

Power

Non-rated

2023F Thermal power: Keep our fingers crossed

La Nina was beneficial to hydropower in Sep and Oct 2022

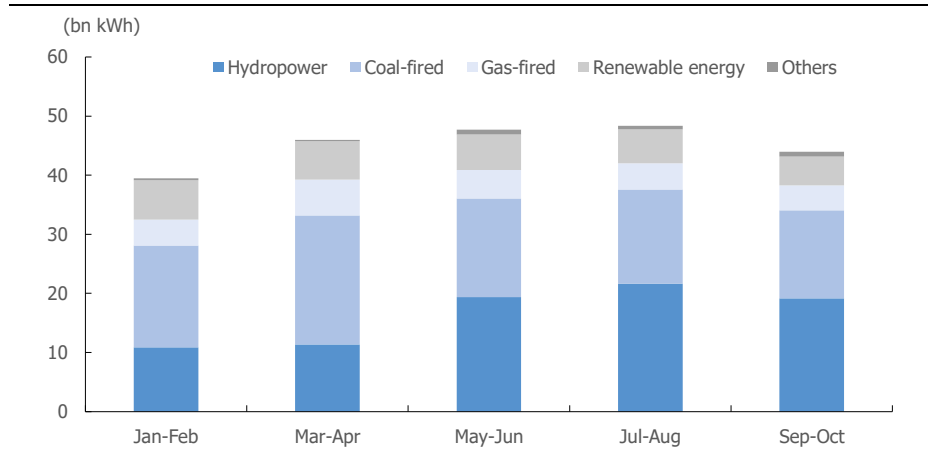
- Per EVN, total electricity production in Sep and Oct was 22.6bn kWh (+17% yoy) and 21.9bn kWh (+8% yoy), respectively. Overall, the 10M22 aggregate output volume went up 6% yoy to 226bn kWh.
- In Sep and Oct 2022, hydropower output surged to 19.2bn kWh (+17% yoy) thanks to La Nina effect.
- Coal-fired power volume dropped to 14.9bn kWh (-6% yoy) owing to surging global coal price (+105% yoy) causing tight coal supply in Sep and Oct. According to Vinacomin, in 1H22, the mixed coal price supplied to domestic power plants had increased 30-35% yoy.
- Gas-fired power output increased to 4.2bn kWh (+41% yoy) in Sep and Oct from the tepid base in 3Q21. Despite the sharp hike in 6M22 (+60% yoy), Singapore fuel oil (FO) price (*the reference for gas supplied to domestic gas-fired power plants*) gradually cooled down since 3Q22 when it was down 32% compared to 6M22.
- Average competitive market price (CGM) remained at a high level, VND1,770/kWh (+86% yoy, +17% mom) in Sep 2022.

Thermal power is expected to shine in 2023F

- Newcastle coal price slowed down its rising trend when it averaged USD391/tonne in Oct, 2022 (-11% mom). However, we predict the coal price will remain at high level due to coal shortage after EU imposed sanction on Russian coal imports, which pushed global coal prices up.
- The EIA has slashed its 2023F world oil demand growth forecast by 320,000 barrels per day, to 1.16mn bpd and OPEC+ announced the cut of 2mn barrels per day (bpd) of output – equal to 2% of global supply. Thus, we estimate the price of a Brent barrel for next year is an average of USD88, down from an average of USD95 across 4Q22F which was lower than 9M22's average price.
- The decelerating gas input prices are expected to narrow the price gap between gas thermal and coal-fired power.
- We expect the average CGM price will remain high in the following months and reach VND1,440/kWh (+44% yoy) in 2022 in the context of hovering material prices and recovering power demand.
- As La Nina is expected to wane since early 2023F, the water level in hydropower reservoirs is projected to drop in 2023F. As a result, **we believe that EVN will mobilize thermal power as the alternative for shrinking hydropower output in 2023F.**

