

Sector Note

17 May 2022

Power

Risk of coal-fired power shortage in 2Q22F

Hydropower makers boomed in 1Q22

Total consumption volume edged up 4.9% yoy to 63.03bn kWh thanks to economy recovery. Based on our estimate, 1Q22 aggregate revenue of 38 listed power makers jumped 16.3% yoy, while NPAT post-MI hiked 69.9% yoy thanks to stellar output and selling price. In which, hydropower makers boomed when its NPAT post-MI growth reached a record high of (+108.1% yoy). VSH topped the hydropower sector in light of its impressive revenue growth (+325% yoy).

Gross margin peaked despite soaring input material costs

Hydropower makers' gross profit margin hit a new record to 63.1% in 1Q22, +8.3%p yoy and +2.6%p qoq. The average power selling price on free market (FMP price) kept uptrend in 1Q22, +38% yoy and +56% qoq to reach VND1,760/kWh, its all-time high. The Newcastle coal & Singapore fuel oil (the reference for gas supplied to domestic gas-fired power) prices spiked 187% yoy and 49% yoy, respectively. However, the rising power selling price helped thermal power makers made up for the negative impact from rising input material when their gross margin slightly edged up 3.7% yoy and 4.1% qoq. Given the risks of coal shortage in 2Q22F and the hiking coal prices in light of global political tensions, we expect the coal-fired power producers would face surging difficulties in 2Q22F. Thus, their gross margin could squeeze in 2Q22F.

Hydropower will benefit amid coal shortage crisis in 2Q22F

EVN predicted a shortage of 3,000 megawatts of coal-fired electricity as high-demand season nears due to lack of coal. The proportion of imported coal in the coal volume supplied to power plants kept rising amid hiking global coal price, which left upward pressure on coal thermal power price.

Though gas input price intended to go up continuously, we believe EVN will increase the mobilization of gas-fired power, along with hydropower makers to make up for the shortage of coal thermal power. We predict that the hiking gas price could hurt gas thermal makers' margin in 2Q22F. In addition, rainfall in the Central Highland – South central region in 2Q22F is expected to be higher than average amount of previous years which will give more growth room for hydropower makers, namely VSH, GEG and DNH.

Non-rated

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We make a deep analysis of the specific producers from hydropower, gas-fired, coal-fired. Some companies, namely BCG, GEG, PGV, REE have penetrated into renewable energy (RE) projects but proportion of RE revenue is still not accounting for the big portion, so we would not take RE into account in this earnings note.

Table 1. 38 power makers' aggregated earnings

	1Q21	4Q21	1Q22	YoY	QoQ
Revenue (VND bn)	29,438	29,037	34,235	16.3%	17.9%
Operating profit (VND bn)	3,474	4,278	5,631	62.1%	31.6%
NPAT post-MI (VND bn)	2,854	3,712	4,850	69.9%	30.7%
Power volume (bn kWh)	59.65	64.18	63.03	5.7%	-1.8%

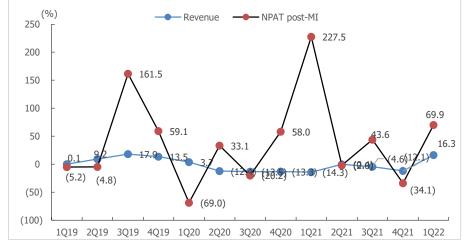
Source: Company data, KIS

Based on our data collected from 38 listed power companies, power sector achieved impressive results in 1Q22. The revenue growth pace was still brisk at 16.3% yoy and 17.9% qoq thanks to stellar selling price and output. NPAT post-MI growth tended to revert to 69.9% yoy in 1Q22 after a plunge of -34.1% yoy in 4Q21, partly attributable to the impressive growth of hydropower makers (+108.1% yoy).

Renewable energy was the biggest beneficiary when its output hovered to 10bn kWh (+28.5% yoy). The mobilization of hydropower surged 18.9% yoy in the context of rising Singaporean fuel oil (FO) price (+49% yoy) and imported coal price (+170% yoy). Coal-fired power volume dropped to 28.37bn kWh (-4.6% yoy) due to tight coal supplies. According to Ministry of Industry and Trade (MoIT), total coal volume supplied by Vinacomin (TKV) and Dong Bac Group was only 77% and lacked 1.36 million tonnes compared to the contracted volume.

NPAT post-MI 250 227.5 200 161.5 150

Figure 1. Leveled off net profit growth in 1Q22 thanks to stellar selling price



Source: Company data, KIS

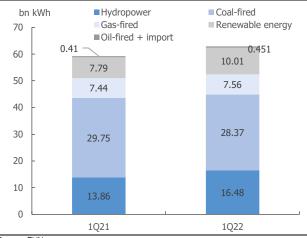
Splendid results for hydropower makers in 1Q22

In the context of rising global coal & gas prices, coupled with the coal shortage, hydropower makers in the Central region emerged as bright starts of power sector.

