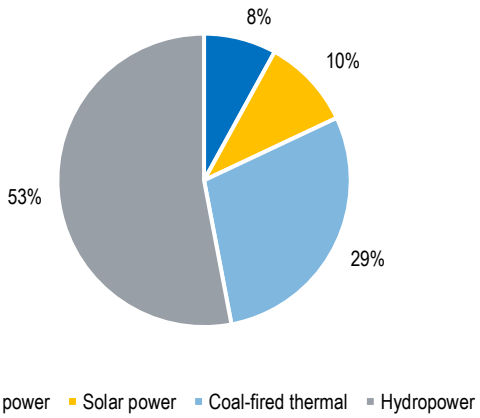
The total capacity installed by REE ranks 3rd in terms of the listed power companies, in which the hydropower segment has over 50%. In the hydropower segment, REE has 9 subsidiary companies located in 3 regions. Currently, REE continues to expand the hydropower plant with 2 projects: Thac Ba 2 and Vinh Son 2&3. However, the potential of large hydropower plants (>30 MW) is exhausted and REE decided to transform into renewable energy.

The total installed capacity of stock listed (MW)



Source: EVN, Shinhan Securities Vietnam

The structre of REE's capacity

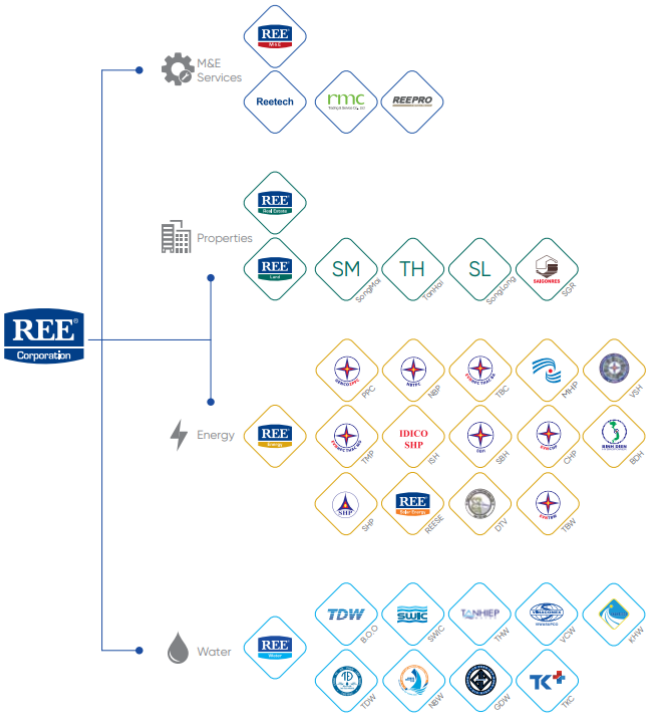


Source: Company data, Shinhan Securities Vietnam

In recent years, REE has promoted the renewable power segment. Particularly, the solar power project has a capacity of 86 MW and has been connected to the national grid. In 2021, REE put 3 wind power plants Phu Lac 1 & 2, Loi Hai 2, and Tra Vinh V1-3 into operation, boosting the total capacity of this segment to 126 MW.

Organization and ecosystem of REE

Organization of REE



Source: Company data, Shinhan Securities Vietnam

In the power segment, REE has 15 subsidiary companies and relative parties. These companies operating in manufacturing power include hydropower, coal-fired thermal, and renewable. In 2021, REE increase its ownership in VSH to 50.5% and consolidated the financial statement of VSH.

No.	Company	Full name	Sub-sector	Capacity (MW)	Ownership
1	REE Energy	REE Energy Company ltd	Holding		100%
2	PPC	Pha Lai Thermal Power JSC	Coal-fired thermal	1,040	24%
3	NBP	Ninh Binh Thermal Power JSC	Coal-fired thermal	100	30%
4	TBC	Thac Ba Hydropower JSC	Hydropower	120	60%
5	VSH	Vinh Son – Song Hinh Hydropower JCS	Hydropower	356	52%
6	ISH	Srok Phu Mieng- IDICO Hydropower JSC	Hydropower	51	34%
7	CHP	Mien Trung Hydropower JCS	Hydropower, Renewable	220	24%
8	SBH	Song Ba Ha Hydropower JSC	Hydropower	220	26%
9	MHP	Muong Hum Hydropwer JSC	Hydropower	34.8	80%
10	TMP	Thac Mo Hydropwer JSC	Hydropower, Renewable	220	43%
11	SHP	Mien Nam Hydropwer JSC	Hydropower	122.5	12%
12	BDH	Binh Dien Hydropwer JSC	Hydropower	44	26%
13	TBW	Thuan Binh Wind Power JSC	Win power	78.9	50%
14	REESE	REE Solar Energy JSC	Renewable	92.5	100%
15	DTV	Tra Vinh Electric Edvelopment JSC	Retail		66%

Source: Company data, Shinhan Securities Vietnam

In the tap water segment, the ecosystem of REE has 10 subsidiary companies and related parties operating in manufacturing, delivery, and consulting. In 2021, REE acquired successfully TK Plus – a consulting company in tap water. This is the strategic step of REE to implement M&A deal in the future.

No.	Company	Full name	Location	Capacity (m3/day)	Sub-sector	Ownership
1	REE Water	REE Water Company Ltd	HCMC		Water production	100%
2	B.O.O	B.O.O Thu Duc Water JSC	HCMC	300,000	Water production	42%
3	SWIC	Sai Gon Clean Water Business & Investment	HCMC	300,000	Water production	40%
4	THW	Tan Hiep Clean Water Invesmtent JSC	HCMC	300,000	Water production	32%
5	VCW	Song Da Water Investment JSC	Hanoi	300,000	Water production	36%
6	TK Plus	TK Plus Company Ltd			Consulting	65%
7	TDW	Thu Duc Water Supply JSC	HCMC		Water distribution	44%
8	KHW	Khanh Hoa Water Supply & Sewerage JSC	Khanh Hoa	120,000	Water production	44%
9	NBW	Nha Be Water Supply	HCMC		Water distribution	20%
10	GDW	Gia Dinh Water Supply	HCMC		Water distribution	20%

Source: Company data, Shinhan Securities Vietnam

In the real estate segment, REE maintains the occupation rate above 98% with a 150,000m2 gross floor. The occupation rate is extremely high thanks to the quality of the project, brand name, and suitable price.