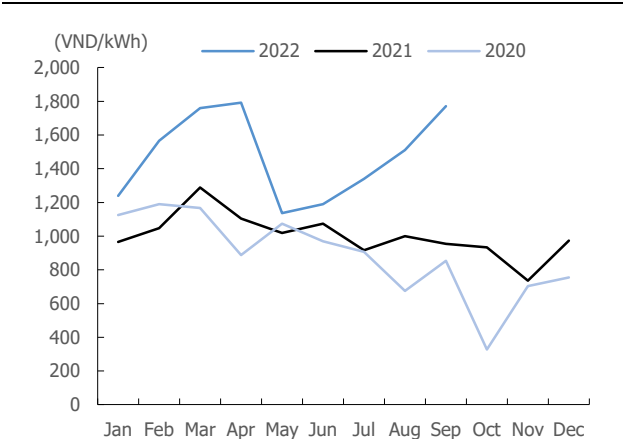
Thuy Nguyen
thuy.nt@kisvn.vn

Figure 1. Coal thermal power output squeezed by rising coal prices



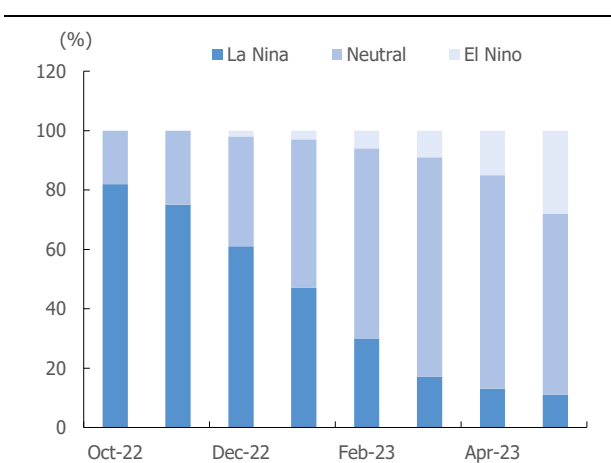
Source: EVN

Figure 2. Average CGM price remained high in Sep 2022



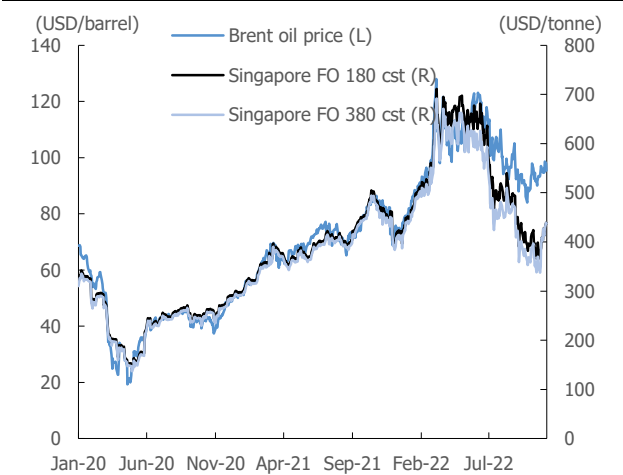
Source: EVNGENCO3
Note: The average CGM price was updated as of Sep 2022.

Figure 3. IRI's Probabilistic ENSO forecasts



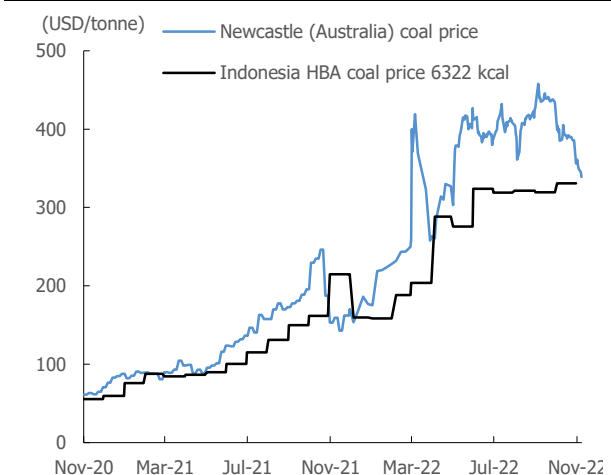
Source: IRI, KIS Research

Figure 4. Singapore FO prices gradually cooled down since 3Q22



Source: Bloomberg
Note: The Singapore FO and Brent oil prices were updated as of Nov 8th.