Breaking down aggregated revenue by a specific company, VSH climbed to the

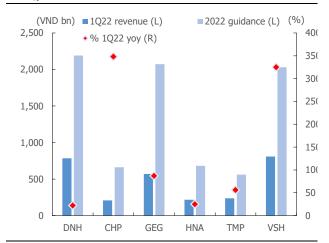
top position as revenue and net profit grew by 325% yoy and +298% yoy in 1Q22, respectively thanks to the operation of new Thuong Kon Tum power plant which led the output to reach 620mn kWh (+173% yoy). DNH, the 2nd largest revenue earner maintained its growth momentum with revenue growth of 22% yoy when water flow capacity to its reservoirs kept rising. Among the top hydropower makers, GEG returned to its leader position when 1Q22's revenue hit the highest level in its history, +87% yoy when its wind power plants start COD since 4Q21. The better-than-expected profit growth in 1Q22 made listed hydropower makers complete around 28%-40% of AGM guidance.

Figure 2. Hydropower output surged 18.9% yoy in 1Q22



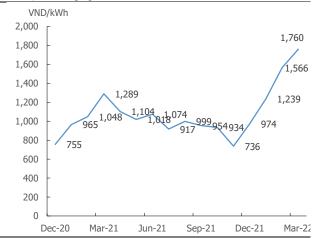
Source: EVN

Figure 4. Hydropower makers delivered tepid growth in 1Q22



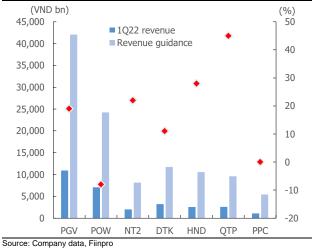
Source: Company data, Fiinpro

Figure 3. The average FMP price kept uptrend in 1Q22, +38% yoy



Source: EVNGENCO3

Figure 5. PGV was the biggest revenue-generating thermal power producers



Among the top thermal power producers, PGV was the biggest revenuegenerating producers with a revenue and profit growth of 19.3% yoy and 6.8% yoy, respectively. Thanks to its mixed portfolio, PGV was able to mobilize from Phu My gas-fired power plant and Buon Kuop hydropower when its coal thermal power makers were operating below their capacity. POW and its subsidiary, the gas thermal maker NT2 were outstanding players when their profit grew by 41.8% yoy/ 39.2% yoy, respectively. However, POW's revenue was slightly down 7.8% yoy when its coal-fired power plant, Vung Ang 1, which usually made up more than half of its revenue sharply underperformed in 1Q22.

Regarding coal thermal makers, HND reported a revenue growth of 27.6% yoy thanks to improving selling price coupled with rising output, +265mn kWh yoy (in which Qc output rose 121mn kWh yoy). Its neighbors, QTP and DTK also posted positive revenue growth of 44.9% yoy/ 10.6% yoy. In contrast, revenue of PPC slid by 0.2% yoy when its output plunged by 6.7% yoy due to the technical problems. As of Mar, Vinacomin still succeeded in supplying enough coal for these listed coal-fired power makers. However, its ability to fulfill sufficient coal in 2Q22F is still unknown.

Gross margin peaked in 1Q22

Hydropower makers' average profit margin expanded 8.3%p yoy and 2.6%p qoq to 63.1% in 1Q22. In addition, hydropower's net margin growth was fueled by 0.9%p yoy SG&A/sales decrease. VSH reaped a remarkable net profit growth of +298% yoy and +110% qoq. It should be noticed that hydropower makers' 1Q22 net profit fulfilled around 35%-90% of their 2022F's profit guidance.

Thermal makers' gross margin hit a new peak in 1Q22 to reach 13%, up 3.7%p yoy and 4.1%p qoq. NT2's profit surged by 39.2% yoy and 32% qoq. POW's strong revival of positive profit of VND803bn from a bleak result in the previous quarter also highlighted the robust performance of gas thermal makers in the light of coal-fired power shortage. POW completed its full year profit guidance just within 1Q22.

Coal shortage situation didn't make a heavy toll on the listed coal-fired makers namely HND, QTP, PPC as Vinacomin pledged to ensure coal supply to these companies. HND, QTP, PPC fulfilled 29%-79% their annual profit guidance. However, coal shortage strongly downsized the revenue from coal power of mixed power producers namely POW, PGV. The output of Vung Ang 1, POW's main coal thermal power plant slid by 56.7% yoy.

The rising FMP price (+38% yoy and +56% qoq) reflected the soaring global coal & Singapore FO price. Input gas price supplied to domestic power plants, which is based on Singapore FO increased by 29% yoy and 11.5% qoq.