No.	Building	Address	Estimated area (m2)
1	IDC	163 Hai Ba Trung, Ward 6, District 3, HCMC	2,000
2	Maison	180 Pasteur, Ben Nghe Ward, District 1, HCMC	1,353
3	Reecrop	366 Nguyen Trai, District 5, HCMC	3,370
4	Etown	364 Cong Hoa, Ward 13, Tan Binh District, HCMC	100,000
5	REE Tower	9 Doan Van Bo, District 4, HCMC	20,000
6	Etown Central	11 Doan Van Bo, District 4, HCMC	34,000

Source: Company data, Shinhan Securities Vietnam

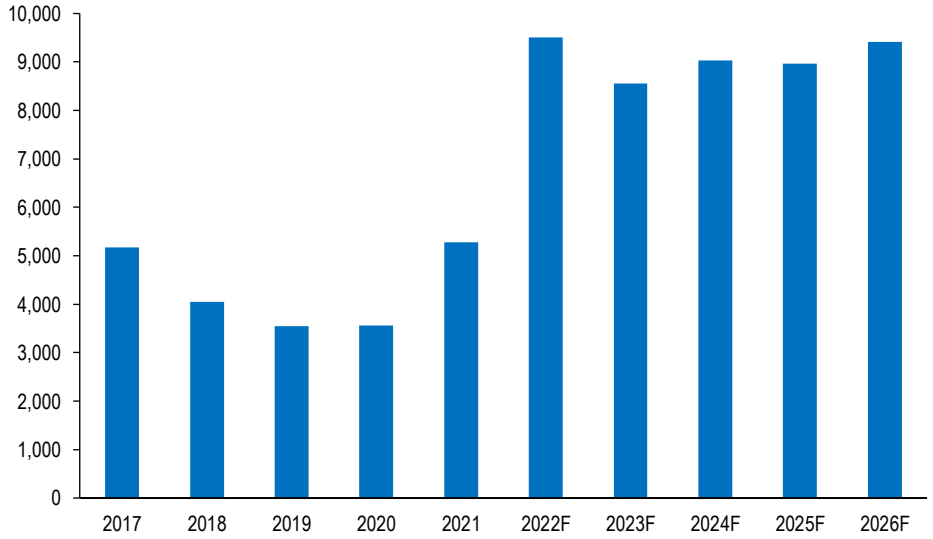
Investment theses & Catalyts

1. Hydropower shines and the water segment brings stable cash flow

The hydropower take the throne & The wise transformation

The total installed capacity of the power segment of REE is 978MW. Particularly, hydropower contributes 53%, 18% comes from renewable power (wind & solar) and coal-fired power takes the last. The orientation of REE points out that environmentally friendly and low-carbon emissions are the future of company.

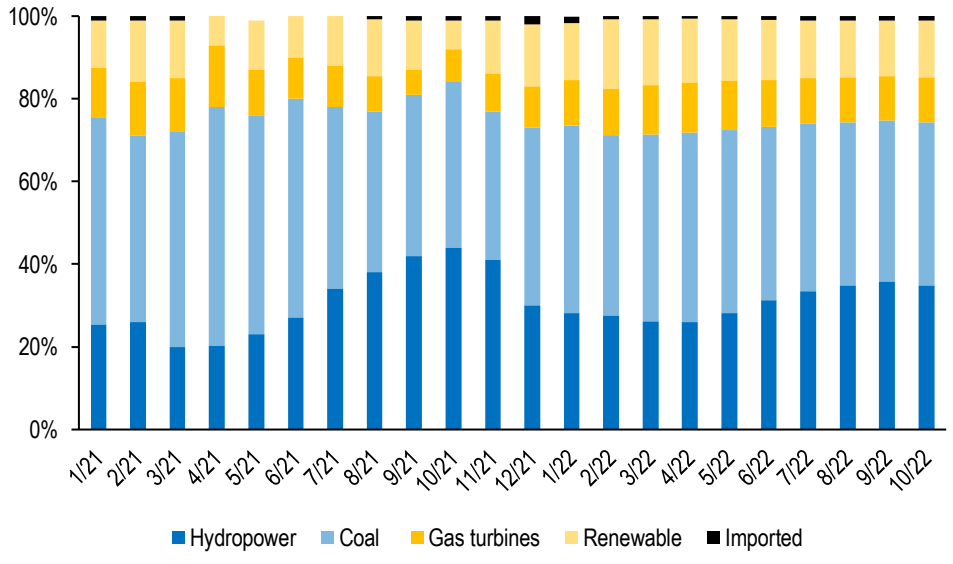
The power output of subsidiaties companies of REE (exclude thermal power) (million kWh)



Source: Company data, Shinhan Securities Vietnam

The power output of REE in 2022 (exclude thermal power) is expected to surpass 9,500 million kWh (+60% YoY) thanks to favorable hydrological conditions and the contribution of the Thuong Kon Tum hydropower plant when it connects to the national grid for the whole year. We forecast this plant to contribute more than 2,000 million kWh to VSH in 2022.

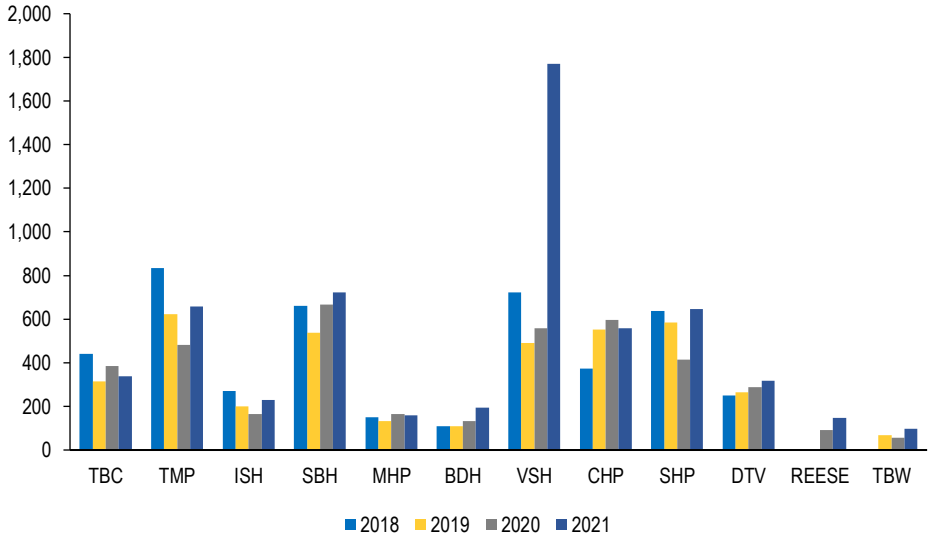
The mobilization from power souce from 1/2021 to 10/2022 (%)



Source: EVN, Shinhan Securities Vietnam

For the hydropower field, the National Load Dispatch Center (A0) will prioritize mobilizing the power sources to have the lowset cost in the system. Particularly, the rainy season and the year affected by the La Nina phenomenon will help boost the mobilizing rate. In 2022, the strong La Nina phenomenon brings plentiful water to the reservoirs, helping businesses have impressive business results.