Figure 5. Rising coal prices put pressure on domestic coal-fired power makers



Source: Bloomberg, Trading Economics
Note: The Newcastle and Indonesian coal price were updated as of Nov 8th.

■ **Guide to KIS Vietnam Securities Corp. stock ratings based on 12-month forward performance**

- BUY: Expected total return will be 15%p or more
- Hold: Expected total return will be between -5%p and 15%p
- Sell: Expected total return will be -5%p or less
- KIS Vietnam Securities Corp. does not offer target prices for stocks with Hold or Sell ratings.

■ **Guide to KIS Vietnam Securities Corp. sector ratings for the next 12 months**

- Overweight: Recommend increasing the sector's weighting in the portfolio compared to its respective weighting in the VNIndex based on market capitalization.
- Neutral: Recommend maintaining the sector's weighting in the portfolio in line with its respective weighting in the VNIndex based on market capitalization.
- Underweight: Recommend reducing the sector's weighting in the portfolio compared to its respective weighting in the VNIndex based on market capitalization.

■ **Analyst Certification**

I/We, as the research analyst/analysts who prepared this report, do hereby certify that the views expressed in this research report accurately reflect my/our personal views about the subject securities and issuers discussed in this report. I/We do hereby also certify that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research report.

■ **Important compliance notice**

As of the end of the month immediately preceding the date of publication of the research report or the public appearance (or the end of the second most recent month if the publication date is less than 10 calendar days after the end of the most recent month), KIS Vietnam Securities Corp. or its affiliates does not own 1% or more of any class of common equity securities of the companies mentioned in this report.

There is no actual, material conflict of interest of the research analyst or KIS Vietnam Securities Corp. or its affiliates known at the time of publication of the research report or at the time of the public appearance.

KIS Vietnam Securities Corp. or its affiliates has not managed or co-managed a public offering of securities for the companies mentioned in this report in the past 12 months;

KIS Vietnam Securities Corp. or its affiliates has not received compensation for investment banking services from the companies mentioned in this report in the past 12 months; KIS Vietnam Securities Corp. or its affiliates does not expect to receive or intend to seek compensation for investment banking services from the companies mentioned in this report in the next 3 months.

KIS Vietnam Securities Corp. or its affiliates was not making a market in securities of the companies mentioned in this report at the time that the research report was published.

KIS Vietnam Securities Corp. does not own over 1% of shares of the companies mentioned in this report as of 10 Nov 2022.

KIS Vietnam Securities Corp. has not provided this report to various third parties.

Neither the analyst/analysts who prepared this report nor their associates own any shares of the company/companies mentioned in this report as of 10 Nov 2022.

KIS Vietnam Securities Corp. has issued CW with underlying stocks of HPG and is not the liquidity provider.

Prepared by: Thuy Nguyen

Global Disclaimer

■ General

This research report and marketing materials for Vietnamese securities are originally prepared and issued by the Research Center of KIS Vietnam Securities Corp., an organization licensed with the State Securities Commission of Vietnam. The analyst(s) who participated in preparing and issuing this research report and marketing materials is/are licensed and regulated by the State Securities Commission of Vietnam in Vietnam only. This report and marketing materials are copyrighted and may not be copied, redistributed, forwarded or altered in any way without the consent of KIS Vietnam Securities Corp..