Figure 6. VSH reaped profit growth among hydropower makers

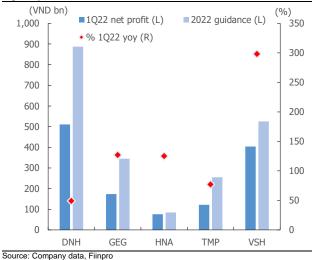
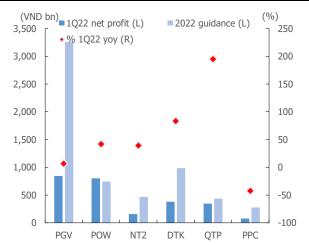
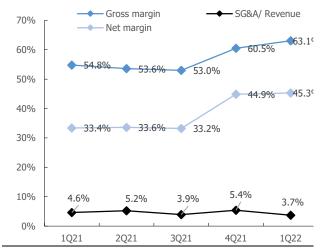


Figure 7. 1Q22's net profit grew in most listed thermal companies



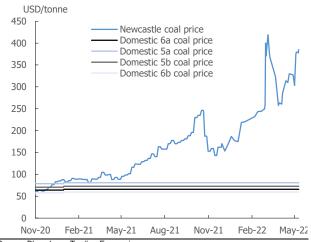
Source: Company data, Fiinpro

Figure 8. Hydropower's net margin spiked thanks to sooaring selling price



Source: Company data, Fiinpro

Figure 10. Global coal price reached its all-time high in early Mar



Source: Bloomberg, Trading Economics Note: The Newcastle coal price was updated as at May 11th.

Figure 9. Thermal power's margin was up despite hikiing input material prices

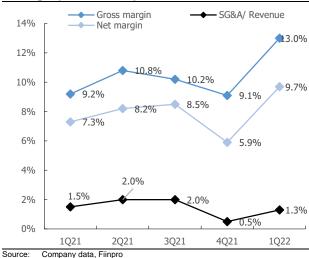
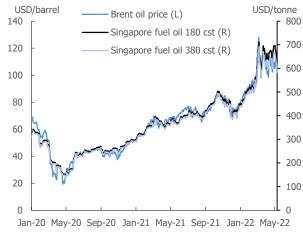


Figure 11. Singapore FO price spiked in 1Q22 but was cooled down in May 2022



Source: Bloomberg Note: The Singapore fuel oil (FO) and Brent oil prices were updated as at May 11th.

Risks of coal shortage and rising coal price in 2Q22F

As at 31 Mar, Nghi Son 1, Vung Ang 1, Vinh Tan 2, Duyen Hai 1 were operating at 60-70% of its capacity. Although MoIT is seeking to import 5 million tonnes of coal annually from Australia and South Africa but its ability to ensure coal supplied to power plants is questionable.

In 1Q22, the average price of imported coal was USD228.5/tonne (+170% yoy) while imported coal volume was 6.44 million tonnes (-27% yoy) due to import constraints. Although domestic coal prices kept intact in the last 1 year, the proportion of imported coal in the coal volume supplied to power plants kept rising, which may cause much higher coal thermal power price.

Although Newcastle are hovering around USD379/tonne after touching as high as USD430/tonne in early Mar, it was still up 138% YTD. We are considering carefully the prospects of MOIT's decision to increase domestic coal price since 2Q22F as coal production cost keeps its rising trend.

(mn tonnes) (USD mn) 4.5 Coal import's volume (L) Coal import's value (R) 600 4.0 500 3.5 3.0 400 2.5 300 2.0 1.5 200 1.0 100 0.5 0 Dec-20 Jun-21 Sep-21 Dec-21 Mar-22 Mar-21

Figure 12. 1Q22's coal import volume decreased but import value tended to spike on year-on-year basis

Source: Fiinpro

Hydropower would be the biggest beneficiaries in 2Q22F

Gas input price intended to go up continuously and we believe gas thermal power makers' gross margin will be slightly declining in 2Q22F. As contracted volume with EVN (Qc) generally makes up 80% total volume, the effect from rising gas price can be partially transmitted through PPA price. Despite rising gas thermal power price, we believe its revenue stays solid in 2Q22F when EVN is trying to mobilize gas-fired power as substitute for coal-fired power.

According to National Centre for Hydro - Meteorological Forecasting, La Nina will stay until mid-2022 with probability of 65-70% and be neutral in the latter half of 2022. The hydropower in the North is predicted to face water shortage in the dry season. The rainfall in the Central Highland — South central region in 2Q22F is expected to be 15%-20% higher than average amount of previous years. We expect this will offer more growth room for Central Highland — South central based hydropower makers, namely VSH, GEG and DNH.

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