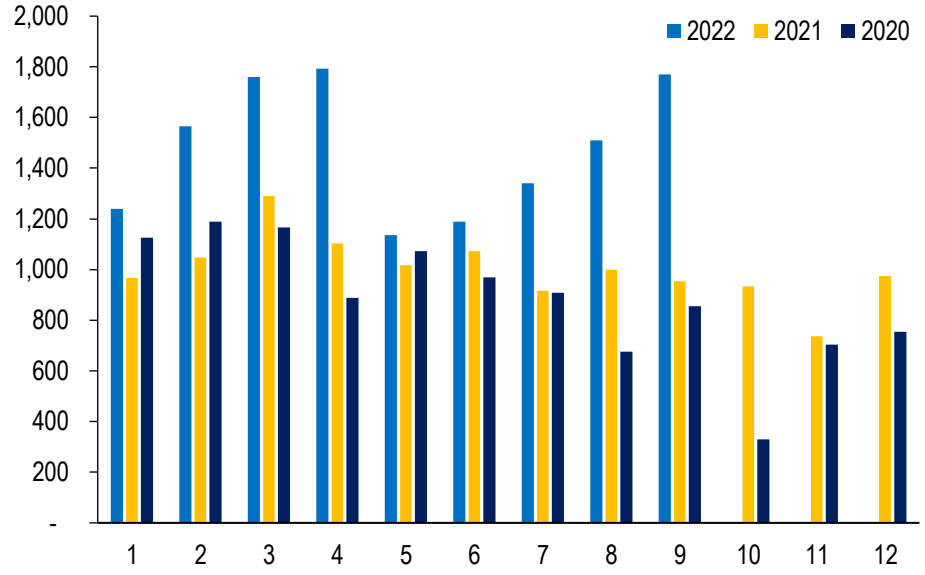
The electricity output of subsidiaries of REE



Source: Company data, Shinhan Securities Vietnam

Meanwhile, about 70-80% of electricity output will be sold to EVN at PPA price, while the rest will be sold on the competitive generation market (CGM). In the past year, due to the complicated geopolitical situation, the price of input materials for thermal power (coal-fired, gas-fired) has jumped sharply. This factor pinned down the gas-fired and coal-fired power enterprises to compete in this market.

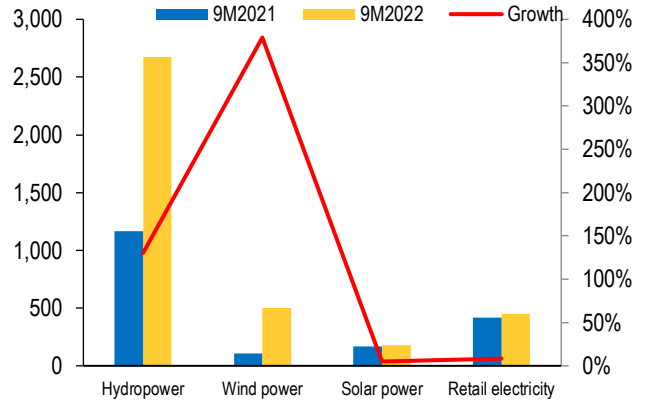
Average full market price (FMP) (VND/kWh)



Source: EVNGENCO3, Shinhan Securities Vietnam

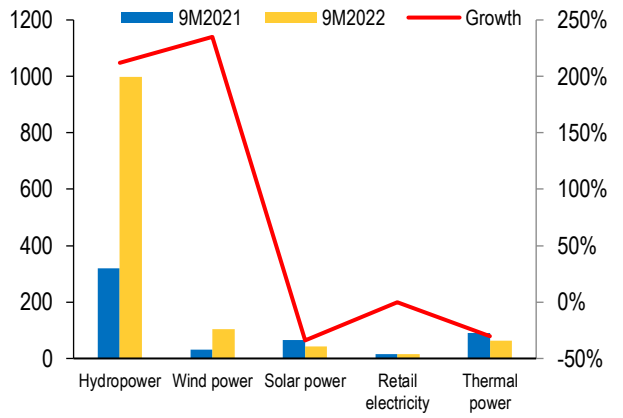
REE's revenue and profit increased strongly in the first 9 months thanks to the power segment. The largest proportion is hydropower, a positive result owning to favorable hydrological situation and high selling price. Besides, the wind power group had the strongest growth rate of over 350% thanks to three new wind power plants put into operation.

Revenue of power segment in the first in 9M2022 (billion)



Source: Company data, Shinhan Securities Vietnam

NPAT of power segments in 9M2022 (billion)



Source: Company data, Shinhan Securities Vietnam

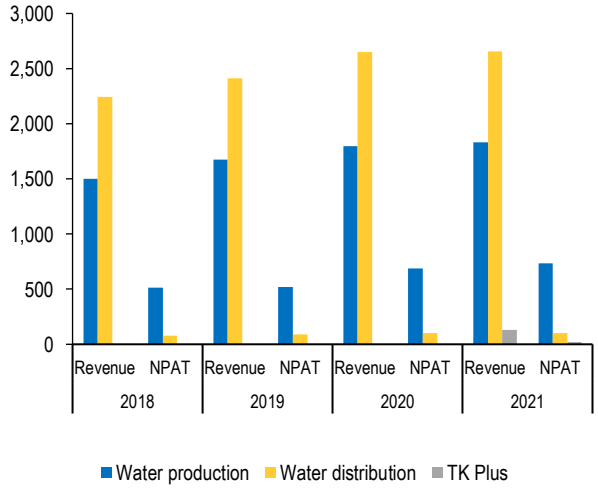
According to the development orientation of the company, renewable power will be the main trend of REE to develop a new project. As for the coal-fired power segment, at the AGM 2022 of REE, the management announced that the company will divest from Pha Lai Thermal Power and this step has been planned.

The water segment brings stable cash flow and has huge potential in the M&A activities

REE has two main businesses in the water sector distribution and production. The water distribution segment has the lowest net profit margin because it has remained at 4%-5% for the past 3 years. Meanwhile, water production maintains an outstandingly high net profit margin of 38%-40% in 2020 and 2021.

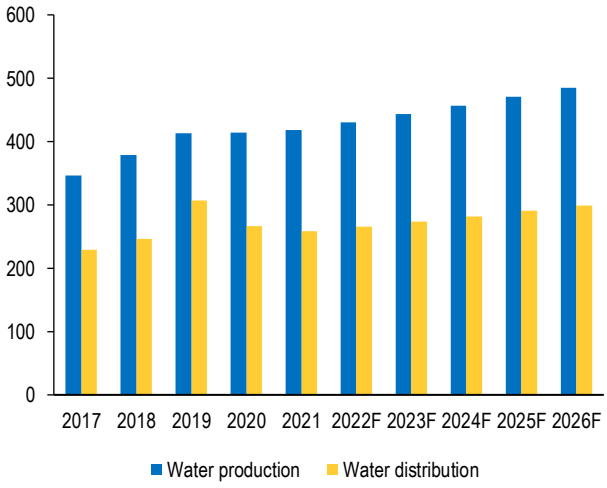
For the water sector, the selling price is changed based on the plan of the local governments. According to Decree 117/2007/ND-CP, the governments in local provinces will decide the selling price of tap water on the economic conditions in the locality according to the range price set by the Ministry of Finance. In addition, the wholesale water price must also be agreed upon by the water supply companies operating in that locality.