This research report and marketing materials are for information purposes only. They are not and should not be construed as an offer or solicitation of an offer to purchase or sell any securities or other financial instruments or to participate in any trading strategy. This research report and marketing materials do not provide individually tailored investment advice. This research report and marketing materials do not take into account individual investor circumstances, objectives or needs, and are not intended as recommendations of particular securities, financial instruments or strategies to any particular investor. The securities and other financial instruments discussed in this research report and marketing materials may not be suitable for all investors. The recipient of this research report and marketing materials must make their own independent decisions regarding any securities or financial instruments mentioned herein and investors should seek the advice of a financial adviser. KIS Vietnam Securities Corp. does not undertake that investors will obtain any profits, nor will it share with investors any investment profits. KIS Vietnam Securities Corp., its affiliates, or their affiliates and directors, officers, employees or agents of each of them disclaim any and all responsibility or liability whatsoever for any loss (director consequential) or damage arising out of the use of all or any part of this report or its contents or otherwise arising in connection therewith. Information and opinions contained herein are subject to change without notice and may differ or be contrary to opinions expressed by other business areas or KIS Vietnam Securities Corp. The final investment decision is based on the client's judgment, and this research report and marketing materials cannot be used as evidence in any legal dispute related to investment decisions.

■ Country-specific disclaimer

United States: This report is distributed in the U.S. by Korea Investment & Securities America, Inc., a member of FINRA/SIPC, and is only intended for major U.S. institutional investors as defined in Rule 15a-6(a)(2) under the U.S. Securities Exchange Act of 1934. All U.S. persons that receive this document by their acceptance thereof represent and warrant that they are a major U.S. institutional investor and have not received this report under any express or implied understanding that they will direct commission income to Korea Investment & Securities, Co., Ltd. or its affiliates. Pursuant to Rule 15a-6(a)(3), any U.S. recipient of this document wishing to effect a transaction in any securities discussed herein should contact and place orders with Korea Investment & Securities America, Inc., which accepts responsibility for the contents of this report in the U.S. The securities described in this report may not have been registered under the U.S. Securities Act of 1933, as amended, and, in such case, may not be offered or sold in the U.S. or to U.S. person absent registration or an applicable exemption from the registration requirement.

United Kingdom: This report is not an invitation nor is it intended to be an inducement to engage in investment activity for the purpose of section 21 of the Financial Services and Markets Act 2000 of the United Kingdom ("FSMA"). To the extent that this report does constitute such an invitation or inducement, it is directed only at (i) persons who are investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended) of the United Kingdom (the "Financial Promotion Order"); (ii) persons who fall within Articles 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order; and (iii) any other persons to whom this report can, for the purposes of section 21 of FSMA, otherwise lawfully be made (all such persons together being referred to as "relevant persons"). Any investment or investment activity to which this report relates is available only to relevant persons and will be engaged in only with relevant persons. Persons who are not relevant persons must not act or rely on this report.

Hong Kong: This research report and marketing materials may be distributed in Hong Kong to institutional clients by Korea Investment & Securities Asia Limited (KISA), a Hong Kong representative subsidiary of Korea Investment & Securities Co., Ltd., and may not otherwise be distributed to any other party. KISA provides equity sales service to institutional clients in Hong Kong for Korean securities under its sole discretion, and is thus solely responsible for provision of the aforementioned equity selling activities in Hong Kong. All requests by and correspondence with Hong Kong investors involving securities discussed in this report and marketing materials must be effected through KISA, which is registered with The Securities & Futures Commission (SFC) of Hong Kong. Korea Investment & Securities Co., Ltd. is not a registered financial institution under Hong Kong's SFC.

Singapore: This report is provided pursuant to the financial advisory licensing exemption under Regulation 27(1)(e) of the Financial Advisers Regulation of Singapore and accordingly may only be provided to persons in Singapore who are "institutional investors" as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This report is intended only for the person to whom Korea Investment & Securities Co., Ltd. has provided this report and such person may not send, forward or transmit in any way this report or any copy of this report to any other person. Please contact Korea Investment & Securities Singapore Pte Ltd in respect of any matters arising from, or in connection with, the analysis or report (Contact Number: 65 6501 5600).

Copyright © 2022 KIS Vietnam Securities Corp. All rights reserved. No part of this report may be reproduced or distributed in any manner without permission of KIS Vietnam Securities Corp.