Transmission Lines Across the Baltic Sea —Examining the Cancellation of the Hansa Power Bridge Plan—

Tomoko Murakami Senior Fellow, Electric Power Industry Unit The Institute of Energy Economics, Japan

Precisely 15 years ago, I wrote a column article under the same title ("Transmission Lines Across the Baltic Sea—The Old Yet New Relationship Between Northern Europe and the Three Baltic States"¹). While I am embarrassed to say that it was a poor analysis, I can now say on reflection that I had been right in taking the perspective that "international grids cannot be achieved without reconciling the interests of each country." Based on this viewpoint, I would like to discuss the new situation as follows. On June 13, 2024, the Swedish government rejected the proposed "Hansa Power Bridge" plan (plans for an approximately 300 km-long international grid that will connect Germany and Sweden by direct current) submitted by Svenska kraftnät, the Swedish national grid operator. In response, Svenska kraftnät announced on July 3 that it has decided to officially end the project.² Ebba Busch, Sweden's Minister for Energy, Business and Industry, cited the following reason to justify the government's rejection of the proposal: if the southern part of Sweden were connected to the northern part of Germany by this transmission line, electricity would flow from southern Sweden to Germany's electricity market, which does not function efficiently, and this may in turn lead to higher power prices in southern Sweden.³

Although northern Germany has many variable energy sources (including wind power and solar power), supply has not been able to keep up with demand in southern Germany with the successive closure of nuclear power stations since 2011. Addressing this "north-south problem" calls for the strengthening of the domestic power grid or the division of the market in a way that reflects the value of electricity flexibly. However, no action has been taken until now, and power prices in Germany's unified electricity market are among the highest in Europe. The Swedish government is of the view that, unless this problem is resolved, it cannot permit an international grid plan that could lead to higher power prices in southern Sweden.

But is this the only problem? The tendency for Germany's power sources to be concentrated in the northern part of the country alongside a shortage of power sources in the south, stagnation in the development of a power grid to resolve this issue, and the absence of efforts to review the electricity market, among others, are not problems that have suddenly become apparent recently. Could it be that

¹ Tomoko Murakami, "Transmission Lines Across the Baltic Sea—The Old Yet New Relationship Between Northern Europe and the Three Baltic States," September 2009, https://eneken.ieej.or.jp/data/2790.pdf. (Japanese only)

² Svenska kraftnät, Svenska kraftnät ends the Hansa PowerBridge project after the government's rejection, 2024-7-3, https://www.svk.se/en/about-us/news/news/svenska-kraftnat-ends-the-hansa-powerbridge-project-after-the-governments-rejection/.

³ Balkan Green Energy News, Sweden opts against subsea interconnector with Germany over power price concerns, 2024-6-18, https://balkangreenenergynews.com/sweden-opts-against-subsea-interconnector-with-germany-over-power-price-concerns/>.

there are also other factors, or reasons that have just become obvious, behind the Swedish government's sudden (yet well-timed manifestation of its intentions) announcement on the cancellation of the project?

Progress on the Hansa Power Bridge project had not been all smooth sailing until now. The original purposes of installing these interconnectors were to stabilize the power grid in northern Germany (by adjusting the power from variable energy sources with Sweden's abundant hydropower sources) and to further utilize renewable energy sources, 4 which offered significant benefits to Germany. As the lines would extend across a long distance of about 300 km, a high-voltage direct current (HVDC) system would be adopted, and the investment cost of about 60 million Euros was to be shared equally between the national grid operators of the two countries, 50Hertz and Svenska kraftnät.⁵ However, in October 2022, the procurement procedures were restarted due to changes in the technical requirements, and the completion and start of the operation, initially scheduled for 2026/27, had to be pushed back to 2028/29.6 Although the two organizations did not disclose the details, changes in technical requirements and postponement of construction are immediately associated with cost overruns. It would not be surprising if the Swedish side were to become concerned about what benefits there would be for the country, given the high costs they would have to pay. For southern Sweden, where wholesale power prices rise mainly in winter, power exports can sometimes be a matter of life and death. In March 2024, the Swedish government submitted an energy policy bill to the parliament that included measures to stabilize the domestic power supply.⁷

While the plan received approval for the onshore section from the German state of Mecklenburg-Vorpommern⁸ in November 2023, it remained unapproved by the Swedish government, which eventually rejected it in June 2024. About two months before that in April 2024, SKGS, a major Swedish industrial organization (an industrial association federation for the four sectors of forests, chemistry, mines, and steel), issued a statement⁹ calling for the cancellation of the Hansa Power Bridge plan. It is highly likely that this demand from the industrial sector had been a strong driver behind the government's decision to reject the proposal. The statement by SKGS pointed out that the obligation for Sweden to guarantee to export up to 70% of the Hansa Power Bridge project's capacity (700MW) to Germany contravenes the abovementioned bill, which aims to ensure stable power supply

Svenska kraftnät, Due to cancelation of the procurement Hansa PowerBridge will be delayed, 2022-10-28,

⁴ 50Hertz, Hansa PowerBridge,

https://www.50hertz.com/en/Grid/Griddevelopement/Offshoreprojects/HansaPowerBridge/>.

⁵ Ibid.

https://www.svk.se/en/grid-development/grid-projects/hansa-powerbridge/news/due-to-cancelation-of-the-procurement-hansa-powerbridge-will-be-delayed/>.

⁷ Swedish government, Energipolitikens nya inriktning, 2024-3-19,

https://www.regeringen.se/pressmeddelanden/2024/03/energipolitikens-nya-inriktning/>.

⁸ Renewables Now, German-Swedish power connection project gets planning approval, 2023-11-8,

https://renewablesnow.com/news/german-swedish-power-connection-project-gets-planning-approval-839276/.

⁹ SKGS, Opinion – SKGS says no to Hansa Power Bridge, 2024-7-30 https://skgs.org/english/aktuellt/opinion-skgs-says-no-to-hansa-power-bridge/. The full statement (in Swedish) can be accessed from the following link: https://skgs.org/app/uploads/2024/04/KN2023_01290-SKGS.pdf.

IEEJ: October © IEEJ 2024

as the foundation for strengthening Sweden's industries, and at the same time, set out

recommendations in full pursuit of Sweden's national interests, including the argument that a stable

supply of electricity to serve as the foundation for strengthening Sweden's industries should be secured

through domestic power generation facilities rather than through imports (from interconnectors). It is

hard to believe that this is the same country that has produced an environmental activist who is only

capable of shouting a single issue, "Stop Climate Change!".

Nevertheless, the EU has maintained a consistent policy of efficiently sharing electricity across the

European region, integrating the European electricity markets while maximizing the use of low-carbon

power sources, and promoting efforts to improve resilience. Svenska kraftnät, which has accepted the

government's decision, has expressed that it remains open to installing other interconnectors in the future if the issue of (an unacceptable) increase in domestic power prices within Sweden were resolved.

Going forward, it is important to continue monitoring how the reconciliation of interests between

countries will be perceived in the future.

Contact: report@tky.ieej.or.jp

3