The revenue and NPAT of REE's water segment (billion)



Source: Company data, Shinhan Securities Vietnam

Water output of water production and water distribution segment (million m3)



Source: Company data, Shinhan Securities Vietnam

In Ho Chi Minh City, the price of tap water is growing at a steady rate of 6% per year after 2020. However, in 2021 when the Covid-19 pandemic outbreak, the city government kept the water price constant to support the economy. After that, some enterprises in the water industry have proposed to increase the growth rate of water prices because of the rapid surge in the cost of goods sold.

In 2020 and 2021, the water segment contributes VND 259 billion and VND 274 billion to REE, respectively. That number helps the cash flow of REE strong enough to finance other projects. Besides, REE acquired TK Plus - a

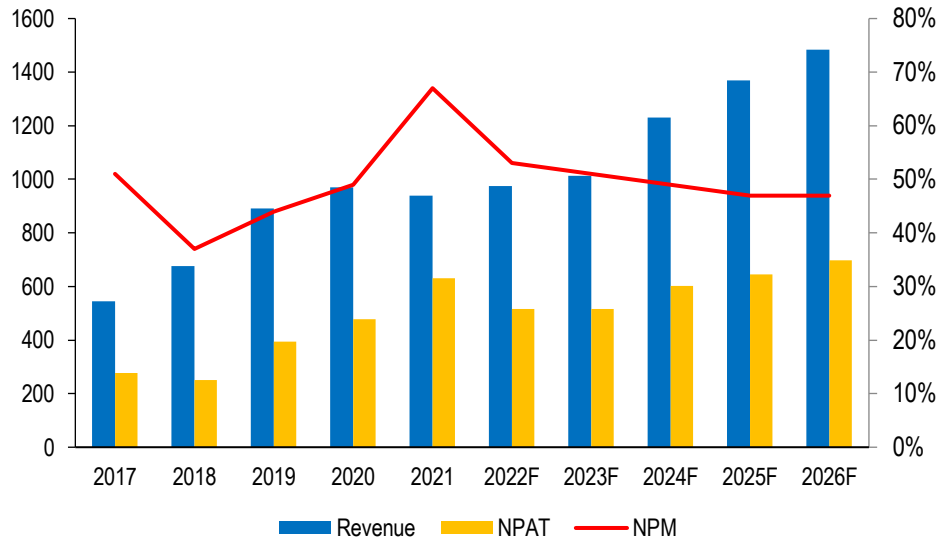
company specializing in water consulting services. This is a strategic move by REE that shows the strong ambition of the industry through future M&A activities.

2. Etown 6 drives real estate revenue

In the real estate segment, REE owns about 150,000 m2 of floor space for lease in the rank B office buildings in Ho Chi Minh City. REE maintains an occupancy rate of above 98% for many consecutive years. The current rental price of REE's office buildings is estimated at 21 USD/m2. This is relatively lower than the average price of rank B office space in Ho Chi Minh City at 25 USD/month.

Regarding the investment strategy to expand the real estate segment, the Chairwoman of REE Ms. Nguyen Thi Mai Thanh said that REE is pursuing 3-4 projects. According to experience in this field, REE realizes that land bank development involves many risks and takes a long time. Because the government conducts a public auction, the company spends time researching and planning but may not win the bid. Therefore, REE changed its target to existing projects or cooperated with businesses with a clean land bank but did not have enough resources to implement.

Revenue and NPAT of the real estate segment (billion)



Source: Company data, Shinhan Securities Vietnam

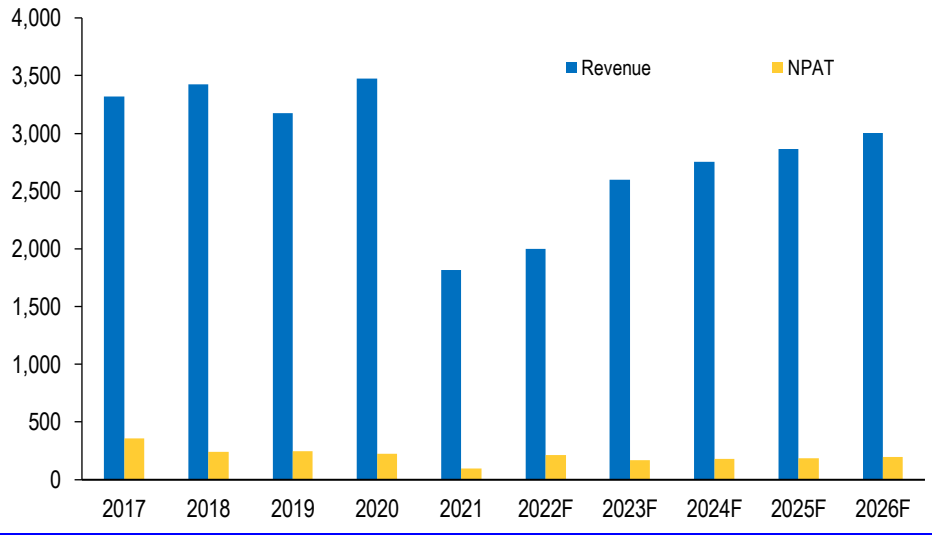
REE has been building Etown 6 with a commercial floor area of about 40,000 m2 since the end of 2020. REE announced that the company will lend Etown6 in the fourth quarter of 2023. The unit price of this building is expected to increase by 20% compared with the current price.

3. M&E segment expected to recover thanks to key projects

The net profit margin of the M&E segment has decreased from 10% in 2017 to 5.4% in 2021. The M&E segment has faced fierce competition from peer companies. Besides, the outbreak of the Covid-19 pandemic also caused a sharp drop in demand. At the same time, the price of input materials, especially copper wire, has increased significantly pushing the profit of this segment drop deeply.

REE said that M&E is the traditional business of the group, REE is targeting key national projects such as Long Thanh airport or complex structured projects such as the 5-star hotel.

Revenue and NPAT of the M&E segment



Source: Company data, Shinhan Securities Vietnam

With a leading position in the M&E industry for the past two decades, REE has experience in implementing large-scale projects. In the coming time, we expect that REE will win contracts at Long Thanh international airport and the T3 terminal at Tan Son Nhat airport.

Project	Time	Package
Noi Bai International Airport	06/2000-12/2001	Supply and installation of mechanical installation system
Lien Khuong Airport	12/2007-12/2009	Supply and installation of electromechanical installation system
Airport Tan Son Nhat International Airport	11/2004-09/2007	Supply and installation of electromechanical installation system
Can Tho Airport Passenger Terminal	03/2009-12/2010	Supply and installation of electromechanical installation system
Noi Bai International Terminal T2	08/2012-12/2014	Supply and installation of mechanical and ventilation systems & BMS
International Terminal T2 Tan Son Nhat	GĐ1: 05/2015-10/2016 GĐ2: 07/2017-08/2018	Supply and installation of electromechanical systems and station equipment
Da Nang International Airport	04/2016-09/2017	Construction of air conditioning and ventilation systems, fire alarm systems, fire fighting, water supply and drainage systems
Cam Ranh International Airport	02/2017-05/2018	Supply and installation of mechanical systems
Quang Ninh Airport	11/2017-03/2019	Cable supply and installation of electromechanical systems
Terminal T2 - Phu Bai International Airport	7/2021-11/2022	Cable supply and installation of electromechanical systems

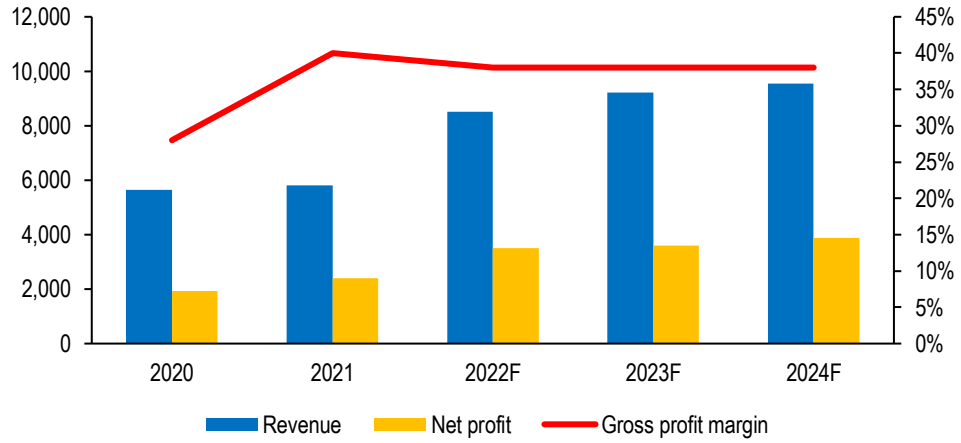
Source: Company data, Shinhan Securities Vietnam

Earning estimates

In the first 9 months of 2022, REE's revenue increased sharply by 61% YoY to VND 6,303 billion, the NPAT reached VND 2,545 billion (+110% YoY) thanks to the impressive growth of hydropower and wind power. In 2022, we forecast REE's revenue will increase by 58% YoY to VND 9,227 billion.

In 2023, we forecast REE's revenue and profit to reach 9,211 billion (+0% YoY) and 3,207 billion (-2% YoY), respectively. The above result comes from the assumption that the mobilization of the hydropower segment will decrease due to the passing of La Nina phenomenon, the slow recovery of the M&E segment, and the revenue from the Etown 6 segment starting to contribute from 2024.

Forecast of REE's revenue, profit and gross profit margin



Source: Company data, Shinhan Securities Vietnam

REE's revenue and profit outlook (2020-2024F)

(Unit: billion VND)	2020A	2021A	2022F	2023F	2024F
Net revenue	5,640	5,810	9,227	9,211	9,740
M&E	3,474	1,816	2,538	2,597	2,753
Real Estate	987	938	975	1,012	1,230
Power & Water	1,178	3,055	5,714	5,602	5,757
Gross profit	1,606	2,310	3,506	3,316	3,506
Operating profit	1,901	2,387	3,353	3,294	3,708
Net profit	1,714	2,135	3,014	2,958	3,329
Profit margin (%)					
Gross profit margin	28%	40%	38%	36%	36%
Operating profit margin	34%	41%	36%	36%	38%
Net profit margin	30%	37%	33%	32%	34%
Growth (%YoY)					
Net Revenue	15%	3%	59%	0%	6%
M&E	9%	-48%	40%	2%	6%
Real Estate	7%	-5%	4%	4%	22%
Power & Water	49%	159%	87%	-2%	3%
Operating profit	0%	44%	52%	-5%	6%
Net profit	0%	26%	40%	-2%	13%

Source: Company data, Shinhan Securities Vietnam

Recommendation and Valuation

Recommended Hold with target price VND 88,300

We offer an initial valuation for Refrigeration Electrical Engineering JSC with a buy recommendation and a target price of VND 88,300, equivalent to the upside of 17.1%. From a long-term perspective, REE is an investment that can be considered for the following reasons:

1. Reevenue of the hydropower skyrocketed and the water segment brings stable cash flow;
2. Real estate segment will continue to grow with new impetus from Etown6;
3. M&E segment is expected to recover thanks to key projects.

Valuation method

We apply Discounted Cash Flow (DCF) valuation method to value REE, the revenue of REE is expected to reach 8,513 billion (+47% YoY) in 2022 and the NPAT will jump 46% YoY to 3.115 billion. In 2023, we forecast the revenue of REE will increase slightly by 8% YoY to VND 9,228 billion and the NPAT of VND 3,207 billion (+3% YoY). In 2023, REE's revenue and profit growth is forecast to slow down due to difficult weather, slow recovery of M&E segment and new growth engine from Etown 6 which will contribute to revenue from 2024.

FCF valuation

Unit: billion VND	2022F	2023F	2024F	2025F	2026F
Net profit	3,014	2,958	3,329	3,857	4,289
Plus: After-tax interest expense	1,085	1,107	1,202	1,226	1,251
Plus: Depreciation & Amortization	680	597	514	445	365
Minus: Change in working capital	336	90	-200	-55	81
Minus: CapEx	716	520	2,430	570	600
Free Cash Flow (FCF)	**3,727**	**4,052**	**2,815**	**5,013**	**5,224**
Discount rate	0.90	0.82	0.74	0.67	0.60
PV of FCF	3,365	3,306	2,075	3,339	3,140
Growth rate	0%				
Present value of long-term value	29,309				
Enterprise value	44,534				
Debt	11,520				
Cash and cash equivalents	1,830				
Minority interest	3,056.00				
Number of shares outstanding (billion)	0.36				
Target price (VND)	**88,290**				

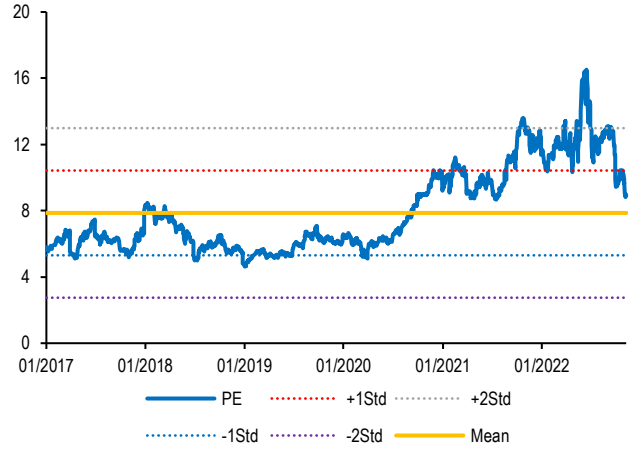
Source: Company data, Shinhan Securities Vietnam

Weighted Average Cost of Capital (WACC)

WACC (%)	**10.7**
Risk-free rate (%)	5.0
Equity risk premium (%)	7.8
Beta	0.94
Debt cost (%)	7.8
The cost of equity(%)	12.3
Debt-to-equity ratio	0.41
Total debt (VND billion)	11,520

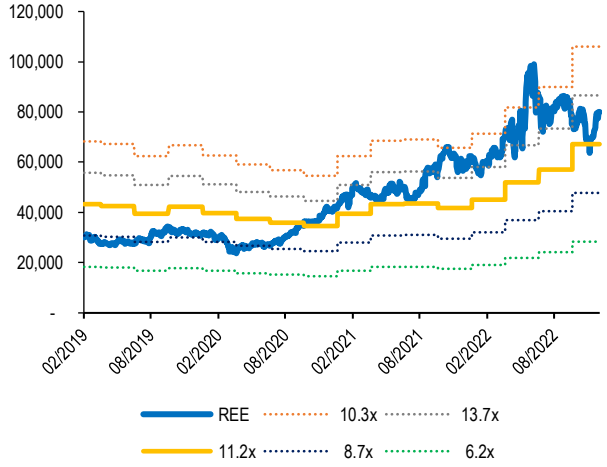
Source: Company data, Shinhan Securities Vietnam

PER of REE 2017-2022 (x)



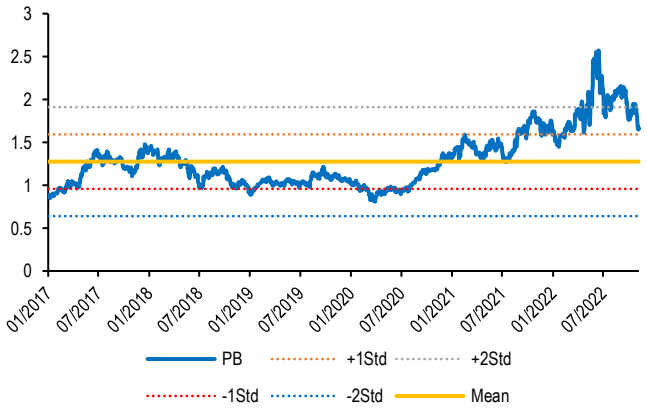
Source: Bloomberg, Company data, Shinhan Securities Vietnam

PER band chart of REE (x)



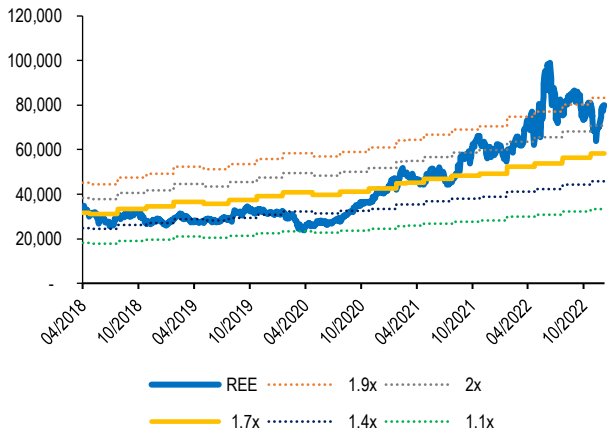
Source: Bloomberg, Company data, Shinhan Securities Vietnam

PBR of REE 2017-2022 (x)



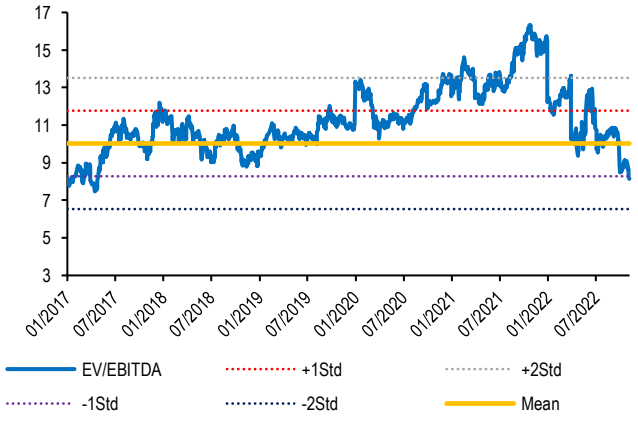
Source: Bloomberg, Company data, Shinhan Securities Vietnam

PBR band chart of REE (x)



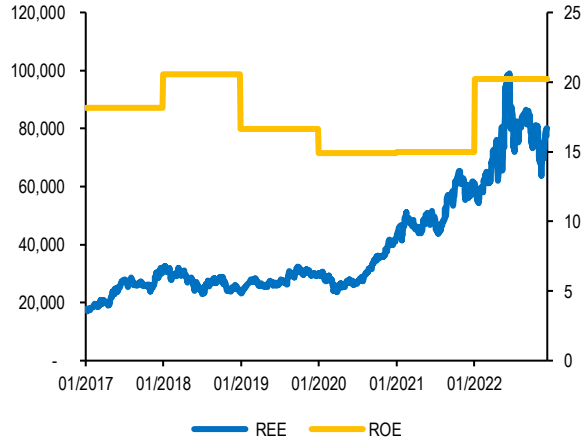
Source: Bloomberg, Company data, Shinhan Securities Vietnam

EV/EBITDA of REE 2017-2022 (x)



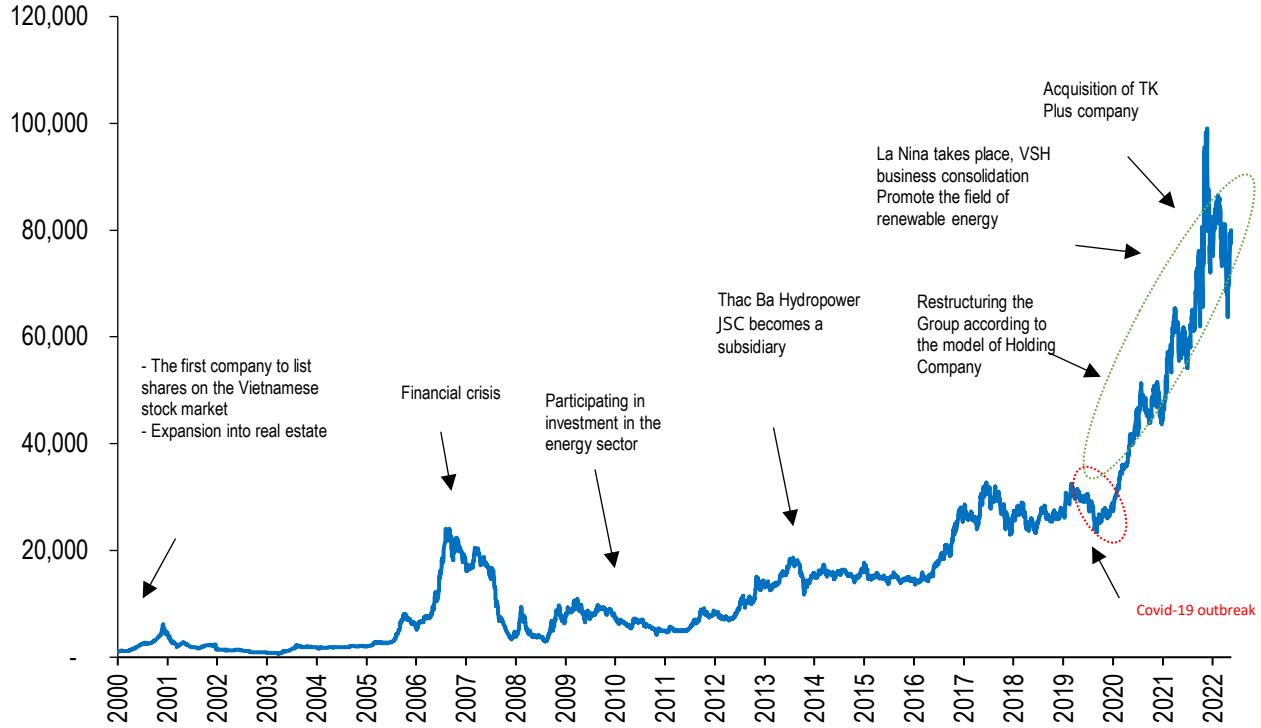
Source: Bloomberg, Company data, Shinhan Securities Vietnam

Correlation of price of REE and ROE



Source: Bloomberg, Company data, Shinhan Securities Vietnam

Event chart of REE



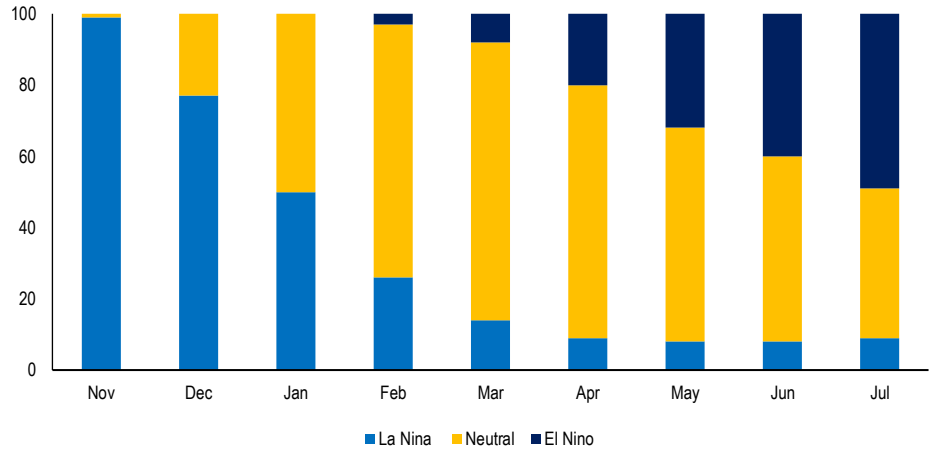
Source: Bloomberg, Company data, Shinhan Securities Vietnam

Risks

Climate change

For hydropower enterprises, electricity production and business activities are directly affected by weather conditions and rainfall. In addition to production and business activities, power plants must also ensure a source to help fight drought and regulate hydrology in the rainy season.

Probability of La Nina, El Nino and neutral phenomena from 11/2022 to 7/2023 (%)



Source: IRI, Shinhan Securities Vietnam

After nearly three consecutive years of being affected by La Nina, IRI predicts that this will pass and neutrality will take over. At that time, the proportion of electricity mobilized from hydropower enterprises will decrease compared to 2022.

Sudden earthquake

In the year 2022, Kon Tum province has had many earthquakes continuously. Notably, there are two biggest matches in history recorded over 100 years in the region with 4.1 and 4.5 magnitudes. The director of the Vietnam Institute of Geophysics said that there is a possibility that the water-storage TKT hydroelectricity can affect earthquakes similar to the case of the Song Tranh 2 hydropower plant. Currently, the director said that it is necessary to have experts conduct the work. Monitoring and studying fault systems, and assessing the accumulation of water in reservoirs and dams according to international experience can make final conclusions.

Incidents from power plants

The current coal power group REE is holding PPC and NBP with a total installed capacity of 1,140MW. Previously, REE also held over 8% in QTP with a capacity of 1,200 MW. However, with the goal of net zero carbon emissions by 2050, REE has divested this investment.

PPC's performance has declined in recent years due to its age (engine 1 was put into operation in January 1983, and engine 2 in 2001). In 2021, the engine S6 also had a problem, reducing the plant's capacity by half.

Increasingly fierce competition in the M&E segment makes profit margins continue to decrease

REE is the leader in M&E segment in Vietnam, however, the market share of REE has decreased due to fierce competition. Besides, the price of input materials has increased sharply in the past two years, especially copper wire, which has reduced the profit margin of this segment.

Appendix: Financial statements

Statement of financial position

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Total assets	**20,530**	**31,827**	**33,783**	**34,749**	**36,255**
Current assets	6,009	6,806	7,746	7,223	8,398
Cash & equivalents	652	1,831	1,564	1,511	2,652
Short-term financial asset	1,329	914	1,476	1,382	1,461
Accounts receivable	3,220	3,261	3,414	3,040	3,019
Inventories	808	800	1,292	1,290	1,266
Non-current assets	14,521	25,021	26,037	27,526	27,857
Net fixed assets	2,519	15,992	15,623	15,036	16,264
Investment assets	9,287	6,261	7,166	8,112	9,117
Other long-term assets	2,715	2,768	3,248	4,378	2,476
Total liabilities	**8,521**	**15,469**	**14,876**	**13,504**	**12,301**
Current liabilities	3,443	4,062	4,935	4,877	4,987
Accounts payable	2,162	2,805	3,136	3,131	3,215
Short-term borrowings	1,265	1,234	1,799	1,746	1,772
Others	16	23	0	0	0
Non-current liabilities	4,874	11,407	9,941	8,627	7,314
Long-term borrowings	4,335	10,740	9,463	8,149	6,836
Other financial liabilities	539	667	478	478	478
Total shareholders' equity	**12,213**	**16,358**	**18,907**	**21,245**	**23,954**
Capital stock	3,101	3,101	3,101	3,101	3,101
Capital surplus	1,050	1,050	1,050	1,050	1,050
Other capital	187	187	187	187	187
Retained earnings	7,115	8,964	11,242	13,255	15,631
Non-controlling interest equity	760	3,056	3,327	3,652	3,985
*Total debt	5,600	11,974	11,262	9,895	8,608
*Net debt (cash)	3,619	9,229	8,222	7,002	4,495

Statement of comprehensive income

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Revenue	**5,640**	**5,810**	**9,227**	**9,211**	**9,740**
Growth (%)	*15.3*	*3.0*	*58.8*	*-0.2*	*5.7*
COGS	(4,034)	(3,500)	(5,721)	(5,895)	(6,234)
Gross profit	**1,606**	**2,310**	**3,506**	**3,316**	**3,506**
GPM (%)	*28.5*	*39.8*	*38.0*	*36.0*	*36.0*
SG&A	(367)	(455)	(545)	(546)	(572)
Operating profit	**1,901**	**2,387**	**3,353**	**3,294**	**3,708**
Growth (%)	*(0.5)*	*25.6*	*40.5*	*(1.8)*	*12.6*
OPM (%)	*33.7*	*41.1*	*36.3*	*35.8*	*38.1*
Non-operating profit	(231)	(228)	(495)	(407)	(215)
Financial income	222	466	252	249	346
Financial expense	(475)	(707)	(764)	(671)	(577)
In which: interest expenses	(416)	(663)	(764)	(671)	(577)
Net other non-operating profit	22	13	17	15	16
Pre-tax profit	**1,924**	**2,400**	**3,387**	**3,324**	**3,740**
Income tax	(210)	(264)	(373)	(366)	(411)
Net profit	**1,714**	**2,135**	**3,014**	**2,958**	**3,329**
Growth (%)	*(0.3)*	*24.6*	*41.2*	*(1.9)*	*12.5*
NPM (%)	*30.4*	*36.7*	*32.7*	*32.1*	*34.2*
Controlling interest	1,714	2,135	3,014	2,958	3,329
Non-controlling interest	0	0	0	0	0
EBIT	**2,340**	**3,063**	**4,151**	**3,995**	**4,317**
Growth (%)	*0.5*	*30.9*	*35.5*	*(3.8)*	*8.1*
EBIT Margin (%)	*41.5*	*52.7*	*45.0*	*43.4*	*44.3*
EBITDA	**2,492**	**4,148**	**5,236**	**5,102**	**5,519**
Growth (%)	*(11.9)*	*66.5*	*(18.3)*	*(2.6)*	*8.2*
EBITDA margin (%)	*44.2*	*71.4*	*56.7*	*55.4*	*56.7*

Statement of cash flow

Year to Dec. (bn VND)	2020	2021	2022F	2023F	2024F
Cash flow from operations	**613**	**1,525**	**2,547**	**2,911**	**3,511**
Net profit	1,714	2,135	3,014	2,958	3,329
D&A expense	152	3,348	1,085	1,107	1,202
(Gain) from investing activities	(1,116)	(1,163)	(1,216)	(1,064)	(1,220)
Change in working capital	(1,043)	981	(336)	(90)	200
Others	906	(3,776)	-	-	-
Cash flow from investments	**(827)**	**(2,013)**	**(1,637)**	**(977)**	**(463)**
Change in fixed assets	(1,391)	(3,911)	(464)	(271)	(2,084)
Change in investment assets	(97)	586	(562)	94	(79)
Others	661	1,312	(611)	(800)	1,700
Cash flow from financing	**(674)**	**1,667**	**(1,177)**	**(1,987)**	**(1,907)**
Change in equity	-	-	-	-	-
Net borrowing	(674)	1,667	(712)	(1,367)	(1,287)
Dividends	-	-	(465)	(620)	(620)
Change in total cash	**(888)**	**1,179**	**(267)**	**(53)**	**1,141**
Beginning cash	1,540	652	1,831	1,564	1,511
Change in FX rates	-	-	-	-	-
Ending cash	652	1,831	1,564	1,511	2,652

Source: Company data, Shinhan Securities Vietnam

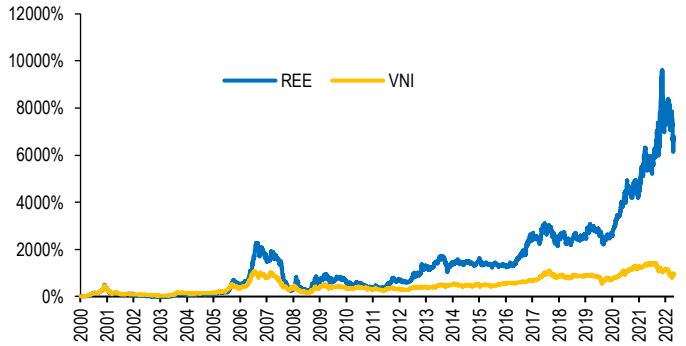
Key ratios

Year to Dec.	2020	2021	2022F	2023F	2024F
EPS (VND)	5,251	6,003	8,846	8,491	9,661
BPS (VND)	36,933	42,896	50,242	56,733	64,395
PER (x)	9.3	11.5	8.6	8.6	7.9
PBR (x)	1.6	1.6	1.5	1.3	1.1
EV/EBITDA (x)	13.5	5.2	6.3	6.3	5.9
Dividend payout ratio (%)	29.0	0.0	15.0	19.0	18.0
Dividend yield (%)	3.8	0.0	1.3	2.6	2.6
Profitability					
EBITDA margin (%)	44.2	71.4	56.7	55.4	56.7
OPM (%)	33.7	41.1	36.3	35.8	38.1
NPM (%)	30.4	36.7	32.7	32.1	34.2
ROA (%)	8.3	6.7	8.9	8.5	9.2
ROE (%)	14.0	13.1	15.94	13.9	13.9
Stability					
Debt to equity ratio (%)	45.9	73.2	59.6	46.6	35.9
Net debt ratio (%)	145.2	222.5	157.0	137.2	81.4
Cash ratio (%)	57.5	67.6	61.6	59.3	82.5
Interest coverage ratio (x)	5.6	4.6	5.4	6.0	7.5
Activity (%)					
Working capital turnover (times)	9.7	9.0	12.4	11.1	11.4
Inventory turnover (days)	4.5	4.4	5.5	4.6	4.9
Receivable turnover (days)	2.2	1.9	3.0	3.0	3.2

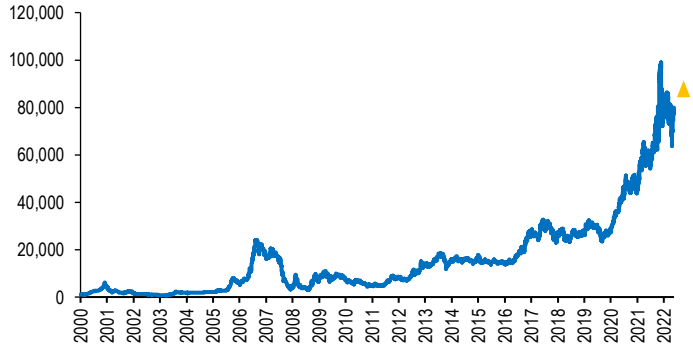
Source: Company data, Shinhan Securities Vietnam

Refrigeneration Electrical Engineering Corporation (REE VN)

Share price



Target price



Date	Rating	TP (VND)	TP gap (%)	
			TB	Max/Min
20/12/2022 (Initiation)	BUY	88,300	19.84	-10.8/63.1

Note: Calculation of target price gap based on past 12 months

Shinhan Securities Vietnam

Stock	Sector
◆ **BUY:** Expected 12-month gain of 15% or more ◆ **HOLD:** Expected 12-month loss of 15% to gain of 15% ◆ **SELL:** Expected 12-month loss of 15% or more	◆ **OVERWEIGHT:** Based on market cap, largest share of sector stocks under coverage is rated BUY ◆ **NEUTRAL:** Based on market cap, largest share of sector stocks under coverage is rated HOLD ◆ **UNDERWEIGHT:** Based on market cap, largest share of sector stocks under coverage is rated SELL

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